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Registration No. 333-199753

PROSPECTUS

Amedica Corporation

Up to 11,441,646 Units Consisting of One Share of Common Stock and One Warrant to Purchase One Share of Common Stock

We are offering by this prospectus up to 11,441,646 units, with each unit consisting of one share of our common stock and one warrant to purchase one share of our common stock (the "Units"). The Units are being offered at a price of $1.14 per Unit. The Units will not be issued or certificated. The shares of common stock and the warrants are immediately separable and will be issued separately, but will be purchased together in this offering. This prospectus also covers shares of our common stock issuable upon exercise of the warrants underlying the Units offered hereby and shares of our common stock issuable upon exercise of Unit Purchase Options to be issued to the underwriters.

Our common stock is listed on The NASDAQ Capital Market under the symbol "AMDA." On November 20, 2014, the last reported sales price of our common stock on The NASDAQ Capital Market was $1.17 per share. We do not intend to list the warrants on The NASDAQ Capital Market, any other national securities exchange or any other nationally recognized trading system.

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 and future filings.

Investing in our securities involves risks. See " Risk Factors" beginning on page 10.

	Per Unit	Total
Public offering price	$1.1400(2)	$13,043,476
Underwriting discounts and commissions (1)	$0.0912	$ 1,043,478
Proceeds, before expenses, to us	$1.0488	$11,999,998

(1) Does not include a non-accountable expense allowance equal to 1% of the gross proceeds of this offering payable to Dawson James Securities, Inc., the representative of the underwriters. We refer you to "Underwriting" on page 63 for additional information regarding underwriting compensation including information regarding the Unit Purchase Options to be issued to the underwriters.
(2) The price per unit of $1.14 includes $0.01 for each warrant to purchase one share of common stock included in such unit.

Neither the United States Securities and Exchange Commission, or the SEC, nor any state securities commission has approved or disapproved of the common stock that may be offered under this prospectus, nor have any of these regulatory authorities determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

We have granted a 45-day option to the underwriters to purchase up to (i) 1,716,246 additional shares of common stock, and/or (ii) 1,716,246 additional warrants to purchase shares of common stock, solely to cover over-allotments, if any. The over-allotment option may be used to purchase shares of common stock, warrants, or any combination thereof, as determined by the underwriters, but such purchases cannot exceed an aggregate of 15% of the number of shares of common stock and warrants sold in the primary offering.

We expect to deliver the securities to investors on or about November 26, 2014.

DAWSON JAMES SECURITIES, INC.

The date of this prospectus is November 20, 2014.

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You should rely only on the information contained or incorporated by reference in this prospectus. Neither we nor any of the underwriters has authorized anyone to provide you with information different from, or in addition to, that contained or incorporated by reference in this prospectus or any free writing prospectus prepared by us or on our behalf or to which we may have referred you in connection with this offering. We take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. Neither we nor any of the underwriters is making an offer to sell or seeking offers to buy these securities in any jurisdiction where or to any person to whom the offer or sale is not permitted. The information in this prospectus is accurate only as of the date on the front cover of this prospectus, regardless of the time of delivery of this prospectus or of any sale of our securities, and the information in any free writing prospectus that we may provide you in connection with this offering is accurate only as of the date of that free writing prospectus. Our business, financial condition, results of operations and future growth prospects may have changed since those dates. You should read this prospectus, the documents incorporated by reference in this prospectus, and any free writing prospectus that we have authorized for use in connection with this offering, in their entirety before making an investment decision. You should also read and consider the information in the documents to which we have referred you in the sections of this prospectus "Where You Can Find More Information" and "Incorporation of Documents by Reference." A statement contained in a document incorporated by reference into this prospectus shall be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained in this prospectus, any prospectus supplement or in any other subsequently filed document which is also incorporated in this prospectus modifies or replaces such statement. Any statements so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this prospectus.

For investors outside the United States: neither we nor any of the underwriters have done anything that would permit this offering or possession or distribution of this prospectus or any free writing prospectus we may provide to you in connection with this offering in any jurisdiction where action for that purpose is required, other than in the United States. You are required to inform yourselves about and to observe any restrictions relating to this offering and the distribution of this prospectus and any free writing prospectus outside of the United States.

PROSPECTUS SUMMARY

This summary highlights information contained elsewhere in this prospectus and other information incorporated by reference herein. Because it is only a summary, it does not contain all of the information that you should consider before investing in our securities and it is qualified in its entirety by, and should be read in conjunction with the more detailed information appearing elsewhere in or incorporated by reference in this prospectus. You should read the entire prospectus carefully, including the "Risk Factors" section contained in this prospectus and our consolidated financial statements and the related notes thereto and other information incorporated by reference herein. Unless the context requires otherwise, references to "Amedica," "we," "our" and "us" in this prospectus refer to Amedica Corporation and its subsidiary.

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 and over 19,000 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; 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 designed for the treatment of deformity and degenerative spinal procedures. Although our non-silicon nitride products have accounted for approximately 55% of our product revenues for the nine months ended September 30, 2014 and 66% and 74% or more of our product revenues for the years ended December 31, 2013 and 2012, 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 plan to take our technology platform into other medical markets through original equipment manufacturer ("OEM") and private label partnerships. 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 are, or 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 more than 50 independent sales distributors who are managed by our experienced in-house sales and marketing management team.

Market Opportunity

Our products and product candidates target the interbody spinal fusion and total hip and knee joint replacement markets. According to iData Research, Inc., in 2012, the markets for spinal implants in the United States and in combined major European markets were $5.3 billion and $1.0 billion, respectively. Interbody spinal fusions accounted for over $1.2 billion and $172.2 million of these markets, respectively. Additionally in 2014, Orthopedic Network News reported that the U.S. markets for the components of total hip and knee replacement product candidates that we are initially developing were $458.0 million and $1.5 billion, respectively.

Our Silicon Nitride Technology Platform

We believe our silicon nitride, an advanced ceramic, is ideally suited for use in many medical applications and has the following characteristics that make it superior to other biomaterials, which do not possess all of these characteristics:

- *Promotes Bone Growth*. The biomaterials used in interbody spinal fusion devices should promote bone growth in and around the device to further support fusion and stability. Our silicon nitride has an inherent surface chemistry and topography which creates an ideal environment for the promotion of new bone growth.
- *Hard, Strong and Resistant to Fracture*. The biomaterials used in interbody spinal fusion devices and joint replacement implants should be strong and resistant to fracture during implantation of the device and withstand the static and dynamic forces exerted on the spine or to adequately bear the significant loads placed on joints during daily activities. Biomaterials used in joint replacements should also be resistant to deformation, which is referred to as hardness. We believe our silicon nitride is hard, strong and resistant to fracture.
- *Anti-Infective*. Infection is a serious problem in orthopedic surgery and treating device-related infection generally requires extensive repeat surgery, including replacement, or revision, surgery, which extends patient suffering and increases costs. We have demonstrated in *in vitro* and *in vivo* studies that our silicon nitride has inherent anti-infective properties, which reduce the risk of infection in and around our silicon nitride device. We demonstrated that live bacteria counts were between 8 to 30 times lower on silicon nitride than PEEK and up to 8 times lower on silicon nitride than titanium, another commonly used biomaterial.
- *Imaging Compatible.* In order to achieve accurate device placement and detect post-operative fusion, interbody devices should be visible through, and not inhibit the effective use of, common surgical and diagnostic imaging techniques, such as x-ray, CT and MRI. Our silicon nitride interbody spinal fusion

devices are semi-radiolucent and clearly visible in x-rays, and produce no distortion under MRI and no scattering under CT. These characteristics enable an exact view of the device for precise intra-operative placement and post-operative bone fusion assessment in spinal fusion procedures. We believe these qualities provide surgeons with greater certainty of outcomes as compared with other biomaterials, such as PEEK and metals.

- *Resistant to Wear*. The biomaterials used in joint replacement procedures should have sufficient hardness and toughness, as well as extremely smooth surfaces, to effectively resist wear. Because the articulating implants move against each other, they are subject to friction and cyclic loading, which frequently lead to abrasive wear and fatigue failure. We believe joint implants incorporating our silicon nitride components will have comparable or higher resistance to wear than the two most commonly used combinations of biomaterials in total hip replacement implants.
- *Non-Corrosive*. Biomaterials should be non-corrosive and should not cause adverse patient reactions. Metal placed in the human body corrodes over time and also results in the release of metal ions that can cause serious adverse reactions and conditions. Our silicon nitride does not have the deficiencies associated with the corrosive nature of metal within the body nor does it result in the release of metal ions into the body.

We produce silicon nitride in four forms: (1) a fully dense, load-bearing solid, referred to as *MC²*; (2) a porous bone-like cancellous structured form, referred to as *CSC*; (3) a composite incorporating both our solid *MC²* material and our porous *CSC* material intended to promote an ideal environment for bone growth; and (4) a coating for application onto other biomaterials. This capability provides us with the ability to utilize our silicon nitride technology platform in distinct ways depending on its intended application, which, together with silicon nitride's key characteristics, distinguishes us from manufacturers of other biomaterials and from products using other biomaterials.

Our Competitive Strengths

We believe we can use our silicon nitride technology platform to become a leading biomaterial company and have the following principal strengths:

- *Sole Provider of Silicon Nitride Medical Devices*. We believe we are the only company that designs, develops, manufactures and sells medical grade silicon nitride-based products.
- *Vertically Integrated Manufacturing Capabilities.* We operate a 30,000 square foot manufacturing facility located at our corporate headquarters in Salt Lake City, Utah. This state-of-the-art facility allows us to rapidly design and produce silicon nitride products, while controlling the entire manufacturing process from raw material to finished goods. We have also entered to a manufacturing, development and supply agreement with Kyocera Industrial Ceramics Corporation, or Kyocera, under which Kyocera will become a second qualified manufacturer of our silicon nitride-based spinal fusion products and product candidates.
- *Established Commercial Infrastructure.* 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 more than 50 independent sales distributors who are managed by our experienced in-house sales and marketing management team.
- *Portfolio of Non-Silicon Nitride Products.* We offer a full suite of spinal fusion products, which increases our access to surgeons and hospitals and allows us to more effectively market our silicon nitride spinal fusion products.
- *Highly Experienced Management and Surgeon Advisory Team* . Members of our management team have experience in product development, launching of new products into the orthopedics market and

selling to hospitals through direct sales organizations, distributors, manufacturers and other orthopedic companies. We also collaborate with a network of leading surgeon advisors in the design, development and use of our silicon nitride products and product candidates.

Our Strategy

Our goal is to become a leading biomaterial company focused on using our silicon nitride technology platform to develop, manufacture and commercialize a broad range of medical devices. Key elements of our strategy to achieve this goal are the following:

- *Drive Further Adoption of our Silicon Nitride Interbody Spinal Fusion Devices*. We believe that increasing the awareness of our silicon nitride technology by educating surgeons about its key benefits, and the design improvements to our silicon nitride products and related instruments, will accelerate the adoption of our products and ultimately help improve patient outcomes. To drive further awareness of our products and the associated benefits offered by our silicon nitride technology, we will continue to educate surgeons through multiple channels, including industry conferences and meetings, media outlets and through our sales and marketing efforts.
- *Establish and Develop OEM Partnerships and Distribution Arrangements.* Because we believe silicon nitride is a superior platform and technology for application in the spine and total joint markets, we seek to establish partnerships with other orthopedic companies to replace their inferior materials and products with silicon nitride. If successful, we will duplicate their designs and characteristics and leverage their existing instrumentation by providing the market place with a superior solution at a competitive price.
- *Continue to Implement our Design and Build Program*. As our first foray into an OEM partnership strategy, we initiated a commercialization strategy in 2013, referred to as our Design and Build Program. This program allows for close collaboration with influential surgeons to develop customized silicon nitride spinal fusion products and instruments. We first sell these products to the designing surgeons and a team of evaluating surgeons. After evaluation and acceptance by these surgeons, we then introduce these products more broadly into the market. The first products designed under this program were sold for initial evaluation in the third quarter of 2013.
- *Enhance our Commercial Infrastructure*. We expect to increase the productivity of our sales and marketing team by continuing to engage experienced independent sales distributors with strong orthopedic surgeon relationships. For example, in September 2013, we entered into a new European sales agent agreement with K2M, Inc. We may also establish distribution collaborations in the United States and abroad when access to large or well-established sales and marketing organizations may help us gain access to new markets, increase sales in our existing markets or accelerate market penetration for selected products.
- *Develop Silicon Nitride for Total Joint Components.* We are incorporating our silicon nitride technology into silicon nitride-coated metal components for use in total hip and knee replacement product candidates that we plan to develop in collaboration with a strategic partner. We also have designs for solid silicon nitride components and are working with the FDA to continue down the regulatory pathway required for development of these components.
- *Apply our Silicon Nitride Technology Platform to Other OEM Opportunities.* Our silicon nitride technology platform is adaptable and we believe it may be used to develop products to address other significant opportunities, such as in the dental, sports medicine, cardiovascular and trauma markets. We have manufactured prototypes of dental implants, sports medicine and trauma products, and we have developed a process to coat metals with our silicon nitride to enhance current medical devices and instruments. We plan to collaborate with other companies to develop and commercialize any future products in those areas or we may develop any one of them by ourselves should sufficient resources become available.

Risks Associated with Our Business

Our business is subject to a number of risks that you should be aware of before making an investment decision. These risks are discussed more fully in the section of this prospectus entitled "Risk Factors" immediately following this prospectus summary. You should read these risks before you invest in our common stock. We may be unable, for many reasons, including those that are beyond our control, to implement our business strategy. In particular, risks associated with our business include:

- our accumulated deficit was $162.8 million as of September 30, 2014, and we expect we will continue to incur additional, and possibly increasing, losses, which, among other things, raises doubts about our ability to continue as a going concern;
- our success depends on our ability to successfully commercialize silicon nitride-based medical devices, which to date have experienced only limited market acceptance and may not be widely accepted by hospitals and surgeons in the future;
- we may not be able to increase the productivity of our sales and marketing infrastructure to successfully penetrate the spinal fusion market;
- our long-term success depends substantially on our ability to obtain regulatory clearance or approval of our product candidates and then successfully commercializing these product candidates;
- 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; and
- we and our former independent registered public accounting firm have identified material weaknesses and a significant deficiency in our internal control over financial reporting, which increases the risk of material misstatements in our future financial statements.

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.amedica.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. "US 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.

Recent Developments

Hercules Loan and Security Agreement

On June 30, 2014, we entered into a Loan and Security Agreement with Hercules Technology Growth Capital, Inc., or Hercules Technology, 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 that matures on January 1, 2018, and which is secured by substantially all of our assets. The Loan and Security Agreement contains representations and warranties, affirmative, negative and financial covenants, and events of default customary for financings of this type, including, among other things, limitations on certain other indebtedness, loans and investments, liens, mergers, asset sales and transactions with affiliates, including a minimum liquidity covenant that requires us maintain cash and cash equivalents of not less than $9.0 million. We estimate we will receive approximately $11.6 million of net proceeds from this offering, based on the public offering price of $1.14 per Unit. If this offering is not completed or is not completed in a timely manner, we expect our cash balance to be less than $9.0 million as soon as sometime during December 2014, and if we are unable to access other additional funding prior to becoming non-compliant with the minimum liquidity covenant or if we are unable to amend the minimum liquidity covenant, the entire remaining balance of the Loan and Security Agreement could become immediately due and payable at the option of Hercules Technology.

Private Placement of Senior Convertible Notes and Warrant to Magna

On June 30, 2014, we entered into a Securities Purchase Agreement with MG Partners II Ltd., an affiliate of Magna, or Magna. Pursuant to the terms of the Securities Purchase Agreement, we sold to Magna an initial unsecured senior convertible note with an initial principal amount of $2.9 million, which was subsequently reduced to $2.5 million, or the Initial Convertible Note, for a purchase price of $2.5 million. Additionally, on August 11, 2014, Magna purchased an additional unsecured senior convertible note with an original principal amount of $3.5 million, or the Additional Convertible Note, for a fixed purchase price of $3.5 million. The Initial Convertible Note and Additional Convertible Note are collectively referred to as the Convertible Notes.

The Initial Convertible Note and Additional Convertible Note mature on June 30, 2016 and August 11, 2016, respectively. On October 1, 2014, the Convertible Notes became convertible at any time, in whole or in part, at Magna's option, into shares of common stock at a conversion price equal to the lesser of (i) $3.75 per share or (ii) a price equal to 80% of the lowest daily volume weighted average price, or VWAP, of our common stock during the five trading days prior to conversion.

In addition, we issued Magna a warrant, or the Magna Warrant, to purchase up to 568,889 shares of common stock at an exercise price of $4.65 per share. The Magna Warrant expires on June 30, 2016.

As of November 15, 2014, Magna had converted a total of $847,000 of the principal amount of the Convertible Notes into 871,460 shares of common stock. Pursuant to the terms of the Securities Purchase Agreement and as required by the rules of The NASDAQ Stock Market, until stockholder approval is obtained for this transaction, we may not issue any shares of common stock upon conversion of the Convertible Notes or upon exercise of the Magna Warrant in an aggregate amount that exceeds 19.99% of the issued and outstanding shares of our common Stock on June 30, 2014, or 2,481,000 shares in total.

At no time will Magna be entitled to convert any portion of the Convertible Notes or exercise any portion of the Magna Warrant to the extent that after such conversion or exercise, Magna (together with its affiliates) would beneficially own more than 4.99% of the outstanding shares of our common stock as of such date, or the Maximum Percentage. The Maximum Percentage may be raised to any other percentage not in excess of 9.99% at the option of Magna upon at least 61 days' prior notice to us, or lowered to any other percentage, at the option of Magna, at any time.

See "Description of Capital Stock—Senior Convertible Notes".

Bridge Loan

On November 6, 2014, we entered into a Loan and Security Agreement with Hampshire MedTech Partners II, LP, as lender, or the Bridge Lender, in connection with a $1.0 million loan to us, or the Bridge Loan, which matures on the earlier of (a) the third business day following our closing of a qualified secondary offering and (b) December 17, 2014, or the Maturity Date. A "qualified secondary offering" means a registered public offering of shares of our common stock with gross proceeds to us of at least $10.0 million.

Our obligations under the Bridge Loan are secured by substantially all of our assets, and this security is subordinate to the security previously granted to our senior secured lender, Hercules Technology. The Bridge Loan may be paid, in whole or in part, before the Maturity Date without any premium payments or penalty charges. Proceeds of the Bridge Loan will be used for general corporate purposes.

The Bridge Loan bears interest at the rate of 15% per annum. Interest on the Bridge Loan accrues from the date of issuance, but interest is not payable until the Maturity Date. The entire principal amount, and all accrued and then unpaid interest, are due and payable on the Maturity Date. We are obligated to pay the Bridge Lender a $75,000 commitment fee by no later than the Maturity Date. We also agreed to reimburse the Bridge Lender up to $30,000 of reasonable attorneys' fees and expenses incurred by the Bridge Lender in connection with the transaction. The Bridge Loan contains representations and warranties, affirmative and negative covenants, and events of default customary for a bridge financings of this nature, including, among other things, limitations on certain other indebtedness, loans and investments, liens, mergers, asset sales and transactions with affiliates, including the application of a default rate of interest equal to the lower of 18% per annum and the maximum rate of interest permitted by applicable law.

In addition, we issued a warrant to the Bridge Lender, or Closing Bridge Warrant, to purchase up to 267,380 shares of our common stock, with an exercise price of $1.87 per share. In the event we close a public offering on or before May 6, 2015, or a Secondary Offering, at a price per share of common stock sold to the public that is less than the exercise price of the Closing Bridge Warrant, then the Closing Bridge Warrant exercise price will be reduced to an amount equal to the price per share of common stock sold to the public in the Secondary Offering. The Closing Bridge Warrant is exercisable upon issuance and expires on November 5, 2019.

The Bridge Loan also obligates us to issue additional warrants to purchase shares of our common stock to the Bridge Lender for every 30 day period if any amount remains unpaid after the Maturity Date, or Additional Bridge Warrants. Additional Bridge Warrants, if any, are to be issued by us on the first day of each such 30 day period. The maximum number of shares that may be purchased pursuant to any such Additional Bridge Warrant is determined by dividing the then unpaid amount payable under the Bridge Loan by the lowest closing price per share of our common stock as reported by the NASDAQ Stock Market during the 30 day period immediately preceding the applicable Additional Warrant Issue Date. The exercise price of each Additional Bridge Warrant will also be determined on the applicable issue date, and it will be equal to the lowest closing price per share of our common stock as reported by the NASDAQ Stock Market during the 30 day period immediately preceding the applicable issue date. Any such Additional Bridge Warrant will be exercisable upon issuance and will expire on the fifth anniversary following its applicable issue date.

In no event may we issue shares of our common stock pursuant to the exercise of the Closing Bridge Warrant and/or any Additional Bridge Warrants in an aggregate amount greater than 19.99% of the number of our shares of common stock outstanding on the date of the closing of the Bridge Loan.

In connection with the closing of the Bridge Loan, Hercules Technology provided us a waiver which allowed us to enter into the Bridge Loan and to perform our obligations under the Bridge Loan without triggering an event of default under the existing obligations to Hercules Technology. In addition, we entered into an amendment and waiver with Magna that amended the terms of the unsecured senior convertible notes held by Magna and accordingly allowed us to enter into the Bridge Loan, grant a security interest to secure the Bridge Loan and to perform our obligations under the Bridge Loan without triggering an event of default under our existing obligations to Magna. Magna also waived all rights it had to participate in the Bridge Loan as a lender.

THE OFFERING

Securities being offered:	Up to 11,441,646 Units. Each Unit consists of one share of common stock and one warrant to purchase one share of common stock. The shares of common stock and warrants offered hereby are immediately separable and will be issued separately.
Warrants offered by us:	Each warrant will have an exercise price of $1.48 per share, will be immediately exercisable on the date of issuance and will expire five years from the date of issuance. Under certain circumstances, we may be required to issue more than one share of common stock per warrant or to pay cash upon the cashless exercise of the warrants. For additional information, see "Description of Capital Stock—Warrants to be Sold in this Offering" on page 57 of this prospectus. This prospectus also relates to the offering of the shares of common stock issuable upon exercise of the warrants underlying the Units offered hereby and the Unit Purchase Options to be issued to the underwriters.
Common stock to be outstanding after the offering assuming the sale of all shares covered hereby and no exercise of warrants for the shares covered by this prospectus:	24,320,327 shares
Over-allotment option	We have granted a 45-day option to the underwriters to purchase up to (i) 1,716,246 additional shares of common stock, and/or (ii) 1,716,246 additional warrants to purchase shares of common stock, solely to cover over-allotments, if any. The over-allotment option may be used to purchase shares of common stock, warrants, or any combination thereof, as determined by the underwriters, but such purchases cannot exceed an aggregate of 15% of the number of shares of common stock and warrants sold in the primary offering.
Use of proceeds:	We intend to use the net proceeds from this offering (i) to primarily support debt service under our existing senior secured credit facility with Hercules Technology Group and pay off the Bridge Loan, (ii) to support working capital needs and other general corporate purposes, (iii) to 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 (iv) to continue to build sales, marketing and distribution capabilities for our silicon nitride technology platform, including the costs of inventory and instruments. See "Use of Proceeds" beginning on page 39.
Risk factors:	See "Risk Factors" beginning on page 10 and other information included in this prospectus for a discussion of factors that you should consider carefully before deciding to invest in our common stock.
NASDAQ Capital Market symbol:	AMDA

The number of shares of our common stock to be outstanding after this offering is based on 12,878,681 shares of common stock outstanding as of September 30, 2014, and excludes the following:

- 1,326,136 shares of common stock issuable upon the exercise of outstanding options to purchase common stock as of September 30, 2014 under our Amended and Restated 2012 Equity Incentive Plan, or the 2012 Plan, at a weighted-average exercise price of $5.65 per share;
- 1,755,708 shares of common stock issuable upon the exercise of warrants for shares of our common stock outstanding as of September 30, 2014, at a weighted-average exercise price of $9.63 per share;
- 1,059,745 shares of common stock issuable upon the vesting of outstanding RSUs issued under the 2012 Plan as of September 30, 2014;
- 178,343 additional shares of common stock reserved for issuance under the 2012 Plan as of September 30, 2014;
- 6,976,744 shares of common stock issuable upon the conversion of $6 million in Convertible Notes at a conversion price of $0.86 as of October 1, 2014;
- 267,380 shares of common stock issuable upon exercise of the Closing Bridge Warrant issued on November 6, 2014;
- 150,000 shares of common stock issuable upon exercise of a warrant issued to a financial advisor on November 12, 2014 at an exercise price of $1.25 per share;
- up to 11,441,646 shares of common stock issuable upon the cash exercise of the warrants to be sold in this offering (See “Description of Capital Stock—Warrants to be Sold in this Offering” for a description of these warrants.); and
- shares of common stock issuable upon the exercise of the Unit Purchase Options to be issued to the underwriters in this offering and the warrants underlying the Units issuable upon exercise of the Unit Purchase Options.

On October 1, 2014, the Convertible Notes became convertible at any time, in whole or in part, at Magna’s option, into shares of common stock at a conversion price equal to the lesser of (i) $3.75 per share and (ii) a price equal to 80% of the lowest daily volume weighted average price, or VWAP, of our common stock during the five trading days prior to conversion. As of the date of this prospectus, the conversion price of the Convertible Notes was $0.98 per share. Between October 1, 2014 and November 15, 2014, Magna has converted $847,000 in principal amount of the Convertible Notes into 871,060 shares of our common stock at a weighted average conversion price of $0.97 per share. Pursuant to the terms of the Securities Purchase Agreement and as required by the rules of The NASDAQ Stock Market, until stockholder approval is obtained, we may not issue any shares of common stock upon conversion of the Convertible Notes or upon exercise of the Magna Warrant in an aggregate amount that exceeds 19.99% of the issued and outstanding shares of our common Stock on June 30, 2014, or 2,481,000 shares in total.

Unless otherwise indicated, all information contained in this prospectus assumes the underwriters do not exercise their over-allotment option to purchase additional securities in this offering.

We have received an indication of interest from Crede CG III Ltd. (“Crede”) to purchase up to a number of Units in this offering such that, following the offering, Crede will beneficially own approximately 9.9% of our outstanding common stock. We have agreed to reimburse Crede $30,000 for legal fees.

RISK FACTORS

An investment in our securities involves a high degree of risk. You should carefully read and consider the risks described below, as well as the other information in this prospectus and other information incorporated by reference herein, before deciding to invest in our securities. The occurrence of any of the following risks could have a material adverse effect on our business, financial condition, results of operations or cash flows. In that case, the trading price of our common stock could decline, and you could lose all or part of your investment.

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, 2013 and 2012 we incurred a net loss of $8.2 million and $35.0 million, respectively, and used cash in operations of $9.9 million and $9.7 million, respectively. For the nine months ended September 30, 2014, we incurred a net loss of $22.9 million and used cash in operations of $11.4 million. We have an accumulated deficit of $162.8 million at September 30, 2014. 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 and interest expense. 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 payors for the procedures that use our products;
- Medicare, Medicaid or other third-party payors 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. In 2012, Medtronic, Inc.; DePuy Synthes Companies, a group of Johnson & Johnson companies; Stryker Corporation; Biomet, Inc.; Zimmer Holdings, Inc.; and Smith & Nephew plc, accounted for more than 65% 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 payors.

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 September 30, 2014, our largest customer, Bon Secours St. Mary's Hospital, or St. Mary's, had a receivable balance of approximately 20% of our total trade accounts receivable. In addition, St. Mary's accounted for 14% of our product revenues for each of the years ended December 31, 2013 and 2012 and 18% of our product revenue for the nine months ended September 30, 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 have initiated the FDA required actions and processes in order to qualify Kyocera as a second source supplier of our silicon nitride products. 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. We expect to begin receiving production parts from Kyocera in the latter part of the fourth quarter of 2014 for distribution in the first quarter of 2015, assuming the FDA accepts and approves our 510(k) submission. Although we expect this arrangement with Kyocera will lead to Kyocera becoming a secondary qualified manufacturer, if Kyocera fails to become a qualified manufacturer of these

products and product candidates, we will continue to 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.

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.

Pursuant to a joint development and license agreement with Orthopaedic Synergy, Inc., or OSI, we are dependent on OSI's ability to execute product development plans, obtain regulatory approvals, and sell, distribute and market our jointly developed product candidate for total hip and total knee joint replacement implants that use our *MC*^{2} silicon nitride technology. We would similarly be reliant on other 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 OSI, 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 seeking to establish OEM partnerships with other companies to replace their materials and products with silicon nitride. Sales of products to OEM customers would 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.

The use of physician-owned distributorships could result in increased pricing pressure on our products or harm our ability to sell our products to physicians who own or are affiliated with those distributorships and the sale of our products through such distributorships may expose us to regulatory enforcement risk.

Physician-owned distributorships, or PODs, are medical device distributors that are owned, directly or indirectly, by physicians. These physicians derive a proportion of their revenue from selling or arranging for the sale of medical devices for use in procedures they perform on their own patients at hospitals that agree to purchase from or through the POD, or that otherwise furnish ordering physicians with income that is based directly or indirectly on those orders of medical devices.

We may sell and distribute our products through a limited number of PODs. The number of PODs in the orthopedic industry may continue to grow as physicians search for ways to increase their incomes. These companies and the physicians who own, or partially own, them have significant market knowledge and access to the surgeons and hospitals that may potentially purchase our products and the physicians who own these PODs will have financial incentives to purchase from these distributorships. As a result, growth in this area may reduce our ability to compete effectively for business.

On March 26, 2013, the Department of Health and Human Services Office of Inspector General issued a Special Fraud Alert on Physician-Owned Entities and identified PODs as “inherently suspect” under the federal Anti-Kickback Statute. While the PODs themselves may be the target of any government enforcement efforts in this area, it is possible that regulatory scrutiny may extend to other entities that have relationships with PODs, including us. We are not aware that we are currently subject to any such scrutiny. However, the cost of defending such enforcement actions, if brought (even without merit), as well as any sanctions, if imposed, could have a material adverse effect on our business.

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 payors at the federal and state levels, including Medicare and Medicaid, private health insurers and other third-party payors 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 payors for our products. However, hospitals and other healthcare providers that purchase our orthopedic products for treatment of their patients generally rely on third-party payors 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 payors 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 payors 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 payors also denying coverage for our products. Third-party payors 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 payor, or was used for an unapproved use. Unfavorable coverage or reimbursement decisions by government programs or private payors 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 payors 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 payors frequently follow government payment policies and are likewise interested in controlling increases in the cost of medical care. In addition, some payors 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 payor 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 payors 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 payors 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 payors, that reimbursement will be available or, if available, that the third-party payors’ 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 payors 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 have a new senior management team and 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 assembled a new senior management team in 2013 and we hired a new President and Chief Executive Officer in September 2014. 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 severance and management retention 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 new 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.

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 could 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, 2014, December 31, 2013 and December 31, 2012, were $10.4 million, $2.3 million and $2.7 million, respectively. 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, including the net proceeds from our initial public offering of shares of our common stock and financings through Hercules Technology, Magna and the Bridge Lender 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 and Security Agreement and the liquidity covenant limit 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 Loan and Security Agreements with Hercules Technology and the Bridge Lender restrict our ability to incur additional pari passu indebtedness, which may reduce our ability to seek additional financing. The Convertible Notes issued to Magna also contain other covenants and events of default customary for financings of that type, including, among other things, limitations on certain other indebtedness, dividends and distributions, sales and transfers of assets and transactions with affiliates. 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.

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 with Hercules Technology, we will be in default of the Loan and Security Agreement.

In June 2014 we entered into a Loan and Security Agreement with Hercules Technology Growth Capital, Inc., or Hercules Technology, 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 quarterly report for the quarter ended September 30, 2014 on Form 10-Q incorporated into this prospectus by reference. Proceeds of the loan were used to repay in full and terminate our prior credit facility with General Electric Capital Corporation, or GE Capital, and the remainder of the loan proceeds will be used for general corporate purposes.

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 $9.0 million. We will need to obtain additional funding during the fourth quarter of 2014 to maintain compliance with this minimum liquidity covenant under the Loan and Security Agreement 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 could 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 will 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. 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 former 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 former independent registered public accounting firm for the year ended December 31, 2013 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 2014 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 *C*^{S}*C* technology and our *MC*^{2} 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 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.

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 no 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 payors 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 payors and current and potential customers, including providers and physicians, as well as PODs, as discussed above, 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 payors, 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.

In July 2012, we received a subpoena from the Department of Justice seeking the production of documents, including documents related to our relationship with a particular customer and various entities, including a company distributor, and individuals associated with that distributor. In April 2013, we received a second subpoena requesting similar records. We cooperated with the Department of Justice's requests and provided the records requested by the two subpoenas. We have had no further communications with the Department of Justice since responding to its second request in June 2013. While we do not believe that we are the target of the government's investigation, if we are found to have violated one or more applicable laws, we could be subject to the risks and consequences discussed above. In addition, responding to any additional requests or actions of the Department of Justice in connection with this investigation may be expensive and time-consuming.

Recently enacted and future legislation may increase the difficulty and cost for us to obtain 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 payors in the United States and elsewhere, there is significant interest in promoting changes in healthcare systems with the stated goals of containing healthcare costs, improving quality 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, which currently includes and we expect will continue to include U.S. sales of our current products and products candidates that receive clearance or approval;
- 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 payors. 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.

The U.S. federal medical device excise tax may materially adversely affect our business and results of operations, and we may be subject to increased taxes in other jurisdictions.

The ACA imposed a 2.3% federal medical device excise tax on the sales in the United States of most medical devices. Most if not all of our products will be subject to this tax. This excise tax became effective in 2013 and has forced, and will continue to force us to identify ways to reduce spending in other areas to offset the expected earnings impact due to the tax. We do not expect to be able to pass along the cost of this tax to hospitals, which continue to face cuts to their Medicare reimbursement due to the ACA and the recently enacted ATRA. Nor do we expect to be able to offset the cost of the tax through higher sales volumes resulting from the expansion of health insurance coverage because of the demographics of the current uninsured population in the United States. While it is still too early to fully understand and predict the ultimate impact of the medical device tax on our business, ongoing implementation of this legislation and any similar taxes imposed in other jurisdictions could have a material adverse effect on our results of operations and cash flows.

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 currently have 34 issued U.S. patents, 38 pending U.S. patent applications, 11 granted foreign patents and 18 pending foreign patent applications. Our issued patents begin to expire in 2014, with the last of these patents expiring in 2031. 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 *MC²* silicon nitride or the process we use for manufacturing our *MC²* 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 *MC²* 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 *MC²* 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 will 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;
- the amount of Convertible Notes converted into shares, which are then subsequently sold;
- our obligation to issue Additional Bridge Warrants if the Bridge Loan is not repaid in full on or before its maturity date;
- 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.

The low trading volume of our common stock may adversely affect the price of our shares.

Although our common stock is listed on The NASDAQ Capital Market, our common stock has experienced low trading volume. The average daily trading volume of our common stock from April 1, 2014 to September 30, 2014, as reported by NASDAQ, was approximately 33,000 shares. Limited trading volume may subject our

common stock to greater price volatility and may make it difficult for investors to sell shares of our common stock at a price that is attractive to them.

Future sales of our common stock in the public market may cause our stock price to decline and impair our ability to raise future capital through the sale of our equity securities.

There are a substantial number of shares of our common stock held by stockholders who owned shares of our capital stock prior to our initial public offering that they may be able to sell in the public market. Sales by such stockholders of a substantial number of shares could significantly reduce the market price of our common stock. Moreover, warrants to acquire approximately 633,669 shares of our common stock and 8,627,454 shares of our outstanding common stock which are deemed to be "restricted securities" pursuant to Rule 144 under the Securities Act, became eligible for sale in reliance on Rule 144 when the lock-up agreements covering substantially all of these securities expired on August 12, 2014. A holder of warrants to acquire shares of our common stock will be able to net exercise such warrants by surrendering a portion of that holder's warrants as payment of the exercise price rather than paying the exercise price in cash. Additionally, we have 1,059,745 outstanding RSUs at October 31, 2014 that may be eligible to be sold in the public market once the lock-up agreements entered into in connection with this offering expire.

On August 7, 2014, Magna became eligible to sell up to 2,326,409 shares of our common stock following conversion of the Convertible Notes and exercise of the Magna Warrant.

We have also registered all shares of our common stock that we may issue pursuant to our 2003 Stock Option Plan and our Amended and Restated 2012 Equity Incentive Plan, or the 2012 Plan. Shares issued by us upon exercise of options granted under these equity plans are eligible for sale in the public market. If any of these holders cause a large number of securities to be sold in the public market, the sales could reduce the trading price of our common stock. These sales also could impede our ability to raise capital in the future.

If the Bridge Loan that we entered into on November 6, 2014 is not paid in full by its Maturity Date, which is no later than December 17, 2014, then we will be required to issue Additional Bridge Warrants for every 30 day period that any portion of the Bridge Loan remains unpaid. Additional Bridge Warrants, if any, are to be issued by us on the first day of each such 30 day period, each such date is referred to as an Additional Warrant Issue Date. In no event may we issue shares of our common stock pursuant to the exercise of the Closing Bridge Warrant and/or any Additional Bridge Warrants in an aggregate amount greater than 19.99% of the number of our shares of common stock outstanding on the date we entered into the Bridge Loan. If we become obligated to issue Additional Bridge Warrants, those circumstances could impede our ability to raise capital in the future.

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.

If our stock price drops below $1.00, our common stock may be subject to delisting from The NASDAQ Stock Market.

If the bid price of our common stock closes below the required minimum $1.00 per share for 30 consecutive business days, NASDAQ may notify us that our common stock is subject to delisting. 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.

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. Each of the Hercules Secured Credit Facility and the Convertible Notes issued contain a negative covenant which prohibits us from paying dividends to our stockholders without the prior written consent of Hercules Technology and Magna, respectively. In addition, the terms of any future debt or credit facility may preclude us from paying any dividends.

Risks Related to our Senior Convertible Notes

Adjustments to the conversion price for our Convertible Notes issued to Magna will dilute the ownership interests of our existing stockholders.

The Convertible Notes are convertible at any time after issuance, in whole or in part, at Magna's option, into shares of common stock at the lesser of (i) the initial fixed conversion price of $3.75 per share and (ii) a price equal to 80% of the lowest daily volume weighted average price per share during the five trading days prior to conversion. Accordingly, if the market value of shares of our common stock decreases, the number of shares issuable upon conversion of the Convertible Notes will increase, and may result in the issuance of a significant number of additional shares of our common stock upon conversion if our stock price decreases.

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.

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.

Our internal control over financial reporting does not currently meet the standards required by Section 404 of the Sarbanes-Oxley Act, and failure to achieve and maintain effective internal control over financial reporting in accordance with Section 404 of the Sarbanes-Oxley Act could result in material misstatements of our annual or interim financial statements and have a material adverse effect on our business and share price.

As a new public company, we are not currently required to make a formal assessment of the effectiveness of our internal control over financial reporting for purposes of compliance with the SEC's rules that implement Section 404 of the Sarbanes Oxley Act. We are, however, required to comply with certain of these rules, which will require management to certify financial and other information in our quarterly and annual reports and provide an annual management report on the effectiveness of our internal control over financial reporting commencing with our second annual report. This assessment will need to include the disclosure of any material weaknesses or significant deficiencies in our internal control over financial reporting identified by our management or our former independent registered public accounting firm. A "material weakness" is a deficiency, or a combination of deficiencies, in internal control over financial reporting such that there is a reasonable possibility that a material misstatement of our annual or interim financial statements will not be prevented or detected on a timely basis. A "significant deficiency" is a deficiency, or a combination of deficiencies, in internal control over financial reporting that is less severe than a material weakness, yet important enough to merit attention by those responsible for oversight of our financial reporting, including the audit committee of the board of directors.

Our independent registered public accounting firm will not be required to formally attest to the effectiveness of our internal control over financial reporting until the later of our second annual report or the first annual report required to be filed with the SEC following the date we are no longer an "emerging growth company" as defined in the JOBS Act. However, in connection with our audits for the years ended December 31, 2013 and 2012, and their review of our interim financial statements, our former independent registered public accounting firm noted four material weaknesses and one significant deficiency in our internal control over financial reporting.

One material weakness related to our improper recording and disclosure of non-routine transactions due to deficiencies in the design and operation of our controls to account for non-routine transactions as part of the financial close process. We plan to remedy this by increasing the size and expertise of our internal accounting team.

Another material weakness was identified related to the deficiency in the design and operation of our controls to account for inventory. In addition to increasing the size and expertise of our accounting team, we plan to address this deficiency by physically counting inventory held by certain of our distributors on a more frequent basis and monitoring more closely the movement of inventory between locations.

The third material weakness related to deficiencies in our income tax accounting. We intend to implement a formal process for accounting for income taxes, including evaluating the tax treatment of certain transactions on permanent and temporary book/tax differences, and the effect on the income tax provision and related deferred tax accounting balances.

The fourth material weakness relates to deficiencies in the design and operation of our controls to appropriately identify and evaluate transactions for appropriate cut-off at the end of the financial reporting period and the level of precision and timeliness of our financial close process. In addition to increasing the size and expertise of our accounting team, we plan to remedy this by implementing a formal financial close process related to financial reporting.

Additionally, our former independent registered public accounting firm identified a significant deficiency related to the design and operation of our controls to manage the safeguarding of assets, particularly our instruments that we provide to surgeons and hospitals on consignment. We plan to implement a formal process for tracking and monitoring fixed assets as they are deployed for use at various locations.

We cannot assure you that our plans will sufficiently address the identified deficiencies, nor can we assure you that there will not be material weaknesses or significant deficiencies in our internal controls in the future. Additionally, in the event that our internal control over financial reporting is perceived as inadequate, or that we are unable to produce timely or accurate financial statements, investors may lose confidence in our operating results and the trading price of our common stock could decline.

Risks Relating to this Offering

If you purchase Units in this offering, you will incur immediate and substantial dilution in the net tangible book value of your shares.

The public offering price is substantially higher than the net tangible book value per share of our common stock. Investors purchasing Units in this offering will pay a price per Unit that substantially exceeds the book value of our tangible assets after subtracting our liabilities. As a result, investors purchasing Units in this offering will incur immediate dilution of $0.60 per share, based on the public offering price of $1.14 per Unit. See “Dilution.”

As a result of the dilution to investors purchasing shares in this offering, investors may receive significantly less than the purchase price paid in this offering, if anything, in the event of a liquidation of our company.

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. We have not allocated specific amounts of the net proceeds from this offering for any of the foregoing purposes. 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.

There is no public market for the Units or warrants to purchase common stock in this offering.

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

If the registration statement covering the shares issuable upon exercise of the warrants contained in the Units is no longer effective, the Unit warrants may only be exercised on a “cashless” basis and will be issued with restrictive legends unless such shares are eligible for sale under Rule 144 of the Securities Act, as amended.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus and the documents incorporated by reference herein contain forward-looking statements that are based on our management's beliefs and assumptions and on information currently available to us. These statements relate to future events or to our future financial performance and involve known and unknown risks, uncertainties, and other factors that may cause our or our industry's actual results, levels of activity, performance or achievements to be materially different from any future results, levels of activity, performance or achievements expressed or implied by these forward-looking statements. 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 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 Hercules Secured Credit Facility and the Convertible Notes;
- our estimates regarding our needs for additional financing and our ability to obtain such additional financing on suitable terms, and on terms that do not trigger the anti-dilution protections included in the Convertible Notes;
- 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 payors 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,” “expect,” “plan,” “intend,” “anticipate,” “believe,” “estimate,” “predict,” “potential,” “project” or “continue” or the negative of these terms or other 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” and elsewhere in this prospectus. If one or more of these risks or uncertainties occur, or if our underlying assumptions prove to be incorrect, actual events or results may vary significantly from those implied or projected by the forward-looking statements.

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

We estimate that we will receive approximately $11.6 million in net proceeds from the sale of 11,441,646 Units in this offering, based on the public offering price of $1.14 per Unit and after deducting underwriting discounts and commissions agent fees and estimated offering expenses payable by us.

We intend to use the net proceeds from this offering (i) to support debt service under our existing senior secured credit facility with Hercules Technology Group and pay off the Bridge Loan, (ii) to support working capital needs and other general corporate purposes, (iii) to 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 (iv) to continue to build sales, marketing and distribution capabilities for our silicon nitride technology platform, 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 plan to 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.

MARKET PRICE AND DIVIDEND POLICY

Market Information

Our shares of common stock are currently quoted on The NASDAQ Capital Market under the symbol “AMDA”.

The following table sets forth the high and low closing bid prices of our common stock, as reported by NASDAQ Capital Markets since our initial public offering, for the periods indicated:

	2014	
	High	Low
First Quarter (February 13 to March 31)	$9.37	$5.30
Second Quarter	$6.25	$4.40
Third Quarter	$4.74	$1.58

As of October 31, 2014, there were approximately 539 stockholders of record of our common stock.

Dividend Policy

We have never paid or declared any cash dividends on our common stock, and we do not anticipate paying any cash dividends on our common stock in the foreseeable future. We intend to retain all available funds and any future earnings to fund the development and expansion of our business.

CAPITALIZATION

The table below reflects our unaudited capitalization as of September 30, 2014 on:

- an actual basis; and
- an as adjusted basis to give effect to our receipt of estimated net proceeds of approximately $11.6 million from the sale of 11,441,646 Units in this offering at the public offering price of $1.14 per Unit.

You should read this table together with "Selected Consolidated Financial Data," "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our financial statements and the related notes appearing elsewhere in or incorporated by reference in this prospectus.

	As of September 30, 2014 (unaudited) (in thousands, except share and per share data)	
	Actual	As Adjusted
Cash and cash equivalents	$ 10,360	$ 21,910
Debt:		
Current portion of long-term debt	18,984	18,984
Senior convertible notes	3,718	3,718
Total debt	22,702	22,702
Stockholders' Equity:		
Common stock, $0.01 par value; 250,000,000 shares authorized; 12,878,681 shares issued and outstanding actual, 24,320,327 shares issued and outstanding, as adjusted	129	243
Additional paid-in capital	174,635	186,071
Accumulated deficit	(162,807)	(162,807)
Total stockholders' equity	11,957	23,507
Total capitalization	$ 34,659	$ 46,209

In the discussion and table above, we assume no exercise of outstanding options or warrants. The discussion above is based 12,878,681 shares of common stock outstanding as of September 30, 2014 and excludes:

- 1,326,136 shares of common stock issuable upon the exercise of outstanding options to purchase common stock as of September 30, 2014 under the 2012 Plan, at a weighted-average exercise price of $5.65 per share;
- 1,755,708 shares of common stock issuable upon the exercise of warrants for shares of our common stock outstanding as of September 30, 2014, at a weighted-average exercise price of $9.63 per share;
- 1,059,745 shares of common stock issuable upon the vesting of outstanding RSUs issued under the 2012 Plan as of September 30, 2014;
- 178,343 additional shares of common stock reserved for issuance under the 2012 Plan as of September 30, 2014;
- 6,976,744 shares of common stock issuable upon the conversion of $6 million in Convertible Notes at a conversion price of $0.86 as of October 1, 2014;

- 267,380 shares of common stock issuable upon exercise of the Closing Bridge Warrant issued on November 6, 2014;
- 150,000 shares of common stock issuable upon exercise of a warrant issued to a financial advisor on November 12, 2014 at an exercise price of $1.25 per share;
- up to 11,441,646 shares of common stock issuable upon the cash exercise of the warrants to be sold in this offering (See "Description of Capital Stock—Warrants to be Sold in this Offering" for a description of these warrants.); and
- shares of common stock issuable upon the exercise of the Unit Purchase Options to be issued to the underwriters in this offering and the warrants underlying the Units issuable upon exercise of the Unit Purchase Options.

On October 1, 2014, the Convertible Notes became convertible at any time, in whole or in part, at Magna's option, into shares of common stock at a conversion price equal to the lesser of (i) $3.75 per share and (ii) a price equal to 80% of the lowest daily volume weighted average price, or VWAP, of our common stock during the five trading days prior to conversion. As of the date of this prospectus, the conversion price of the Convertible Notes was $0.98 per share. Between October 1, 2014 and November 15, 2014, Magna has converted $847,000 in principal amount of the Convertible Notes into 871,060 shares of our common stock at a weighted average conversion price of $0.97 per share. Pursuant to the terms of the Securities Purchase Agreement and as required by the rules of The NASDAQ Stock Market, until stockholder approval is obtained, we may not issue any shares of common stock upon conversion of the Convertible Notes or upon exercise of the Magna Warrant in an aggregate amount that exceeds 19.99% of the issued and outstanding shares of our common Stock on June 30, 2014, or 2,481,000 shares in total.

DILUTION

Our net tangible book value as of September 30, 2014, was approximately $1.5 million, or approximately $0.11 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, 2014. Dilution in net tangible book value per share represents the difference between the amount per Unit 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 11,441,646 Units in this public offering at the public offering price of $1.14 per Unit, and after deducting underwriting discounts and commissions and estimated offering expenses payable by us, our as adjusted net tangible book value as of September 30, 2014 would have been approximately $13.0 million, or approximately $0.54 per share. This represents an immediate dilution of $0.60 per share to new investors purchasing shares of common stock in this offering. The following table illustrates this dilution.

Public offering price per Unit		$1.14
Net Tangible book value per share as of September 30, 2014	$0.11	
Increase in net tangible book value per share attributable to new investors in this offering	$0.43	
As adjusted net tangible book value per share after giving effect to this offering		$0.54
Dilution per share to investors in this offering		$0.60

This information is based on 12,878,681 shares of common stock outstanding as of September 30, 2014 and excludes:

- 1,326,136 shares of common stock issuable upon the exercise of outstanding options to purchase common stock as of September 30, 2014 under the 2012 Plan, at a weighted-average exercise price of $5.65 per share;
- 1,755,708 shares of common stock issuable upon the exercise of warrants for shares of our common stock outstanding as of September 30, 2014, at a weighted-average exercise price of $9.63 per share;
- 1,059,745 shares of common stock issuable upon the vesting of outstanding RSUs issued under the 2012 Plan as of September 30, 2014;
- 6,976,744 shares of common stock issuable upon the conversion of $6 million in Convertible Notes at a conversion price of $0.86 as of October 1, 2014;
- 178,343 additional shares of common stock reserved for issuance under the 2012 Plan as of September 30, 2014;
- 267,380 shares of common stock issuable upon exercise of the Closing Bridge Warrant issued on November 6, 2014;
- 150,000 shares of common stock issuable upon exercise of a warrant issued to a financial advisor on November 12, 2014 at an exercise price of $1.25 per share;
- up to 11,441,646 shares of common stock issuable upon the cash exercise of the warrants to be sold in this offering (See “Description of Capital Stock—Warrants to be Sold in this Offering” for a description of these warrants.); and
- shares of common stock issuable upon the exercise of the Unit Purchase Options to be issued to the underwriters in this offering and the warrants underlying the Units issuable upon exercise of the Unit Purchase Options.

On October 1, 2014, the Convertible Notes became convertible at any time, in whole or in part, at Magna's option, into shares of common stock at a conversion price equal to the lesser of (i) $3.75 per share and (ii) a price equal to 80% of the lowest daily volume weighted average price, or VWAP, of our common stock during the five trading days prior to conversion. As of the date of this prospectus, the conversion price of the Convertible Notes was $0.98 per share. Between October 1, 2014 and November 15, 2014, Magna has converted $847,000 in principal amount of the Convertible Notes into 871,060 shares of our common stock at a weighted average conversion price of $0.97 per share. Pursuant to the terms of the Securities Purchase Agreement and as required by the rules of The NASDAQ Stock Market, until stockholder approval is obtained, we may not issue any shares of common stock upon conversion of the Convertible Notes or upon exercise of the Magna Warrant in an aggregate amount that exceeds 19.99% of the issued and outstanding shares of our common Stock on June 30, 2014, or 2,481,000 shares in total.

To the extent these outstanding options or warrants are exercised, the Convertible Notes are converted, or the RSUs vest, 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.

SELECTED CONSOLIDATED FINANCIAL DATA

The following selected consolidated financial data should be read in conjunction with "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our consolidated financial statements and the related notes incorporated by reference herein. The selected consolidated statement of comprehensive loss data for the years ended December 31, 2013 and 2012 and selected consolidated balance sheet data as of December 31, 2013 and 2012 were derived from our audited consolidated financial statements that are incorporated by reference herein. The selected consolidated statement of comprehensive loss data for the nine months ended September 30, 2014 and 2013 and selected consolidated balance sheet data as of September 30, 2014 were derived from our unaudited consolidated financial statements that are incorporated by reference herein. In the opinion of management, the unaudited consolidated financial statements were prepared on a basis consistent with our audited consolidated financial statements incorporated by reference herein and include all adjustments necessary for the fair presentation of the financial information contained in those statements. The historical results presented below are not necessarily indicative of financial results to be achieved in future periods, and the results for the nine months ended September 30, 2014 are not necessarily indicative of results to be expected for the full year.

	Nine Months Ended September 30,		Years Ended December 31,	
	2014	2013	2013	2012
	(unaudited)	(unaudited)	(audited)	(audited)
	(in thousands except share and per share amounts)			
Consolidated Statement of Comprehensive Loss Data:				
Product revenue	$ 17,614	$ 16,604	$ 22,314	$ 23,065
Total cost of revenue	5,191	5,012	7,045	6,466
Total operating expenses	32,744	19,057	25,604	45,701
Net loss from operations	(20,321)	(7,465)	(10,335)	(29,102)
Net loss	(22,884)	(8,948)	(8,286)	(35,035)
Net loss per share:				
Basic and diluted	$ (2.20)	$ (17.64)	$ (15.52)	$ (100.52)
Weighted average common shares outstanding :				
Basic and diluted	10,383,228	507,227	534,073	348,550

	As of September 30,	As of December 31,	
	2014	2013	2012
	(unaudited)	(audited)	(audited)
		(in thousands)	
Consolidated Balance Sheet Data:			
Cash, restricted cash and cash equivalents	$ 10,360	$ 2,671	$ 3,001
Inventories, net	12,632	10,084	8,826
Total assets	42,349	34,327	33,455
Current debt	18,984	17,925	20,466
Long-term debt	3,718	—	—
Total liabilities	30,392	25,932	28,264
Convertible preferred stock	—	161,456	153,474
Accumulated deficit	(162,807)	(139,923)	(131,637)
Total stockholders' equity (deficit)	11,957	(153,061)	(148,283)

MANAGEMENT

Directors and Executive Officers

Our current directors and executive officers and their respective ages and positions are as follows:

Name	Age	Position
B. Sonny Bal, M.D.	52	Chairman of the Board of Directors, President and Chief Executive Officer
David W. Truetzel	57	Director
Jeffrey S. White	60	Director
Eric A. Stookey	44	Director
Kevin Davis	48	Chief Operating Officer
Bryan J. McEntire	62	Chief Technology Officer
Kevin Ontiveros	54	Chief Legal Officer, Chief Compliance Officer and Corporate Secretary
Christopher R. Whitfield	47	Chief Commercial Officer
Gordon G. Esplin	46	Chief Accounting Officer

The following is a brief summary of the background of each of our current directors and executive officers.

B. Sonny Bal, M.D. has served on our board of directors since February 2012, as Chairman of our board of directors since August 2014 and as our President and Chief Executive Officer since October 2014. Dr. Bal is Professor & Chief of Adult Reconstruction at the University of Missouri, Columbia, and Adjunct Professor of Material Sciences at the University of Missouri at Rolla. Dr. Bal is a member of the American Academy of Orthopaedic Surgeons, the American Association of Hip and Knee Surgeons and the International Society of Technology in Arthroplasty. Dr. Bal received his M.D. degree from Cornell University and an M.B.A. from Northwestern University, and a J.D. from the University of Missouri. Dr. Bal is a licensed attorney and co-founder of the Bal Brenner law firm in North Carolina. We believe that Dr. Bal's breadth of experience and scientific expertise in silicon nitride qualifies him to serve as our Chairman, President and Chief Executive Officer.

David W. Truetzel has served on our board of directors since our acquisition of US Spine, Inc. in September 2010. Mr. Truetzel has been the general partner of Augury Capital Partners a private equity fund that invests in life sciences and information technology companies, which he co-founded in 2006. Mr. Truetzel is a director of Enterprise Bank, Inc., Verifi, Inc., a provider of electronic payment solutions, Clearent, LLC, a credit card processing provider, and Paranet, LLC, an IT services provider. Mr. Truetzel holds a B.S. in Business Administration from Saint Louis University and an M.B.A. from The Wharton School. We believe that Mr. Truetzel's financial and managerial expertise qualify him to serve on our board of directors.

Jeffrey S. White has served on our board of directors since January 2014. Since January 2013, Mr. White has served as Principal at Medtech Advisory Group LLC, a firm he founded that advises early and mid-stage medical technology firms. Mr. White is currently a director of Residency Select LLC, a company which offers psychometric assessment, training and compliance products to medical and surgical residency programs. From May 2006 to December 2012 he served as Global Director of Business Development for Synthes Inc., a global orthopedic firm that was acquired by Johnson and Johnson in 2012. Mr. White has served as Chief Executive Officer and co-founder of several start-up surgical device firms and has previously held executive level positions at Richard-Allan Medical Industries Inc., a medical device manufacturer, which was acquired by Urohealth Systems Inc. and United States Surgical Corporation, unit of Covidien plc. Mr. White holds a B.S. in Biology from Union College in Schenectady NY. We believe that Mr. White's experience as an executive and founder of medical device companies qualifies him to serve on our board of directors.

Eric A. Stookey has served on our board of directors since October 2014. From October 2011 until August 2014, Mr. Stookey served as the President of the Extremities-Biologics division at Wright Medical Group Inc. Mr. Stookey also served in various other marketing and sales positions at Wright Medical Group Inc. since 1995, including as the Senior Vice President and Chief Commercial Officer from January 2010 to November 2011, as the Vice President North American Sales from 2007 to January 2010, as the Vice President US Sales from 2005 until 2007, as the Senior Director of Sales, Central Region, from 2003 to 2005 and as the Director of Marketing for Large Joint Reconstruction Products from 2001 to 2003. Mr. Stookey earned his MBA from Christian Brothers University and his B.S. in Business from the Indiana University School of Business. We believe that Mr. Stookey's industry and executive leadership experience qualifies him to serve on our board of directors.

Kevin Davis has served as our Chief Operating Officer since June 2012. From December 2011 to June 2012, he served as our President of Manufacturing. From March 2011 to December 2011, he served as our Vice President of Strategy and Business Development. From March 2009 to March 2011, he served as our Cost Accountant, Financial Systems. Mr. Davis was the Chief Financial Officer, from April 2007 to March 2009, of Nevada Chemicals, Inc., a sodium cyanide chemical company and served as one of its directors. Mr. Davis graduated from the University of Utah with a B.S. in Accounting.

Bryan J. McEntire has served as our Chief Technology Officer since May 2012. From June 2004 to May 2012 he served as our Vice President of Manufacturing and as our Vice President of Research from December 2006 to May 2012. Mr. McEntire has worked in various advanced ceramic product development, quality engineering and manufacturing roles at Applied Materials, Inc., Norton Advanced Ceramics, a division of Saint-Gobain Industrial Ceramics Corporation, Norton/TRW Ceramics and Ceramatec, Inc., a small producer of ionic-conducting and structural ceramic components located in Salt Lake City, Utah. Mr. McEntire holds a B.S. degree in Materials Science and Engineering and an M.B.A. from the University of Utah.

Kevin Ontiveros has served as our Chief Legal Officer and Chief Compliance Officer since December 2012. Mr. Ontiveros was previously a practicing attorney at Life Science Law PC from February 2011 to December 2012 and Stoel Rives LLP from January 2009 to January 2011, where he provided legal and business counsel on a wide range of matters, including technology licensing transactions, corporate financing opportunities (including public and private equity and debt offerings), public company SEC reporting compliance, and clinical trial, manufacturing, distribution, and research and development agreements. Mr. Ontiveros served as the Vice President-Legal Affairs, General Counsel and Corporate Secretary for ImaRx Therapeutics, Inc. from March 2007 to December 2008 and as the Vice President-Corporate Law and Assistant Corporate Secretary for NPS Pharmaceuticals, Inc. from April 1996 to March 2007. Mr. Ontiveros earned his B.A. from the University of Arizona, his J.D. from the University of Utah School of Law and his L.L.M. in Taxation from the University of Florida.

Christopher R. Whitfield has served as our Chief Commercial Officer since November 2013. From March 2012 to September 2012, Mr. Whitfield served as the Executive Vice President, Sales and Marketing of Pioneer Surgical Technologies and from October 2009 to March 2012 as its Vice President, Marketing. From October 2008 to September 2009, he served as the West Area Vice President, Sales for Zimmer Spine, a division of Zimmer, Inc. From September 2007 to October 2008, he served as the Senior Director, Marketing of Abbot Spine, Inc., from January 2007 to September 2007 as its Director, Product Management and from June 2005 to January 2007 he served as its Group Manager, Product Marketing. Mr. Whitfield received a B.S. degree in Business Administration, Marketing and Management from the University of Texas at Austin.

Gordon G. Esplin was appointed as our Chief Accounting Officer on August 8, 2014 and has served as our Vice President of Finance since November 2012. From April 2007 to November 2012, he served as our Controller. Mr. Esplin served in a variety of financial roles, including Corporate Controller for NPS Pharmaceuticals from 2004 to 2007. Mr. Esplin holds a B.S. in accounting and an M.S. in business information systems and education from Utah State University, and is a certified public accountant.

Board Composition

Our restated certificate of incorporation and restated bylaws provide that the authorized number of directors may be changed only by resolution of the board of directors. Seven directors are currently authorized. In accordance with our restated certificate of incorporation, our board of directors is divided into three classes with staggered three-year terms. At each annual meeting of stockholders, the successors to the directors whose terms then expire will be elected to serve until the third annual meeting following such election. Our directors are divided among the three classes as follows:

- The Class I directors: none;
- The Class II directors are Eric A. Stookey and David W. Truetzel, and their terms will expire in 2016 at our annual meeting of stockholders; and
- The Class III directors are B. Sonny Bal, M.D. and Jeffrey S. White, and their terms will expire in 2017 at our annual meeting of stockholders.

Any additional directorships resulting from an increase in the number of directors will be distributed among the three classes so that, as nearly as possible, each class will consist of one-third of the total number of directors.

Director Independence

Our board of directors has reviewed the materiality of any relationship between us and each of our directors, either directly or indirectly. Based on this review, the board of directors has determined that David W. Truetzel, Jeffrey S. White and Eric A. Stookey are “independent directors” as defined by the SEC and NASDAQ. The rules of The NASDAQ Capital Market require that a majority of our board of directors be independent directors, as defined by the rules of The NASDAQ Capital Market. We currently have a board of directors consisting of a majority of independent directors.

Committees of the Board of Directors

Our board of directors has an audit committee, a compensation committee and a nominating and corporate governance committee, each of which has the composition and responsibilities described below. The rules of The NASDAQ Capital Market require that the audit committee consist of at least three members of our board of directors, each of whom must be independent, as established under the rules of The NASDAQ Capital Market and the SEC.

Audit Committee

Our audit committee is composed of David W. Truetzel (Chairman), Eric A. Stookey and Jeffrey White, each of whom is independent within the meaning of the rules of the SEC and the listing standards of The NASDAQ Capital Market. Our board of directors has determined Mr. Truetzel qualifies as a financial expert as defined in SEC rules. Our independent auditors and management periodically meet privately with our audit committee. Our audit committee is authorized to:

- approve and retain the independent auditors to conduct the annual audit of our books and records;
- review the proposed scope and results of the audit;
- review and pre-approve the independent auditor’s audit and non-audit services rendered;
- approve the audit fees to be paid;
- review accounting and financial controls with the independent auditors and our financial and accounting staff;
- review and approve transactions between us and our directors, officers and affiliates;

- recognize and prevent prohibited non-audit services;
- establish procedures for complaints received by us regarding accounting matters;
- oversee internal audit functions; and
- prepare the report of the audit committee that SEC rules require to be included in our annual meeting proxy statement.

Compensation Committee

The rules of The NASDAQ Capital Market require that the compensation committee consist of at least two members of our board of directors, each of whom must be independent, as established under the rules of The NASDAQ Capital Market and the SEC. Our compensation committee is composed of Jeffrey White (Chairman), David W. Truetzel and Eric A. Stookey, each of whom is independent within the meaning of the rules of the SEC and The NASDAQ Capital Market.

Our compensation committee is authorized to:

- annually evaluate the performance of and review and recommend to our board of directors the compensation arrangements for management, including the compensation for our president and chief executive officer;
- establish and review general compensation policies with the objective to attract and retain superior talent, to reward individual performance and to achieve our financial goals;
- determine or review and make recommendations to our board of directors with respect to director compensation;
- evaluate and assess potential compensation advisors and retain and approve their compensation; and
- administer our stock incentive plans.

Nominating and Governance Committee

Our nominating and governance committee is composed of David Truetzel(Chairman) and JeffreyWhite, each of whom is independent within the meaning of the rules of the SEC and The NASDAQ Capital Market. Our nominating and governance committee is authorized to:

- develop and recommend to the board of directors criteria for board and committee membership;
- establish procedures for identifying and evaluating board of director candidates, including nominees recommended by stockholders;
- identify individuals qualified to become members of the board of directors and recommend such persons to the board of directors to be nominated for election as directors and/or to each of the board of directors' committees;
- develop and recommend to the board of directors a set of corporate governance principles applicable to our company; and
- oversee the evaluation of the board of directors and management.

CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS

The following includes a summary of transactions since January 1, 2011 to which we have been a party, in which the amount involved in the transaction exceeded $120,000, and in which any of our directors, executive officers or, to our knowledge, beneficial owners of more than 5% of our common stock, on an as converted basis, or any affiliates of the foregoing persons or entities, in each case, evaluated at the time of the transaction, had or will have a direct or indirect material interest, other than equity and other compensation, termination, change in control and other arrangements, which are described under "Executive and Director Compensation." Our board of directors approved our participation in each transaction described below.

Transactions with MSK Investments, LLC and its Affiliates following our Acquisition of US Spine, Inc.

Settlement Agreement with MSK Investments, LLC

In September 2010, we acquired US Spine, Inc., or US Spine. In this transaction, US Spine became our wholly owned subsidiary as we acquired all of the outstanding capital stock of US Spine. In May 2012, we entered into a settlement agreement with James G. Koman and with MSK Investments, LLC, or MSK, a company controlled by Mr. Koman, on its own behalf and acting in its capacity as stockholders' representative for the former stockholders of US Spine, to resolve certain disputes. Pursuant to the settlement agreement, in lieu of the issuance of up to 6,250,000 shares of our Series E convertible preferred stock upon the achievement of certain earnout milestones, which we refer to as the US Spine Earnout, we issued (a) 842,443 shares of our Series E convertible preferred stock to the former stockholders of US Spine, of which 39,249 shares were issued to MSK and its affiliates, and (b) 2,557,562 shares of our Series C convertible preferred stock to MSK. We also agreed to release the 1,806,250 shares of our Series E convertible preferred stock from an escrow arrangement established at the time of our acquisition of US Spine, of which 1,380,654 were received by MSK and its affiliates. MSK and Mr. Koman also agreed to certain standstill covenants in our favor that expire on May 10, 2015. Spinal Management LLC, of which David Truetzel is a 50% co-owner, also received a commission that was paid in 42,122 and 127,878 of the shares of our Series E convertible preferred stock and Series C convertible preferred stock, respectively, issued under the settlement agreement.

Restructuring and Payment of the US Spine Note

In October 2012, we restructured the terms of a promissory note issued in favor of MSK at the time of our acquisition of US Spine, or the US Spine Note, to extend the maturity date of the second $3.0 million installment from September 2012 to December 2012. We made payments to MSK of $500,000 on October 31, 2012 and $2,500,000 on December 17, 2012 in connection with this restructuring.

Restructuring and Conversion of Senior Secured Subordinated 6%/8% Convertible Promissory Notes

Between March 2011 and May 2011, we issued an aggregate principal amount of $24.8 million of Senior Secured Subordinated 6%/8% Convertible Promissory Notes, or the Senior Secured Notes, and warrants to purchase 288,685 shares of our common stock at an exercise price of $51.55 per share to 85 accredited investors. In connection with the initial closing of this offering, we received a commitment from Hampshire Med Tech Partners, LP to purchase an additional $5.0 million Senior Secured Note by no later than the first anniversary of the initial closing of that offering. Pursuant to this commitment, we issued an additional $5.0 million Senior Secured Note to Hampshire Med Tech Partners, LP in February 2012.

In December 2012, we amended the terms of the Senior Secured Notes and the holders thereof converted all of their Senior Secured Notes into an aggregate of 14,887,500 shares of our Series F convertible preferred stock. We also amended the terms of the warrants to purchase shares of our common stock issued in connection with the issuance of the Senior Secured Notes to lower the exercise prices thereof from $51.55 per share to $25.77 per

share. As a result, we issued an aggregate of 6,131,250 shares of our Series F convertible preferred stock to the following directors, officers and beneficial owners of more than 5% of our common stock, on an as converted basis, and their affiliates:

Name	Number of Shares of Series F Convertible Preferred Stock
Max E. Link, Ph.D(1)	25,000
David Truetzel(2)	12,500
Allan R. Lyons(3)	475,000
Gregg R. Honigblum(4)	6,250
Karl Kipke(5)	5,000,000
B. Sonny Bal, M.D.(6)	12,500
Kevin Murphy	600,000

(1) Dr. Link resigned from our board of directors in August 2014.
(2) Includes 12,500 shares that were issued to Truetzel Revocable Trust, of which Mr. Truetzel and his spouse are the sole beneficiaries.
(3) Shares were issued to Vestal. Mr. Lyons is the managing member and sole owner of 21st Century Strategic Investment Planning, LLC, the general partner of Vestal.
(4) Represents 50% of the 12,500 shares that were issued to Creation Capital. Mr. Honigblum is a 50% owner and a managing member of Creation Capital. Mr. Honigblum resigned from our board of directors in September 2013.
(5) Shares were issued to Hampshire Med Tech Partners, LP. Mr. Kipke is the managing member of Hampshire Med Tech, its general partner.
(6) Shares were issued to Dr. Bal's father.

Warrant Restructuring and Private Placement of Common Stock

In March 2013, we amended the terms of certain of the common stock warrants issued in connection with the issuance of the Senior Secured Notes to further lower the exercise prices thereof from $25.77 per share to $17.53 per share. We then issued an aggregate of 178,516 shares of our common stock to 33 accredited investors upon exercise of the amended common stock warrants and the sale of additional shares of our common stock to other investors in the offering at $17.53 per share. We also issued to investors who exercised their common stock warrants new warrants to purchase an aggregate of 76,455 shares of our common stock at an exercise price of $17.53 per share. We issued an aggregate of 53,347 shares of our common stock and new warrants to purchase up to 17,773 shares of our common stock at an exercise price of $17.53 per share to the following directors, officers and beneficial owners of more than 5% of our common stock, on an as converted basis, and their affiliates:

Name	Common Stock upon Exercise of Warrants	New Common Stock	New Common Stock Warrants
Allan R. Lyons(1)	9,214	—	9,214
Kevin Murphy	8,558	—	8,558
Karl Kipke(2)	—	53,347	—

(1) Represents the exercise of common stock warrants by, and issuance of common stock warrants to, Vestal. Mr. Lyons is the managing member and sole owner of 21st Century Strategic Investment Planning, LLC, the general partner of Vestal.
(2) Represents 53,347 shares of common stock purchased by Hampshire Med Tech Partners, LP. Mr. Kipke is the managing member of Hampshire Med Tech, its general partner.

Private Placement of Series F Convertible Preferred Stock

In August 2013 and September 2013, we issued an aggregate of 94.8 units, each unit consisting of 50,000 shares of our Series F convertible preferred stock and a warrant to acquire 970 shares of our common stock at an exercise price of $25.77 per share, to 45 accredited investors at $100,000 per unit. This resulted in our issuance of an aggregate of 4,740,000 shares of our Series F convertible preferred stock and warrants to purchase an aggregate of 91,951 shares of our common stock, including an aggregate of 1,125,000 shares of our Series F convertible preferred stock and warrants to purchase an aggregate of 21,824 shares of our common stock to the following directors, officers and beneficial owners of more than 5% of our common stock, on an as converted basis, and their affiliates:

Name	Number of Units	Purchase Price	Number of Shares of Series F Convertible Preferred Stock	Common Stock Warrants
Max E. Link, Ph.D(1)	2.0	$ 200,000	100,000	1,940
B. Sonny Bal, M.D.	1.5	$ 150,000	75,000	1,455
David W. Truetzel(2)	1.0	$ 100,000	50,000	970
Jay M. Moyes(3)	0.5	$ 50,000	25,000	485
George Singer(4)	1.0	$ 100,000	50,000	970
Allan R. Lyons(5)	3.5	$ 350,000	175,000	3,395
James G. Koman(6)	1.0	$ 100,000	50,000	970
Kevin Murphy(7)	12.0	$ 1,200,000	600,000	11,639

(1) Dr. Link resigned from our board of directors in August 2014.
(2) Investment made by Truetzel Revocable Trust, of which Mr. Truetzel and his spouse are the sole beneficiaries.
(3) Investment made by Drayton Investments, LLC, of which Mr. Moyes is a managing member.
(4) Consists of 50% of the investment made by Singer Bros. LLC. Mr. Singer is a 50% owner and a managing member of Singer Bros. LLC. Mr. Singer resigned from our board of directors in September 2013.
(5) Investment made by Vestal. Mr. Lyons is the managing member and sole owner of 21st Century Strategic Investment Planning, LLC, the general partner Vestal.
(6) Investment made by MSK, of which Mr. Koman is the managing member.
(7) In connection with the sale and issuance of certain of the units in this financing, we also issued to TGP Securities, Inc., an entity controlled by Mr. Murphy, warrants to purchase 9,311 shares of our common stock at an exercise price of $56.70 per share and paid a cash commission of $480,000 to TGP Securities, Inc., neither of which are reflected in the table.

Transactions with Creation Capital, LLC and Creation Capital Advisors, LLC

Mr. Gregg R. Honigblum, the Chief Executive Officer and a 50% co-owner of each of Creation Capital LLC, or Creation Capital, and Creation Capital Advisors, LLC, or Creation Advisors, served on our board of directors from 2006 until September 2013. In connection with the private placement of our Senior Secured Notes Creation Capital served as our placement agent In February 2012, when we issued an additional $5.0 million Senior Secured Note to Hampshire Med Tech Partners, LP, we paid Creation Capital an $212,500 as commissions.

In June 2012, we entered into a financial advisor consulting agreement with Creation Advisors, pursuant to which we agreed to extend the termination date of certain Series C convertible preferred stock warrants previously issued to Creation Capital from February 2013 to February 2018.

In connection with the conversion of our Senior Secured Notes in December 2012, we agreed to pay Creation Advisors a strategic financial advisory fee in the amount of approximately $447,000. We agreed to pay half of the advisory fee, approximately $223,000 in December 2012 and the remaining half within 24 months, which we

paid in September 2013. Karl Kipke, who beneficially owns more than 5% of our common stock, received $60,000 from Creation Advisors in 2012, as a consultant for Creation Advisors, for advising us at this time on our financing options.

In connection with the warrant restructuring and private placement of common stock in March 2013, we paid Creation Advisors a strategic financial advisory fee of approximately $250,000. In October 2013, we entered into a one-year consulting agreement for financial advisory services with Creation Advisors in which Creation Advisors will receive compensation of up to $180,000 in cash (payable $15,000 per month). We paid $45,000, under this agreement, during the year ended December 31, 2013 and $45,000 during the three months ended March 31, 2014. This agreement was terminated in March 2014 and as consideration for termination of the agreement, we paid $60,000 and issued 50,000 restricted shares of our common stock, then valued at $372,000, to Creation Advisers.

Indemnification Arrangements

Our restated certificate of incorporation and restated bylaws provide that we will indemnify our directors and officers to the fullest extent permitted by Delaware law. In addition, we have entered into indemnification agreements with each of our directors and executive officers. A stockholder's investment in our common stock may decline in value to the extent we pay the costs of settlement and damage awards against directors and officers pursuant to any indemnification provisions.

Policy for Approval of Related Person Transactions

We believe that all the transactions described above were made on terms no less favorable to us than those that could have been obtained from unaffiliated third parties. With the exception of transactions in which related parties participated on the same terms as those of other participants who were not related parties, our board of directors reviewed and approved the transactions with each related party, namely our directors, executive officers and beneficial owners of more than 5% of our common stock, on an as converted basis, and affiliates of our directors, executive officers and 5% stockholders, and reviewed the material facts as to a related party's relationship or interest in a transaction that were disclosed to our board of directors prior to our board of directors' consideration of a transaction with a related party. The transactions involving related parties were approved by our board of directors, including all of our directors who were not interested in these transactions.

All related party transactions must be approved by our audit committee. Pursuant to the written charter of our audit committee, the audit committee is responsible for reviewing and approving, prior to our entry into any transaction involving related parties, all transactions in which we are a participant and in which any parties related to us has or will have a direct or indirect material interest. In reviewing and approving these transactions, the audit committee shall obtain, or shall direct our management to obtain on its behalf, all information that the committee believes to be relevant and important to a review of the transaction prior to its approval. Following receipt of the necessary information, a discussion shall be held of the relevant factors, if deemed to be necessary by the committee, prior to approval. If a discussion is not deemed to be necessary, approval may be given by written consent of the committee. No related party transaction shall be entered into prior to the completion of these procedures.

The audit committee or its chairman, as the case may be, shall approve only those related party transactions that are determined to be in, or not inconsistent with, the best interests of us and our stockholders, taking into account all available facts and circumstances as the committee or the chairman determines in good faith to be necessary. No member of the audit committee shall participate in any review, consideration or approval of any related party transaction with respect to which the member or any of his or her immediate family members is the related party.

PRINCIPAL STOCKHOLDERS

The following table sets forth certain information regarding the beneficial ownership of our common stock as of October 31, 2014 by:

- each of our current directors;
- the executive officers named in the summary compensation table; and
- all of our directors and executive officers as a group.

To our knowledge, as of October 31, 2014, no stockholder beneficially owned more than 5% of our common stock. Beneficial ownership is determined in accordance with the rules of the SEC and includes voting or investment power with respect to the securities. Shares of common stock that may be acquired by an individual or group within 60 days of October 31, 2014, pursuant to the exercise or vesting of options or warrants or conversion of convertible promissory notes, are deemed to be outstanding for the purpose of computing the percentage ownership of such individual or group, but are not deemed to be outstanding for the purpose of computing the percentage ownership of any other person shown in the table. Percentage of shares beneficially owned is based on 13,798,619 shares issued and outstanding on October 31, 2014.

Except as indicated in footnotes to this table, we believe that the stockholders named in this table have sole voting and investment power with respect to all shares of common stock shown to be beneficially owned by them, based on information provided to us by such stockholders. The address for each director and executive officer listed is: c/o Amedica Corporation, 1885 West 2100 South, Salt Lake City, Utah 84119.

	Shares Beneficially Owned	
Name and Address of Beneficial Owner	**Number**	**Percentage**
Directors and Named Executive Officers:		
B. Sonny Bal, M.D. (1)	63,895	*
David W. Truetzel (2)	56,517	*
Jeffrey S.White	—	*
Eric A. Stookey	—	*
Bryan J. McEntire (3)	108,246	*
All executive officers and directors as a group (9 persons) (4)	737,859	5.3%

* Represents beneficial ownership of less than 1% of the shares of our common stock.

(1) Consists of 25,734 shares of our common stock held by Dr. Bal, 33,893 shares of our common stock held by Dr. Bal and his spouse, 2,813 common stock options and 1,455 common stock warrants.

(2) Consists of 28,616 shares of our common stock held by Mr. Truetzel, 26,689 shares of our common stock held by Truetzel Revocable Trust of which Mr. Truetzel and his spouse are the sole beneficiaries and 1,212 common stock warrants.

(3) Consists of 108,246 RSUs.

(4) Consists of 114,932 shares of our common stock, 617,447 RSUs, 2,813 common stock options and 2,667 common stock warrants.

DESCRIPTION OF CAPITAL STOCK

We are authorized to issue 250,000,000 shares of common stock, $0.01 par value per share, and 130,000,000 shares of preferred stock, $0.01 par value per share. As of October 31, 2014, there were 13,798,619 shares of common stock outstanding, which were held of record by 541 stockholders, no shares of preferred stock outstanding, 1,059,745 RSUs outstanding, 1,415,139 common stock options outstanding and 1,741,563 common stock warrants outstanding. The following description summarizes the most important terms of our capital stock. Because it is only a summary, it does not contain all the information that may be important to you. For a complete description you should refer to our restated certificate of incorporation and restated bylaws, copies of which have been incorporated by reference herein, and to the applicable provisions of the Delaware General Corporation Law.

Units

Each Unit we are offering consists of one share of common stock and one warrant to purchase one share of common stock. The common stock and the warrants will immediately separate after purchase and will be issued separately.

Common Stock

Holders of our common stock are entitled to one vote for each share held of record on all matters submitted to a vote of the stockholders, and do not have cumulative voting rights. Accordingly, the holders of a majority of the shares of our common stock entitled to vote can elect all of the directors standing for election. Subject to preferences that may be applicable to any outstanding shares of preferred stock, holders of our common stock are entitled to receive ratably such dividends, if any, as may be declared from time to time by our board of directors out of funds legally available for dividend payments. All outstanding shares of our common stock are fully paid and nonassessable, and the shares of our common stock to be sold pursuant to this prospectus will be fully paid and nonassessable. The holders of common stock have no preferences or rights of conversion, exchange, pre-emption or other subscription rights. There are no redemption or sinking fund provisions applicable to our common stock. In the event of any liquidation, dissolution or winding-up of our affairs, holders of our common stock will be entitled to share ratably in our assets that are remaining after payment or provision for payment of all of our debts and obligations and after liquidation payments to holders of outstanding shares of preferred stock, if any.

Preferred Stock

The preferred stock, if issued, would have priority over our common stock with respect to dividends and other distributions, including the distribution of assets upon liquidation. Our board of directors has the authority, without further stockholder authorization, to issue from time to time shares of preferred stock in one or more series and to fix the terms, limitations, relative rights and preferences and variations of each series. Although we have no present plans to issue any shares of preferred stock, the issuance of shares of preferred stock, or the issuance of rights to purchase such shares, could decrease the amount of earnings and assets available for distribution to the holders of common stock, could adversely affect the rights and powers, including voting rights, of the common stock, and could have the effect of delaying, deterring or preventing a change in control of us or an unsolicited acquisition proposal.

Warrants

As of October 31, 2014 we had the following warrants outstanding to purchase a total of 1,741,563 shares of our common stock:

- warrants to purchase in the aggregate 52,325 shares of our common stock at an exercise price of $56.70 per share, terminating in February 2018;

- warrants to purchase 25,020 shares of our common stock at an exercise price of $56.70 per share, terminating in September 2015;
- a warrant to purchase 2,204 shares of our common stock at an exercise price of $56.70 per share, terminating in April 2015;
- warrants to purchase in the aggregate 67,499 shares of common stock at an exercise price of $51.55 per share, terminating in December 2022;
- warrants to purchase in the aggregate 22,064 shares of common stock at an exercise price of $85.06 per share, issued in June and August 2008, and terminating seven years from the date of issuance;
- a warrant to purchase 2,910 shares of common stock at an exercise price of $45.11 per share, issued in February 2010 and terminating on February 17, 2017;
- warrants to purchase in the aggregate 288,564 shares of common stock at an exercise price of $0.86 per share, originally issued between March and May 2011, and terminating seven years from the date of issuance, which have a price protection provision for any securities issued by us at a price below $0.86 per share (excluding shares granted to our employees or consultants);
- warrants to purchase in the aggregate 193 shares of common stock at an exercise price of $51.55 per share, issued on November 15, 2011, and terminating three years from date of issuance;
- warrants to purchase in the aggregate 13,533 shares of common stock at an exercise price of $0.86 per share, issued on May 9, 2011, and terminating five years from the date of issuance, which have a price protection provision for any securities issued by us at a price below $0.86 per share (excluding shares granted to our employees or consultants);
- a warrant to purchase 970 shares of common stock at an exercise price of $51.55 issued on March 17, 2011;
- warrants to purchase in the aggregate 91,951 shares of common stock at an exercise price of $0.86 per share, issued in August and September 2013, and terminating five years from the date of issuance, which have a price protection provision for any securities issued by us at a price below $0.86 per share (excluding shares granted to our employees or consultants);
- warrants to purchase 9,311 shares of common stock at an exercise price of $0.86 per share, issued in August and September 2013, and terminating five years from the date of issuance, which have a price protection provision for any securities issued by us at a price below $0.86 per share (excluding shares granted to our employees or consultants);
- warrants to purchase in the aggregate 568,889 shares of common stock at an exercise price of $4.65 per share, issued in June 2014 and terminating two years from the date of issuance;
- warrants to purchase in the aggregate 516,129 shares of common stock at an exercise price of $4.65 per share, issued in June 2014 and terminating five years from the date of issuance, which have a price protection provision for any securities issued by us at a price below $4.65 per share (excluding shares granted to our employees or consultants or convertible notes granted to Magna); and
- warrants to purchase in the aggregate 50,000 shares of common stock at an exercise price of $0.86 per share, issued in September 2014 and terminating five years from the date of issuance.

These warrants provide for adjustments of the exercise price and the number of shares underlying the warrants upon the occurrence of certain events, including stock dividends, stock splits, reclassifications or other changes in our corporate structure. The holders of certain of these warrants have registration rights that are outlined below under the heading "—Registration Rights."

Certain of these warrants, as indicated above, 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.

Warrants to be Sold in this Offering

In connection with this offering, we will issue warrants to purchase up to an aggregate of 11,441,646 shares of our common stock (not including any warrants to be issued to the underwriters). our warrants will be immediately exercisable immediately after issuance and will terminate on the fifth anniversary of the date of issuance in exchange for one share of our common stock at an exercise price of $1.48 per share (130% of the aggregate offering price for a Unit). The exercise price and number of shares of common stock issuable upon exercise is subject to appropriate adjustment in the event of stock dividends, stock splits, reorganizations or similar events affecting our common stock and the exercise price.

There is no established public trading market for our warrants, and we do not expect a market to develop. We do not intend to apply to list warrants on any securities exchange. Without an active market, the liquidity of warrants will be limited.

Cashless Exercise Provision. Holders may exercise warrants by paying the exercise price in cash or, in lieu of payment of the exercise price in cash, at any time 120 days after issuance, by electing to receive a cash payment from us equal to the Black Scholes Value (as defined below) of the number of shares the holder elects to exercise (the "Black Scholes Payment"); provided that we have discretion as to whether to deliver the Black Scholes Payment or, subject to meeting certain conditions, to deliver a number of shares of our common stock determined according to the following formula (the "Cashless Exercise"):

$$\text{Total Shares} = (A \times B) / C$$

Where:

- Total Shares is the number of shares of common stock to be issued upon a Cashless Exercise
- A is the total number of shares with respect to which the warrant is then being exercised.
- B is the Black Scholes Value (as defined below).
- C is the closing bid price of our common stock as of two trading days prior to the time of such exercise.

As defined in the warrants, "Black Scholes Value" means the Black Scholes value of an option for one share of our common stock at the date of the applicable Black Scholes Payment or Cashless Exercise, as such Black Scholes value is determined, calculated using the Black Scholes Option Pricing Model obtained from the "OV" function on Bloomberg utilizing (i) an underlying price per share equal to the closing bid price of the Common Stock as of trading day immediately preceding the date of issuance of the warrant, (ii) a risk-free interest rate corresponding to the U.S. Treasury rate for a period equal to the remaining term of the warrant as of the applicable Black Scholes Payment or Cashless Exercise, (iii) a strike price equal to the exercise price in effect at the time of the applicable Black Scholes Payment or Cashless Exercise, (iv) an expected volatility equal to 135% and (v) a remaining term of such option equal to five (5) years (regardless of the actual remaining term of the warrant).

Mandatory Exercise Provision. Under certain circumstances, in the event that our common stock trades at a price that is 25% or more above the exercise price of the warrants for a period of at least 20 consecutive trading days) at any time 120 days after issuance, we may, subject to certain limitations in the warrants, require the holder of the warrants to exercise the warrants for cash payment of the exercise price. If we exercise the foregoing mandatory exercise provision and if our common stock continues to trade at a price 25% or more above the exercise price, you will be required to exercise the warrants for cash (or lose your right to exercise the warrants in the future) and you will not be permitted to make a cashless exercise as permitted above.

Upon the holder's exercise or exchange of a warrant, we will issue the shares of common stock issuable upon exercise or exchange of the warrant within three trading days of our receipt of notice of exercise and, if applicable, payment of the aggregate exercise price.

The shares of common stock issuable on exercise or exchange of the warrants are duly and validly authorized and will be, when issued, delivered and paid for in accordance with the warrants, issued and fully paid and non-assessable. We will authorize and reserve at least that number of shares of common stock equal to 133% of the number of shares of common stock issuable upon exercise or exchange of all outstanding warrants.

If, at any time a warrant is outstanding, we consummate any fundamental transaction, as described in the warrants and generally including any consolidation or merger into another corporation, or the sale of all or substantially all of our assets, or other transaction in which our common stock is converted into or exchanged for other securities or other consideration, the holder of any warrants will thereafter receive, the securities or other consideration to which a holder of the number of shares of common stock then deliverable upon the exercise or exchange of such warrants would have been entitled upon such consolidation or merger or other transaction. Notwithstanding the foregoing, in connection with a fundamental transaction, at the request of a holder of warrants we will be required to purchase the warrant from the holder by paying to the holder cash in an amount equal to the Black Scholes value of the warrant, as described in such warrant.

The exercisability or exchangeability of warrants may be limited in certain circumstances if, after giving effect to such exercise or exchange, the holder or any of its affiliates would beneficially own (as determined pursuant to Section 13(d) of the 1993 Act and the rules and regulations promulgated thereunder) more than 9.9% of our total common stock issued and outstanding.

The warrants will be issued in book-entry form under a warrant agent agreement between American Stock Transfer and Trust Company as warrant agent, and us, and shall initially be represented by one or more book-entry certificates deposited with The Depository Trust Company, or DTC, and registered in the name of Cede & Co., a nominee of DTC, or as otherwise directed by DTC. You should review a copy of the warrant agent agreement and the form of warrant, each of which will be included as exhibits to the registration statement of which this prospectus forms a part.

THE HOLDER OF A WARRANT WILL NOT POSSESS ANY RIGHTS AS A STOCKHOLDER UNDER THAT WARRANT UNTIL THE HOLDER EXERCISES THE WARRANT.

Senior Convertible Notes

On June 30, 2014, we entered into a Securities Purchase Agreement with MG Partners II Ltd., an affiliate of Magna, or Magna. Pursuant to the terms of the Securities Purchase Agreement, we sold to Magna an initial unsecured senior convertible note with an initial principal amount of $2.9 million which was subsequently reduced to $2.5 million, or the Initial Convertible Note, for a purchase price of $2.5 million. Additionally, on August 11, 2014, Magna purchased an additional unsecured senior convertible note with an original principal amount of $3.5 million, or the Additional Convertible Note, for a fixed purchase price of $3.5 million. The Initial Convertible Note and Additional Convertible Note are collectively referred to as the Convertible Notes.

The Initial Convertible Note and Additional Convertible Note mature on June 30, 2016 and August 11, 2016, respectively. On October 1, 2014, the Convertible Notes became convertible at any time, in whole or in part, at Magna's option, into shares of common stock at a conversion price equal to the lesser of (i) $3.75 per share and (ii) a price equal to 80% of the lowest daily volume weighted average price, or VWAP, of our common stock during the five trading days prior to conversion.

As of November 15, 2014, Magna had converted a total of $847,000 of the principal amount of the Convertible Notes into $871,060 shares of common stock.

As long as the Convertible Notes are outstanding and for so long as Magna or its affiliates beneficially own any of the shares of Common Stock issuable upon conversion of the Convertible Notes or exercise of the Warrant, they may not engage in any "short sale" transactions in the Common Stock. In addition, Magna has agreed that unless otherwise mutually agreed upon, Magna, upon conversion of the Convertible Notes, shall not sell more than the greater of: (i) $125,000 of Common Stock, in any five consecutive trading day period, or (ii) 15% of the daily trading volume of the Common Stock on any given trading day. If, however, on any given trading day more than $250,000 of the Common Stock is traded, Magna may trade up to 33% of the daily trading volume on that day. The foregoing restrictions are referred to as the Investor Restrictions. The Investor Restrictions will be removed on any day the price of the stock trades below $2.50.

At no time will Magna be entitled to convert any portion of the Convertible Notes or exercise any portion of the Magna Warrant to the extent that after such conversion or exercise, Magna (together with its affiliates) would beneficially own more than 4.99% of the outstanding shares of our common stock as of such date, or the Maximum Percentage. The Maximum Percentage may be raised to any other percentage not in excess of 9.99% at the option of Magna upon at least 61 days' prior notice to us, or lowered to any other percentage, at the option of Magna, at any time.

The Convertible Notes include customary event of default provisions and provide for a default interest rate of 18%. Upon the occurrence of an event of default, Magna may require the Company to pay in cash the "Event of Default Redemption Price" which is defined in the Convertible Notes to mean the greater of (i) the product of (A) the amount to be redeemed multiplied by (B) 135% (or 100% if an insolvency related event of default) and (ii) the product of (X) the conversion price in effect at that time multiplied by (Y) the product of (1) 127.5% (or 100% if an insolvency related event of default) multiplied by (2) the greatest closing sale price of the common stock on any trading day during the period commencing on the date immediately preceding such event of default and ending on the date we make the entire payment required to be made under the default provision.

We have the right to prepay the Convertible Notes, in whole or in part, for an amount equal to 127.5% of the outstanding principal remaining.

Under the Securities Purchase Agreement, if at any time the aggregate number of shares issued or issuable in connection with the Securities Purchase Agreement is 15% or more of the total shares of the Common Stock outstanding on the date of the Securities Purchase Agreement, then at the next special or annual meeting of stockholders of the Company, the Company is required to take all action necessary to obtain the approval of its stockholders of the issuance of all such shares in accordance with the rules of The NASDAQ Stock Market. If, despite the Company's commercially reasonable efforts such stockholder approval is not obtained, the Company is required to continue to seek stockholder approval at each special or annual meeting of stockholders of the Company convened such meeting until such stockholder approval is obtained. In addition, until stockholder approval is obtained, the Company may not issue any shares in connection with the Securities Purchase Agreement in an aggregate amount that exceeds 19.99% of the issued and outstanding Common Stock on June 30, 2014.

Registration Rights

On June 30, 2014, we entered into a registration rights agreement with Magna that provides it with certain registration rights subject to the rules and regulations of the SEC. These registration rights are 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 below, excluding selling expenses such as broker commissions and underwriting discounts. The registration rights may be transferred to any transferee or assign of Magna who agrees to be bound by the terms of the registration rights agreement.

Resale Registration Rights. On July 17, 2014, we filed a registration statement on Form S-1 covering the resale of all or a portion of the shares of our common stock issuable to Magna upon conversion of the Conversion Notes, the Magna Warrant and the 50,853 shares issued to Magna in connection with the execution of the Securities Purchase Agreement. The registration statement was declared effective on August 6, 2014. In the event that all registrable securities held by Magna are not covered by the registration statement, we may be required to file additional registration statements covering the remainder of the registrable securities, not in excess of one registration statement in any rolling six month period.

Piggyback Rights. If, at any time prior to the six month anniversary of the date of the Securities Purchase Agreement there is not an effective registration statement covering the registrable securities, 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. Upon the timely written request of Magna after receipt of such notice, we are required to cause all securities which we have been requested by Magna to register to be registered under the Securities Act to the extent not already registered pursuant to an effective registration statement. 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 on June 30, 2014, or 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.

We are also required, pursuant to the terms of the Closing Bridge Warrant issued in connection with the Bridge Loan, for so long as the Closing Bridge Warrant is outstanding, 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. We may also be required to issue to one or more Additional Bridge Warrants to the Bridge Lender and any such Additional Bridge Warrants will also require us to register the shares of common stock underlying the Additional Bridge Warrants in any subsequent registration statements that we file under the Securities Act to register shares of our securities. These piggyback registration rights do not apply to any sales or issuances of shares of our common stock to the public by us on or before May 6, 2015 pursuant to a registration statement filed with the SEC.

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 75% 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 45 days nor more than 75 days prior to the anniversary of the mailing date of the proxy statement for 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.

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 75% 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" or to reduce the number of authorized shares of common stock or preferred stock. This 75% 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 75% 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.

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 59 Maiden Lane, New York, New York 10038.

Listing

Our common stock trades on The NASDAQ Capital Market under the symbol "AMDA."

UNDERWRITING

We have entered into an underwriting agreement with Dawson James Securities, Inc., as representative of the underwriters, with respect to the Units subject to this offering. Subject to certain conditions, we have agreed to sell to the underwriters, and the underwriters have severally agreed to purchase, the number of Units provided below opposite their respective names.

Underwriters	Number of Units
Dawson James Securities, Inc.	11,441,646
Total	11,441,646

The underwriters are offering the Units subject to their acceptance of the Units from us and subject to prior sale. The underwriting agreement provides that the obligations of the several underwriters to pay for and accept delivery of the Units offered by this prospectus are subject to the approval of certain legal matters by their counsel and to certain other conditions. Because the underwriters have agreed to purchase the Units on a "firm-commitment basis," the underwriters are obligated to take and pay for all of the Units if any such Units are taken. However, the underwriters are not required to take or pay for the Units covered by the underwriters' over-allotment option described below.

Over-Allotment Option

We have granted to the underwriters an option to purchase up to (i) 11,441,646 additional shares of common stock at price of $1.0396 per share, which price reflects underwriting discounts and commissions, and/or (ii) 11,441,646 additional warrants at price of $0.0092 per warrant, which price reflects underwriting discounts and commissions. The over-allotment option may be used to purchase shares of common stock, warrants or any combination thereof, as determined by the underwriters, but such purchases cannot exceed an aggregate of 15% of the number of shares and warrants sold in the primary offering. The underwriters may exercise this option for 45 days from the date of this prospectus solely to cover sales of units by underwriters in excess of the total number of units set forth in the table above. If any of these additional securities are purchased, the underwriters will offer the additional units on the same terms as those on which the units are being offered. We will pay the expenses associated with the exercise of the over-allotment option

Discounts, Commissions and Expenses

The underwriters have advised us that they propose to offer the Units to the public at the public offering price set forth on the cover page of this prospectus and to certain dealers at that price less a concession not in excess of $0.05472 per Unit. After this offering, the public offering price, concession and reallowance to dealers may be changed by the underwriters. No such change shall change the amount of proceeds to be received by us as set forth on the cover page of this prospectus. The Units are offered by the underwriters as stated herein, subject to receipt and acceptance by them and subject to their right to reject any order in whole or in part. The underwriters have informed us that they do not intend to confirm sales to any accounts over which they exercise discretionary authority.

The following table shows the underwriting discounts and commissions payable to the underwriters by us in connection with this offering. Such amounts are shown assuming both no exercise and full exercise of the underwriters' over-allotment option to purchase additional shares of common stock and warrants.

	Per Unit	Total Without Exercise of Over-Allotment Option	Total With Exercise of Over-Allotment Option
Public offering price	$1.1400(1)	$ 13,043,476	$ 14,999,997
Underwriting discounts and commissions payable by us	$0.0912	$ 1,043,478	$ 1,200,000
Proceeds to us, before expenses	$1.0488	$ 11,999,998	$ 13,799,997

(1) The price per unit of $1.14 includes $0.01 for each warrant to purchase one share of common stock included in such unit.

We estimate that expenses payable by us in connection with this offering, other than the underwriting discounts and commissions referred to above, will be approximately $400,000.

We have agreed to pay Dawson James Securities, Inc. a non-accountable expense allowance equal to 1% of the gross proceeds of the offering (excluding any proceeds from the over-allotment option, if any). We have agreed to reimburse the underwriters for all of its actual road show expenses not to exceed $12,500. In addition, we have agreed to reimburse the expenses incurred by the underwriters in conducting its legal and diligence fees, up to a maximum amount of $75,000, of which $25,000 has been advanced to the underwriters. Any portion of the advance payment will be returned to us in the event not actually incurred.

Underwriters' Unit Purchase Options

We have also agreed to issue to the underwriters' Unit Purchase Options to purchase a number of our Units equal to an aggregate of 5% of the Units sold in this offering (excluding the over-allotment option). The underwriters' Unit Purchase Options will have an exercise price equal to 125% of the public offering price of the Units set forth on the cover of this prospectus (or $1.425 per unit) and may be exercised on a cashless basis. The underwriters' Unit Purchase Options are not redeemable by us. This prospectus also covers the sale of the underwriters' Unit Purchase Options and the shares of common stock and warrants issuable upon the exercise of the underwriters' Unit Purchase Options, as well as the shares underlying such warrants. The underwriters' Unit Purchase Options and the underlying securities have been deemed compensation by FINRA, and are therefore subject to FINRA Rule 5110(g)(1). In accordance with FINRA Rule 5110(g)(1), neither the underwriters' Unit Purchase Options nor any shares of our common stock issued upon exercise of the underwriters' Unit Purchase Options may be sold, transferred, assigned, pledged, or hypothecated, or be the subject of any hedging, short sale, derivative, put, or call transaction that would result in the effective economic disposition of such securities by any person for a period of 180 days immediately following the date of effectiveness or commencement of sales of the offering pursuant to which the underwriters' Unit Purchase Options are being issued, except the transfer of any security:

- by operation of law or by reason of reorganization of our company;
- to any FINRA member firm participating in this offering and the officers or partners thereof, if all securities so transferred remain subject to the lock-up restriction described above for the remainder of the time period;
- if the aggregate amount of our securities held by either an underwriter or a related person do not exceed 1% of the securities being offered;
- that is beneficially owned on a pro-rata basis by all equity owners of an investment fund, provided that no participating member manages or otherwise directs investments by the fund, and participating members in the aggregate do not own more than 10% of the equity in the fund; or

- the exercise or conversion of any security, if all securities received remain subject to the lock-up restriction set forth above for the remainder of the time period.

In addition, in accordance with FINRA Rule 5110(f)(2)(G), the underwriters' Unit Purchase Options may not contain certain anti-dilution terms.

Indemnification

We have agreed to indemnify the underwriters against certain liabilities, including liabilities under the Securities Act of 1933, as amended, or the Securities Act, and liabilities arising from breaches of representations and warranties contained in the underwriting agreement, or to contribute to payments that the underwriters may be required to make in respect of those liabilities.

Lock-up Agreements

We, our officers, directors and certain of our shareholders have agreed, subject to limited exceptions, for a period of six months after the date of the underwriting agreement, such period being referred to as the "Lock-Up Period", not to offer, sell, contract to sell, pledge, grant any option to purchase, make any short sale or otherwise dispose of, directly or indirectly any shares of common stock or any securities convertible into or exchangeable for our common stock either owned as of the date of the underwriting agreement or thereafter acquired without the prior written consent of the representative of the underwriters. The representative of the underwriters may, in its sole discretion and at any time or from time to time before the termination of the Lock-Up Period, without notice, release all or any portion of the securities subject to lock-up agreements.

Price Stabilization, Short Positions and Penalty Bids

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

- Stabilizing transactions permit bids to purchase the underlying security so long as the stabilizing bids do not exceed a specified maximum.
- Over-allotment involves sales by the underwriters of securities in excess of the number of securities the underwriters are obligated to purchase, which creates a syndicate short position. The short position may be either a covered short position or a naked short position. In a covered short position, the number of securities over-allotted by the underwriters is not greater than the number of securities that they may purchase in the over-allotment option. In a naked short position, the number of securities involved is greater than the number of securities in the over-allotment option. The underwriters may close out any covered short position by either exercising their over-allotment option and/or purchasing securities in the open market.
- Syndicate covering transactions involve purchases of securities in the open market after the distribution has been completed in order to cover syndicate short positions. In determining the source of securities to close out the 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 it may purchase such securities through the over-allotment option. If the underwriters sell more securities than could be covered by the over-allotment option, a naked short position, the position can only 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.
- Penalty bids permit the underwriters to reclaim a selling concession from a syndicate member when a security originally sold by the syndicate member is purchased in a stabilizing or syndicate covering transaction to cover syndicate short positions.

These stabilizing transactions, syndicate covering transactions and penalty bids may have the effect of raising or maintaining the market price of our common stock or preventing or retarding a decline in the market price of our common stock. As a result, the price of our common stock may be higher than the price that might otherwise exist in the open market. 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 price of the common stock. In addition, neither we nor the underwriters make any representations that the underwriters will engage in these stabilizing transactions or that any transaction, once commenced, will not be discontinued without notice.

Electronic Distribution

This prospectus in electronic format may be made available on websites or through other online services maintained by one or more of the underwriters, or by their affiliates. Other than this prospectus in electronic format, the information on any underwriter's website and any information contained in any other website maintained by an underwriter is not part of this prospectus or the registration statement of which this prospectus forms a part, has not been approved and/or endorsed by us or any underwriter in its capacity as underwriter, and should not be relied upon by investors.

Other

From time to time, certain of the underwriters and/or their affiliates have provided, and may in the future provide, various investment banking and other financial services for us for which services they have received and, may in the future receive, customary fees. Except for services provided in connection with this offering, no underwriter has provided any investment banking or other financial services during the 180-day period preceding the date of this prospectus and we do not expect to retain any underwriter to perform any investment banking or other financial services for at least 90 days after the date of this prospectus.

MATERIAL U.S. FEDERAL TAX CONSEQUENCES FOR NON-U.S. HOLDERS OF COMMON STOCK

The following is a general discussion of material U.S. federal income and estate tax considerations relating to the purchase, ownership and disposition of shares of our common stock by a non-U.S. holder. For purposes of this discussion, the term "non-U.S. holder" means a beneficial owner of shares of our common stock that is, for U.S. federal income tax purposes, an individual, corporation, estate or trust other than:

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

A modified definition of non-U.S. holder applies for U.S. federal estate tax purposes (as discussed below).

This discussion is based on current provisions of the Internal Revenue Code, existing and proposed U.S. Treasury Regulations promulgated or proposed thereunder and current administrative and judicial interpretations thereof, all as in effect as of the date of this prospectus and all of which are subject to change or to differing interpretation, possibly with retroactive effect. Any change could alter the tax consequences to non-U.S. holders described in this prospectus. In addition, the Internal Revenue Service, or the IRS, could challenge one or more of the tax consequences described in this prospectus.

We assume in this discussion that each non-U.S. holder holds shares of our common stock as a capital asset (generally, property held for investment). This discussion does not address all aspects of U.S. federal income and estate taxation that may be relevant to a particular non-U.S. holder in light of that non-U.S. holder's individual circumstances nor does it address any aspects of state, local or non-U.S. taxes, or, except as explicitly addressed herein, U.S. federal taxes other than income and estate taxes. This discussion also does not consider any specific facts or circumstances that may apply to a non-U.S. holder and does not address the special tax considerations that may be applicable to particular non-U.S. holders, such as:

- insurance companies;
- tax-exempt organizations;
- financial institutions;
- brokers or dealers in securities;
- regulated investment companies;
- pension plans;
- controlled foreign corporations;
- passive foreign investment companies;
- corporations that accumulate earnings to avoid U.S. federal income tax;
- certain U.S. expatriates;
- persons subject to the alternative minimum tax;
- persons in special situations;

- persons that have a "functional currency" other than the U.S. dollar;
- persons that acquire our common stock as compensation for services; and
- owners that hold our common stock as part of a straddle, hedge, conversion transaction, synthetic security or other integrated investment.

In addition, this discussion does not address the tax treatment of partnerships or persons who hold their common stock through partnerships or other entities that are transparent for U.S. federal income tax purposes. A partner in a partnership or other transparent entity that will hold our common stock should consult his, her or its own tax advisor regarding the tax consequences of the ownership and disposition of shares of our common stock through a partnership or other transparent entity, as applicable.

Prospective investors should consult their own tax advisors regarding the U.S. federal, state, local and non-U.S. income and other tax considerations of acquiring, holding and disposing of shares of our common stock.

Dividends

If we pay distributions of cash or property with respect to shares of our common stock, those distributions generally will constitute dividends for U.S. federal income tax purposes to the extent paid from our current or accumulated earnings and profits, as determined under U.S. federal income tax principles and will be subject to withholding as described in the paragraphs below. If a distribution exceeds our current and accumulated earnings and profits, the excess will be treated as a tax-free return of the non-U.S. holder's investment, up to such holder's tax basis in its shares of our common stock. Any remaining excess will be treated as capital gain, subject to the tax treatment described below under the heading "—Gain on Sale, Exchange or Other Taxable Disposition of Common Stock." Any distribution described in this paragraph would also be subject to the discussion below in "—Foreign Account Tax Compliance Act."

Subject to the exceptions described below, dividends paid to a non-U.S. holder generally will be subject to withholding of U.S. federal income tax at a 30% rate or such lower rate as may be specified by an applicable income tax treaty between the United States and such holder's country of residence. If we determine, at a time reasonably close to the date of payment of a distribution on shares of our common stock, that the distribution will not constitute a dividend because we do not anticipate having current or accumulated earnings and profits, we intend not to withhold any U.S. federal income tax on the distribution as permitted by U.S. Treasury Regulations.

Dividends that are treated as effectively connected with a trade or business conducted by a non-U.S. holder within the United States, and, if an applicable income tax treaty so provides, that are attributable to a permanent establishment or a fixed base maintained by the non-U.S. holder within the United States, are generally exempt from the 30% withholding tax if the non-U.S. holder satisfies applicable certification and disclosure requirements. To obtain this exemption, a non-US holder must provide us with a properly executed original and unexpired IRS Form W-8ECI properly certifying such exemption. However, such U.S. effectively connected income, net of specified deductions and credits, is taxed at the same graduated U.S. federal income tax rates applicable to U.S. persons (as defined in the Internal Revenue Code). Any U.S. effectively connected income received by a non-U.S. holder that is treated as a corporation for U.S. federal income tax purposes may also, under certain circumstances, be subject to an additional "branch profits tax" at a 30% rate or such lower rate as may be specified by an applicable income tax treaty between the United States and such holder's country of residence.

A non-U.S. holder of shares of our common stock who claims the benefit of an applicable income tax treaty between the United States and such holder's country of residence generally will be required to provide a properly executed IRS Form W-8BEN (or successor form) and satisfy applicable certification and other requirements. Non-U.S. holders are urged to consult their own tax advisors regarding their entitlement to benefits under a relevant income tax treaty.

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

Gain on Sale, Exchange or Other Taxable Disposition of Common Stock

Subject to the discussion below in "—Foreign Account Tax Compliance Act," a non-U.S. holder generally will not be subject to U.S. federal income tax on gain recognized on a sale, exchange or other taxable disposition of shares of our common stock unless:

- the gain is effectively connected with the non-U.S. holder's conduct of a trade or business in the United States, and, if an applicable income tax treaty so provides, the gain is attributable to a permanent establishment maintained by the non-U.S. holder in the United States; in these cases, the non-U.S. holder will be taxed on a net income basis at the regular graduated rates and in the manner applicable to U.S. persons, and, if the non-U.S. holder is a non-U.S. corporation, an additional branch profits tax at a rate of 30%, or a lower rate as may be specified by an applicable income tax treaty, may also apply;
- the non-U.S. holder is an individual present in the United States for 183 days or more in the taxable year of the disposition and certain other conditions are met, in which case the non-U.S. holder will be subject to a 30% tax (or such lower rate as may be specified by an applicable income tax treaty) on the amount by which such non-U.S. holder's capital gains allocable to U.S. sources exceed capital losses allocable to U.S. sources during the taxable year of the disposition; or
- we are or were a "U.S. real property holding corporation" during the shorter of the five-year period ending on the date of the disposition or the period that the non-U.S. holder held our common stock. Generally, a corporation is a "U.S. real property holding corporation" if the fair market value of its "U.S. real property interests" (within the meaning of the Internal Revenue Code) equals or exceeds 50% of the sum of the fair market value of its worldwide real property interests plus its other assets used or held for use in a trade or business. We believe that we are not currently, and we do not anticipate becoming, a "U.S. real property holding corporation" for U.S. federal income tax purposes.

Information Reporting and Backup Withholding Tax

We must report annually to the IRS and to each non-U.S. holder the gross amount of the distributions on shares of our common stock paid to such holder and the tax withheld, if any, with respect to such distributions. These information reporting requirements apply even if withholding is not required. Subject to the discussion below under "—Foreign Account Tax Compliance Act," non-U.S. holders may have to comply with specific certification procedures to establish that the holder is not a U.S. person (as defined in the Internal Revenue Code) or otherwise subject to an exemption in order to avoid backup withholding at the applicable rate (currently 28%) with respect to dividends on shares of our common stock. Generally, a holder will comply with such procedures if it provides a properly executed IRS Form W-8BEN or otherwise meets documentary evidence requirements for establishing that it is a non-U.S. holder, or otherwise establishes an exemption. Dividends paid to non-U.S. holders subject to the U.S. federal withholding tax, as described above in "—Dividends," generally will be exempt from U.S. backup withholding.

Information reporting and backup withholding generally will apply to the payment of the proceeds of a disposition of shares of our common stock by a non-U.S. holder effected by or through the U.S. office of any broker, U.S. or non-U.S., unless the holder certifies that it is a non-U.S. person (as defined in the Internal Revenue Code) and satisfies certain other requirements, or otherwise establishes an exemption. For information reporting purposes, dispositions effected through a non-U.S. office of a broker with substantial U.S. ownership or operations generally will be treated in a manner similar to dispositions effected through a U.S. office of a broker and dispositions otherwise effected through a non-U.S. office generally will not be subject to information reporting. Generally, backup withholding will not apply to a payment of disposition proceeds to a non-U.S.

holder where the transaction is effected through a non-U.S. office of a U.S. broker or non-U.S. office of a non-U.S. broker. Non-U.S. holders should consult their own tax advisors regarding the application of the information reporting and backup withholding rules to them.

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

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

Foreign Account Tax Compliance Act

Legislation enacted in March 2010, commonly referred to as FATCA, generally will impose a U.S. federal withholding tax of 30% on payments to certain non-U.S. entities (including certain intermediaries), including dividends on and the gross proceeds from a sale or other disposition of our common stock, unless such persons comply with a complicated U.S. information reporting, due diligence, disclosure and certification regime. This new regime and its requirements are different from, and in addition to, the certification requirements described elsewhere in this discussion. The FATCA withholding rules apply to certain payments, including dividend payments on our common stock, if any, paid after December 31, 2013, and to payments of gross proceeds from the sale or other dispositions of our common stock paid after December 31, 2016. Although administrative guidance and proposed regulations have been issued, regulations implementing the new FATCA regime have not been finalized and the exact scope of these rules remains unclear and potentially subject to material changes. Prospective investors should consult their own tax advisors regarding the possible impact of these rules on their investment in our common stock, including any investment in our common stock made through another entity.

Federal Estate Tax

Common stock owned or treated as owned by an individual who is a non-U.S. holder (as specially defined for U.S. federal estate tax purposes) at the time of such non-U.S. holder's death will be included in the individual's gross estate for U.S. federal estate tax purposes and, therefore, may be subject to U.S. federal estate tax, unless an applicable estate tax or other treaty provides otherwise. Generally, amounts included in the taxable estate of decedents are subject to U.S. federal estate tax at a maximum rate of 40%.

The preceding discussion of material U.S. federal tax considerations is for general information only. It is not tax advice. Prospective investors should consult their own tax advisors regarding the particular U.S. federal, state, local and non-U.S. tax consequences of purchasing, holding and disposing of shares of our common stock, including the consequences of any proposed changes in applicable laws.

LEGAL MATTERS

The validity of the issuance of the common stock offered by us in this offering will be passed upon for us by Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C., Boston, Massachusetts. Schiff Hardin LLP, Washington, DC, is acting as counsel for the underwriters in connection with certain legal matters in connection with this offering.

EXPERTS

The consolidated financial statements of Amedica Corporation at December 31, 2013 and 2012, and for each of the two years in the period ended December 31, 2013, incorporated by reference herein 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 our ability to continue as a going concern as described in Note 1 to the consolidated financial statements) incorporated by reference herein, and are included in reliance upon such report given on the authority of such firm as experts in accounting and auditing.

WHERE YOU CAN FIND ADDITIONAL INFORMATION

We have filed with the SEC a registration statement on Form S-1 under the Securities Act, with respect to the common stock offered by this prospectus. This prospectus, which is part of the registration statement, omits certain information, exhibits, schedules and undertakings set forth in the registration statement. For further information pertaining to us and our common stock, reference is made to the registration statement and the exhibits and schedules to the registration statement. Statements contained in this prospectus as to the contents or provisions of any documents referred to in this prospectus are not necessarily complete, and in each instance where a copy of the document has been filed as an exhibit to the registration statement, reference is made to the exhibit for a more complete description of the matters involved.

You may read and copy all or any portion of the registration statement without charge at the public reference room of the SEC at 100 F Street, N.E., Washington, D.C. 20549. Copies of the registration statement may be obtained from the SEC at prescribed rates from the public reference room of the SEC at such address. You may obtain information regarding the operation of the public reference room by calling 1-800-SEC-0330. In addition, registration statements and certain other filings made with the SEC electronically are publicly available through the SEC's web site at *http://www.sec.gov*. The registration statement, including all exhibits and amendments to the registration statement, has been filed electronically with the SEC.

We file periodic reports and other information with the SEC. Such periodic reports and other information are available for inspection and copying at the public reference room and website of the SEC referred to above. We maintain a website at http://www.Amedica.com. You may access our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act with the SEC free of charge at our website as soon as reasonably practicable after such material is electronically filed with, or furnished to, the SEC. The information and other content contained on our website are not part of the prospectus.

INCORPORATION OF DOCUMENTS BY REFERENCE

We have elected to incorporate by reference certain information in this prospectus pursuant to General Instruction VII of Form S-1 in accordance with the Securities Exchange Act of 1934. We have previously filed the following documents with the SEC and are incorporating them by reference into this prospectus, except for information furnished under Item 2.02 or Item 7.01 of Form 8-K, and any exhibits relating to such information, which is neither deemed filed nor incorporated by reference herein:

- our Annual Report on Form 10-K for the fiscal year ended December 31, 2013 filed on March 31, 2014;
- our Quarterly Report on Form 10-Q for the quarter ended March 31, 2014 filed on May 15, 2014;
- our Quarterly Report on Form 10-Q for the quarter ended June 30, 2014 filed on August 8, 2014;
- our Quarterly Report on Form 10-Q for the quarter ended September 30, 2014 filed on November 6, 2014;
- our Current Reports on Form 8-K filed on Form 8-K filed on February 20, 2014, April 18, 2014, June 5, 2014, July 1, 2014, August 7, 2014, August 13, 2014, August 14, 2014, August 25, 2014, October 3, 2014, October 7, 2014, October 14, 2014 and November 7, 2014; 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.

A statement contained in a document incorporated by reference into this prospectus shall be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained in this prospectus, any prospectus supplement or in any other subsequently filed document which is also incorporated in this prospectus modifies or replaces such statement. Any statements so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this prospectus.

You may request a copy of any or all of the documents incorporated herein by reference. These documents will be provided to you at no cost, by contacting:

Amedica Corporation
Attn: Investor Relations
1885 West 2100 South
Salt Lake City, UT 84119.

You may also read and copy our annual, quarterly and current reports, and other SEC filings at our website, http://www.amedica.com, and at the SEC's public reference room at 100 F Street, N.E., Washington, D.C. 20549. You may obtain information on the operation of the public reference room by calling the SEC at (800) SEC-0330. Our SEC filings are also available to the public on the SEC's website at www.sec.gov.