AMEDICA Corp
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PROSPECTUS SUPPLEMENT
(to Prospectus dated July 20, 2015)

AMEDICA CORPORATION

8,900,000 Shares of Common Stock

Warrants to Purchase 4,005,000 Shares of Common Stock

4,005,000 Shares of Common Stock Issuable Upon Exercise of the Warrants

We are offering 8,900,000 shares of our common stock, par value $0.01 per share ("Common Stock") and Warrants to purchase an aggregate of 4,005,000 shares of our Common Stock (the "Warrants"). The shares of Common Stock and Warrants will be sold for a purchase price equal to $0.51 per share of Common Stock and 0.45 Warrants. For a description of our Common Stock and the Warrants, see the section entitled "Description of Securities We Are Offering" beginning on page S-34 of this prospectus supplement.

Our Common Stock is currently listed on The NASDAQ Capital Market under the symbol "AMDA." On January 18, 2017, the last reported sales price of our Common Stock on The NASDAQ Capital Market was $0.633 per share. The Warrants offered hereby will not be listed for trading on a securities exchange.

The aggregate market value of our outstanding Common Stock held by non-affiliates, or the public float, is approximately $28,697,077.50, which was calculated based on 27,330,550 shares of outstanding Common Stock held

by non-affiliates as of January 13, 2017, and on a price per share of $1.05, the closing price of our Common Stock on The NASDAQ Capital Market on November 21, 2016. During the prior 12 calendar month period that ends on, and includes, the date of this prospectus supplement, and including this offering, we have offered $9,531,232.50 of securities pursuant to General Instruction I.B.6 of Form S-3.

You should read this prospectus supplement and the accompanying prospectus and the documents incorporated by reference in this prospectus supplement carefully before you invest.

We are an “emerging growth company” as that term is used in the Jumpstart Our Business Startups Act of 2012 and, as such, have elected to comply with certain reduced public company reporting requirements for this prospectus supplement, the accompanying prospectus and future filings with the Securities and Exchange Commission (“SEC”).

Investing in our securities involves risks. See "Risk Factors" beginning on page S-8 of this prospectus supplement and in the documents we incorporate by reference in this prospectus supplement.

	Per Share and 0.45 Warrant	Total
Public offering price	$0.51	$4,539,000
Underwriting discount to be paid to the underwriters by us (7%)(1)(2)	$0.0357	$317,730
Proceeds to us (before expenses)	$0.4743	$4,221,270

(1) This does not include any other fees that may be payable to other investment banks or broker dealers in the amount of up to 8% of the cash gross proceeds of the offering and Warrants of up to 2% of the number of shares of Common Stock offered hereby.

(2) We have granted a 45-day option to the underwriter to purchase up to 15% of the shares of Common Stock plus up to 15% of the Warrants (provided that in no event may the aggregate market value of securities sold in the offering, including from the over-allotment option, exceed the limitations set forth in Rule I.B.6 of Form S-3), solely to cover over-allotments, if any.

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

The underwriter has the option to purchase up to an additional 15% of the shares of Common Stock plus up to 15% of the Warrants (provided that in no event may the aggregate market value of securities sold in the offering, including from the over-allotment option, exceed the limitations set forth in Rule I.B.6 of Form S-3), solely to cover over-allotments, if any, at the public offering price set forth above less the underwriting discounts and commissions. The over-allotment option may be used to purchase shares of our Common Stock or Warrants, or any combination thereof, as determined by the underwriter, provided that in no event may the aggregate market value of securities sold in the offering, including from the over-allotment option, exceed the limitations set forth in Rule I.B.6 of Form S-3. The over-allotment option is exercisable for 45 days from the date of this prospectus. If the underwriters exercise the option in full, the total underwriting discounts and commissions payable by us will be $346,325.70 and the total proceeds to us, after taking into account underwriting discounts and commissions but before other expenses, will be $4,601,184.30.

MAXIM GROUP LLC

The date of this prospectus supplement is January 19, 2017.

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Prospectus Supplement

Prospectus

ABOUT THIS PROSPECTUS SUPPLEMENT

This document is in two parts. The first part is this prospectus supplement, which describes the specific terms of this offering and certain other matters. The second part, the accompanying prospectus, provides more general information about us and our Common Stock. Generally, when we refer to the prospectus, we are referring to both parts of this document combined. To the extent information in this prospectus supplement conflicts with information in the accompanying prospectus, you should rely on the information in this prospectus supplement. You should rely only on the information contained in, or incorporated by reference in, this prospectus supplement and the accompanying prospectus and any related "free writing prospectus." None of the Company or the underwriter has authorized anyone to provide information different from that contained in, incorporated or deemed incorporated by reference into this prospectus supplement or the accompanying prospectus.

Before you invest, you should read the registration statement of which this document forms a part, this document, the accompanying prospectus and the documents incorporated by reference herein that are described under the headings "Where You Can Find More Information" and "Incorporation of Documents by Reference."

The information in this document may only be accurate on the date of the document. You should assume that the information appearing in this prospectus supplement is accurate only as of the date on the front cover of this prospectus supplement. Our business, financial condition, results of operations and prospects may have changed since that date.

We are not making an offer of these securities in any jurisdiction where the offer is not permitted.

This prospectus supplement contains summaries of certain provisions contained in some of the documents described herein, but reference is made to the actual documents for complete information. All of the summaries are qualified in their entirety by the actual documents. Copies of some of the documents referred to herein have been filed, will be filed or will be incorporated by reference as exhibits to the registration statement of which this prospectus supplement is a part, and you may obtain copies of those documents as described below under the heading "Where You Can Find More Information."

Unless the context requires otherwise, in this prospectus supplement and the accompanying prospectus the terms "Amedica," "Amedica Corporation," "we," "us" and "our" refer to Amedica Corporation, a Delaware corporation.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

Information set forth in this prospectus supplement and the prospectus and the information incorporated by reference herein and therein may contain various "forward-looking statements" within the meaning of Section 27A of the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act.

Forward-looking statements include, but are not limited to, statements about:

- our ability to achieve sufficient market acceptance of any of our products or product candidates;
- our ability to continue as a going concern due to our recurring losses from operations, our need to obtain additional financing to satisfy our debt obligations, and to finance our operations;
- our ability to enter into and maintain successful OEM arrangements with third parties;
- our perception of the growth in the size of the potential market for our products and product candidates;
- our estimate of the advantages of our silicon nitride technology platform;
- our ability to become a profitable biomaterial technology company;
- our ability to comply with, or receive waivers from compliance with the covenants, made in the Loan and Security Agreement with Hercules Technology (the "Loan and Security Agreement");
- our estimates regarding our needs for additional financing and our ability to obtain such additional financing on suitable terms;
- our ability to succeed in obtaining FDA clearance or approvals for our product candidates;
- our ability to receive CE Marks for our product candidates;
- the timing, costs and other limitations involved in obtaining regulatory clearance or approval for any of our product candidates and product candidates and, thereafter, continued compliance with governmental regulation of our existing products and activities;
- our ability to protect our intellectual property and operate our business without infringing upon the intellectual property rights of others;
- our ability to obtain sufficient quantities and satisfactory quality of raw materials to meet our manufacturing needs;
- the availability of adequate coverage reimbursement from third-party payers in the United States;

our estimates regarding anticipated operating losses, future product revenue, expenses, capital requirements and liquidity;

our ability to maintain and continue to develop our sales and marketing infrastructure;

our ability to enter into and maintain suitable arrangements with an adequate number of distributors;

our manufacturing capacity to meet future demand;

our ability to establish Kyocera as a secondary manufacturing source for our silicon nitride products;

our ability to develop effective and cost efficient manufacturing processes for our products;

our reliance on third parties to supply us with raw materials and our non-silicon nitride products and instruments;

the safety and efficacy of products and product candidates;

the timing of and our ability to conduct clinical trials;

potential changes to the healthcare delivery systems and payment methods in the United States or internationally;

any potential requirement by regulatory agencies that we restructure our relationships with referring surgeons;

our ability to develop and maintain relationships with surgeons, hospitals and marketers of our products; and

our ability to attract and retain a qualified management team, engineering team, sales and marketing team, distribution team, design surgeons, surgeon advisors and other qualified personnel and advisors.

In some cases, you can identify forward-looking statements by terms such as “may,” “could,” “will,” “should,” “would,” “expe
“plan,” “intend,” “anticipate,” “believe,” “estimate,” “predict,” “potential,” “project” or “continue” or the negative of these ter
comparable terminology. These statements are only predictions. You should not place undue reliance on forward-looking statements because they involve known and unknown risks, uncertainties and other factors, which are, in some cases, beyond our control and which could materially affect results. Factors that may cause actual results to differ materially from current expectations include, among other things, those listed under the heading “Risk Factors” beginning on page S-8 of this prospectus supplement, in our most recent Annual Report on Form 10-K, as well as any subsequent filings with the SEC. Given these risks, uncertainties and other factors, you should not place undue reliance on these forward-looking statements. Also, these forward-looking statements represent our estimates and assumptions only as of the date such forward-looking statements are made. You should read carefully this prospectus supplement, the prospectus, and any related free writing prospectuses that we have authorized for use in connection with this offering, together with the information incorporated herein or therein by reference as described under the heading “Where You Can Find More Information,” completely and with the understanding that our actual future results may be materially different from what we expect. We hereby qualify all of our forward-looking statements by these cautionary statements. Except as required by law, we assume no obligation to update these forward-looking statements publicly or to update the reasons actual results could differ materially from those anticipated in these forward-looking statements, even if new information becomes available in the future.

SUMMARY

This summary is not complete and does not contain all of the information you should consider before investing in the securities offered by this prospectus and prospectus supplement. You should read this summary together with the entire prospectus supplement and prospectus, including our financial statements, the notes to those financial statements, and the other documents identified under the headings "Where You Can Find More Information" and "Incorporation of Documents by Reference" in this prospectus supplement, before making an investment decision. See the Risk Factors section of this prospectus supplement on page S-8 for a discussion of the risks involved in investing in our securities.

Background Information

We are a materials company focused on developing, manufacturing and selling silicon nitride ceramics that are used in medical implants and in a variety of industrial devices. At present, we commercialize silicon nitride in the spine implant market. We believe that our facile silicon nitride manufacturing expertise positions us favorably to introduce new and innovative devices in the medical and non-medical fields. We also believe that we are the first and only company to commercialize silicon nitride medical implants.

We have received 510(k) regulatory clearance in the United States, a CE mark in Europe, and ANVISA approval in Brazil for a number of our devices that are designed for spinal fusion surgery. To date, more than 25,000 of our silicon nitride devices have been implanted into patients, with an 8-year successful track record. In December 2016, we re-filed an FDA 510(k) submission for clearance in the United States of a modified novel composite spinal fusion device that combines porous and solid silicon nitride, and obviates the need for bone grafts that is comparable to our commercially-available Valeo®C cervical implants.

We believe that silicon nitride has a superb combination of properties that make it ideally suited for human implantation. Other biomaterials are based on bone grafts, metal alloys, and polymers; all of which have practical limitations. In contrast, silicon nitride has a legacy of success in the most demanding and extreme industrial environments. As a human implant material, silicon nitride offers bone ingrowth, resistance to bacterial infection, resistance to corrosion, superior strength and fracture resistance, and ease of diagnostic imaging, among other advantages.

We market and sell our Valeo brand of silicon nitride implants to surgeons and hospitals in the United States and to selected markets in Europe and South America through more than 50 independent sales distributors who are supported by an in-house sales and marketing management team. These implants are designed for use in cervical (neck) and thoracolumbar (lower back) spine surgery. We recently entered into a 10-year exclusive distribution agreement with

Shandong Weigao Orthopaedic Device Company Limited (“Weigao”) to sell Amedica-branded silicon nitride spinal fusion devices within the People’s Republic of China (“China”). Weigao, a large orthopedic company, has expertise in acquiring Chinese Food and Drug Administration (“CFDA”) approval of medical devices, and will assist us in obtaining regulatory approval. Weigao has committed to minimum purchase requirements totaling 225,000 implants in the first six years following CFDA clearance. We are also working with other partners in Japan to obtain regulatory approval for silicon nitride in that country. China and Japan are relevant because historically, ceramic implants are more familiar to, and more readily accepted by surgeons outside the United States, i.e., in Asia and Europe.

In addition to silicon nitride, we also sell metal-based products in the United States that provide surgeons and hospitals with a complete package for spinal surgery. These metal products are designed to address spinal deformity and degenerative conditions. Although these metal products have accounted for approximately 34.8% and 37.2% of our product revenues for the quarterly periods ended September 30, 2016 and September 30, 2015, respectively, and 48% and 52% of our product revenues for the years ended December 31, 2015 and 2014, respectively, we remain focused on developing and promoting silicon nitride, and driving its adoption through a scientifically-intense, data-driven strategy.

In addition to direct sales, we have targeted original equipment manufacturer ("OEM") and private label partnerships in order to accelerate adoption of silicon nitride, both in the spinal space, and also in future markets such as hip and knee replacements, dental, extremities, trauma, and sports medicine. Existing biomaterials, based on plastics, metals, and bone grafts have well-recognized limitations that we believe are addressed by silicon nitride, and we are uniquely positioned to convert existing, successful implant designs made by other companies into silicon nitride. We believe OEM and private label partnerships will allow us to work with a variety of partners, accelerate the adoption of silicon nitride, and realize incremental revenue at improved operating margins, when compared to the cost-intensive direct sales model.

We believe that silicon nitride addresses many of the biomaterial-related limitations in fields such as hip and knee replacements, dental implants, sports medicine, extremities, and trauma surgery. We further believe that the inherent material properties of silicon nitride, and the ability to formulate the material in a variety of compositions, combined with precise control of the surface properties of the material, opens up a number of commercial opportunities across orthopedic surgery, neurological surgery, maxillofacial surgery, and other medical disciplines.

We operate a 30,000 square foot manufacturing facility at our corporate headquarters in Salt Lake City, Utah, and we believe we are the only vertically integrated silicon nitride medical device manufacturer in the world.

Intellectual Property

We rely on a combination of patents, trademarks, trade secrets, nondisclosure agreements, proprietary information ownership agreements and other intellectual property measures to protect our intellectual property rights. We believe that in order to have a competitive advantage, we must continue to develop and maintain the proprietary aspects of our technologies.

As of January 17, 2017, we had 57 issued U.S. patents, 9 pending U.S. patent applications, 9 granted foreign patents and 4 pending foreign patent applications. Our first issued patent expired in 2016, with the last of these patents expiring in 2032. The first core patents do not expire until 2022; these include US 6,881,229 and US 6,790,233.

We have seven U.S patents, one European patent, and related pending applications, directed to articulating implants using our high-strength, high toughness doped silicon nitride solid ceramic. The issued patents, which include US 6,881,229; US 7,666,229; US 8,123,812; US 7,780,738; US 7,695,521; US 7,776,085; US 8,133,284; and EP 1408874, begin to expire in 2022. We also have two U.S. patents, and one European patent related to our CSC technology that are directed to implants that have both a dense load-bearing, or cortical, component and a porous, or cancellous, component, together with a surface coating. These issued patents, which include US 6,790,233; US 6,846,327; and EP 1389978, begin to expire in 2022.

We also have three U.S. patents that we acquired in July 2012 from Dytech Corporation Ltd., or Dytech, directed to manufacturing processes for the production of porous ceramics for use in our orthopedic implants. These patents include US 5,563,106 and US 5,705,448, which have now expired; these patents also include US 6,617,270, which expires in 2019. Under our acquisition agreement with Dytech, Dytech granted to us a perpetual, irrevocable and exclusive license, including the right to grant sublicenses, to certain improvements and know-how related to the acquired patents. In return, we are required to pay Dytech a low single-digit royalty on net sales of products sold by us, our affiliates, or our licensees that are covered by one or more valid claims of these patents, and a percentage of any non-royalty licensing income we may receive in the event we grant a license to others.

Our remaining issued patents and pending applications are directed to additional aspects of our products and technologies including, among other things, designs for pedicle screws, intervertebral fusion devices, hip implants, and knee implants.

Corporate Information

We were incorporated in Delaware in 1996 under the name Amedica Corp. and have since changed our name to Amedica Corporation. In September 2010, we acquired all of the outstanding shares of US Spine, Inc. which then became our wholly owned subsidiary, which is our only subsidiary. Our principal executive offices are located at 1885 West 2100 South, Salt Lake City, Utah 84119, and our telephone number is (801) 839-3500. Our website address is www.amedica.com. The information on, or that may be accessed through, our website is not incorporated by reference into this prospectus and should not be considered a part of this prospectus.

THE OFFERING

Securities being offered:	8,900,000 shares of our Common Stock and Warrants exercisable for 4,005,000 shares of our Common Stock
Offering price:	$0.51 per share and 0.45 Warrants
Description of Warrants:	The Warrants will be exercisable beginning on the closing date and expire on the five year anniversary of the closing date and have an initial exercise price per share equal to $0.55 per share, subject to appropriate adjustment in the event of recapitalization events, stock dividends, stock splits, stock combinations, reclassifications, reorganizations or similar events affecting our Common Stock.
Common stock outstanding before this offering	27,364,881 shares
Common stock to be outstanding after the offering	36,264,881 shares
Over-allotment option	We have granted the underwriter an option to purchase up to an additional 15% of the shares of Common Stock in the offering plus up to 15% of the Warrants in the offering at the public offering price set forth on the cover page hereto; provided that in no event may the aggregate market value of securities sold in the offering, including from the over-allotment option, exceed the limitations set forth in Rule I.B.6 of Form S-3. Accordingly, in no event shall this amount exceed, in the aggregate, up to 801,000 shares of Common Stock and Warrants to purchase up to 360,450 shares of Common Stock. This option is exercisable, in whole or in part, for a period of 45 days from the date of this prospectus.
Use of proceeds:	We intend to use the net proceeds from this offering to (1) remain in compliance with the financial covenants under the Loan and Security Agreement (as described in this prospectus); (2) support working capital needs and other general corporate purposes; (3) fund research and development and commercialization activities of our product candidates, including the funding of clinical trials we plan to conduct for our product candidates; and (4) continue to build sales, marketing and distribution capabilities for our silicon nitride technology platform and other products, including the costs of inventory and instruments.
	See “Use of Proceeds” beginning on page S-32.
Risk factors:	Investing in our securities involves a high degree of risk. See the “Risk Factors” section of this prospectus supplement on page S-8 and in the documents we incorporate by reference in this prospectus supplement for a discussion of factors you should consider carefully before deciding to invest in our securities.

NASDAQ Capital Market symbol:	AMDA

The number of shares of our Common Stock to be outstanding after this offering is based on 27,364,881 shares of Common Stock outstanding as of January 13, 2017, and excludes the following:

- 138,025 shares of Common Stock issuable upon the exercise of outstanding options to purchase Common Stock under the 2012 Employee, Director and Consultant Equity Incentive Plan, as amended (the "2012 Plan"), at a weighted-average exercise price of $32.29 per share;
- 13,427,259 shares of Common Stock issuable upon the exercise of warrants for shares of our Common Stock outstanding, at a weighted-average exercise price of $1.57 per share;
- 38,139 shares of Common Stock issuable upon the exercise of a unit option at an exercise price of $21.38, which could be converted into 38,139 shares and warrants exercisable for 38,139 shares of common stock at an exercise price of $22.20 per share;
- 4,005,000 shares of Common Stock initially issuable upon the exercise of the Warrants to be issued pursuant to this prospectus supplement; and
- 902,254 additional shares of Common Stock reserved for issuance under the Amended and Restated 2012 Equity Incentive Plan.

RISK FACTORS

An investment in our securities is speculative and involves a high degree of risk. You should carefully consider the risks under the heading "Risk Factors" beginning on page 25 of our Annual Report on Form 10-K for the fiscal year ended December 31 2015, filed with the SEC on March 23, 2016, our Quarterly Report on Form 10-Q for the fiscal quarter ended March 31, 2016, filed with the SEC on May 13, 2016, our Quarterly Report on Form 10-Q for the fiscal quarter ended June 30, 2016, filed with the SEC on August 12, 2016, and our Quarterly Report on Form 10-Q for the fiscal quarter ended September 30, 2016, filed with the SEC on November 14, 2016, which information is incorporated by reference in this prospectus supplement, and the additional risks described below and other information in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference before deciding to invest in our securities. If any of the risks described or incorporated by reference into this prospectus supplement actually occur, our business, results of operations, financial condition and cash flows could be materially adversely affected, the trading price of our Common Stock could decline significantly, and you might lose all or part of your investment. Additional risks and uncertainties that we are unaware of or that we believe are not material at this time could also materially adversely affect our business, financial condition or results of operations. In any case, the value of our securities could decline, and you could lose all or part of your investment, or our use of the offering proceeds may not yield a favorable return on your investment. You should also refer to our financial statements and the notes to those statements, which are incorporated by reference in this prospectus supplement.

Risks Relating to this Offering

Because our management will have broad discretion and flexibility in how the net proceeds from this offering are used, our management may use the net proceeds in ways with which you disagree or which may not prove effective.

We currently intend to use the net proceeds from this offering as discussed under "Use of Proceeds" in this prospectus supplement. Accordingly, our management will have significant discretion and flexibility in applying the net proceeds of this offering. You will be relying on the judgment of our management with regard to the use of these net proceeds, and you will not have the opportunity, as part of your investment decision, to assess whether the net proceeds are being used appropriately. It is possible that the net proceeds will be invested in a way that does not yield a favorable, or any, return for us. The failure of our management to use such funds effectively could have a material adverse effect on our business, financial condition, operating results and cash flow.

You will experience immediate dilution in the book value per share of the Common Stock you purchase.

Because the price per share of our Common Stock being offered is substantially higher than the book value per share of our Common Stock, you will suffer substantial dilution in the net tangible book value of the Common Stock you purchase in this offering. After giving effect to the sale by us of shares of Common Stock in this offering, and based on a public offering price of $0.51 per share and 0.45 Warrants, and a pro forma net tangible book value per share of our Common Stock of $0.30 as of September 30, 2016, if you purchase securities in this offering, you will suffer immediate and substantial dilution of $0.18 per share in the net tangible book value of the Common Stock purchased. In the event that you exercise the Warrants, you will experience additional dilution to the extent that the exercise price of the Warrants is higher than the book value per share of our Common Stock. See “Dilution” on page S-33 for a more detailed discussion of the dilution you will incur in connection with this offering.

You may experience future dilution as a result of future equity offerings.

In order to raise additional capital, we may in the future offer additional shares of our Common Stock or other securities convertible into or exchangeable for our Common Stock at prices that may not be the same as the price in this offering. We may sell shares or other securities in any other offering at a price that is less than the price paid by investors in this offering, and investors purchasing shares or other securities in the future could have rights superior to existing shareholders. The price at which we sell additional shares of our Common Stock, or securities convertible or exchangeable into Common Stock, in future transactions may be higher or lower than the price paid by investors in this offering.

There is no public market for the warrants in this offering.

There is no established public trading market for the Warrants being offered in this offering, and we do not expect a market to develop. In addition, we do not intend to apply to list the Warrants on any securities exchange. Without an active market, the liquidity of theWarrants will be limited.

Holders of the Warrants will have no rights as a common stockholder until they acquire our Common Stock.

Until you acquire shares of our Common Stock upon exercise of your Warrants, you will have no rights with respect to shares of our Common Stock issuable upon exercise of your Warrants. Upon exercise of your Warrants, you will be entitled to exercise the rights of a common stockholder only as to matters for which the record date occurs after the exercise date.

The Warrants may not have any value.

Each Warrant will have an exercise price of $0.55 per share and will expire on the 5th anniversary of the date they first become exercisable. In the event our Common Stock price does not exceed the exercise price of the Warrants during the period when the Warrants are exercisable, the Warrants may not have any value.

Risks Related to Our Business and Strategy

We have incurred net losses since our inception and anticipate that we will continue to incur substantial net losses for the foreseeable future. We may never achieve or sustain profitability.

We have incurred substantial net losses since our inception. For the years ended December 31, 2015 and 2014 we incurred a net loss of $23.9 million and $32.6 million, respectively, and used cash in operations of $9.1 million and $14.5 million, respectively. We have an accumulated deficit of $209.3 million at September 30, 2016. Our losses have resulted principally from costs incurred in connection with our sales and marketing activities, research and development activities, manufacturing activities, general and administrative expenses associated with our operations, impairments on intangible assets, interest expense, loss on extinguishment of debt and offering costs. Even if we are successful in launching additional products into the market, we expect to continue to incur substantial losses for the foreseeable future as we continue to sell and market our current products and research and develop, and seek

regulatory approvals for, our product candidates.

If sales revenue from any of our current products or product candidates that receive marketing clearance from the FDA or other regulatory body is insufficient, if we are unable to develop and commercialize any of our product candidates, or if our product development is delayed, we may never become profitable. Even if we do become profitable, we may be unable to sustain or increase our profitability on a quarterly or annual basis.

Our success depends on our ability to successfully commercialize silicon nitride-based medical devices, which to date have experienced only limited market acceptance.

We believe we are the first and only company to use silicon nitride in medical applications. To date, however, we have had limited acceptance of our silicon nitride-based products and our product revenue has been derived substantially from our non-silicon nitride products. In order to succeed in our goal of becoming a leading biomaterial technology company utilizing silicon nitride, we must increase market awareness of our silicon nitride interbody spinal fusion products, continue to implement our sales and marketing strategy, enhance our commercial infrastructure and commercialize our silicon nitride joint replacement components and other products. If we fail in any of these endeavors or experience delays in pursuing them, we will not generate revenues as planned and will need to curtail operations or seek additional financing earlier than otherwise anticipated.

Our current products and our future products may not be accepted by hospitals and surgeons and may not become commercially successful.

Although we received 510(k) regulatory clearance from the FDA for our first silicon nitride spinal fusion products in 2008, we have not been able to obtain significant market share of the interbody spinal fusion market to date, and may not obtain such market share in the future. Even if we receive regulatory clearances or approvals for our product candidates in development, these product candidates may not gain market acceptance among orthopedic surgeons and the medical community. Orthopedic surgeons may elect not to use our products for a variety of reasons, including:

- lack or perceived lack of evidence supporting the beneficial characteristics of our silicon nitride technology;
- limited long-term data on the use of silicon nitride in medical devices;
- lower than expected clinical benefits in comparison with other products;
- the perception by surgeons that there are insufficient advantages of our products relative to currently available products;
- hospitals may choose not to purchase our products;
- group purchasing organizations may choose not to contract for our products, thus limiting availability of our products to hospital purchasers;
- the price of our products, which may be higher than products made of the other commonly used biomaterials in the interbody spinal fusion market and total joint market;
- lack of coverage or adequate payment from managed care plans and other third-party payers for the procedures that use our products;
- Medicare, Medicaid or other third-party payers may limit or not permit reimbursement for procedures using our products;
- ineffective marketing and distribution support;
- the time and resources that may be required for training, or the inadequate training, of surgeons in the proper use of our products;
- the development of alternative biomaterials and products that render our products less competitive or obsolete; and
- the development of or improvement of competitive products.

If surgeons do not perceive our silicon nitride products and product candidates as superior alternatives to competing products, we will not be able to generate significant revenues, if any.

Even if surgeons are convinced of the superior characteristics of our silicon nitride products and our product candidates that we successfully introduce compared to the limitations of the current commonly used biomaterials, surgeons may find other methods or turn to other biomaterials besides silicon nitride to overcome such limitations. For instance, with respect to interbody spinal fusion products, surgeons or device manufacturers may use more effective markers for enhancing the imaging compatibility of PEEK devices, more effective antibiotics to prevent or treat implant-related infections, and more effective osteoconductive and osteoinductive materials when implanting an interbody spinal fusion device. Device manufacturers may also coat metal with existing traditional ceramics to reduce the risk of metal wear particles and corrosion in total joint replacement implants. Additionally, surgeons may increase their use of metal interbody spinal fusion devices if there is an increasing perception that PEEK devices are limited by their strength and resistance to fracture.

If we are unable to increase the productivity of our sales and marketing infrastructure we will not be able to penetrate the spinal fusion market.

We market and sell our products to surgeons and hospitals in the United States and select markets in Europe and South America using a network of independent third-party distributors who have existing surgeon relationships. We manage this distribution network through our in-house sales and marketing management team. We may also establish distribution collaborations in the United States and abroad in instances where access to a large or well-established sales and marketing organization may help to expand the market or accelerate penetration for selected products.

We cannot assure you that we will succeed in entering into and maintaining productive arrangements with an adequate number of distributors that are sufficiently committed to selling our products. The establishment of a distribution network is expensive and time consuming. As we launch new products and increase our marketing effort with respect to existing products, we will need to continue to hire, train, retain and motivate skilled independent distributors with significant technical knowledge in various areas, such as spinal fusion and total hip and knee joint replacement. In addition, the commissions we pay our distributors have increased over time, which has resulted in higher sales and marketing expenses, and those commissions and expenses may increase in the future. Furthermore, current and potential distributors may market and sell the products of our competitors. Even if the distributors market and sell our products, our competitors may be able, by offering higher commission payments or other incentives, to persuade these distributors to reduce or terminate their sales and marketing efforts related to our products. The distributors may also help competitors solicit business from our existing customers. Some of our independent distributors account for a significant portion of our sales volume, and, if we were to lose them, our sales could be adversely affected.

Even if we engage and maintain suitable relationships with an adequate number of distributors, they may not generate revenue as quickly as we expect them to, commit the necessary resources to effectively market and sell our products, or ultimately succeed in selling our products. We have been unable to obtain meaningful market share in the interbody spinal fusion device market with our current silicon nitride products to date and we may not be successful in increasing the productivity of our sales and marketing team and distribution network to gain meaningful market share for our silicon nitride products, which could adversely affect our business and financial condition.

The orthopedic market is highly competitive and we may not be able to compete effectively against the larger, well-established companies that dominate this market or emerging and small innovative companies that may seek to obtain or increase their share of the market.

The markets for spinal fusions and total hip and knee implant products are intensely competitive, and many of our competitors are much larger and have substantially more financial and human resources than we do. Many have long histories and strong reputations within the industry, and a relatively small number of companies dominate these markets. Medtronic, Inc.; DePuy Synthes Companies, a group of Johnson & Johnson companies; Stryker Corporation; Biomet, Inc.; Zimmer Holdings, Inc.; and Smith & Nephew plc, account for a significant amount of orthopedic sales

worldwide.

These companies enjoy significant competitive advantages over us, including:

- broad product offerings, which address the needs of orthopedic surgeons and hospitals in a wide range of procedures;
- products that are supported by long-term clinical data;
- greater experience in, and resources for, launching, marketing, distributing and selling products, including strong sales forces and established distribution networks;
- existing relationships with spine and joint reconstruction surgeons;
- extensive intellectual property portfolios and greater resources for patent protection;
- greater financial and other resources for product research and development;
- greater experience in obtaining and maintaining FDA and other regulatory clearances and approvals for products and product enhancements;
- established manufacturing operations and contract manufacturing relationships;
- significantly greater name recognition and widely recognized trademarks; and
- established relationships with healthcare providers and payers.

Our products and any product candidates that we may introduce into the market may not enable us to overcome the competitive advantages of these large and dominant orthopedic companies. In addition, even if we successfully introduce additional product candidates incorporating our silicon nitride biomaterial into the market, emerging and small innovative companies may seek to increase their market share and they may eventually possess competitive advantages, which could adversely impact our business. Our competitors may also employ pricing strategies that could adversely affect the pricing of our products and pricing in the spinal fusion and total joint replacement market generally.

Moreover, many other companies are seeking to develop new biomaterials and products which may compete effectively against our products in terms of performance and price. For example, Smith & Nephew has developed a ceramic-coated metal, known as Oxinium, which may overcome certain of the limitations of metal joint replacement products and could directly compete with our silicon nitride and silicon nitride-coated product candidates.

We have significant customer concentration, so that economic difficulties or changes in the purchasing policies or patterns of our key customers could have a significant impact on our business and operating results.

A small number of customers account for a substantial portion of our product revenues. Our customers are primarily hospitals and surgical centers. At December 31, 2015 and 2014, our largest customer, Bon Secours St. Mary's Hospital, or St. Mary's, had a receivable balance of approximately 7% and 9%, respectively, of our total trade accounts receivable. In addition, St. Mary's accounted for 12% and 18% of our product revenues for each of the years ended December 31, 2015 and 2014. Sales of our products to our customers, including St. Mary's, are not based on long-term, committed-volume purchase contracts, and we may not continue to receive significant revenues from St. Mary's or any customer. Because of our significant customer concentration, our revenue could fluctuate significantly due to changes in economic conditions, the use of competitive products, or the loss of, reduction of business with, or less favorable terms with St. Mary's or any of our other significant customers. A significant portion of St. Mary's' purchases have been of our non-silicon nitride products, so it may be able to purchase competitive similar products from others. A reduction or delay in orders from St. Mary's or any of our other significant customers, or a delay or default in payment by any significant customer, could materially harm our business and results of operations.

The manufacturing process for our silicon nitride products is complex and requires sophisticated state-of-the-art equipment, experienced manufacturing personnel and highly specialized knowledge. If we are unable to manufacture our silicon nitride products on a timely basis consistent with our quality standards, our results of operation will be adversely impacted.

In order to control the quality, cost and availability of our silicon nitride products, we developed our own manufacturing capabilities. We operate a 30,000 square foot manufacturing facility which is certified under the ISO 13485 medical device manufacturing standard for medical devices and operates under the FDA's quality systems regulations, or QSRs. All operations with the exceptions of raw material production, cleaning, packaging and

sterilization are performed at this facility.

In order to mitigate the risk associated with us being the sole manufacturer of our silicon nitride medical device products, in June 2014, we entered into a manufacturing development and supply agreement with Kyocera Industrial Ceramics Corporation, or Kyocera. We updated our material master file and submitted a 510(k) with the FDA in the third quarter of 2014 to qualify Kyocera as a second source supplier of our silicon nitride products. Kyocera has been qualified as a second source supplier of our silicon nitride products. Although we expect this arrangement with Kyocera to continue, if Kyocera ceases to continue as a qualified manufacturer of these products and product candidates, we will be the sole manufacturer of these products and will need to seek other potential secondary manufacturers. Our reliance solely on our internal resources to manufacture our silicon nitride products entails risks to which we would not be subject if we had secondary suppliers for their manufacture, including:

- the inability to meet our product specifications and quality requirements consistently;
- a delay or inability to procure or expand sufficient manufacturing capacity to meet additional demand for our products;
- manufacturing and product quality issues related to the scale-up of manufacturing;
- the inability to produce a sufficient supply of our products to meet product demands;
- the disruption of our manufacturing facility due to equipment failure, natural disaster or failure to retain key personnel; and
- our inability to ensure our compliance with regulations and standards of the FDA, including QSRs, and corresponding state and international regulatory authorities, including the CFDA.

Any of these events could lead to a reduction in our product sales, product launch delays, failure to obtain regulatory clearance or approval or impact our ability to successfully sell our products and commercialize our products candidates.

We depend on a limited number of third-party suppliers for key raw materials used in the manufacturing of our silicon nitride products, and the loss of these third-party suppliers or their inability to supply us with adequate raw materials could harm our business.

We rely on a limited number of third-party suppliers for the raw materials required for the production of our silicon nitride products and product candidates. Our dependence on a limited number of third-party suppliers involves several risks, including limited control over pricing, availability, quality, and delivery schedules for raw materials. We have no supply agreements in place with any of our suppliers and cannot be certain that our current suppliers will continue to provide us with the quantities of raw materials that we require or that satisfy our anticipated specifications and quality requirements. Any supply interruption in limited or single sourced raw materials could materially harm our ability to manufacture our products until a new source of supply, if any, could be identified and qualified. We may be unable to find a sufficient alternative supply channel within a reasonable time or on commercially reasonable terms.

Any performance failure on the part of our suppliers could delay the production of our silicon nitride products and product candidates and delay the development and commercialization of our product candidates, including limiting supplies necessary for commercial sale, clinical trials and regulatory approvals, which could have a material adverse effect on our business.

Use of third-party manufacturers increases the risk that we will not have adequate supplies of our non-silicon nitride products or instrumentation sets.

The majority of our product revenue is currently generated by sales of non-silicon nitride products. Our reliance on a limited number of third-party manufacturers to supply us with our non-silicon nitride products and instruments exposes us to risks that could delay our sales, or result in higher costs or lost product revenues. In particular, our manufacturers could:

- encounter difficulties in achieving volume production, quality control and quality assurance or suffer shortages of qualified personnel, which could result in their inability to manufacture sufficient quantities of our commercially available non-silicon nitride products to meet market demand for those products, or they could experience similar problems that result in the manufacture of insufficient quantities of our non-silicon nitride product candidates; and

- fail to follow and remain in compliance with the FDA-mandated QSRs, compliance which is required for all medical devices, or fail to document their compliance to QSRs, either of which could lead to significant delays in the availability of materials for our non-silicon nitride products or instrumentation sets.

If we are unable to obtain adequate supplies of our non-silicon nitride products and related instrumentation sets that meet our specifications and quality standards, it will be difficult for us to compete effectively. We have no supply agreements in place with our manufacturers and they may change the terms of our future orders or choose not to supply us with products or instrumentation sets in the future. Furthermore, if a third-party manufacturer from whom we purchase fails to perform its obligations, we may be forced to purchase products or related instrumentation from other third-party manufacturers, which we may not be able to do on reasonable terms, if at all. In addition, if we are required to change manufacturers for any reason, we will be required to verify that the new manufacturer maintains facilities and procedures that comply with quality standards and with all applicable regulations and guidelines. The delays associated with the verification of a new manufacturer or the re-verification of an existing manufacturer could negatively affect our ability to produce and distribute our non-silicon nitride products or instruments in a timely manner.

In order to be successful, we must expand our available product lines of silicon nitride-based medical devices by commercializing new product candidates, but we may not be able to do so in a timely fashion and at expected costs, or at all.

Although we are currently marketing our silicon nitride interbody spinal fusion implants, in order to be successful, we will need to expand our product lines to include other silicon nitride devices. Therefore, we are developing silicon nitride product candidates for total hip and knee replacement procedures and are exploring the application of our silicon nitride technology for other potential applications. However, we have yet to commercialize any silicon nitride products beyond our spinal fusion products. To succeed in our commercialization efforts, we must effectively continue product development and testing, obtain regulatory clearances and approvals, and enhance our sales and

marketing capabilities. We may also have to write down significant inventory if existing products are replaced by new products. Because of these uncertainties, there is no assurance that we will succeed in bringing any of our current or future product candidates to market. If we fail in bringing our product candidates to market, or experience delays in doing so, we will not generate revenues as planned and will need to curtail operations or seek additional financing earlier than otherwise anticipated.

We will depend on one or more strategic partners to develop and commercialize our total joint replacement product candidates, and if our strategic partners are unable to execute effectively on our agreements with them, we may never become profitable.

We are seeking a strategic partner to develop and commercialize our total joint replacement product candidates. We will be reliant on our strategic partners to develop and commercialize a total hip or knee joint replacement product candidate that utilizes silicon nitride-coated components, although we have not yet entered into an agreement with any strategic partner to develop products with these silicon nitride-coated components and may be unable to do so on agreeable terms. In order to succeed in our joint commercialization efforts, we and any future partners must execute effectively on all elements of a combined business plan, including continuing to establish sales and marketing capabilities, manage certified, validated and effective commercial-scale manufacturing operations, conduct product development and testing, and obtain regulatory clearances and approvals for our product candidate. If we or any of our strategic partners fail in any of these endeavors, or experience delays in pursuing them, we will not generate revenues as planned and will need to curtail operations or seek additional financing earlier than otherwise anticipated.

Part of our strategy is to establish and develop OEM partnerships and arrangements, which subjects us to various risks.

Because we believe silicon nitride is a superior platform and technology for application in the spine, total joint and other markets, we are establishing OEM partnerships with other companies to replace their materials and products with silicon nitride. Sales of products to OEM customers will expose our business to a number of risks. Sales through OEM partners could be less profitable than direct sales. Sales of our products through multiple channels could also confuse customers and cause the sale of our products to decline. In addition, OEM customers will require that products meet strict standards. Our compliance with these requirements could result in increased development, manufacturing, warranty and administrative costs. A significant increase in these costs could adversely affect our operating results. If we fail to meet OEM specifications on a timely basis, our relationships with our OEM partners may be harmed. Furthermore, we would not control our OEM partners, and they could sell competing products, may not incorporate our technology into their products in a timely manner and may devote insufficient sales efforts to the OEM products.

If hospitals and other healthcare providers are unable to obtain coverage or adequate reimbursement for procedures performed with our products, it is unlikely our products will be widely used.

In the United States, the commercial success of our existing products and any future products will depend, in part, on the extent to which governmental payers at the federal and state levels, including Medicare and Medicaid, private health insurers and other third-party payers provide coverage for and establish adequate reimbursement levels for procedures utilizing our products. Because we typically receive payment directly from hospitals and surgical centers, we do not anticipate relying directly on payment from third-party payers for our products. However, hospitals and other healthcare providers that purchase our orthopedic products for treatment of their patients generally rely on third-party payers to pay for all or part of the costs and fees associated with our products as part of a “bundled” rate for the associated procedures. The existence of coverage and adequate reimbursement for our products and the procedures performed with them by government and private payers is critical to market acceptance of our existing and future products. Neither hospitals nor surgeons are likely to use our products if they do not receive adequate reimbursement for the procedures utilizing our products.

Many private payers currently base their reimbursement policies on the coverage decisions and payment amounts determined by the Centers for Medicare and Medicaid Services, or CMS, which administers the Medicare program. Others may adopt different coverage or reimbursement policies for procedures performed with our products, while some governmental programs, such as Medicaid, have reimbursement policies that vary from state to state, some of which may not pay for the procedures performed with our products in an adequate amount, if at all. A Medicare national or local coverage decision denying coverage for one or more of our products could result in private and other third-party payers also denying coverage for our products. Third-party payers also may deny reimbursement for our products if they determine that a product used in a procedure was not medically necessary, was not used in accordance with cost-effective treatment methods, as determined by the third-party payer, or was used for an unapproved use. Unfavorable coverage or reimbursement decisions by government programs or private payers underscore the

uncertainty that our products face in the market and could have a material adverse effect on our business.

Many hospitals and clinics in the United States belong to group purchasing organizations, which typically incentivize their hospital members to make a relatively large proportion of purchases from a limited number of vendors of similar products that have contracted to offer discounted prices. Such contracts often include exceptions for purchasing certain innovative new technologies, however. Accordingly, the commercial success of our products may also depend to some extent on our ability to either negotiate favorable purchase contracts with key group purchasing organizations and/or persuade hospitals and clinics to purchase our product “off contract.”

The healthcare industry in the United States has experienced a trend toward cost containment as government and private payers seek to control healthcare costs by paying service providers lower rates. While it is expected that hospitals will be able to obtain coverage for procedures using our products, the level of payment available to them for such procedures may change over time. State and federal healthcare programs, such as Medicare and Medicaid, closely regulate provider payment levels and have sought to contain, and sometimes reduce, payment levels. Private payers frequently follow government payment policies and are likewise interested in controlling increases in the cost of medical care. In addition, some payers are adopting pay-for-performance programs that differentiate payments to healthcare providers based on the achievement of documented quality-of-care metrics, cost efficiencies, or patient outcomes. These programs are intended to provide incentives to providers to deliver the same or better results while consuming fewer resources. As a result of these programs, and related payer efforts to reduce payment levels, hospitals and other providers are seeking ways to reduce their costs, including the amounts they pay to medical device manufacturers. We may not be able to sell our implants profitably if third-party payers deny or discontinue coverage or reduce their levels of payment below that which we project, or if our production costs increase at a greater rate than payment levels. Adverse changes in payment rates by payers to hospitals could adversely impact our ability to market and sell our products and negatively affect our financial performance.

In international markets, medical device regulatory requirements and healthcare payment systems vary significantly from country to country, and many countries have instituted price ceilings on specific product lines. We cannot assure you that our products will be considered cost-effective by international third-party payers, that reimbursement will be available or, if available, that the third-party payers' reimbursement policies will not adversely affect our ability to sell our products profitably. Any failure to receive regulatory or reimbursement approvals would negatively impact market acceptance of our products in any international markets in which those approvals are sought.

Prolonged negative economic conditions in domestic and international markets may adversely affect us, our suppliers, partners and consumers, and the global orthopedic market which could harm our financial position.

Global credit and financial markets have been experiencing extreme disruptions over the past several years, including severely diminished liquidity and availability of credit, declines in consumer confidence, declines in economic growth, increases in unemployment rates and uncertainty about economic stability. Credit and financial markets and confidence in economic conditions might deteriorate further. Our business may be adversely affected by the recent economic downturn and volatile business environment and continued unpredictable and unstable market conditions. In addition, there is a risk that one or more of our current suppliers may not continue to operate. Any lender that is obligated to provide funding to us under any future credit agreement with us may not be able to provide funding in a timely manner, or at all, when we require it. The cost of, or lack of, available credit or equity financing could impact our ability to develop sufficient liquidity to maintain or grow our company. These negative changes in domestic and international economic conditions or additional disruptions of either or both of the financial and credit markets may also affect third-party payers and may have a material adverse effect on our business, results of operations, financial condition and liquidity.

In addition, we believe that various demographics and industry-specific trends will help drive growth in the orthopedics markets, but these demographics and trends are uncertain. Actual demand for orthopedic products generally, and our products in particular, could be significantly less than expected if our assumptions regarding these factors prove to be incorrect or do not materialize, or if alternative treatments gain widespread acceptance.

We are dependent on our senior management team, engineering team, sales and marketing team and surgeon advisors, and the loss of any of them could harm our business. We may not have sufficient personnel to effectuate our business strategy due to our recent reduction in force.

The members of our current senior management team have worked together in their new positions with us for a limited time and may not be able to successfully implement our strategy. In addition, we have not entered into employment agreements, other than change-in-control severance agreements, with any of the members of our senior management team. There are no assurances that the services of any of these individuals will be available to us for any specified period of time. The successful integration of our senior management team, the loss of members of our senior management team, sales and marketing team, engineering team and key surgeon advisors, or our inability to attract or retain other qualified personnel or advisors could have a material adverse effect on our business, financial condition and results of operations.

In October 2016, we implemented a substantial reduction in our workforce by approximately 38% to lower operating expenses. This most recent restructuring plan and other such efforts could result in disruptions to our operations. We may not have sufficient number of qualified personnel to effectuate our business strategy which could have a material adverse effect on our business, financial condition and results of operations.

If we experience significant disruptions in our information technology systems, our business, results of operations and financial condition could be adversely affected.

The efficient operation of our business depends on our information technology systems. We rely on our information technology systems to effectively manage our sales and marketing, accounting and financial functions; manufacturing processes; inventory; engineering and product development functions; and our research and development functions. As such, our information technology systems are vulnerable to damage or interruption including from earthquakes, fires, floods and other natural disasters; terrorist attacks and attacks by computer viruses or hackers; power losses; and computer systems, or Internet, telecommunications or data network failures. The failure of our information technology systems to perform as we anticipate or our failure to effectively implement new systems could disrupt our entire operation and could result in decreased sales, increased overhead costs, excess inventory and product shortages, all of which could have a material adverse effect on our reputation, business, results of operations and financial condition.

Risks Related to Our Capital Resources and Impairments

We will require additional financing and our failure to obtain additional funding would force us to delay, reduce or eliminate our product development programs or commercialization efforts.

We currently have limited committed sources of capital and we have limited liquidity. Our cash and cash equivalents as of September 30, 2016 was $10.6 million. We require substantial future capital in order to continue to conduct the research and development and regulatory clearance and approval activities necessary to bring our products to market, to establish effective marketing and sales capabilities. Our existing capital resources are not sufficient to enable us to fund the completion of the development and commercialization of all of our product candidates. We cannot determine with certainty the duration and completion costs of the current or future development and commercialization of our product candidates for spinal fusion procedures, joint replacement and coated metals or if, when, or to what extent we will generate revenues from the commercialization and sale of any of these product candidates for which we obtain regulatory approval. We may never succeed in achieving regulatory approval for certain or all of these product candidates. The duration, costs and timing of clinical trials and development of our spinal fusion, joint replacement and coated metal product candidates will depend on a variety of factors, including:

- the scope, rate of progress, and expense of our ongoing, as well as any additional, clinical trials and other research and development activities;
- future clinical trial results we may must or choose to conduct;
- potential changes in government regulation; and
- the timing and receipt of any regulatory approvals.

A change in the outcome of any of these variables with respect to the development of spinal fusion, joint replacement or coated metal product candidates could mean a significant change in the costs and timing associated with the development of these product candidates.

In addition, the repayment of the loan under the Loan and Security Agreement and the associated liquidity covenant limit (as described below) our ability to use our cash and cash equivalents to fund our operations and may restrict our ability to continue development of our product candidates. Additionally, the the Loan and Security Agreement restricts our ability to incur additional pari passu indebtedness, which may reduce our ability to seek additional financing. If adequate funds are not available on a timely basis, we may terminate or delay the development of one or more of our product candidates, or delay activities necessary to commercialize our product candidates. Additional funding may not be available to us on acceptable terms, or at all. Any additional equity financing, if available, may not be available on favorable terms and will most likely be dilutive to our current stockholders, and debt financing, if available, may involve more restrictive covenants. Our ability to access capital when needed is not assured and, if not achieved on a timely basis, will materially harm our business, financial condition and results of operations or could cause us to cease operations.

As a result of our debt obligations, we will need additional funds to meet our operational needs and capital requirements for product development, clinical trials and commercialization. The timing and amount of our future capital requirements will depend on many factors, including:

- our ability to satisfy our obligation to pay principal and interest on the Loan and Security Agreement;
- our ability to comply with the minimum liquidity covenant related to the Loan and Security Agreement;
- the level of sales of our current products and the cost of revenue and sales and marketing;
- the extent of any clinical trials that we will be required to conduct in support of the regulatory clearance of our total hip and knee replacement product candidates;
- the scope, progress, results and cost of our product development efforts;
- the costs, timing and outcomes of regulatory reviews of our product candidates;
- the number and types of products we develop and commercialize;
- the costs of preparing, filing and prosecuting patent applications and maintaining, enforcing and defending intellectual property-related claims; and
- the extent and scope of our general and administrative expenses.

If we do not adhere to the financial covenants set forth in the Loan and Security Agreement, we will be in default of the Loan and Security Agreement.

In June 2014 we entered into the Loan and Security Agreement, as administrative and collateral agent for the lenders thereunder and as lender, and Hercules Technology III, LP, as lender. The Loan and Security Agreement provides us with a $20 million term loan with a maturity date of January 1, 2018 and is secured by substantially all of our assets and is described in more detail in the “Management’s Discussion and Analysis of Financial Condition and Results of Operations” section of our Annual Report on Form 10-K.

The Loan and Security Agreement contains a minimum liquidity covenant that requires us to maintain cash and cash equivalents and availability under the Loan and Security Agreement of not less than an amount that varies based on the loan amount and reduces as the loan amount is reduced with a maximum cash requirement of $9.0 million if the loan amount exceeds $19.0 million and a potential minimum cash requirement of $2.5 million if the loan amount is $7.0 million or less. As of September 30, 2016, the minimum liquidity covenant was $3.5 million. We anticipate we will need to refinance the Loan and Security Agreement or obtain additional funding in the second quarter of 2017 to maintain compliance with the minimum liquidity covenant through the next twelve months. Furthermore, if we are unable to access additional funds prior to becoming non-compliant with the liquidity covenant, the entire remaining

balance of the Loan and Security Agreement could become immediately due and payable at the option of Hercules Technology.

Hercules Technology could declare a default under the Loan and Security Agreement upon the occurrence of a material adverse effect, as defined under the credit facility, thereby requiring us to either repay the outstanding indebtedness immediately or attempt to reverse the declaration of default through negotiation or litigation. Any declaration of an event of default would significantly harm our business and prospectus and could cause the price of our common stock to decline.

Raising additional capital by issuing securities or through debt financings or licensing arrangements may cause dilution to existing stockholders, restrict our operations or require us to relinquish proprietary rights.

To the extent that we raise additional capital through the sale of equity or convertible debt securities, your ownership interest may be diluted, and the terms may include liquidation or other preferences that adversely affect your rights as a stockholder. Debt financing, if available, 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. Further, our current debt obligations to Hercules Technology could also impair our ability to raise future capital through equity or debt transactions. If we raise additional funds through collaboration and licensing arrangements with third parties, we may have to relinquish valuable rights to our technologies or products or grant licenses on terms that are not favorable to us. Any of these events could adversely affect our ability to achieve our product development and commercialization goals and have a material adverse effect on our business, financial condition and results of operations.

Our independent registered public accounting firm has included an explanatory paragraph relating to our ability to continue as a going concern in its report on our audited financial statements. We may be unable to continue to operate without the threat of liquidation for the foreseeable future.

Our report from our independent registered public accounting firm for the year ended December 31, 2015 includes an explanatory paragraph stating that our recurring losses from operations and our need to obtain additional financing in order to satisfy our debt obligations and to be compliant with covenants under our debt obligations through 2016 raise substantial doubt about our ability to continue as a going concern. If we are unable to obtain sufficient additional funding, our business, prospects, financial condition and results of operations will be materially and adversely affected and we may be unable to continue as a going concern. If we are unable to continue as a going concern, we may have to liquidate our assets and may receive less than the value at which those assets are carried on our consolidated financial statements, and it is likely that investors will lose all or a part of their investment. Future reports from our independent registered public accounting firm may also contain statements expressing doubt about our ability to continue as a going concern. If we seek additional financing to fund our business activities in the future and there remains doubt about our ability to continue as a going concern, investors or other financing sources may be unwilling to provide additional funding on commercially reasonable terms or at all.

An impairment charge could have a material adverse effect on our financial condition and results of operations.

We are required to test acquired goodwill for impairment on an annual basis. Goodwill represents the excess of the amount paid over the fair value of the net assets at the date of the acquisition. We have chosen to complete our annual impairment reviews of goodwill at the end of each calendar year. We also are required to test goodwill for impairment between annual tests if events occur or circumstances change that would more likely than not reduce our enterprise fair value below its book value. In addition, we are required to test our finite-lived intangible assets for impairment if

events occur or circumstances change that would indicate the remaining net book value of the finite-lived intangible assets might not be recoverable. These events or circumstances could include a significant change in the business climate, including a significant sustained decline in our market value, legal factors, operating performance indicators, competition, sale or disposition of a significant portion of our business and other factors.

If the fair market value of our reporting unit is less than its book value, we could be required to record an impairment charge. The valuation of a reporting unit requires judgment in estimating future cash flows, discount rates and other factors. In making these judgments, we evaluate the financial health of our business, including such factors as industry performance, changes in technology and operating cash flows. Changes in our forecasts or decreases in the value of our common stock could cause book values of our reporting unit to exceed its fair value, which may result in goodwill impairment charges. The amount of any impairment could be significant and could have a material adverse effect on our reported financial results for the period in which the charge is taken.

Risks Related to Regulatory Approval of Our Products and Other Government Regulations

Our long-term success depends substantially on our ability to obtain regulatory clearance or approval and thereafter commercialize our product candidates; we cannot be certain that we will be able to do so in a timely manner or at all.

The process of obtaining regulatory clearances or approvals to market a medical device from the FDA or similar regulatory authorities outside of the United States can be costly and time consuming, and there can be no assurance that such clearances or approvals will be granted on a timely basis, or at all. The FDA's 510(k) clearance process generally takes one to six months from the date of submission, depending on whether a special or traditional 510(k) premarket notification has been submitted, but can take significantly longer. An application for premarket approval, or PMA, must be submitted to the FDA if the device cannot be cleared through the 510(k) clearance process or is not exempt from premarket review by the FDA. The PMA process almost always requires one or more clinical trials and can take two to three years from the date of filing, or even longer. In some cases, including in the case of our interbody spinal fusion devices which incorporate our CSC technology and our solid silicon nitride femoral head component, the FDA requires clinical data as part of the 510(k) clearance process.

It is possible that the FDA could raise questions about our spinal fusion products, our spinal fusion product candidates and our total hip and knee joint replacement product candidates and could require us to perform additional studies on our products and product candidates. Even if the FDA permits us to use the 510(k) clearance process, we cannot assure you that the FDA will not require either supporting data from laboratory tests or studies that we have not conducted, or substantial supporting clinical data. If we are unable to use the 510(k) clearance process for any of our product candidates, are required to provide clinical data or laboratory data that we do not possess to support our 510(k) premarket notifications for any of these product candidates, or otherwise experience delays in obtaining or fail to obtain regulatory clearances, the commercialization of our product candidates in the United States will be delayed or prevented, which will adversely affect our ability to generate additional revenues. It also may result in the loss of potential competitive advantages that we might otherwise attain by bringing our products to market earlier than our competitors. Additionally, although the FDA allows modifications to be made to devices that have received 510(k) clearance with supporting documentation, the FDA may disagree with our decision to modify our cleared devices without submission of a new 510(k) premarket notification, subjecting us to potential product recall, field alerts and corrective actions. Any of these contingencies could adversely affect our business.

Similar to our compliance with U.S. regulatory requirements, we must obtain and comply with international requirements, including those of the CFDA, in order to market and sell our products outside of the United States and we may only promote and market our products, if approved, as permitted by applicable regulatory authorities. There is no guarantee that we will receive the necessary regulatory approvals for our product candidates either inside the United States or internationally, including approvals from the CFDA. If our product candidates do not receive necessary regulatory approvals, our business could be materially and adversely affected.

The safety of our products is not yet supported by long-term clinical data, and they may prove to be less safe and effective than our laboratory data indicate.

We obtained FDA clearance for each of our products that we currently market, and we have sought and intend to seek FDA clearance or approval through the FDA's 510(k) or PMA process and, where applicable, CE marking for our product candidates. The 510(k) clearance process is based on the FDA's agreement that a new product candidate is substantially equivalent to an already marketed product for which a PMA was not required. While most 510(k) premarket notifications do not require clinical data for clearance, the FDA may request that such data be provided. Long-term clinical data or marketing experience obtained after clearance may indicate that our products cause unexpected complications or other unforeseen negative effects. If this happens, we could be subject to the withdrawal of our marketing clearance and other enforcement sanctions by the FDA or other regulatory authority, product recalls, significant legal liability, significant negative publicity, damage to our reputation and a dramatic reduction in our ability to sell our products, any one of which would have a material adverse effect on our business, financial condition and results of operations.

We expect to be required to conduct clinical trials to support regulatory approval of some of our product candidates. We have little experience conducting clinical trials, they may proceed more slowly than anticipated, and we cannot be certain that our product candidates will be shown to be safe and effective for human use.

In order to commercialize our product candidates in the United States, we must submit a PMA for some of these product candidates, which will require us to conduct clinical trials. We also plan to provide the FDA with clinical trial data to support some of our 510(k) premarket notifications. We will receive approval or clearance from the FDA to commercialize products requiring a clinical trial only if we can demonstrate to the satisfaction of the FDA, through well-designed and properly conducted clinical trials, that our product candidates are safe and effective and otherwise meet the appropriate standards required for approval or clearance for specified indications.

Clinical trials are complex, expensive, time consuming, uncertain and subject to substantial and unanticipated delays. Before we may begin clinical trials, we must submit and obtain approval for an investigational device exemption, or IDE, that describes, among other things, the manufacture of, and controls for, the device and a complete investigational plan. Clinical trials generally involve a substantial number of patients in a multi-year study. Because we do not have the experience or the infrastructure necessary to conduct clinical trials, we will have to hire one or more contract research organizations, or CROs, to conduct trials on our behalf. CRO contract negotiations may be costly and time consuming and we will rely heavily on the CRO to ensure that our trials are conducted in accordance with regulatory and industry standards. We may encounter problems with our clinical trials and any of those problems could cause us or the FDA to suspend those trials, or delay the analysis of the data derived from them.

A number of events or factors, including any of the following, could delay the completion of our clinical trials in the future and negatively impact our ability to obtain FDA approval for, and to introduce our product candidates:

- failure to obtain financing necessary to bear the cost of designing and conducting clinical trials;
- failure to obtain approval from the FDA or foreign regulatory authorities to commence investigational studies;
- conditions imposed on us by the FDA or foreign regulatory authorities regarding the scope or design of our clinical trials;
- failure to find a qualified CRO to conduct our clinical trials or to negotiate a CRO services agreement on favorable terms;
- delays in obtaining or in our maintaining required approvals from institutional review boards or other reviewing entities at clinical sites selected for participation in our clinical trials;
- insufficient supply of our product candidates or other materials necessary to conduct our clinical trials;
- difficulties in enrolling patients in our clinical trials;

negative or inconclusive results from clinical trials, or results that are inconsistent with earlier results, that necessitate additional clinical studies;

failure on the part of the CRO to conduct the clinical trial in accordance with regulatory requirements;

our failure to maintain a successful relationship with the CRO or termination of our contractual relationship with the CRO before completion of the clinical trials;

serious or unexpected side effects experienced by patients in whom our product candidates are implanted; or

failure by any of our third-party contractors or investigators to comply with regulatory requirements or meet other contractual obligations in a timely manner.

Our clinical trials may need to be redesigned or may not be completed on schedule, if at all. Delays in our clinical trials may result in increased development costs for our product candidates, which could cause our stock price to decline and limit our ability to obtain additional financing. In addition, if one or more of our clinical trials are delayed, competitors may be able to bring products to market before we do, and the commercial viability of our product candidates could be significantly reduced.

Our current and future relationships with third-party payers and current and potential customers in the United States and elsewhere may be subject, directly or indirectly, to applicable anti-kickback, fraud and abuse, false claims, transparency, health information privacy and security and other healthcare laws and regulations, which could expose us to criminal sanctions, civil penalties, contractual damages, reputational harm administrative burdens and diminished profits and future earnings.

Our current and future arrangements with third-party payers and current and potential customers, including providers and physicians, as well as physician owned distributorships or PODs, may expose us to broadly applicable fraud and abuse and other healthcare laws and regulations, including, without limitation, the federal Anti-Kickback Statute and the federal False Claims Act, which may constrain the business or financial arrangements and relationships through which we sell, market and distribute our products. In addition, we may be subject to transparency laws and patient privacy regulations by U.S. federal and state governments and by governments in foreign jurisdictions in which we conduct our business. The applicable federal, state and foreign healthcare laws and regulations that may affect our ability to operate include:

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

federal civil and criminal false claims laws and civil monetary penalty laws, including the federal False Claims Act, which impose criminal and civil penalties, including civil whistleblower or qui tam actions, against individuals or entities for knowingly presenting, or causing to be presented, to the federal government, including the Medicare and Medicaid programs, claims for payment that are false or fraudulent or making a false statement to avoid, decrease or conceal an obligation to pay money to the federal government;

the federal Health Insurance Portability and Accountability Act of 1996, or HIPAA, which imposes criminal and civil liability for executing a scheme to defraud any healthcare benefit program or making false statements relating to healthcare matters;

HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act of 2009, or HITECH, and their respective implementing regulations, which impose obligations on covered healthcare providers, health plans, and healthcare clearinghouses, as well as their business associates that create, receive, maintain or transmit individually identifiable health information for or on behalf of a covered entity, with respect to safeguarding the privacy, security and transmission of individually identifiable health information;

the Physician Payments Sunshine Act, which requires (i) manufacturers of drugs, devices, biologics and medical supplies for which payment is available under Medicare, Medicaid or the Children's Health Insurance Program, with specific exceptions, to report annually to CMS information related to certain "payments or other transfers of value" made to physicians, which is defined to include doctors, dentists, optometrists, podiatrists and chiropractors, and teaching hospitals, with data collection beginning on August 1, 2013, (ii) applicable manufacturers and applicable group purchasing organizations to report annually to CMS ownership and investment interests held in such entities by physicians and their immediate family members, with data collection beginning on August 1, 2013, (iii) manufacturers to submit reports to CMS by March 31, 2014 and the 90th day of each subsequent calendar year, and (iv) disclosure of such information by CMS on a publicly available website beginning in September 2014; and

analogous state and foreign laws and regulations, such as state anti-kickback and false claims laws, which may apply to sales or marketing arrangements and claims involving healthcare items or services reimbursed by non-governmental third-party payers, including private insurers; state and foreign laws that require medical device companies to comply with the medical device 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 and foreign laws that require medical 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 health information in certain circumstances, many of which differ from each other in significant ways and often are not preempted by HIPAA, thus complicating compliance efforts. Efforts to ensure that our business arrangements with third parties will comply with applicable healthcare laws and regulations may involve substantial costs. It is possible that governmental authorities will conclude that our business practices may not comply with current or future statutes, regulations or case law involving applicable fraud and abuse or other healthcare laws and regulations. If our operations are found to be in violation of any of these laws or any other governmental regulations that may apply to us, we may be subject to significant civil, criminal and administrative penalties, including, without limitation, damages, fines, imprisonment, exclusion from participation in government healthcare programs, such as Medicare and Medicaid, and the curtailment or restructuring of our operations, which could have a material adverse effect on our business. If any of the physicians or other healthcare providers or entities with whom we expect to do business, including our collaborators, are found not to be in compliance with applicable laws, they may be subject to criminal, civil or administrative sanctions, including exclusions from participation in government healthcare programs, which could also materially affect our business.

Recently enacted and future legislation may increase the difficulty and cost for us to obtain and monitor regulatory approval or clearance of our product candidates and affect the prices we may obtain for our products.

In the United States and some foreign jurisdictions, there have been a number of legislative and regulatory changes and proposed changes regarding the healthcare system that could prevent or delay clearance and/or approval of our product candidates, restrict or regulate post-clearance and post-approval activities and affect our ability to profitably sell our products and any product candidates for which we obtain marketing approval or clearance.

In addition, FDA regulations and guidance are often revised or reinterpreted by the FDA in ways that may significantly affect our business and our products. Any new regulations or revisions or reinterpretations of existing regulations may impose additional costs or lengthen review times of our products. Delays in receipt of or failure to receive regulatory clearances or approvals for our new products would have a material adverse effect on our business, results of operations and financial condition. 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) clearances and additional requirements that may significantly impact the process.

Among policy makers and payers in the United States and elsewhere, there is significant interest in promoting changes in healthcare systems with the stated goals of containing healthcare costs, improving quality and expanding access. In

the United States, the medical device industry has been a particular focus of these efforts and has been significantly affected by major legislative initiatives. In March 2010, President Obama signed into law the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Affordability Reconciliation Act, or collectively the ACA, a sweeping law intended, among other things, to broaden access to health insurance, reduce or constrain the growth of healthcare spending, enhance remedies against fraud and abuse, add new transparency requirements for the healthcare and health insurance industries, impose new taxes and fees on the health industry and impose additional health policy reforms.

Among the provisions of the ACA of importance to our products and product candidates are:

- a 2.3% medical device excise tax on the U.S. sales of most medical devices, for which a moratorium on the payment of the excise tax for 2016 and 2017 was enacted in December 2015;
- expansion of healthcare fraud and abuse laws, including the False Claims Act and the Anti-Kickback Statute, and new government investigative powers and enhanced penalties for non-compliance;
- new requirements under the federal Open Payments program and its implementing regulations;
- a new Patient-Centered Outcomes Research Institute to oversee, identify priorities in, and conduct comparative clinical effectiveness research, along with funding for such research; and
- creation of 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 since the ACA was enacted. For example, on August 2, 2011, the President signed into law the Budget Control Act of 2011, which, among other things, created the Joint Select Committee on Deficit Reduction to recommend to Congress proposals in spending reductions. The Joint Select Committee on Deficit Reduction 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, starting in 2013. On January 2, 2013, President Obama signed into law the American Taxpayer Relief Act of 2012, or ATRA, which, among other things, 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. On March 1, 2013, the President signed an executive order implementing the Budget Control Act's 2% Medicare payment reductions, and on April 1, 2013, these reductions went into effect. These new laws may result in additional reductions in Medicare and other healthcare funding, which could have a material adverse effect on our financial operations.

We expect that the ACA, as well as other healthcare reform measures that have been and may be adopted in the future, may result in more rigorous coverage criteria and in additional downward pressure on the price that we receive for our products. Any reduction in reimbursement from Medicare or other government programs may result in a similar reduction in payments from private payers. The implementation of cost containment measures or other healthcare reforms may affect our ability to generate revenue and profits or commercialize our product candidates.

In the European Union and some other international markets, the government provides health care at a low cost to consumers and regulates prices of healthcare products, patient eligibility or reimbursement levels to control costs for the government-sponsored health care system. Many countries are reducing their public expenditures and we expect to see strong efforts to reduce healthcare costs in international markets, including patient access restrictions, suspensions on price increases, prospective and possibly retroactive price reductions and other recoupments and increased mandatory discounts or rebates and recoveries of past price increases. These cost control measures could reduce our

revenues. In addition, certain countries set prices by reference to the prices in other countries where our products are marketed. Thus, our inability to secure adequate prices in a particular country may not only limit the marketing of our products within that country, but may also adversely affect our ability to obtain acceptable prices in other markets. This may create the opportunity for third-party cross border trade or influence our decision to sell or not to sell a product, thus adversely affecting our geographic expansion plans and revenues.

Risks Related to Our Intellectual Property and Litigation

If the combination of patents, trade secrets and contractual provisions that we rely on to protect our intellectual property is inadequate, our ability to commercialize our orthopedic products successfully will be harmed, and we may not be able to operate our business profitably.

Our success depends significantly on our ability to protect our proprietary rights to the technologies incorporated in our products. We rely on a combination of patent protection, trade secret laws and nondisclosure, confidentiality and other contractual restrictions to protect our proprietary technology. However, these may not adequately protect our rights or permit us to gain or keep any competitive advantage.

The issuance of a patent is not conclusive as to its scope, validity or enforceability. The scope, validity or enforceability of our issued patents can be challenged in litigation or proceedings before the U.S. Patent and Trademark Office, or the USPTO, or foreign patent offices. In addition, our pending patent applications include claims to numerous important aspects of our products under development that are not currently protected by any of our issued patents. We cannot assure you that any of our pending patent applications will result in the issuance of patents to us. The USPTO or foreign patent offices may deny or require significant narrowing of claims in our pending patent applications. Patents issued as a result of the pending patent applications, if any, may not provide us with significant commercial protection or be issued in a form that is advantageous to us. Proceedings before the USPTO or foreign patent offices could result in adverse decisions as to the priority of our inventions and the narrowing or invalidation of claims in issued patents. The laws of some foreign countries may not protect our intellectual property rights to the same extent as the laws of the United States, if at all.

Our competitors may successfully challenge and invalidate or render unenforceable our issued patents, including any patents that may issue in the future, which could prevent or limit our ability to market our products and could limit our ability to stop competitors from marketing products that are substantially equivalent to ours. In addition, competitors may be able to design around our patents or develop products that provide outcomes that are comparable to our products but that are not covered by our patents.

We have also entered into confidentiality and assignment of intellectual property agreements with all of our employees, consultants and advisors as one of the ways we seek to protect our intellectual property and other proprietary technology. However, these agreements may not be enforceable or may not provide meaningful protection for our trade secrets or other proprietary information in the event of unauthorized use or disclosure or other breaches of the agreements.

In the event a competitor infringes upon any of our patents or other intellectual property rights, enforcing our rights may be difficult, time consuming and expensive, and would divert management’s attention from managing our business. There can be no assurance that we will be successful on the merits in any enforcement effort. In addition, we may not have sufficient resources to litigate, enforce or defend our intellectual property rights.

We have no patent protection covering the composition of matter for our solid silicon nitride or the process we use for manufacturing our solid silicon nitride, and competitors may create silicon nitride formulations substantially similar to ours.

Although we have a number of U.S. and foreign patents and pending applications relating to our solid silicon nitride products or product candidates, we have no patent protection either for the composition of matter for our silicon nitride or for the processes of manufacturing solid silicon nitride. As a result, competitors may create silicon nitride formulations substantially similar to ours, and use their formulations in products that may compete with our silicon nitride products, provided they do not violate our issued product patents. Although we have, and will continue to

develop, significant know-how related to these processes, there can be no assurance that we will be able to maintain this know-how as trade secrets, and competitors may develop or acquire equally valuable or more valuable know-how related to the manufacture of silicon nitride.

We could become subject to intellectual property litigation that could be costly, result in the diversion of management's time and efforts, require us to pay damages, prevent us from marketing our commercially available products or product candidates and/or reduce the margins we may realize from our products that we may commercialize.

The medical devices industry is characterized by extensive litigation and administrative proceedings over patent and other intellectual property rights. Whether a product infringes a patent involves complex legal and factual issues, and the determination is often uncertain. There may be existing patents of which we are unaware that our products under development may inadvertently infringe. The likelihood that patent infringement claims may be brought against us increases as the number of participants in the orthopedic market increases and as we achieve more visibility in the market place and introduce products to market.

Any infringement claim against us, even if without merit, may cause us to incur substantial costs, and would place a significant strain on our financial resources, divert the attention of management from our core business, and harm our reputation. In some cases, litigation may be threatened or brought by a patent holding company or other adverse patent owner who has no relevant product revenues and against whom our patents may provide little or no deterrence. If we were found to infringe any patents, we could be required to pay substantial damages, including triple damages if an infringement is found to be willful, and royalties and could be prevented from selling our products unless we obtain a license or are able to redesign our products to avoid infringement. We may not be able to obtain a license enabling us to sell our products on reasonable terms, or at all, and there can be no assurance that we would be able to redesign our products in a way that would not infringe those patents. If we fail to obtain any required licenses or make any necessary changes to our technologies or the products that incorporate them, we may be unable to commercialize one or more of our products or may have to withdraw products from the market, all of which would have a material adverse effect on our business, financial condition and results of operations.

In addition, in order to further our product development efforts, we have entered into agreements with orthopedic surgeons to help us design and develop new products, and we expect to enter into similar agreements in the future. In certain instances, we have agreed to pay such surgeons royalties on sales of products which incorporate their product development contributions. There can be no assurance that surgeons with whom we have entered into such arrangements will not claim to be entitled to a royalty even if we do not believe that such products were developed by cooperative involvement between us and such surgeons. In addition, some of our surgeon advisors are employed by academic or medical institutions or have agreements with other orthopedic companies pursuant to which they have agreed to assign or are under an obligation to assign to those other companies or institutions their rights in inventions which they conceive or develop, or help conceive or develop.

There can be no assurance that one or more of these orthopedic companies or institutions will not claim ownership rights to an invention we develop in collaboration with our surgeon advisors or consultants on the basis that an agreement with such orthopedic company or institution gives it ownership rights in the invention or that our surgeon advisors on consultants otherwise have an obligation to assign such inventions to such company or institution. Any such claim against us, even without merit, may cause us to incur substantial costs, and would place a significant strain on our financial resources, divert the attention of management from our core business and harm our reputation.

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

Many of our employees were previously employed at other orthopedic companies, including our competitors and potential competitors. Many of our distributors and potential distributors sell, or in the past have sold, products of our competitors. We may be subject to claims that either we, or these employees or distributors, have inadvertently or otherwise used or disclosed the trade secrets or other proprietary information of our competitors. In addition, we have been and may in the future be subject to claims that we caused an employee or sales agent to break the terms of his or her non-competition agreement 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 be a distraction to management. If we fail in defending such claims, in addition to paying money damages, we may lose valuable intellectual property rights or personnel. A loss of key personnel or their work product could hamper or prevent our ability to commercialize products, which could have an adverse effect on our business, financial condition and results of operations.

If our silicon nitride products or our product candidates conflict with the rights of others, we may not be able to manufacture or market our products or product candidates, which could have a material and adverse effect on us.

Our commercial success will depend in part on not infringing the patents or violating the other proprietary rights of third parties. Issued patents held by others may limit our ability to develop commercial products. All issued patents are entitled to a presumption of validity under the laws of the United States. If we need suitable licenses to such patents to permit us to develop or market our product candidates, we may be required to pay significant fees or royalties and we cannot be certain that we would even be able to obtain such licenses. Competitors or third parties may obtain patents that may cover subject matter we use in developing the technology required to bring our products to market, that we use in producing our products, or that we use in treating patients with our products. We know that others have filed patent applications in various jurisdictions that relate to several areas in which we are developing products. Some of these patent applications have already resulted in patents and some are still pending. If we were found to infringe any of these issued patents or any of the pending patent applications, when and if issued, we may be required to alter our processes or product candidates, pay licensing fees or cease activities. If use of technology incorporated into or used to produce our product candidates is challenged, or if our processes or product candidates conflict with patent rights of others, third parties could bring legal actions against us, in Europe, the United States and elsewhere, claiming damages and seeking to enjoin manufacturing and marketing of the affected products. Additionally, it is not possible to predict with certainty what patent claims may issue from pending applications. In the United States, for example, patent prosecution can proceed in secret prior to issuance of a patent, provided such application is not filed in foreign jurisdiction. For U.S. patent applications that are also filed in foreign jurisdictions, such patent applications will not publish until 18 months from the filing date of the application. As a result, third parties may be able to obtain patents with claims relating to our product candidates which they could attempt to assert against us. Further, as we develop our products, third parties may assert that we infringe the patents currently held or licensed by them, and we cannot predict the outcome of any such action.

There has been extensive litigation in the medical devices industry over patents and other proprietary rights. If we become involved in any litigation, it could consume a substantial portion of our resources, regardless of the outcome of the litigation. If these legal actions are successful, in addition to any potential liability for damages, we could be required to obtain a license, grant cross-licenses and pay substantial royalties in order to continue to manufacture or market the affected products.

We cannot assure you that we would prevail in any legal action or that any license required under a third party patent would be made available on acceptable terms, or at all. Ultimately, we could be prevented from commercializing a product, or forced to cease some aspect of our business operations, as a result of claims of patent infringement or violation of other intellectual property rights, which could have a material and adverse effect on our business, financial condition and results of operations.

Risks Related to Potential Litigation from Operating Our Business

We may become subject to potential product liability claims, and we may be required to pay damages that exceed our insurance coverage.

Our business exposes us to potential product liability claims that are inherent in the design, testing, manufacture, sale and distribution of our currently marketed products and each of our product candidates that we are seeking to introduce to the market. The use of orthopedic medical devices can involve significant risks of serious complications, including bleeding, nerve injury, paralysis, infection, and even death. Any product liability claim brought against us, with or without merit, could result in the increase of our product liability insurance rates or in our inability to secure coverage in the future on commercially reasonable terms, if at all. In addition, if our product liability insurance proves to be inadequate to pay a damage award, we may have to pay the excess of this award out of our cash reserves, which could significantly harm our financial condition. If longer-term patient results and experience indicate that our products or any component of a product causes tissue damage, motor impairment or other adverse effects, we could be subject to significant liability. A product liability claim, even one without merit, could harm our reputation in the industry, lead to significant legal fees, and result in the diversion of management's attention from managing our business.

Any claims relating to our improper handling, storage or disposal of biological or hazardous materials could be time consuming and costly.

Although we do not believe that the manufacture of our silicon nitride or non-silicon nitride products will involve the use of hazardous materials, it is possible that regulatory authorities may disagree or that changes to our manufacturing processes may result in such use. Our business and facilities and those of our suppliers and future suppliers may therefore be subject to foreign, federal, state and local laws and regulations governing the use, manufacture, storage, handling and disposal of hazardous materials and waste products. We may incur significant expenses in the future relating to any failure to comply with environmental laws. Any such future expenses or liability could have a significant negative impact on our business, financial condition and results of operations.

Risks Related to Our Common Stock

The price of our common stock is volatile and is likely to continue to fluctuate due to reasons beyond our control.

The volatility of orthopedic company stocks, including shares of our common stock, often do not correlate to the operating performance of the companies represented by such stocks or our operating performance. Some of the factors that may cause the market price of our common stock to fluctuate include:

- our ability to sell our current products and the cost of revenue;
- our ability to develop, obtain regulatory clearances or approvals for, and market new and enhanced product candidates on a timely basis;
- our ability to enter into OEM and private label partnership agreements and the terms of those agreements;
- changes in governmental regulations or in the status of our regulatory approvals, clearances or future applications;
- our announcements or our competitors' announcements regarding new products, product enhancements, significant contracts, number and productivity of distributors, number of hospitals and surgeons using products, acquisitions or strategic investments;
- announcements of technological or medical innovations for the treatment of orthopedic pathology;
- delays or other problems with the manufacturing of our products, product candidates and related instrumentation;
- volume and timing of orders for our products and our product candidates, if and when commercialized;

changes in the availability of third-party reimbursement in the United States and other countries;

quarterly variations in our or our competitors' results of operations;

changes in earnings estimates or recommendations by securities analysts, if any, who cover our common stock;

failure to meet estimates or recommendations by securities analysts, if any, who cover our stock;

changes in the fair value of our derivative liabilities resulting from changes in the market price of our common stock, which may result in significant fluctuations in our quarterly and annual operating results;

changes in healthcare policy in the United States and internationally;

product liability claims or other litigation involving us;

sales of a substantial aggregate number of shares of our common stock;

sales of large blocks of our common stock, including sales by our executive officers, directors and significant stockholders;

disputes or other developments with respect to intellectual property rights;

changes in accounting principles;

changes to tax policy; and

general market conditions and other factors, including factors unrelated to our operating performance or the operating performance of our competitors.

These and other external factors may cause the market price and demand for our common stock to fluctuate substantially, which may limit or prevent our stockholders from readily selling their shares of common stock and may otherwise negatively affect the liquidity of our common stock. In addition, in the past, when the market price of a stock has been volatile, holders of that stock have sometimes instituted securities class action litigation against the company that issued the stock. If our stockholders brought a lawsuit against us, we could incur substantial costs defending the lawsuit regardless of the merits of the case or the eventual outcome. Such a lawsuit also would divert the time and attention of our management from running our company.

Securities analysts may not continue to provide coverage of our common stock or may issue negative reports, which may have a negative impact on the market price of our common stock.

Since completing our initial public offering of shares of our common stock in February 2014, a limited number of securities analysts have begun providing research coverage of our common stock. If securities analysts do not continue to cover our common stock, the lack of research coverage may cause the market price of our common stock to decline. The trading market for our common stock may be affected in part by the research and reports that industry or financial analysts publish about our business. If one or more of the analysts who elect to cover us downgrade our stock, our stock price would likely decline rapidly. If one or more of these analysts cease coverage of us, we could lose visibility in the market, which in turn could cause our stock price to decline. In addition, under the Sarbanes-Oxley Act of 2002, or the Sarbanes-Oxley Act, and a global settlement among the Securities and Exchange Commission, or the SEC, other regulatory agencies and a number of investment banks, which was reached in 2003, many investment banking firms are required to contract with independent financial analysts for their stock research. It may be difficult for a company such as ours, with a smaller market capitalization, to attract independent financial analysts that will cover our common stock. This could have a negative effect on the market price of our stock.

Anti-takeover provisions in our organizational documents and Delaware law may discourage or prevent a change in control, even if an acquisition would be beneficial to our stockholders, which could affect our stock price adversely and prevent attempts by our stockholders to replace or remove our current management.

Our restated certificate of incorporation and restated bylaws contain provisions that could discourage, delay or prevent a merger, acquisition or other change in control of our company or changes in our board of directors that our stockholders might consider favorable, including transactions in which you might receive a premium for your shares. These provisions also could limit the price that investors might be willing to pay in the future for shares of our common stock, thereby depressing the market price of our common stock. Stockholders who wish to participate in these transactions may not have the opportunity to do so. Furthermore, these provisions could prevent or frustrate attempts by our stockholders to replace or remove management. These provisions:

- allow the authorized number of directors to be changed only by resolution of our board of directors;

provide for a classified board of directors, such that not all members of our board will be elected at one time;

prohibit our stockholders from filling board vacancies, limit who may call stockholder meetings, and prohibit the taking of stockholder action by written consent;

prohibit our stockholders from making certain changes to our restated certificate of incorporation or restated bylaws except with the approval of holders of 75% of the outstanding shares of our capital stock entitled to vote;

require advance written notice of stockholder proposals that can be acted upon at stockholders meetings and of director nominations to our board of directors; and

authorize our board of directors to create and issue, without prior stockholder approval, preferred stock that may have rights senior to those of our common stock and that, if issued, could operate as a “poison pill” to dilute the stock ownership of a potential hostile acquirer to prevent an acquisition that is not approved by our board of directors.

In addition, we are subject to the provisions of Section 203 of the Delaware General Corporation Law, which may prohibit certain business combinations with stockholders owning 15% or more of our outstanding voting stock. Any delay or prevention of a change in control transaction or changes in our board of directors could cause the market price of our common stock to decline.

We do not intend to pay cash dividends.

We have never declared or paid cash dividends on our capital stock and we do not anticipate paying any cash dividends in the foreseeable future. We currently intend to retain all available funds and any future earnings for debt service and use in the operation and expansion of our business. The Loan and Security Agreement contains a negative covenant which prohibits us from paying dividends to our stockholders without the prior written consent of Hercules Technology. In addition, the terms of any future debt or credit facility may preclude us from paying any dividends.

Risks Related to Public Companies

We are an "emerging growth company" as defined in the Jumpstart Our Business Startups Act of 2012 and a "smaller reporting company" and the reduced disclosure requirements applicable to emerging growth companies and smaller reporting companies may make our common stock less attractive to investors.

We are an "emerging growth company," as defined in the Jumpstart Our Business Startups Act of 2012, or the JOBS Act. For as long as we continue to be an emerging growth company, we may take advantage of exemptions from various reporting requirements that are applicable to other public companies that are not emerging growth companies, including (1) not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act, (2) reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements and (3) exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved. Additionally, under the JOBS Act, emerging growth companies can also delay adopting new or revised accounting standards until such time as those standards apply to private companies. We are electing to delay such adoption of new or revised accounting standards on the relevant dates on which adoption of such standards is required for non-emerging growth companies. As a result of this election, our financial statements may not be comparable to the financial statements of other public companies.

We may take advantage of these exemptions until we are no longer an emerging growth company. Under the JOBS Act, we may be able to maintain emerging growth company status for up to five years, although circumstances could cause us to lose that status earlier, including if the market value of our common stock held by non-affiliates exceeds $700 million as of any June 30 before the end of such five-year period or if we have total annual gross revenue of $1.0

billion or more during any fiscal year before that time, in which cases we would no longer be an emerging growth company as of the following December 31. Additionally, if we issue more than $1.0 billion in non-convertible debt during any three-year period before that time, we would cease to be an emerging growth company immediately.

We are also currently a “smaller reporting company” as defined in the Securities Exchange Act of 1934, and in the event that we are still considered a smaller reporting company at such time as we cease being an emerging growth company, we will be required to provide additional disclosure in our SEC filings. However, similar to emerging growth companies, smaller reporting companies are able to provide simplified executive compensation disclosures in their filings, are exempt from the provisions of Section 404(b) of the Sarbanes-Oxley Act requiring that independent registered public accounting firms provide an attestation report on the effectiveness of internal control over financial reporting, and have certain other decreased disclosure obligations in their SEC filings, including, among other things, only being required to provide two years of audited financial statements in annual reports. We cannot predict whether investors will find our common stock less attractive because of our reliance on any of these exemptions. If some investors find our common stock less attractive as a result, there may be a less active trading market for our common stock and our stock price may be more volatile.

Our common stock may be subject to delisting from The NASDAQ Stock Market because the bid price of our common stock price dropped below $1.00 for a period of 30 consecutive business days.

On August 17, 2016, since the bid price of our common stock closed below the required minimum $1.00 per share for 30 consecutive business days, NASDAQ notified us that our common stock may be subject to delisting. We were provided a grace period of 180-calendar days, or until February 13, 2017, to regain compliance with the minimum bid price requirement. If at any time during the 180-day grace period, the minimum closing bid price per share of our common stock closes at or above $1.00 for a minimum of ten consecutive business days, we will regain compliance and the matter will be closed. In the event the Company does not regain compliance with Rule 5550(a)(2) within this compliance period, it may be eligible for additional time to regain compliance and it will likely seek additional time to regain compliance. To qualify for the additional time, the Company will be required to meet the continued listing requirement for market value of publicly held shares and all other initial listing standards, with the exception of the minimum bid price requirement, and will need to provide written notice of its intention to cure the deficiency during the second compliance period by effecting a reverse stock split, if necessary. If the Nasdaq staff concludes that the Company will not be able to cure the deficiency, or if the Company determines not to submit the required materials or make the required representations, the Company’s common stock will be subject to delisting by NASDAQ. If our common stock is delisted, it would adversely impact liquidity of our common stock and potentially result in lower bid prices for our common stock. There is no guarantee that our stock price will remain above $1.00 per share or that it would recover after falling below that price.

We incur substantial costs as a result of being a public company and our management expects to devote substantial time to public company compliance programs.

As a public company, we incur significant legal, insurance, accounting and other expenses, including costs associated with public company reporting. We intend to invest resources to comply with evolving laws, regulations and standards, and this investment will result in increased general and administrative expenses and may divert management’s time and attention from product development and commercialization activities. If our efforts to comply with new laws, regulations and standards differ from the activities intended by regulatory or governing bodies due to

ambiguities related to practice, regulatory authorities may initiate legal proceedings against us, and our business may be harmed. These laws and regulations could make it more difficult and costly for us to obtain director and officer liability insurance for our directors and officers, and we may be required to accept reduced coverage or incur substantially higher costs to obtain coverage. These factors could also make it more difficult for us to attract and retain qualified executive officers and qualified members of our board of directors, particularly to serve on our audit and compensation committees. In addition, if we are unable to continue to meet the legal, regulatory and other requirements related to being a public company, we may not be able to maintain the listing of our common stock on The NASDAQ Capital Market, which would likely have a material adverse effect on the trading price of our common stock.

USE OF PROCEEDS

We estimate that the net proceeds from the sale of the Common Stock and Warrants we are offering pursuant to this prospectus supplement will be approximately $3.7 million, assuming that we sell all of the securities we are offering, after deducting the underwriter's fees and estimated offering expenses payable by us.

We intend to use the net proceeds from this offering to (1) remain in compliance with the financial covenants under the Loan and Security Agreement (as described in this prospectus); (2) support working capital needs and other general corporate purposes; (3) fund research and development and commercialization activities of our product candidates, including the funding of clinical trials we plan to conduct for our product candidates; and (4) continue to build sales, marketing and distribution capabilities for our silicon nitride technology platform and other products, including the costs of inventory and instruments.

We cannot specify with certainty all of the particular uses for the net proceeds to be received upon the completion of the offering. The amount and timing of our actual expenditures may vary significantly depending upon numerous factors, including the impact of any debt amendments, the ultimate resolution of our FDA submissions for clearances or approvals of our product candidates, the specific clinical trial requirements imposed for market approval of our product candidates, our revenues, operating costs and capital expenditures and other factors described under "Risk Factors." We may find it necessary or advisable to use the net proceeds for other purposes, and our management will retain broad discretion in the allocation of the net proceeds from this offering.

Pending use of our net proceeds from this offering, we may invest the proceeds in a variety of capital preservation investments, including investment-grade, interest-bearing instruments. We cannot predict whether the net proceeds will yield a favorable return.

DILUTION

Our net tangible book value as of September 30, 2016, was approximately $7.85 million, or approximately $0.30 per share. Net tangible book value per share is equal to the amount of our total tangible assets, less total liabilities, divided by the aggregate number of shares of our Common Stock outstanding as of September 30, 2016. Dilution in net tangible book value per share represents the difference between the amount per common share paid by purchasers in this public offering and the net tangible book value per share of our Common Stock immediately after this offering. After giving effect to the sale of 8,900,000 shares of Common Stock in this offering at the public offering price of $0.51 per common share (other than additional shares of Common Stock or additional Warrants sold pursuant to the underwriter's over-allotment option), and after deducting the underwriter's fees and estimated offering expenses payable by us, our as adjusted net tangible book value as of September 30, 2016 would have been approximately $11,547,650, or approximately $0.33 per share. This represents an immediate dilution of $0.18 per share to new investors purchasing shares of Common Stock in this offering. The following table illustrates this dilution.

Public offering price per share		$0.51
Net tangible book value per share as of September 30, 2016	$0.30	
Increase in net tangible book value per share attributable to new investors in this offering	$0.03	
As adjusted net tangible book value per share after giving effect to this offering		$0.33
Dilution per share to investors in this offering		$0.18

This information is based on 26,402,501 shares of Common Stock outstanding as of September 30, 2016 and excludes:

138,025 shares of Common Stock issuable upon the exercise of outstanding options to purchase Common Stock under the 2012 Employee, Director and Consultant Equity Incentive Plan, as amended (the "2012 Plan"), at a weighted-average exercise price of $32.29 per share;

13,427,259 shares of Common Stock issuable upon the exercise of warrants for shares of our Common Stock outstanding, at a weighted-average exercise price of $1.57 per share;

38,139 shares of Common Stock issuable upon the exercise of a unit option at an exercise price of $21.38, which could be converted into 38,139 shares and warrants exercisable for 38,139 shares of common stock at an exercise price of $22.20 per share;

4,005,000 shares of Common Stock initially issuable upon the exercise of the Warrants to be issued pursuant to this prospectus supplement; and

902,254 additional shares of Common Stock reserved for issuance under the 2012 Plan.

To the extent these outstanding options or warrants are exercised and the convertible notes are converted, there will be further dilution to the new investors.

Furthermore, we may need to obtain additional capital which may be through the sale of equity or convertible debt securities to fund our current and future operating plans. To the extent we issue additional shares of Common Stock or other equity or convertible debt securities in the future, there will be further dilution to investors participating in this offering.

DESCRIPTION OF SECURITIES WE ARE OFFERING

Common Stock

A description of the Common Stock we are offering pursuant to this prospectus supplement is set forth under the heading "Description of Capital Stock—Common Stock" beginning on page 7 of the accompanying prospectus. As of January 13, 2017, we had 27,364,881 shares of Common Stock outstanding.

Warrants

The material terms and provisions of the Warrants being offered pursuant to this prospectus are summarized below. This summary of some provisions of the Warrants is not complete. For the complete terms of the Warrants, you should refer to the form of Warrant filed as an exhibit to the registration statement of which this prospectus is a part.

Pursuant to a warrant agency agreement between us and American Stock Transfer & Trust Company, LLC, as warrant agent, the warrants will be issued in book-entry form and shall initially be represented only by one or more global warrants deposited with the warrant agent, as custodian on behalf of The Depository Trust Company, or DTC, and registered in the name of Cede & Co., a nominee of DTC, or as otherwise directed by DTC.

Each whole Warrant is exercisable to purchase one share of our Common Stock at an exercise price of $0.55 per share at any time for up to five years after the date of the closing of this offering. The Warrants issued in this offering will be governed by the terms of a global warrant held in book-entry form. The holder of a Warrant will not be deemed a holder of our underlying Common Stock until the Warrant is exercised, except as set forth in the Warrant.

Subject to limited exceptions, a holder of Warrants will not have the right to exercise any portion of its Warrants if the holder (together with such holder's affiliates, and any persons acting as a group together with such holder or any of such holder's affiliates) would beneficially own a number of shares of our Common Stock in excess of 4.99% (or, at the election of the holder, 9.99%) of the shares of our Common Stock then outstanding after giving effect to such exercise (the "Beneficial Ownership Limitation"); provided, however, that upon notice to the Company, the holder may increase or decrease the Beneficial Ownership Limitation, provided that in no event shall the Beneficial Ownership Limitation exceed 9.99% and any increase in the Beneficial Ownership Limitation will not be effective until 61 days following notice of such increase from the holder to us.

The exercise price and the number of shares issuable upon exercise of the Warrants is subject to appropriate adjustment in the event of recapitalization events, stock dividends, stock splits, stock combinations, reclassifications, reorganizations or similar events affecting our Common Stock. The holders of Warrants must pay the exercise price in cash upon exercise of the Warrants, unless such holders are utilizing the cashless exercise provision of the Warrants, which is only available in certain circumstances such as if the underlying shares are not registered with the SEC pursuant to an effective registration statement. We intend to use commercially reasonable efforts to have the registration statement of which this prospectus forms a part, effective when the Warrants are exercised.

In addition, in the event we consummate a merger or consolidation with or into another person or other reorganization event in which our common shares are converted or exchanged for securities, cash or other property, or we sell, lease, license, assign, transfer, convey or otherwise dispose of all or substantially all of our assets or we or another person acquire 50% or more of the outstanding shares of our Common Stock, then following such event, the holders of the Warrants will be entitled to receive upon exercise of the Warrants the same kind and amount of securities, cash or property which the holders would have received had they exercised the Warrants immediately prior to such fundamental transaction. Any successor to us or surviving entity shall assume the obligations under the Warrants.

In the event of a fundamental transaction other than one in which a successor entity that is a publicly traded corporation whose stock is quoted or listed on a trading market assumes the Warrant such that the Warrant shall be exercisable for the publicly traded common stock of such successor entity, then the Company or any successor entity will pay at the holder's option, exercisable at any time concurrently with or within 30 days after the consummation of the fundamental transaction, an amount of cash equal to the value of the remaining unexercised portion of the Warrants on the date of consummation of the fundamental transaction as determined in accordance with the Black Scholes option pricing model.

Upon the holder's exercise of a Warrant, we will issue the shares of our Common Stock issuable upon exercise of the Warrant within three trading days following our receipt of a notice of exercise, provided that payment of the exercise price has been made (unless exercised via the "cashless" exercise provision).

Prior to the exercise of a Warrant, holders of the Warrants will not have any of the rights of holders of our Common Stock purchasable upon exercise, including the right to vote, except as set forth therein.

Holders of Warrants may exercise the Warrants only if the issuance of the shares of our Common Stock upon exercise of the Warrants is covered by an effective registration statement, or an exemption from registration is available under the Securities Act and the securities laws of the state in which the holder resides. We intend to use commercially reasonable efforts to have the registration statement of which this prospectus forms a part effective when the Warrants are exercised. The holders of Warrants must pay the exercise price in cash upon exercise of the Warrants unless there is not an effective registration statement or, if required, there is not an effective state law registration or exemption covering the issuance of the shares of our Common Stock underlying the Warrants (in which case, the Warrants may only be exercised via a "cashless" exercise provision).

The Warrants are callable by us in certain circumstances. Subject to certain exceptions, in the event that the Warrants are outstanding and following the two-year anniversary of the closing date, (i) the volume weighted average price of our Common Stock for each of 30 consecutive trading days (the "Measurement Period") exceeds 300% of the initial Exercise Price (subject to adjustment for forward and reverse stock splits, recapitalizations, stock dividends and similar transactions), (ii) the average daily trading volume for such Measurement Period exceeds $350,000 per trading day and (iii) the holder is not in possession of any information that constitutes or might constitute, material non-public information which was provided by the Company, then we may, within one trading day of the end of such Measurement Period, upon notice (a "Call Notice"), call for cancellation of all or any portion of the Warrants for which a notice of exercise has not yet been delivered (a "Call") for consideration equal to $0.01 per share. Any portion of a Warrant subject to such Call Notice for which a notice of exercise shall not have been received by the Call Date (as hereinafter defined) will be canceled at 6:30 p.m. (New York City time) on the tenth trading day after the date the Call Notice is sent by the Company (such date and time, the "Call Date"). Our right to call the Warrants shall be exercised ratably among the holders based on the outstanding Warrants.

We do not intend to apply for listing of the Warrants on any securities exchange or other trading system.

UNDERWRITING

We are offering the shares of Common Stock and Warrants described in this prospectus supplement through Maxim Group LLC ("Maxim") as representatives of the underwriters. We have agreed to sell to the underwriters, and the underwriters have agreed to purchase from us, the number of shares of our Common Stock and Warrants listed next to its name in the following table:

Underwriter	Shares of Common Stock	Warrants
Maxim Group LLC	8,900,000	4,005,000
Total	8,900,000	4,005,000

A copy of the underwriting agreement will be filed as an exhibit to the registration statement of which this prospectus is part.

We have been advised by the underwriters that they propose to offer the shares of Common Stock and Warrants directly to the public at the public offering price set forth on the cover page of this prospectus. Any securities sold by the underwriters to securities dealers will be sold at the public offering price less a selling concession not in excess of $0.0357 per share of Common Stock and 0.45 Warrants.

The underwriting agreement provides that the underwriters' obligation to purchase the securities we are offering is subject to conditions contained in the underwriting agreement.

No action has been taken by us or the underwriters that would permit a public offering of the shares of Common Stock and Warrants in any jurisdiction outside the United States where action for that purpose is required. None of the shares of Common Stock or Warrants included in this offering may be offered or sold, directly or indirectly, nor may this prospectus or any other offering material or advertisements in connection with the offer and sales of any of the securities offering hereby 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 who receive this prospectus are advised to inform themselves about and to observe any restrictions relating to this offering of securities and the distribution of this prospectus. This prospectus is neither an offer to sell nor a solicitation of any offer to buy the securities in any jurisdiction where that would not be permitted or legal.

The underwriters have advised us that they do not intend to confirm sales to any account over which they exercise discretionary authority.

Underwriting Discount and Expenses

The following table summarizes the underwriting discount and commission to be paid to the underwriters by us.

	Per Share and 0.45 Warrant	Total
Public offering price	$0.51	$4,539,000
Underwriting discount to be paid to the underwriters by us (7%)(1)(2)	$0.0357	$317,730
Proceeds to us (before expenses)	$0.4743	$4,221,270

(1) This does not include any other fees that may be payable to other investment banks or broker dealers in the amount of up to 8% of the cash gross proceeds of the offering and Warrants of up to 2% of the number of shares of Common Stock offered hereby.

(2) We have granted a 45-day option to the underwriter to purchase up to 15% of the shares of Common Stock plus up to 15% of the Warrants (provided that in no event may the aggregate market value of securities sold in the offering, including from the over-allotment option, exceed the limitations set forth in Rule I.B.6 of Form S-3), solely to cover over-allotments, if any.

We estimate the total expenses payable by us for this offering to be approximately $841,350 which amount includes (i) the underwriting discount of $317,730 ($346,325.70 if the underwriters' over-allotment option is exercised in full) and (ii) reimbursement of the accountable expenses of the representative equal to $100,000 including the legal fees of the representative being paid by us and (iii) other estimated company expenses of approximately $523,620 which includes potential fees payable to other investment banks, legal, accounting, printing costs and various fees associated with the registration and listing of our shares of Common Stock.

The securities we are offering are being offered by the underwriters subject to certain conditions specified in the underwriting agreement.

Right of First Refusal

Subject to certain exceptions, we have granted Maxim a right of first refusal pursuant to which Maxim will have the right to participate in any future public or private financings we complete during the next 12 months. Maxim will be entitled to at least 33.3% of the economics of such future financings.

Over-allotment Option

We have granted to the underwriters an option exercisable not later than 45 days after the date of this prospectus to purchase up to a number of additional shares of our Common Stock equal to 15% of the number of shares of Common Stock sold in this offering (excluding any shares of Common Stock underlying the Warrants issued in this offering and any shares of Common Stock issued upon any exercise of the underwriter's over-allotment option) and/or 15% of the Warrants sold in this offering at the public offering price per share of Common Stock and the public offering price per Warrant set forth on the cover page hereto less the underwriting discounts and commissions; provided that in no event may the aggregate market value of securities sold in the offering, including from the over-allotment option, exceed the limitations set forth in Rule I.B.6 of Form S-3. Accordingly, in no event shall this amount exceed, in the aggregate, up to 801,000 shares of Common Stock and Warrants to purchase up to 360,450 shares of Common Stock. The underwriters may exercise the option solely to cover over-allotments, if any, made in connection with this offering. If any additional shares of Common Stock are offered, the underwriters will offer these shares of Common Stock on the same terms as those on which the other securities are being offered.

Determination of Offering Price

Our Common Stock is currently traded on the Nasdaq Capital Market under the symbol "AMDA." On January 18, 2017 the closing price of our Common Stock was $0.633 per share.

The public offering price of the securities offered by this prospectus will be determined by negotiation between us and the underwriters. Among the factors considered in determining the public offering price of the shares were:

our history and our prospects;

the industry in which we operate;

our past and present operating results;

the previous experience of our executive officers; and

the general condition of the securities markets at the time of this offering.

The offering price stated on the cover page of this prospectus should not be considered an indication of the actual value of the shares of Common Stock and Warrants sold in this offering. That price is subject to change as a result of market conditions and other factors and we cannot assure you that the shares of our Common Stock and Warrants sold in this offering can be resold at or above the public offering price.

Transfer Agent and Registrar

The transfer agent and registrar for our Common Stock is American Stock Transfer and Trust Company. The transfer agent and the registrar's address is 10150 Mallard Creek Road, Suite 307, Charlotte, NC 28262.

Stabilization, Short Positions and Penalty Bids

The underwriters may engage in syndicate covering transactions stabilizing transactions and penalty bids or purchases for the purpose of pegging, fixing or maintaining the price of our common stock;

Syndicate covering transactions involve purchases of securities in the open market after the distribution has been completed in order to cover syndicate short positions. Such a naked short position would be closed out by buying securities in the open market. A naked short position is more likely to be created if the underwriters are concerned that there could be downward pressure on the price of the securities in the open market after pricing that could adversely affect investors who purchase in the offering.

Stabilizing transactions permit bids to purchase the underlying security so long as the stabilizing bids do not exceed a specific maximum.

Penalty bids permit the underwriters to reclaim a selling concession from a syndicate member when the securities originally sold by the syndicate member are purchased in a stabilizing or syndicate covering transaction to cover syndicate short positions.

These syndicate covering transactions, stabilizing transactions, and penalty bids may have the effect of raising or maintaining the market prices of our securities or preventing or retarding a decline in the market prices of our securities. As a result the price of our common stock may be higher than the price that might otherwise exist in the open market. Neither we nor the underwriters make any representation or prediction as to the effect that the transactions described above may have on the price of our common stock. These transactions may be effected on The Nasdaq Capital Market, in the over-the-counter market or on any other trading market and, if commenced, may be discontinued at any time.

In connection with this offering, the underwriters also may engage in passive market making transactions in our common stock in accordance with Regulation M during a period before the commencement of offers or sales of shares of our common stock in this offering and extending through the completion of the distribution. In general, a passive market maker must display its bid at a price not in excess of the highest independent bid for that security. However, if all independent bids are lowered below the passive market maker's bid that bid must then be lowered when specific purchase limits are exceeded. Passive market making may stabilize the market price of the securities at a level above that which might otherwise prevail in the open market and, if commenced, may be discontinued at any time.

Neither we, nor the underwriters make any representation or prediction as to the direction or magnitude of any effect that the transactions described above may have on the prices of our securities. In addition, neither we nor the underwriters make any representation that the underwriters will engage in these transactions or that any transactions, once commenced will not be discontinued without notice.

Indemnification

We have agreed to indemnify the underwriters against certain liabilities, including certain liabilities arising under the Securities Act or to contribute to payments that the underwriters may be required to make for these liabilities.

WHERE YOU CAN FIND MORE INFORMATION

We are a reporting company and file annual, quarterly and current reports, proxy statements and other information with the SEC. We have filed with the SEC a registration statement on Form S-3 under the Securities Act with respect to the securities we are offering under this prospectus. This prospectus does not contain all of the information set forth in the registration statement and the exhibits to the registration statement. For further information with respect to us and the securities we are offering under this prospectus, we refer you to the registration statement and the exhibits and schedules filed as a part of the registration statement. You may read and copy the registration statement, as well as our reports, proxy statements and other information, at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. You can request copies of these documents by writing to the SEC and paying a fee for the copying cost. Please call the SEC at 1-800-SEC-0330 for more information about the operation of the Public Reference Room. The SEC maintains an internet site that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC, where our SEC filings are also available. The address of the SEC's web site is "http://www.sec.gov." We maintain a website at www.amedicacorp.com. Information contained in or accessible through our website does not constitute a part of this prospectus.

We have filed a registration statement, of which this prospectus supplement and the accompanying prospectus are a part, covering the securities offered hereby. As allowed by SEC rules, this prospectus supplement and the accompanying prospectus do not contain all of the information set forth in the registration statement and the exhibits, financial statements and schedules thereto. We refer you to the registration statement, filed with the SEC on July 8, 2015, the exhibits, financial statements and schedules thereto for further information. This prospectus supplement and the accompanying prospectus are qualified in their entirety by such other information.

INCORPORATION OF DOCUMENTS BY REFERENCE

The SEC allows us to "incorporate by reference" information that we file with it into this prospectus supplement, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is an important part of this prospectus supplement. The information incorporated by reference is considered to be a part of this prospectus supplement, and information that we file later with the Commission will automatically update and supersede information contained in this prospectus supplement. We incorporate by reference the documents listed below that we have previously filed with the Commission (excluding information deemed furnished and not filed):

- our Annual Report on Form 10-K for the fiscal year ended December 31, 2015 filed on March 23, 2016;
- our Definitive Proxy Statement on Schedule 14A for our annual meeting of stockholders, filed with the SEC on April 12, 2016;

our Quarterly Report on Form 10-Q for the quarter ended March 31, 2016 filed on May 13, 2016;

our Quarterly Report on Form 10-Q for the quarter ended June 30, 2016 filed on August 12, 2016;

our Quarterly Report on Form 10-Q for the quarter ended September 30, 2016 filed on November 14, 2016;

our Current Reports on Form 8-K filed on January 7, 2016, January 22, 2016, January 25, 2016, January 28, 2016, February 9, 2016, February 23, 2016, March 23, 2016, April 5, 2016, April 18, 2016, April 28, 2016, May 3, 2016, May 27, 2016, June 13, 2016, July 5, 2016, July 22, 2016, August 19, 2016, August 24, 2016, October 5, 2016, November 22, 2016, December 19, 2016, January 18, 2017, and January 20, 2017; and

the description of our common stock contained in our Registration Statement on Form 8-A filed on February 7, 2014, including any amendment or report filed for the purpose of updating such description.

We also incorporate by reference into this prospectus supplement additional documents that we may file with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act, excluding, in each case, information deemed furnished and not filed until we sell all of the securities we are offering or the termination of the offering. Any statements contained in a previously filed document incorporated by reference into this prospectus supplement is deemed to be modified or superseded for purposes of this prospectus supplement to the extent that a statement contained in this prospectus supplement, or in a subsequently filed document also incorporated by reference herein, modifies or supersedes that statement.

We will provide to each person, including any beneficial owner, to whom a prospectus is delivered, without charge upon written or oral request, a copy of any or all of the information that has been incorporated by reference into this prospectus supplement and accompanying prospectus but not delivered with the prospectus supplement, including exhibits that are specifically incorporated by reference into such documents. Requests should be directed to: Amedica Corporation, Attention: Investor Relations, 1885 West 2100 South, Salt Lake City, Utah 84119 and our telephone number is (801) 839-3500.

LEGAL MATTERS

The validity of the issuance of the securities offered by us in this offering will be passed upon for us by Dorsey & Whitney LLP, Salt Lake City, Utah. Ellenoff Grossman & Schole LLP, New York, New York is acting as counsel for the underwriter in connection with certain legal matters in connection with this offering.

EXPERTS

The consolidated financial statements of Amedica Corporation as of December 31, 2015 and December 31, 2014, and for the years then ended appearing in Amedica Corporation’s Annual Report (Form 10-K) for the year ended December 31, 2015 have been audited by Mantyla McReynolds, LLC, independent registered public accounting firm, as set forth in their report thereon (which contains an explanatory paragraph describing conditions that raise substantial doubt about the Company’s ability to continue as a going concern as described in Note 1 to the consolidated financial statements), included therein, and incorporated herein by reference. Such consolidated financial statements are incorporated herein by reference in reliance upon such report given on the authority of such firm as experts in accounting and auditing.

8,900,000 Shares of Common Stock

Warrants to Purchase 4,005,000 Shares of Common Stock

4,005,000 Shares of Common Stock Issuable upon Exercise of the Warrants

AMEDICA CORPORATION

PROSPECTUS SUPPLEMENT

MAXIM GROUP LLC

January 19, 2017

PROSPECTUS

AMEDICA CORPORATION

$35,000,000

Common Stock, Preferred Stock,

Warrants and Units

From time to time, we may offer and sell up to $35,000,000 of any combination of the securities described in this prospectus, either individually or in combination. We may also offer common stock upon conversion of preferred stock, or common stock, or preferred stock upon the exercise of warrants.

This prospectus provides a general description of the securities we may offer. Each time we sell securities, we will provide specific terms of the securities offered in a supplement to this prospectus. We may also authorize one or more free writing prospectuses to be provided to you in connection with these offerings. The prospectus supplement and any related free writing prospectus may also add, update or change information contained in this prospectus. You should carefully read this prospectus, the applicable prospectus supplement and any related free writing prospectus, as well as any documents incorporated by reference in this prospectus before you invest in any securities. This prospectus may not be used to consummate a sale of securities unless accompanied by the applicable prospectus supplement.

Our common stock is traded on The NASDAQ Capital Market under the symbol “AMDA.” As of June 30, 2015, the aggregate market value of our outstanding common stock held by non-affiliates, or the public float, was approximately $37.3 million, which was calculated based on 65,195,631 shares of outstanding common stock held by non-affiliates and on a price per share of $0.57, the closing price of our common stock on The NASDAQ Capital Market on June 30, 2015. We have not offered any securities pursuant to General Instruction I.B.6 of Form S-3 during the 12 calendar months prior to and including the date of this prospectus. Pursuant to General Instruction I.B.6 of Form S-3, in no event will we sell securities registered on this registration statement in a public primary offering with a value exceeding more than one-third of our public float (the market value of our common stock held by our non-affiliates) in any 12-month period so long as our public float remains below $75.0 million. As of June 30, 2015, one-third of our public float is equal to approximately $12.3 million.

INVESTING IN OUR SECURITIES INVOLVES RISKS. YOU SHOULD REVIEW CAREFULLY THE RISKS AND UNCERTAINTIES DESCRIBED UNDER THE HEADING "RISK FACTORS" ON PAGE 7 AND CONTAINED IN THE APPLICABLE PROSPECTUS SUPPLEMENT AND ANY RELATED FREE WRITING PROSPECTUS AND UNDER SIMILAR HEADINGS IN THE OTHER DOCUMENTS THAT ARE INCORPORATED BY REFERENCE INTO THIS PROSPECTUS.

The securities may be sold directly to investors, through agents designated from time to time or to or through underwriters or dealers. For additional information on the methods of sale, you should refer to the section entitled "Plan of Distribution" in this prospectus. If any underwriters or agents are involved in the sale of any securities with respect to which this prospectus is being delivered, the names of such underwriters or agents and any applicable commissions or discounts and over-allotment options will be set forth in a prospectus supplement. The price to the public of such securities and the net proceeds we expect to receive from such sale will also be set forth in a prospectus supplement.

NEITHER THE SECURITIES AND EXCHANGE COMMISSION NOR ANY STATE SECURITIES COMMISSION HAS APPROVED OR DISAPPROVED OF THESE SECURITIES OR DETERMINED IF THIS PROSPECTUS IS TRUTHFUL OR COMPLETE. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

The date of this prospectus is July 20, 2015

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ABOUT THIS PROSPECTUS

This prospectus is a part of a registration statement that we filed with the Securities and Exchange Commission, or SEC, utilizing a “shelf” registration process. Under this shelf registration process, we may sell any combination of the securities described in this prospectus in one or more offerings up to a total dollar amount of $35,000,000. This prospectus provides you with a general description of the securities we may offer. Each time we sell securities under this shelf registration, we will provide a prospectus supplement that will contain specific information about the terms of that offering. We may also authorize one or more free writing prospectuses to be provided to you that may contain material information relating to these offerings. The prospectus supplement and any related free writing prospectus that we may authorize to be provided to you may also add, update or change information contained in this prospectus or in any documents that we have incorporated by reference into this prospectus. You should read this prospectus, any applicable prospectus supplement and any related free writing prospectus, together with the information incorporated herein by reference as described under the heading “Incorporation by Reference.”

You should rely only on the information that we have provided or incorporated by reference in this prospectus, any applicable prospectus supplement and any related free writing prospectus that we may authorize to be provided to you. We have not authorized any dealer, salesman or other person to give any information or to make any representation other than those contained or incorporated by reference in this prospectus, any applicable prospectus supplement or any related free writing prospectus that we may authorize to be provided to you. You must not rely upon any information or representation not contained or incorporated by reference in this prospectus or the accompanying prospectus supplement. This prospectus and the accompanying supplement to this prospectus do not constitute an offer to sell or the solicitation of an offer to buy any securities other than the registered securities to which they relate, nor do this prospectus and the accompanying supplement to this prospectus constitute an offer to sell or the solicitation of an offer to buy securities in any jurisdiction to any person to whom it is unlawful to make such offer or solicitation in such jurisdiction. You should not assume that the information contained in this prospectus, any applicable prospectus supplement or any related free writing prospectus is accurate on any date subsequent to the date set forth on the front of the document or that any information we have incorporated by reference is correct on any date subsequent to the date of the document incorporated by reference, even though this prospectus, any applicable prospectus supplement or any related free writing prospectus is delivered or securities sold on a later date.

SUMMARY

Prospectus Summary

This summary highlights selected information from this prospectus and does not contain all of the information that you need to consider in making your investment decision. You should carefully read the entire prospectus, including the risks of investing discussed under “Risk Factors” beginning on page 7, the information incorporated by reference, including our financial statements, and the exhibits to the registration statement of which this prospectus is a part.

Throughout this prospectus, references to “Amedica,” the “Company,” “we,” “us,” and “our” refer to Amedica Corporation.

Our Company

We are a commercial biomaterial company focused on using our silicon nitride technology platform to develop, manufacture and sell a broad range of medical devices. We currently market spinal fusion products and are developing products for use in total hip and knee joint replacements. We believe our silicon nitride technology platform enables us to offer new and transformative products in the orthopedic and other medical device markets. We believe we are the first and only company to use silicon nitride in medical applications. Over 20,000 of our silicon nitride spine products have been implanted in patients.

Biomaterials come in a variety of synthetic or natural materials available in a variety of forms that are used in virtually every medical specialty. We believe our silicon nitride biomaterial has superior characteristics compared to commonly used biomaterials in the markets we are targeting, including polyetheretherketone, or PEEK, which is the most common biomaterial used for interbody spinal fusion products. Specifically, we believe our silicon nitride has the following key attributes: promotion of bone growth; hardness, strength and resistance to fracture; resistance to wear; non-corrosive; anti-infective properties; biocompatibility; and superior diagnostic imaging compatibility.

We currently market our Valeo® family of silicon nitride interbody spinal fusion devices in the United States and Europe for use in the cervical and thoracolumbar areas of the spine. We believe our Valeo devices have a number of advantages over existing products due to silicon nitride’s key characteristics, resulting in faster and more effective fusion and reduced risk of infection.

In addition to our silicon nitride-based spinal fusion products, we market a line of non-silicon nitride spinal fusion products which allows us to provide surgeons and hospitals with a broader range of products. These additional products are complementary to our fusion products and are designed for the treatment of deformity and degenerative spinal procedures. Although our non-silicon nitride products have accounted for approximately 56% and 43% of our product revenues for the quarters ended March 31, 2015 and 2014, respectively, we believe the continued promotion and potential for adoption of our silicon nitride products and product candidates, if approved, provides us the greatest opportunity to grow our business in new and existing markets and achieve our goal to become a leading biomaterial company.

In addition to the markets into which we directly sell our products, we are utilizing our silicon nitride technology platform to expand our current penetration in the spinal fusion market through original equipment manufacturer ("OEM") and private label partnerships. We also expect to do the same in other markets such as total hip and knee joint replacements, dental and sports medicine. We believe our biomaterial expertise, strong intellectual property and formulaic manufacturing process will allow us to transition currently available medical device products made of inferior biomaterials and manufacture them using silicon nitride and our technology platform to improve their characteristics.

We are also incorporating our silicon nitride technology into components for use in total hip and knee replacement product candidates that we plan on developing in collaboration with a strategic partner. We believe that our silicon nitride total hip and knee product candidates will provide competitive advantages over current products made with traditional biomaterials. We also believe our silicon nitride technology platform can be used for developing products in other markets and have developed prototypes for use in the dental, sports medicine and trauma markets. As a result of some of the key characteristics of our silicon nitride, we also believe our coating technology may be used to enhance our metal products as well as commercially available metal spinal fusion, joint replacement and other medical products.

We operate a 30,000 square foot manufacturing facility located at our corporate headquarters in Salt Lake City, Utah, and we are the only vertically integrated silicon nitride orthopedic medical device manufacturer in the world. We market and sell our products to surgeons and hospitals in the United States and select markets in Europe and South America through our established network of independent sales distributors who are managed by our experienced in-house sales and marketing management team. We have also started entering into OEM and private label relationships with third parties to further the commercialization of our silicon nitride technology platform beyond our own direct marketing and selling efforts.

Corporate Information

We were incorporated in Delaware in 1996 under the name Amedica Corp. and have since changed our name to Amedica Corporation. Effective September 20, 2010, we acquired all of the outstanding shares of US Spine, Inc., which then became our wholly-owned subsidiary, which is our only subsidiary. Our principal executive offices are located at 1885 West 2100 South, Salt Lake City, Utah 84119, and our telephone number is (801) 839-3500. Our web site address is www.amedicacorp.com. The information on, or that may be accessed through, our web site is not incorporated by reference into this prospectus and should not be considered a part of this prospectus.

Certain monetary amounts, percentages and other figures included in this prospectus have been subject to rounding adjustments. Accordingly, figures shown as totals in certain tables may not be the arithmetic aggregation of the figures that precede them, and figures expressed as percentages in the text may not total 100% or, as applicable, when aggregated may not be the arithmetic aggregation of the percentages that precede them.

“Amedica,” “CSC,” “MC2,” “Valeo” and “rethink what’s possible” are registered U.S. trademarks of Amedica Corporation. “U Spine” is a registered U.S. trademark of our subsidiary, US Spine, Inc. All other trademarks, trade names and service marks appearing in this prospectus are the property of their respective owners. Trademarks and trade names referred to in this prospectus, including logos, artwork and other visual displays, may appear without the ® or TM symbols for convenience. Such references are not intended to indicate, in any way, that we will not assert, to the fullest extent under applicable law, our rights or the rights of the applicable licensor to these trademarks and trade names. We do not intend our use or display of other companies’ trade names or trademarks to imply a relationship with, or endorsement or sponsorship of us by, any other companies.

The Securities We May Offer

We may offer shares of our common stock and preferred stock, and warrants to purchase any of such securities, either individually or in units, with a total value of up to $35,000,000 from time to time under this prospectus, together with any applicable prospectus supplement and related free writing prospectus, at prices and on terms to be determined by market conditions at the time of offering. This prospectus provides you with a general description of the securities we may offer. Each time we offer a type or series of securities, we will provide a prospectus supplement that will describe the specific amounts, prices and other important terms of the securities, including, to the extent applicable:

- designation or classification;
- aggregate principal amount or aggregate offering price;
- maturity, if applicable;
- original issue discount, if any;
- rates and times of payment of interest or dividends, if any;
- redemption, conversion, exchange or sinking fund terms, if any;
- conversion or exchange prices or rates, if any, and, if applicable, any provisions for changes to or adjustments in the conversion or exchange prices or rates and in the securities or other property receivable upon conversion or exchange;
- ranking;
- restrictive covenants, if any;
- voting or other rights, if any; and
- important United States federal income tax considerations.

A prospectus supplement and any related free writing prospectus that we may authorize to be provided to you may also add, update or change information contained in this prospectus or in documents we have incorporated by reference. However, no prospectus supplement or free writing prospectus will offer a security that is not registered and described in this prospectus at the time of the effectiveness of the registration statement of which this prospectus is a part.

We may sell the securities directly to or through underwriters, dealers or agents. We, and our underwriters or agents, reserve the right to accept or reject all or part of any proposed purchase of securities. If we do offer securities through underwriters or agents, we will include in the applicable prospectus supplement:

- the names of those underwriters or agents;
- applicable fees, discounts and commissions to be paid to them;
- details regarding over-allotment options, if any; and
- the net proceeds to us.

Common Stock. We may offer shares of our common stock from time to time. Each outstanding share of common stock entitles the holder thereof to one vote per share on all matters. Our bylaws provide that any vacancy occurring in the board of directors may be filled by the affirmative vote of a majority of the remaining directors. Stockholders do not have preemptive rights to purchase shares in any future issuance of our common stock. In the event of our liquidation, dissolution or winding up, holders of our common stock are entitled to receive, ratably, the net assets available to stockholders after payment of all creditors. All of the issued and outstanding shares of our common stock are duly authorized, validly issued, fully paid and non-assessable. Our common stock is described in greater detail in this prospectus under “Description of Capital Stock - Common Stock.”

Preferred Stock. Our Board of directors has the authority under our amended and restated certificate of incorporation, without further action by our stockholders, to issue up to 130,000,000 shares of preferred stock in one or more series, to establish from time to time the number of shares to be included in each such series, to fix the rights, preferences, privileges and restrictions of the shares of each wholly unissued series, including dividend rights, conversion rights, voting rights, terms of redemption, liquidation preference and sinking fund terms, and to increase or decrease the number of shares of any such series (but not below the number of shares of such series then outstanding). Our Preferred Stock is described in greater detail in this prospectus under “Description of Capital Stock - Preferred Stock.”

We will fix the rights, preferences, privileges, qualifications and restrictions of the preferred stock of each series that we sell under this prospectus and applicable prospectus supplements in the certificate of designation relating to that series. We will incorporate by reference into the registration statement of which this prospectus is a part the form of any certificate of designation that describes the terms of the series of preferred stock we are offering before the issuance of the related series of preferred stock. We urge you to read the prospectus supplements and any free writing prospectus that we may authorize to be provided to you related to the series of preferred stock being offered, as well as the complete certificate of designation that contains the terms of the applicable series of preferred stock.

Warrants. We may offer warrants for the purchase of our common stock and/or preferred stock in one or more series, from time to time. We may issue warrants independently or together with common stock and/or preferred stock, and the warrants may be attached to or separate from those securities.

In this prospectus, we have summarized certain general features of the warrants under "Description of Warrants." We urge you, however, to read the prospectus supplements and any free writing prospectus that we may authorize to be provided to you related to the particular warrants being offered, as well as the complete warrant document or agreement that contain the terms of the warrants. Specific warrant documents or agreements will contain additional important terms and provisions and will be filed as exhibits to the registration statement of which this prospectus is a part, or incorporated by reference from a current report on Form 8-K that we file with the SEC.

Units. We may offer units consisting of common stock, preferred stock, and/or warrants to purchase any of such securities in one or more series. In this prospectus, we have summarized certain general features of the units under "Description of Units." We urge you, however, to read the prospectus supplements and any free writing prospectus that we may authorize to be provided to you related to the particular units being offered, as well as the unit agreements that contain the terms of the units. We will file as exhibits to the registration statement of which this prospectus is a part, or will incorporate by reference from a current report on Form 8-K that we file with the SEC, the form of unit agreement and any supplemental agreements that describe the terms of the units we are offering before the issuance of the related units.

THIS PROSPECTUS MAY NOT BE USED TO OFFER OR SELL ANY SECURITIES UNLESS ACCOMPANIED BY A PROSPECTUS SUPPLEMENT.

NASDAQ Capital Market Listing

Our common stock is listed on The NASDAQ Capital Market under the symbol "AMDA". The applicable prospectus supplement will contain information, where applicable, as to other listings, if any, on The NASDAQ Capital Market or other securities exchange of the securities covered by the applicable prospectus supplement.

RISK FACTORS

An investment in our securities involves a high degree of risk. The prospectus supplement applicable to each offering of our securities will contain a discussion of the risks applicable to an investment in our securities. Prior to making a decision about investing in our securities, you should carefully consider the specific factors discussed under the heading "Risk Factors" in the applicable prospectus supplement, together with all of the other information contained or incorporated by reference in the prospectus supplement or appearing or incorporated by reference in this prospectus. You should also consider the risks, uncertainties and assumptions discussed under Item 1A, "Risk Factors," in our Annual Report on Form 10-K for the fiscal year ended December 31, 2014 and our Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2015, both of which are incorporated herein by reference, and may be amended, supplemented or superseded from time to time by other reports we file with the Securities and Exchange Commission in the future. The risks and uncertainties we have described are not the only ones we face. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also affect our operations.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus and our SEC filings that are incorporated by reference into this prospectus contain or incorporate by reference forward-looking statements within the meaning of Section 27A of the Securities Act and Section 21E of the Exchange Act. All statements, other than statements of historical fact, included or incorporated by reference in this prospectus regarding our business strategy, future operations, projected financial position, potential strategic transactions, proposed distribution channels, projected sales growth, proposed new products, estimated future revenues, cash flows and profitability, projected costs, potential sources of additional capital, future prospects, future economic conditions, the future of our industry and results that might be obtained by pursuing management's current plans and objectives are forward-looking statements. The words "believe," "anticipate," "estimate," "plan," "expect," "intend," "may," "could," "should," "potential," "likely," "projects," "continue," "will," and "would" and similar expressions are intende identify forward-looking statements, although not all forward-looking statements contain these identifying words. Forward-looking statements reflect our current views with respect to future events and are based on assumptions and are subject to risks and uncertainties. We cannot guarantee that we actually will achieve the plans, intentions or expectations expressed in our forward-looking statements and you should not place undue reliance on these statements. There are a number of important factors that could cause our actual results to differ materially from those indicated or implied by forward-looking statements. These important factors include those discussed under the heading "Risk Factors" contained or incorporated by reference in this prospectus and in the applicable prospectus supplement and any free writing prospectus we may authorize for use in connection with a specific offering. These factors and the other cautionary statements made in this prospectus should be read as being applicable to all related forward-looking statements whenever they appear in this prospectus. Except as required by law, we undertake no obligation to update publicly any forward-looking statements, whether as a result of new information, future events or otherwise.

Any forward-looking statement in this prospectus reflects our current views with respect to future events and is subject to these and other risks, uncertainties and assumptions relating to our operations, results of operations, industry and future growth. Except as required by law, we assume no obligation to publicly update or revise any forward-looking statements contained in this prospectus, whether as a result of new information, future events or otherwise.

USE OF PROCEEDS

Except as described in any applicable prospectus supplement and in any free writing prospectuses in connection with a specific offering, we currently intend to use the net proceeds from the sale of the securities offered hereby for operating costs, capital expenditures, repayment of debt and for general corporate purposes, including working capital. We may also use a portion of the net proceeds to invest in or acquire businesses, or assets that we believe are complementary to our own, although we have no current plans, commitments or agreements with respect to any acquisitions as of the date of this prospectus.

DESCRIPTION OF CAPITAL STOCK

As of the date of this prospectus, our certificate of incorporation authorizes us to issue 250,000,000 shares of common stock, par value $0.01 per share, and 130,000,000 shares of preferred stock, par value $0.01 per share. The following is a summary of the rights of our common and preferred stock and some of the provisions of our amended and restated certificate of incorporation and amended and restated bylaws, our outstanding warrants, our registration rights agreements and the Delaware General Corporation Law. Because it is only a summary, it does not contain all the information that may be important to you and is subject to and qualified in its entirety by our amended and restated certificate of incorporation and our amended and restated bylaws, a copy of each of which has been incorporated as an exhibit to the registration statement of which this prospectus forms a part.

Our amended and restated certificate of incorporation and our amended and restated bylaws contain certain provisions that are intended to enhance the likelihood of continuity and stability in the composition of the board of directors, which may have the effect of delaying, deferring or preventing a future takeover or change in control of Amedica unless such takeover or change in control is approved by our board of directors.

Common Stock

As of June 30, 2015 there were 65,758,131 shares of common stock outstanding. In addition, as of June 30, 2015 there were: (i) 1,572,752 shares of common stock subject to outstanding options; (ii) no shares of common stock subject to outstanding restricted stock units; and, (iii) 1,483,015 shares of common stock reserved for future issuance under our Amended and Restated 2012 Equity Incentive Plan. Each outstanding share of common stock entitles the holder thereof to one vote per share on all matters. Our bylaws provide that any vacancy occurring in the board of directors may be filled by the affirmative vote of a majority of the remaining directors. Stockholders do not have preemptive rights to purchase shares in any future issuance of our common stock. In the event of our liquidation, dissolution or winding up, holders of our common stock are entitled to receive, ratably, the net assets available to stockholders after payment of all creditors.

All outstanding shares of common stock are, and all shares of common stock to be outstanding upon the closing of this offering will be, fully paid and nonassessable.

Additional shares of authorized common stock may be issued, as authorized by our board of directors from time to time, without stockholder approval, except as may be required by applicable stock exchange requirements.

The transfer agent and registrar for our common stock is American Stock Transfer and Trust Company. The transfer agent and the registrar's address is 59 Maiden Lane, New York, New York 10038. Their telephone number is 1-800-937-5449. Our common stock is listed on The NASDAQ Capital Market under the symbol "AMDA".

Preferred Stock

Our Board of directors has the authority under our amended and restated certificate of incorporation, without further action by our stockholders, to issue up to 130,000,000 shares of preferred stock in one or more series, to establish from time to time the number of shares to be included in each such series, to fix the rights, preferences, privileges and restrictions of the shares of each wholly unissued series, including dividend rights, conversion rights, voting rights, terms of redemption, liquidation preference and sinking fund terms, and to increase or decrease the number of shares of any such series (but not below the number of shares of such series then outstanding).

Our board of directors may authorize the issuance of preferred stock with voting or conversion rights that could have the effect of restricting dividends on our common stock, diluting the voting power of our common stock, impairing the liquidation rights of our common stock or otherwise adversely affecting the rights of holders of our common stock. The issuance of preferred stock, while providing flexibility in connection with possible acquisitions and other corporate purposes, could, among other things, have the effect of delaying, deferring or preventing a change of control and may adversely affect the market price of our common stock. As of June 30, 2015, no shares of preferred stock were outstanding, and we have no current plans to issue any shares of preferred stock.

Future Preferred Stock. Our board of directors will fix the rights, preferences, privileges, qualifications and restrictions of the preferred stock of each series that we sell under this prospectus and applicable prospectus supplements in the certificate of designation relating to that series. We will file as an exhibit to the registration statement of which this prospectus is a part, or incorporate by reference into the registration statement of which this prospectus is a part the form of any certificate of designation that describes the terms of the series of preferred stock we are offering before the issuance of the related series of preferred stock. This description will include:

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the title and stated value;

the number of shares we are offering;

the liquidation preference per share;

the purchase price per share;

the dividend rate per share, dividend period and payment dates and method of calculation for dividends;

whether dividends will be cumulative or non-cumulative and, if cumulative, the date from which dividends will accumulate;

our right, if any, to defer payment of dividends and the maximum length of any such deferral period;

the procedures for any auction and remarketing, if any;

the provisions for a sinking fund, if any;

the provisions for redemption or repurchase, if applicable, and any restrictions on our ability to exercise those redemption and repurchase rights;

any listing of the preferred stock on any securities exchange or market;

whether the preferred stock will be convertible into our common stock or other securities of ours, including warrants, and, if applicable, the conversion period, the conversion price, or how it will be calculated, and under what circumstances it may be adjusted;

voting rights, if any, of the preferred stock;

preemption rights, if any;

restrictions on transfer, sale or other assignment, if any;

a discussion of any material or special United States federal income tax considerations applicable to the preferred stock;

the relative ranking and preferences of the preferred stock as to dividend rights and rights if we liquidate, dissolve or wind up our affairs;

any limitations on issuances of any class or series of preferred stock ranking senior to or on a parity with the series of preferred stock being issued as to dividend rights and rights if we liquidate, dissolve or wind up our affairs; and

any other specific terms, rights, preferences, privileges, qualifications or restrictions of the preferred stock.

When we issue shares of preferred stock under this prospectus, the shares will be fully paid and nonassessable and will not have, or be subject to, any preemptive or similar rights.

The General Corporation Law of the State of Delaware, the state of our incorporation, provides that the holders of preferred stock will have the right to vote separately as a class on any proposal involving fundamental changes in the rights of holders of that preferred stock. This right is in addition to any voting rights that may be provided for in the applicable certificate of designation.

Warrants

As of June 30, 2015, there were 1,899,799 common share purchase warrants outstanding, which expire between September 2015 and December 2022. Each of these warrants entitles the holder to purchase one common share at prices ranging between $0.47 and $56.70, as converted, per common share. Certain of these warrants has a net exercise provision under which its holder may, in lieu of payment of the exercise price in cash, surrender the warrant and receive a net amount of shares based on the fair market value of our common shares at the time of exercise of the warrant after deduction of the aggregate exercise price. Each of these warrants also contains provisions for the adjustment of the exercise price and the aggregate number of shares issuable upon the exercise of the warrant in the event of dividends, share splits, reorganizations and reclassifications and consolidations. Certain of these warrants contain a provision requiring a reduction to the exercise price in the event we issue common stock, or securities convertible into or exercisable for common stock, at a price per share lower than the warrant exercise price.

Underwriters' Unit Purchase Options

In connection with our November 2014 Public Offering of Units we issued to the underwriters in that offering Unit Purchase Options to purchase 572,082 units with an exercise price of $1.425 per unit. Each unit consists of one share of our common stock and one warrant to acquire one share of our common stock. The units may be exercised on a cashless basis. Each warrant to be issued upon the exercise of each unit has a net exercise provision under which its holder may, in lieu of payment of the exercise price in cash, surrender the warrant and receive a net amount of shares based on the fair market value of our common shares at the time of exercise of the warrant after deduction of the aggregate exercise price. These warrants also contain provisions for the adjustment of the exercise price and the aggregate number of shares issuable upon the exercise of these warrants in the event of dividends, share splits, reorganizations and reclassifications and consolidations.

Registration Rights

We have entered into various agreements with holders of shares of our common stock and warrants to acquire shares of our common stock that under certain circumstances require us to register with the SEC such common shares and the common shares issuable upon exercise of the warrants. These registration rights are generally subject to certain conditions and limitations, including our right to limit the number of shares included in any such registration under certain circumstances. We are generally required to pay all expenses incurred in connection with registrations effected in connection with the registration rights, excluding selling expenses such as broker commissions and underwriting discounts. The registration rights may be transferred to any transferee or assignee of the holder of such registrations rights who agrees to be bound by the terms of the registration rights agreement.

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Furthermore, the terms of the agreements generally provide that we will not be required to maintain the effectiveness of any registration statement, or file another registration statement, with respect to any registrable securities that are not subject to the current public information requirement under Rule 144 and that are eligible for resale without volume or manner-of-sale restrictions.

Piggyback Rights. If, at any time there is not an effective registration statement covering the shares of common stock held by MG Partners II Ltd. ("Magna") pursuant to the Registration Rights Agreement we entered into with Magna on June 30, 2014, we propose to register shares of our common stock under the Securities Act in connection with a public offering of common stock, we will, prior to such filing, give written notice to Magna of our intention to do so. If Magna so elects, we are required to cause all securities which we have been requested by Magna to register under the Securities Act to the extent not already registered pursuant to an effective registration statement all such shares. These piggyback registration rights do not apply to registrations of our securities that we initiate that are (i) issuable in connection with our acquisition of another entity or business or (ii) incidental to any of our equity compensation, employee stock purchase or other employee benefit plans or any sales agent/distributor equity incentive program that we may implement.

Pursuant to the terms of the warrant issued to Hercules Technology III, L.P. ("Hercules Technology") on June 30, 2014 (the "Hercules Warrant"), if at any time while the Hercules Warrant is outstanding we file a registration statement under the Securities Act to register the sale of any of our securities, we will be required to include in such registration statement the shares of common stock underlying the Hercules Warrant. In connection with the filing of this registration statement, Hercules Technology granted us a waiver of these piggyback registration rights.

Pursuant to the terms of the warrant issued in connection with a bridge loan we secured in November 2014 (the "Closing Bridge Warrant"), for so long as the Closing Bridge Warrant is outstanding, and while all shares of common stock underlying the Closing Bridge Warrant are not able to be sold without restriction under Rule 144 of the Securities Act, we are required to include in any registration statement registering the sale of any of our securities filed under the Securities Act the shares of common stock underlying the Closing Bridge Warrant.

Generally, the foregoing piggyback registration rights do not apply to registrations of our securities that we initiate that are (i) issuable in connection with our acquisition of another entity or business or (ii) incidental to any of our equity compensation, employee stock purchase or other employee benefit plans or any sales agent/distributor equity incentive program that we may implement.

Effects of Anti-Takeover Provisions of Our Restated Certificate of Incorporation, Our Restated Bylaws and Delaware Law

The provisions of (1) Delaware law, (2) our restated certificate of incorporation and (3) our restated bylaws discussed below could discourage or make it more difficult to prevail in a proxy contest or effect other change in our management or the acquisition of control by a holder of a substantial amount of our voting stock. It is possible that these provisions could make it more difficult to accomplish, or could deter, transactions that stockholders may otherwise consider to be in their best interests or our best interests. 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 the board of directors and to discourage certain types of transactions that may involve an actual or threatened change in control of our company. These provisions are designed to reduce our vulnerability to an unsolicited acquisition proposal. These provisions also are intended to discourage certain tactics that may be used in proxy fights. These provisions also may have the effect of preventing changes in our management.

Delaware Statutory Business Combinations Provision. We are subject to the anti-takeover provisions of Section 203 of the Delaware General Corporation Law. In general, Section 203 prohibits a publicly-held Delaware corporation from engaging in a "business combination" with an "interested stockholder" for a period of three years after the date of the transaction in which the person became an interested stockholder, unless the business combination is, or the transaction in which the person became an interested stockholder was, approved in a prescribed manner or another prescribed exception applies. For purposes of Section 203, a "business combination" is defined broadly to include a merger, asset sale or other transaction resulting in a financial benefit to the interested stockholder, and, subject to certain exceptions, an "interested stockholder" is a person who, together with his or her affiliates and associates, owns (or within three years prior, did own) 15% or more of the corporation's voting stock.

Classified Board of Directors; Appointment of Directors to Fill Vacancies; Removal of Directors for Cause. Our restated certificate of incorporation provides that our board of directors will be divided into three classes as nearly equal in number as possible. Each year the stockholders will elect the members of one of the three classes to a three-year term of office. All directors elected to our classified board of directors will serve until the election and qualification of their respective successors or their earlier resignation or removal. The board of directors is authorized to create new directorships and to fill any positions so created and is permitted to specify the class to which any new position is assigned. The person filling any of these positions would serve for the term applicable to that class. The board of directors (or its remaining members, even if less than a quorum) is also empowered to fill vacancies on the board of directors occurring for any reason for the remainder of the term of the class of directors in which the vacancy occurred. Members of the board of directors may only be removed for cause and only by the affirmative vote of holders of at least 80% of our outstanding voting stock. These provisions are likely to increase the time required for stockholders to change the composition of the board of directors. For example, in general, at least two annual meetings will be necessary for stockholders to effect a change in a majority of the members of the board of directors.

Authorization of Blank Check Preferred Stock. Our restated certificate of incorporation provides that our board of directors is authorized to issue, without stockholder approval, blank check preferred stock. Blank check preferred stock can operate as a defensive measure known as a "poison pill" by diluting the stock ownership of a potential hostile acquirer to prevent an acquisition that is not approved by our board of directors.

Advance Notice Provisions for Stockholder Proposals and Stockholder Nominations of Directors. Our restated bylaws provide that, for nominations to the board of directors or for other business to be properly brought by a stockholder before a meeting of stockholders, the stockholder must first have given timely notice of the proposal in writing to our Secretary. For an annual meeting, a stockholder's notice generally must be delivered not less than 90 days nor more than 120 days prior to the anniversary of the previous year's annual meeting. For a special meeting, the notice must generally be delivered no less than 60 days nor more than 90 days prior to the special meeting or ten days following the day on which public announcement of the meeting is first made. Detailed requirements as to the form of the notice and information required in the notice are specified in our restated bylaws. If it is determined that business was not properly brought before a meeting in accordance with our bylaw provisions, this business will not be conducted at the meeting.

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Special Meetings of Stockholders. Special meetings of the stockholders may be called only by our board of directors pursuant to a resolution adopted by a majority of the total number of directors.

No Stockholder Action by Written Consent. Our restated certificate of incorporation does not permit our stockholders to act by written consent. As a result, any action to be effected by our stockholders must be effected at a duly called annual or special meeting of the stockholders.

Super-Majority Stockholder Vote required for Certain Actions. 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 the corporation's certificate of incorporation or bylaws, as the case may be, requires a greater percentage. Our restated certificate of incorporation requires the affirmative vote of the holders of at least 80% of our outstanding voting stock to amend or repeal any of the provisions discussed in this section of this prospectus entitled "Effect of Anti-Takeover Provisions of Our Restated Certificate of Incorporation, Our Restated Bylaws and Delaware Law" other than provisions related to the authorization of blank check preferred stock. This 80% stockholder vote would be in addition to any separate class vote that might in the future be required pursuant to the terms of any preferred stock that might then be outstanding. A 80% vote is also required for any amendment to, or repeal of, our restated bylaws by the stockholders. Our restated bylaws may be amended or repealed by a simple majority vote of the board of directors.

DESCRIPTION OF WARRANTS

The following description, together with the additional information we may include in any applicable prospectus supplements and free writing prospectuses, summarizes the material terms and provisions of the warrants that we may offer under this prospectus, which may consist of warrants to purchase common stock or preferred stock and may be issued in one or more series. This information does not relate to our outstanding warrants. Warrants may be offered independently or together with common stock or preferred stock offered by any prospectus supplement, and may be attached to or separate from those securities. While the terms we have summarized below will apply generally to any warrants that we may offer under this prospectus, we will describe the particular terms of any warrants that we may offer in more detail in the applicable prospectus supplement and any applicable free writing prospectus. The terms of any warrants offered under a prospectus supplement may differ from the terms described below. However, no prospectus supplement will fundamentally change the terms that are set forth in this prospectus or offer a security that is not registered and described in this prospectus at the time of its effectiveness.

We will file as exhibits to the registration statement of which this prospectus is a part, or will incorporate by reference from a current report on Form 8-K that we file with the SEC, the form of warrant document or agreement that describes the terms of the particular warrants we are offering before the issuance of the related warrants. The following summaries of material provisions of the warrants are subject to, and qualified in their entirety by reference to, all the provisions of the warrant document or agreement applicable to particular warrants. We urge you to read the applicable prospectus supplement and any applicable free writing prospectus related to the particular warrants that we sell under this prospectus, as well as the complete warrant document or agreement that contain the terms of the warrants.

General

We will describe in the applicable prospectus supplement the terms relating to the warrants, including, if applicable:

- the offering price and aggregate number of warrants offered;
- the currency for which the warrants may be purchased;
- if applicable, the designation and terms of the securities with which the warrants are issued and the number of warrants issued with each such security or each principal amount of such security;
- if applicable, the date on and after which the warrants and the related securities will be separately transferable;
- in the case of warrants to purchase common stock or preferred stock, the number of shares of common stock or preferred stock, as the case may be, purchasable upon the exercise of one warrant and the price at which these shares

may be purchased upon such exercise;

the effect of any merger, consolidation, sale or other disposition of our business on the warrant agreements and the warrants;

the terms of any rights to redeem or call the warrants;

any provisions for changes to or adjustments in the exercise price or number of securities issuable upon exercise of the warrants;

the dates on which the right to exercise the warrants will commence and expire;

the manner in which the warrant agreements and warrants may be modified;

material United States federal income tax consequences of holding or exercising the warrants;

the terms of the securities issuable upon exercise of the warrants; and

any other specific terms, preferences, rights or limitations of or restrictions on the warrants.

Before exercising their warrants, holders of warrants will not have any of the rights of holders of the securities purchasable upon such exercise, including, in the case of warrants to purchase common stock or preferred stock, the right to receive dividends, if any, or, payments upon our liquidation, dissolution or winding up or to exercise voting rights, if any.

Exercise of Warrants

Each warrant will entitle the holder to purchase the securities that we specify in the applicable prospectus supplement at the exercise price that we describe in the applicable prospectus supplement. Unless we otherwise specify in the applicable prospectus supplement, holders of the warrants may exercise the warrants at any time up to the specified time on the expiration date that we set forth in the applicable prospectus supplement. After the close of business on the expiration date, unexercised warrants will become void.

Holders of the warrants may exercise the warrants by delivering the warrant certificate representing the warrants to be exercised together with specified information, and paying the required amount to the warrant agent in immediately available funds, as provided in the applicable prospectus supplement. We will set forth in the warrant agreement or documents and in the applicable prospectus supplement the information that the holder of the warrant will be required to deliver to the warrant agent.

Upon receipt of the required payment and the warrant documents properly completed and duly executed at the office of the warrant agent or any other office indicated in the applicable prospectus supplement, we will issue and deliver the securities purchasable upon such exercise. If fewer than all of the warrants represented by the warrant certificate are exercised, then we will issue a new warrant certificate for the remaining amount of warrants. If we so indicate in the applicable prospectus supplement, holders of the warrants may surrender securities as all or part of the exercise price for warrants.

DESCRIPTION OF UNITS

The following description, together with the additional information we may include in any applicable prospectus supplements, summarizes the material terms and provisions of the units that we may offer under this prospectus. While the terms we have summarized below will apply generally to any units that we may offer under this prospectus, we will describe the particular terms of any series of units in more detail in the applicable prospectus supplement. The terms of any units offered under a prospectus supplement may differ from the terms described below. However, no prospectus supplement will fundamentally change the terms that are set forth in this prospectus or offer a security that is not registered and described in this prospectus at the time of its effectiveness.

We will file as exhibits to the registration statement of which this prospectus is a part, or will incorporate by reference from a current report on Form 8-K that we file with the SEC, the form of unit agreement that describes the terms of the units we are offering, and any supplemental agreements, before the issuance of the related units. The following summaries of material terms and provisions of the units are subject to, and qualified in their entirety by reference to, all the provisions of the unit agreement and any supplemental agreements applicable to particular units. We urge you to read the applicable prospectus supplements related to the particular units that we sell under this prospectus, as well as the complete unit agreement and any supplemental agreements that contain the terms of the units.

General

We may issue units comprised of one or more shares of common stock, shares of preferred stock and warrants in any combination. Each unit will be issued so that the holder of the unit is also the holder of each security included in the unit. Thus, the holder of a unit will have the rights and obligations of a holder of each included security. The unit agreement under which a unit is issued may provide that the securities included in the unit may not be held or transferred separately, at any time or at any time before a specified date.

We will describe in the applicable prospectus supplement the terms of the units, including:

- the designation and terms of the units and of the securities comprising the units, including whether and under what circumstances those securities may be held or transferred separately;
- any provisions of the governing unit agreement that differ from those described below; and
- any provisions for the issuance, payment, settlement, transfer or exchange of the units or of the securities comprising the units.

The provisions described in this section, as well as those described under “Description of Capital Stock,” and “Description of Warrants” will apply to each unit and to any common stock, preferred stock, or warrant included in each unit, respectively.

Issuance in Series

We may issue units in such amounts and in numerous distinct series as we determine.

Enforceability of Rights by Holders of Units

Each unit agent will act solely as our agent under the applicable unit agreement and will not assume any obligation or relationship of agency or trust with any holder of any unit. A single bank or trust company may act as unit agent for more than one series of units. A unit agent will have no duty or responsibility in case of any default by us under the applicable unit agreement or unit, including any duty or responsibility to initiate any proceedings at law or otherwise, or to make any demand upon us. Any holder of a unit may, without the consent of the related unit agent or the holder of any other unit, enforce by appropriate legal action its rights as holder under any security included in the unit.

We, the unit agents, and any of their agents may treat the registered holder of any unit certificate as an absolute owner of the units evidenced by that certificate for any purpose and as the person entitled to exercise the rights attaching to the units so requested, despite any notice to the contrary.

PLAN OF DISTRIBUTION

We may sell the securities from time to time pursuant to underwritten public offerings, direct sales to the public, negotiated transactions, block trades or a combination of these methods. We may sell the securities to or through underwriters or dealers, through agents, directly to one or more purchasers, or through any combination of these methods. The distribution of the securities may be effected from time to time in one or more transactions at a fixed price or prices, which may be changed, at market prices prevailing at the time of sale, at prices related to the prevailing market prices or at negotiated prices.

A prospectus supplement or supplements (and any related free writing prospectus that we may authorize to be provided to you) will describe the terms of the offering of the securities, including, to the extent applicable:

- the name or names of any underwriters or dealers, if any;
- the purchase price of the securities and the proceeds we will receive from the sale;
- any over-allotment options under which underwriters may purchase additional securities from us;
- any agency fees or underwriting discounts and other items constituting agents' or underwriters' compensation;
- any public offering price;
- any discounts or concessions allowed or reallowed or paid to dealers; and
- any securities exchange or market on which the securities may be listed.

Only underwriters named in the prospectus supplement are underwriters of the securities offered by the prospectus supplement.

By Underwriters

If underwriters are used in the sale, they will acquire the securities for their own account and may resell the securities from time to time in one or more transactions at a fixed public offering price or at varying prices determined at the time of sale. The obligations of the underwriters to purchase the securities will be subject to the conditions set forth in the applicable underwriting agreement. We may offer the securities to the public through underwriting syndicates represented by managing underwriters or by underwriters without a syndicate. Subject to certain conditions, the underwriters will be obligated to purchase all of the securities offered by the prospectus supplement. Any public

offering price and any discounts or concessions allowed or reallowed may change from time to time. We may use underwriters with whom we have a material relationship. We will describe in the prospectus supplement, naming the underwriter, the nature of any such relationship.

By Dealers

If a dealer is utilized in the sale of any securities offered by this prospectus, we will sell those securities to the dealer, as principal. The dealer may then resell the securities to the public at varying prices to be determined by the dealer at the time of resale. We will set forth the names of the dealers and the terms of the transaction in the applicable prospectus supplement.

By Agents

We may sell securities directly or through agents we designate from time to time. We will name any agent involved in the offering and sale of securities and we will describe any commissions we will pay the agent in the prospectus supplement. Unless the prospectus supplement states otherwise, our agent will act on a best-efforts basis for the period of its appointment.

By Direct Sales

We may also directly sell securities offered by this prospectus. In this case, no underwriters or agents would be involved. We will describe the terms of those sales in the applicable prospectus supplement.

General Information

Underwriters, dealers and agents that participate in the distribution of the securities offered by this prospectus may be deemed underwriters under the Securities Act, and any discounts or commissions they receive from us and any profit on their resale of the securities may be treated as underwriting discounts and commissions under the Securities Act.

We may authorize agents, dealers or underwriters to solicit offers by certain types of institutional investors to purchase securities from us at the public offering price set forth in the prospectus supplement pursuant to delayed delivery contracts providing for payment and delivery on a specified date in the future. We will describe the conditions to these contracts and the commissions we must pay for solicitation of these contracts in the prospectus supplement.

We may provide agents and underwriters with indemnification against civil liabilities related to this offering, including liabilities under the Securities Act, or contribution with respect to payments that the agents or underwriters may make with respect to these liabilities. Agents and underwriters may engage in transactions with, or perform services for, us in the ordinary course of business.

Some or all of the securities we offer, other than common stock, will be new issues of securities with no established trading market. Any underwriters may make a market in these securities, but will not be obligated to do so and may discontinue any market making at any time without notice. We cannot guarantee the liquidity of the trading markets for any securities.

We may enter into derivative transactions with third parties, or sell securities not covered by this prospectus to third parties in privately negotiated transactions. If the applicable prospectus supplement indicates, in connection with those derivatives, the third parties may sell securities covered by this prospectus and the applicable prospectus supplement, including in short sale transactions. If so, the third parties may use securities pledged by us or borrowed from us or others to settle those sales or to close out any related open borrowings of stock, and may use securities received from us in settlement of those derivatives to close out any related open borrowings of stock. The third parties in such sale transactions will be identified in the applicable prospectus supplement.

One or more firms, referred to as “remarketing firms,” may also offer or sell the securities, if the prospectus supplement so indicates, in connection with a remarketing arrangement upon their purchase. Remarketing firms will act as principals for their own accounts or as agents for us. These remarketing firms will offer or sell the securities in accordance with the terms of the securities. The prospectus supplement will identify any remarketing firm and the terms of its agreement, if any, with us and will describe the remarketing firm’s compensation. Remarketing firms may be deemed to be underwriters in connection with the securities they remarket.

Any underwriter may engage in overallotment, stabilizing transactions, short covering transactions and penalty bids in accordance with Regulation M under the Exchange Act. Overallotment involves sales in excess of the offering size, which create a short position. This short sales position may involve either “covered” short sales or “naked” short sales. Covered short sales are short sales made in an amount not greater than the underwriters’ over-allotment option to purchase additional securities in this offering described above. The underwriters may close out any covered short position either by exercising their over-allotment option or by purchasing securities in the open market. To determine how they will close the covered short position, the underwriters will consider, among other things, the price of securities available for purchase in the open market, as compared to the price at which they may purchase securities through the over-allotment option. Naked short sales are short sales in excess of the over-allotment option. The underwriters must close out any naked short position by purchasing securities in the open market. A naked short position is more likely to be created if the underwriters are concerned that, in the open market after pricing, there may be downward pressure on the price of the securities that could adversely affect investors who purchase securities in this offering. Stabilizing transactions permit bids to purchase the underlying security for the purpose of fixing the price of the security so long as the stabilizing bids do not exceed a specified maximum. Penalty bids permit the underwriters to reclaim a selling concession from a dealer when the securities originally sold by the dealer are purchased in a covering transaction to cover short positions.

Any underwriters who are qualified market makers on The NASDAQ Capital Market may engage in passive market making transactions in our common stock, preferred stock, and warrants, as applicable, on The NASDAQ Capital Market in accordance with Rule 103 of Regulation M, during the business day prior to the pricing of the offering, before the commencement of offers or sales of the securities. Passive market makers must comply with applicable volume and price limitations and must be identified as passive market makers. In general, a passive market maker must display its bid at a price not in excess of the highest independent bid for such security; if all independent bids are lowered below the passive market maker’s bid, however, the passive market maker’s bid must then be lowered when certain purchase limits are exceeded.

Similar to other purchase transactions, an underwriter’s purchase to cover the syndicate short sales or to stabilize the market price of our securities may have the effect of raising or maintaining the market price of our securities or preventing or mitigating a decline in the market price of our securities. As a result, the price of our securities may be higher than the price that might otherwise exist in the open market. The imposition of a penalty bid might also have an effect on the price of the securities if it discourages resales of the securities.

Neither we nor the underwriters make any representation or prediction as to the effect that the transactions described above may have on the price of the securities. If such transactions are commenced, they may be discontinued without notice at any time.

Our common stock is listed on The NASDAQ Capital Market under the symbol “AMDA”.

LEGAL MATTERS

Dorsey & Whitney LLP, Salt Lake City, Utah, will pass for us upon the validity of the securities being offered by this prospectus and applicable prospectus supplement, and counsel named in the applicable prospectus supplement will pass upon legal matters for any underwriters, dealers or agents.

EXPERTS

The consolidated financial statements of Amedica Corporation as of December 31, 2014 and for the year then ended appearing in Amedica Corporation's Annual Report (Form 10-K) for the year ended December 31, 2014 have been audited by Mantyla McReynolds, LLC, independent registered public accounting firm, as set forth in their report thereon (which contains an explanatory paragraph describing conditions that raise substantial doubt about the Company's ability to continue as a going concern as described in Note 1 to the consolidated financial statements), included therein, and incorporated herein by reference. Such consolidated financial statements are incorporated herein by reference in reliance upon such report given on the authority of such firm as experts in accounting and auditing.

The consolidated financial statements of Amedica Corporation as of December 31, 2013 and for the year then ended appearing in Amedica Corporation's Annual Report (Form 10-K) for the year ended December 31, 2014 have been audited by Ernst & Young LLP, independent registered public accounting firm, as set forth in their report thereon (which contains an explanatory paragraph describing conditions that raise substantial doubt about the Company's ability to continue as a going concern as described in Note 1 to the consolidated financial statements), included therein, and incorporated herein by reference. Such consolidated financial statements are incorporated herein by reference in reliance upon such report given on the authority of such firm as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We are a reporting company and file annual, quarterly and current reports, proxy statements and other information with the SEC. We have filed with the SEC a registration statement on Form S-3 under the Securities Act with respect to the securities we are offering under this prospectus. This prospectus does not contain all of the information set forth in the registration statement and the exhibits to the registration statement. For further information with respect to us and the securities we are offering under this prospectus, we refer you to the registration statement and the exhibits and schedules filed as a part of the registration statement. You may read and copy the registration statement, as well as our reports, proxy statements and other information, at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. You can request copies of these documents by writing to the SEC and paying a fee for the copying cost. Please call the SEC at 1-800-SEC-0330 for more information about the operation of the Public Reference Room. The SEC maintains an internet site that contains reports, proxy and information statements, and

other information regarding issuers that file electronically with the SEC, where our SEC filings are also available. The address of the SEC's web site is "http://www.sec.gov." We maintain a website at www.amedicacorp.com. Information contained in or accessible through our website does not constitute a part of this prospectus.

INCORPORATION BY REFERENCE

The SEC allows us to "incorporate by reference" information that we file with it into this prospectus, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is an important part of this prospectus. The information incorporated by reference is considered to be a part of this prospectus, and information that we file later with the Commission will automatically update and supersede information contained in this prospectus and any accompanying prospectus supplement. We incorporate by reference the documents listed below that we have previously filed with the Commission:

- Our Annual Report on Form 10-K for the year ended December 31, 2014;
- Our Definitive Proxy Statement filed on Form 14A on April 13, 2015;
- Our Quarterly Report on Form 10-Q for the quarter ended March 31, 2015;
- Our Current Reports on Form 8-K filed on January 5, 2015, January 12, 2015, February 4, 2015, February 12, 2015, February 20, 2015, April 3, 2015, May 22, 2015, June 1, 2015, June 25, 2015, June 26, 2015 and July 7, 2015; and
- The description of our common stock, which is contained in the Registration Statement on Form 8-A, as filed with the SEC on February 7, 2014, including any amendment or report filed for the purpose of updating such description.

We also incorporate by reference into this prospectus additional documents that we may file with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act, excluding, in each case, information deemed furnished and not filed until we sell all of the securities we are offering or the termination of the offering. Any statements contained in a previously filed document incorporated by reference into this prospectus is deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained in this prospectus, or in a subsequently filed document also incorporated by reference herein, modifies or supersedes that statement.

We will provide to each person, including any beneficial owner, to whom a prospectus is delivered, without charge upon written or oral request, a copy of any or all of the information that has been incorporated by reference into this prospectus but not delivered with the prospectus, including exhibits that are specifically incorporated by reference into such documents. Requests should be directed to: Amedica Corporation, Attention: Investor Relations, 1885 West 2100 South, Salt Lake City, Utah 84119 and our telephone number is (801) 839-3500.

Amedica Corporation

$35,000,000

Common Stock, Preferred Stock,

Warrants and Units

PROSPECTUS

July 20, 2015