As filed with the Securities and Exchange Commission on May 20, 2016
Registration No. 333- 211520

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

AMENDMENT NO. 1
TO
FORM S-1
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

Amedica Corporation
(Exact name of registrant as specified in its charter)

Delaware	3841	84-1375299
(State or other jurisdiction of incorporation or organization)	(Primary Standard Industrial Classification Code Number)	(IRS Employer Identification No.)

1885 West 2100 South
Salt Lake City, UT 84119
(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

B. Sonny Bal, MD
President and Chief Executive Officer
Amedica Corporation
1885 West 2100 South
Salt Lake City, UT, 84119
(801) 839-3500
(Name, address, including zip code, and telephone number, including area code, of agent for service)

	with copies to:	
Sam Gardiner **David F. Marx** **Dorsey & Whitney LLP** **136 South Main Street, Suite 1000** **Salt Lake City, Utah 84101**	**Ty Lombardi. Chief Financial Officer** **Amedica Corporation** **1885 West 2100** **South Salt Lake City, UT, 84119** **(801) 839-3500**	**Joseph Smith** **Michael Nertney** **Ellenoff Grossman & Schole, LLP** **1345 Avenue of the Americas** **New York, NY 10105**

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

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

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

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

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

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller

reporting company. See definitions of “large accelerated filer,” “accelerated filer” and “smaller reporting company” in Rule 12b-2 of the Exchange Act:

Large accelerated filer [ ]	Accelerated filer [ ]
Non-accelerated filer [ ] (Do not check if a smaller reporting company)	Smaller reporting company [X]

CALCULATION OF REGISTRATION FEE

Title of securities to be registered (1)	Proposed maximum aggregate offering price (1)	Amount of Registration Fee (2)
Common Stock, par value $0.01 per share	$ 11,500,000	
Underwriters Warrants (3)		
Common Stock underlying Underwriters Warrants	$ 230,000	
Total	$ 11,730,000	$ 1,181.21

(1) Pursuant to Rule 416 under the Securities Act of 1933, the securities registered also include such indeterminate amounts and numbers of shares of common stock issuable to cover additional securities that may be offered or issued to prevent dilution resulting from stock splits, stock dividends or similar transactions. Also includes the offering price of additional units that the underwriters have the option to purchase.

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

(3) No separate fee required pursuant to Rule 457 under the Securities Act of 1933.

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

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

PRELIMINARY PROSPECTUS SUBJECT TO COMPLETION DATED JUNE 8, 2016

Amedica Corporation

Shares of Common Stock

We are offering shares of common stock for a purchase price of $ per share.

Our common stock is listed on The NASDAQ Capital Market under the symbol "AMDA." On June 7, 2016, the last reported sales price of our common stock on The NASDAQ Capital Market was $1.43 per share.

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 11 of this prospectus for a discussion of information that you should consider before investing in our securities.

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

(1) We refer you to "Underwriting" on page 46 for additional information regarding underwriting compensation.

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 expect to deliver the securities to investors on or about , 2016. We have granted the underwriters an option for a period of 45 days to purchase up to an additional shares from us solely to cover over-allotments, if any. The shares issuable upon exercise of the underwriter option have been registered under the registration statement of which this prospectus forms a part. If the underwriters exercise the option in full, the total underwriting discounts and commissions payable by us will be $ and the total proceeds to us, before expenses, will be $.

Ladenburg Thalmann **Maxim Group LLC**

The date of this prospectus is , 2016.

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

We have received 510(k) regulatory clearance in the United States, a CE mark in Europe, and ANVISA approval in Brazil for a number of our devices that are designed for spinal fusion surgery. To date, more than 25,000 of our silicon nitride devices have been implanted into patients, with an 8-year successful track record. We have a pending FDA 510(k) submission for clearance in the United States of a novel composite spinal fusion device that combines porous and solid silicon nitride, and obviates the need for bone grafts. In February 2016, the FDA sent us questions about our clinical study, and we are currently in the process of submitting a response.

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

We market and sell our Valeo brand of silicon nitride implants to surgeons and hospitals in the United States and to selected markets in Europe and South America through more than 50 independent sales distributors who are supported by an in-house sales and marketing management team. These implants are designed for use in cervical (neck) and thoracolumbar (lower back) spine surgery. We recently entered into a 10-year exclusive distribution agreement with Shandong Weigao Orthopaedic Device Company Limited ("Weigao") to sell Amedica-branded silicon nitride spinal fusion devices within the People's Republic of China ("China"). Weigao, a large orthopaedic company has expertise in acquiring Chinese Food and Drug Administration ("CFDA") approval of medical devices, and will assist us in obtaining regulatory approval. Weigao has committed to minimum purchase requirements totaling 225,000 implants in the first six years following CFDA clearance. We are also working with other partners in Japan to obtain regulatory approval for silicon nitride in that country as well. China and Japan are relevant because historically, ceramic implants are more familiar to, and more readily accepted by surgeons outside the United States, i.e., in Asia and Europe.

In addition to silicon nitride, we also sell metal-based products in the United States that provide surgeons and hospitals with a complete package for spinal surgery. These metal products are designed to address spinal deformity and degenerative conditions. Although these metal products have accounted for approximately 46% and 44% of our product revenues for the quarterly periods ended March 31, 2016 and March 31, 2015, respectively, and 48% and 52% of our product revenues for the years ended December 31, 2015 and 2014, respectively, we remain focused on developing and promoting silicon nitride, and driving its adoption through a scientifically-intense, data-driven strategy.

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

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

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

Market Opportunity

During spinal fusion surgery today, most surgeons implant devices made of metal or plastic that are augmented with biologic fillers, or bone grafts, to assist in bone healing. Limitations of these technologies are increasingly recognized. Historically, as newer biomaterial solutions have emerged, the spine market has switched to new technologies, resulting in marked shifts in the usage of respective biomaterials.

We believe that the spine market is at an inflection point today, as the limitations of plastic and metal spacers used during spinal fusion are increasingly apparent. Other vendors agree, as evidenced by the introduction of a variety of surface treatments to overcome the limitations of polymer fusion devices. These surface treatments have consisted of porous metal, or porous bone-like formulations applied to the surface of existing implants. None of these technologies has shown proof of efficacy or clinical success as yet. In contrast, scientific data attest to the many advantages of silicon nitride, including inherent material properties that encourage direct fusion of the material to living bone.

The ability to readily image silicon nitride implants, and to visualize adjacent tissues is a distinct advantage of our material, especially in spinal surgery, where recurrent symptoms after surgery can present a diagnostic challenge. Also, in the present health care environment with its focus on patient safety, quality, and patient outcomes, any material-based strategy that discourages bacterial infection is a plus; we (along with other investigators) have published a credible body of literature attesting to the bacterial resistance of silicon nitride surfaces.

In summary, the drivers for growth within the orthopedic biomaterials market and, in particular, the spinal fusion and joint replacement markets, are the following:

- *Limitations of Existing Technologies.* A younger, more active world population that demands mobility and function has led to orthopedic reconstructive operations occurring at an earlier time-point in a patient's life. Because of the limitations of all modern biomaterials to overcome a 15-20 year life-span after which major repeat surgery usually becomes necessary (at prohibitive morbidity and cost), there is a market need for superior biomaterials. We therefore believe that silicon nitride-based solutions, such as implants with bacterial resistance, improved strength and endurance, proven biocompatibility, superior wear properties, easier imaging, and other advantages will gain the attention of medical professionals.

- *Favorable and Changing Demographics.* With an aging population, demand for surgical interventions that keep people active, mobile, and independent is already manifest across many countries. We believe that patients and physicians will demand better biomaterial solutions that address the life-long needs of an active lifestyle, whether from a spinal operation, or a prosthetic joint replacement. We also believe that silicon nitride has the ideal combination of properties as a biomaterial for human implants, and a well-proven track record in the most demanding of industrial applications.

- *Market Expansion into New Geographic Areas.* We anticipate that the demand for ceramic biomaterials and implants will increase particularly in growing and underserved countries such as Brazil and China. We believe that new markets, such as China, will most likely adopt the newest and most effective biomaterial technologies, such as silicon nitride, over legacy materials such as metals, bone grafts, and plastics, all of which have well-recognized limitations and disadvantages.

Intellectual Property

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

As of May 13, 2016, we had 49 issued U.S. patents, 19 pending U.S. patent applications, 11 granted foreign patents and 11 pending foreign patent applications. Our first issued patents begin to expire in 2016, with the last of these patents expiring in 2032. The first core patents do not expire until 2022; these include US 6,881,229 and US 6,790,233

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

Silicon Nitride Advantages

We believe that we are the only FDA-cleared and ISO 13485 certified silicon nitride medical device manufacturing facility in the world and the only supplier of ceramic spinal fusion devices. Silicon nitride is a chemical compound that is synthesized from silicon and nitrogen, with the chemical formula Si_3N_4. Trace amounts of additional ceramic materials are added during manufacture to produce our unique formulation of the material. Silicon nitride is lightweight, resistant to fracture, and generally impervious to thermal and chemical attack. These attributes have led to widespread adoption of the material across a number of industries such as electronics, aerospace, defense, and many others. Worldwide demand for the industrial, i.e., non-medical, uses of silicon nitride is increasing, as new technologies and applictions demand better materials. While our focus thus far has been on the biomedical applications of our silicon nitride, preliminary testing of our formulation by several non-medical partners has shown suitability for industrial applications as well.

Specific to biomedical applications, our silicon nitride has the following distinguishing attributes:

- *Promotes Bone Growth.* Our silicon nitride has a bioactive surface that encourages new bone growth directly into the material. Surface topography and hydrophilicity (attraction to fluids) lead to protein and cell-adhesion onto the surface of silicon nitride. The surface of silicon nitride is akin to that of living bone. In contrast, other biomaterials such as metal and plastics are biologically inert. Once healed, the force required to separate our silicon nitride from adjacent bone is about three times that measured for similar polymer implants, and nearly two times that for titanium implants; these differences are even more pronounced in the presence of live bacteria, i.e., under experimental conditions that simulate infection.

- *Hard, Strong and Resistant to Fracture.* Silicon nitride is among the strongest, toughest, and most reliable materials that is used in a number of industries. These properties are especially advantageous in load-bearing applications, such as spinal fusion spacers, or orthopaedic bearings which must absorb cyclic loads during a lifetime of human activity. Other ceramics used in hip and knee bearings, for example, such as alumina and zirconia have suffered from catastrophic failures related to their brittle nature; we believe (and scientific data attest) that silicon nitride has strength and fracture toughness that is far superior to any other existing biomaterial.

- *Bacterial Resistance.* We have published *in vitro* and *in vivo* data showing that silicon nitride has inherent resistance to bacteria, a key property not shared by metal or plastic implants (see, for example: *Acta Biomater*. 2012 Dec;8(12):4447-54). As awareness of the devastating impact of implant-related infections has increased in the modern, cost-conscious, and quality-focused health care environment, we believe that the inherent anti-bacterial behavior of silicon nitride, is a distinct, value-added, practical advantage.

- *Image-Friendly.* Implants surgically placed in the body should be readily visible on all imaging technologies, i.e., x-rays, CT, and MRI scans, in order to monitor bone healing, implant migration, and to visualize fine details in adjacent tissues. Silicon nitride devices are semi-radiolucent, clearly visible on x-rays, and because of their electromagnetic properties, produce no distortion on MRI or CT images. We are not aware of any other biomaterial that can achieve this level of image precision and integrity, and we believe that only silicon nitride offers surgeon greater confidence of precise implant placement and adjacent tissue visualization.

- *Wear Resistance.* The wear resistance of silicon nitride is already well-known in industry, where silicon nitride roller bearings are used in extreme applications, with deficient lubrication. The wear behavior of our medical-grade silicon nitride should be at least as good as the best articulations in hip and knee replacements today, which offer a ~20-year longevity. Not only does silicon nitride hold the promise of life-long joint replacements, thanks to superior wear properties, but most importantly, recent data has shown that the microscopic wear particles produced of silicon nitride are non-toxic, and cleared by the human body. We do not believe that any other biomaterial has offered this advantage in prosthetic hip and knee joints.

- *Non-Corrosive.* Metal corrosion, especially at the modular connections of hip replacements, reflects an emerging mode of failure that is increasingly recognized by orthopaedic surgeons. Silicon nitride has been used successfully in the valves of under-sea tidal meters; the material is resistant to corrosion, and does not release toxic metal ions. As such, we believe that silicon nitride-based solutions can overcome the risk of metal corrosion and toxic ion release in future hip and knee replacements, improving patient outcomes and reducing the societal burden of premature revision surgery.

Our Competitive Strengths

As a materials company, we believe that we have the following unique strengths:

- *Sole Provider of Silicon Nitride Medical Devices.* We believe that we are the only company that designs, develops, manufactures and sells medical-grade silicon nitride implants. With our FDA-cleared line of silicon nitride Valeo products, we are the only company to develop and manufacture ceramic implants for spinal fusion surgery.

- *In-House Manufacturing.* Our 30,000 square foot manufacturing facility in Salt Lake City, Utah complies with the FDA's quality system regulation, or QSR, and is certified under the International Organization for Standardization's, or ISO, standard 13485 for medical devices. This facility allows us to rapidly design and prototype silicon nitride products in a variety of shapes and sizes, with micron-level accuracy, and consistency and precise control of the manufacturing process from raw material to finished goods. We have also entered into an agreement with Kyocera Industrial Ceramics Corporation, or Kyocera, pursuant to which Kyocera has become a qualified secondary manufacturer of our silicon nitride-based products.

- *Established Commercial Infrastructure.* We market and sell our products to surgeons and hospitals in the United States and to selected markets in Europe and South America through a network of more than 50 independent sales distributors all of whom are managed by an in-house sales and marketing management team.

- *Portfolio of Non-Silicon Nitride Products.* In addition to designing, developing, manufacturing and commercializing silicon nitride interbody spinal fusion devices, we sell a complementary line of metal devices. This ensures that we can offer surgeons and hospitals a full line of spinal fusion solutions in one complete package.

- *Experienced Management and Surgeon Advisory Team.* Members of our Board and management team are familiar with medical product development, launching of new products into the orthopedics market, and selling to hospitals through direct sales organizations, distributors, manufacturers and 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, differentiated silicon nitride material supplier across the biomedical and industrial space. Key elements of our strategy in the biomedical space include:

- *Drive Sales of our Silicon Nitride Interbody Spinal 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 sales. We have executed on an aggressive scientific strategy that has increased our visibility at peer forums. We continue to inform and educate surgeons and partners through multiple channels, including industry conferences and meetings, media outlets and through our sales and marketing efforts. We are developing a new generation of silicon nitride material and are planning the launch of new products. Furthermore, we are upgrading our metal-based spinal surgery products which we believe will further drive sales of our silicon nitride products.

- *Continue OEM and Private Label Partnerships.* Because we believe that silicon nitride is a superior material for spine, total joint, dental, and extremities applications, we will seek partnerships with other medical device companies to convert their implant designs to silicon nitride. Thus, under an OEM arrangement, we would convert a partner's spinal implants into silicon nitride, while using existing instruments, thereby offering a better material with fewer capital expenditures. Additionally, a private label arrangement would allow our partners to sell Amedica-branded devices under the partner's own brand name.

- *Enhance our Commercial Infrastructure.* We expect to increase the productivity of our sales and marketing team by engaging experienced independent sales distributors with strong surgeon relationships. For example, we have entered into a European sales agent agreement with K2M, Inc. as well as a sales agent agreement with a Brazilian medical device distributor to distribute our products. Additionally, we have entered into an exclusive 10-year distribution agreement in China with Weigao, who will obtain regulatory approval for our material. We may also establish other distribution collaborations in the United States and abroad with the goal of gaining access to new markets.

- *Develop Silicon Nitride for Non-Spine Applications:* We are incorporating our technology into silicon nitride-coated metal components, and polished silicon nitride bearings for prosthetic joint replacement; these efforts are planned in collaboration with a strategic partner. We are also working with the FDA to define the regulatory pathway required for development and commercialization of these components.

- *Apply our Silicon Nitride Technology Platform to Other OEM Opportunities.* Our silicon nitride technology platform is flexible enough to be used in the dental, extremities, sports medicine, cardiovascular and trauma markets. We have manufactured prototypes of implants for those specialties, and also developed technologies designed to enhance current medical devices and instruments. We plan to collaborate with other companies to develop and commercialize future products in these areas.

Summary of Risk Factors Associated with Our Business

Our business is subject to a number of risks that are discussed more fully in the section of this prospectus entitled "Risk Factors" immediately following this prospectus summary. You should know 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, but are not limited to, the following:

- our accumulated deficit was $199.9 million as of March 31, 2016, 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;
- our current products and our future products may not be accepted by hospitals and surgeons and may not become commercially successful;
- 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;
- 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;
- 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;
- 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;
- 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;
- use of third-party manufacturers increases the risk that we will not have adequate supplies of our non-silicon nitride products or instrumentation sets;
- 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;
- 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;
- part of our strategy is to establish and develop OEM partnerships and arrangements, which subjects us to various risks;

- 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;

- we are dependent on our senior management team, engineering team, sales and marketing team and surgeon advisors, and the loss of any of them could harm our business; and

- Our product candidates may not receive the necessary regulatory approvals.

Corporate Information

We were incorporated in Delaware in 1996 under the name Amedica Corp. and have since changed our name to Amedica Corporation. In September 2010, we acquired all of the outstanding shares of US Spine, Inc. which then became our wholly-owned subsidiary, which is our only subsidiary. Our principal executive offices are located at 1885 West 2100 South, Salt Lake City, Utah 84119, and our telephone number is (801) 839-3500. Our 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

On November 3, 2015, we held a special meeting (the "Special Meeting") of our stockholders. At the Special Meeting, the stockholders approved an amendment to the Company's Restated Certificate of Incorporation (the "Certificate of Incorporation") to effect a reverse stock split of the Company's common stock at a ratio between 1-for-2 and 1-for-15, such ratio to be determined by the board of directors of the Company (the "Reverse Stock Split"). The board of directors subsequently effected the Reverse Stock Split at a ratio of 1-for-15, such Reverse Stock Split went effective at 12:01 am EST on January 25, 2016. Unless we indicate otherwise, the information in this prospectus reflects the impact of the Reverse Stock Split.

The Offering

Securities being offered:	shares of our common stock
Offering price	$ per share
Description of Underwriter Warrants:	
Common stock outstanding before this offering	13,306,001 shares
Common stock to be outstanding immediately after this offering:	(i) shares, which assumes no exercise of the Underwriter Warrants; or (ii) shares, which assumes full exercise of the Underwriter Warrants (1)
Over-allotment option	We have granted the underwriter an option to purchase up to additional shares of common stock. This option is exercisable, in whole or in part, for a period of 45 days from the date of this prospectus.
Use of proceeds:	We estimate the net proceeds from the sale of our common stock in this offering, after deducting underwriting discounts and estimated offering expenses payable by us to be approximately $ (or approximately $ if the underwriters' option is exercised in full). We intend to use the net proceeds from this offering for the following purposes: (i) to redeem in full the senior convertible note held by MG Partners II (as described in this prospectus); (ii) to repay the outstanding principal amount and prepayment fees under the subordinated convertible promissory note held by Riverside Merchant Partners, LLC (as described in this prospectus); (iii) to support debt service under our existing senior secured credit facility with Hercules Technology Group (as described in this prospectus); (iv) to support working capital needs and other general corporate purposes; (v) 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 (vi) to continue to build sales, marketing and distribution capabilities for our silicon nitride technology platform and other products, including the costs of inventory and instruments. See "Use of Proceeds".
NASDAQ Capital Market symbol:	AMDA
Risk Factors:	See "Risk Factors" beginning on page 11 and other information included in this prospectus for a discussion of factors that you should consider carefully before deciding to invest this offering.

(1) The number of shares of our common stock to be outstanding after this offering is based on 13,306,001 shares of common stock outstanding as of June 6, 2016, and excludes the following:

- 121,675 shares of common stock issuable upon the exercise of outstanding options to purchase common stock as of March 31, 2016 under the 2012 Plan, at a weighted-average exercise price of $35.95 per share;
- 921,248 additional shares of common stock reserved for issuance under the 2012 Plan as of June 6, 2016;
- 806,500 shares of common stock issuable upon the exercise of warrants for shares of our common stock outstanding as of June 6, 2016, at a weighted-average exercise price of $11.01 per share;
- 38,139 units at an exercise price of $21.38, which could be converted into 38,139 shares and warrants exercisable for 38,139 shares of common stock at an exercise price of $22.20 per share;
- 489,511 shares of common stock issuable upon conversion of a convertible note at an exercise price of $1.43; and
- up to shares of common stock issuable upon the exercise of the warrants to be issued to the underwriters in this offering.

Unless otherwise indicated, all information contained in this prospectus assumes the underwriters do not exercise their option to purchase up to an additional shares of common stock in this offering.

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, 2015 and 2014 we incurred a net loss of $23.9 million and $32.6 million, respectively, and used cash in operations of $9.1 million and $14.5 million, respectively. We have an accumulated deficit of $199.9 million at March 31, 2016. Our losses have resulted principally from costs incurred in connection with our sales and marketing activities, research and development activities, manufacturing activities, general and administrative expenses associated with our operations, impairments on intangible assets, interest expense, loss on extinguishment of debt and offering costs. Even if we are successful in launching additional products into the market, we expect to continue to incur substantial losses for the foreseeable future as we continue to sell and market our current products and research and develop, and seek regulatory approvals for, our product candidates.

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

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

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

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

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

- lack or perceived lack of evidence supporting the beneficial characteristics of our silicon nitride technology;
- limited long-term data on the use of silicon nitride in medical devices;

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

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

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

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

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

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

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

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

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

These companies enjoy significant competitive advantages over us, including:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

- encounter difficulties in achieving volume production, quality control and quality assurance or suffer shortages of qualified personnel, which could result in their inability to manufacture sufficient quantities of our commercially available non-silicon nitride products to meet market demand for those products, or they could experience similar problems that result in the manufacture of insufficient quantities of our non-silicon nitride product candidates; and
- fail to follow and remain in compliance with the FDA-mandated QSRs, compliance which is required for all medical devices, or fail to document their compliance to QSRs, either of which could lead to significant delays in the availability of materials for our non-silicon nitride products or instrumentation sets.

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

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

Although we are currently marketing our silicon nitride interbody spinal fusion implants, in order to be successful, we will need to expand our product lines to include other silicon nitride devices. Therefore, we are developing silicon nitride product candidates for total hip and knee replacement procedures and are exploring the application of our silicon nitride technology for other potential applications. However, we have yet to commercialize any silicon nitride products beyond our spinal fusion products. To succeed in our commercialization efforts, we must effectively continue product development and testing, obtain regulatory clearances and approvals, and enhance our sales and marketing capabilities. We may also have to write down significant inventory if existing products are replaced by new products. Because of these uncertainties, there is no assurance that we will succeed in bringing any of our current or future product candidates to market. If we fail in bringing our product candidates to market, or experience delays in doing so, we will not generate revenues as planned and will need to curtail operations or seek additional financing earlier than otherwise anticipated.

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

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

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

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

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

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

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

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

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

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

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

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

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

We are dependent on our senior management team, engineering team, sales and marketing team and surgeon advisors, and the loss of any of them could harm our business.

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

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

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

Risks Related to Our Capital Resources and Impairments

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

We currently have limited committed sources of capital and we have limited liquidity. Our cash and cash equivalents as of December 31, 2015 and 2014, were $11.5 million and $18.2 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 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 Hercules Loan and Security Agreement and the Hercules 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 Agreement with Hercules Technology restricts our ability to incur additional pari passu indebtedness, which may reduce our ability to seek additional financing. If adequate funds are not available on a timely basis, we may terminate or delay the development of one or more of our product candidates, or delay activities necessary to commercialize our product candidates. Additional funding may not be available to us on acceptable terms, or at all. Any additional equity financing, if available, may not be available on favorable terms and will most likely be dilutive to our current stockholders, and debt financing, if available, may involve more restrictive covenants. Our ability to access capital when needed is not assured and, if not achieved on a timely basis, will materially harm our business, financial condition and results of operations or could cause us to cease operations.

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

- our ability to satisfy our obligation to pay principal and interest on the Loan and Security Agreement;
- our ability to comply with the minimum liquidity covenant related to the Loan and Security Agreement;
- the level of sales of our current products and the cost of revenue and sales and marketing;

- the extent of any clinical trials that we will be required to conduct in support of the regulatory clearance of our total hip and knee replacement product candidates;

- the scope, progress, results and cost of our product development efforts;

- the costs, timing and outcomes of regulatory reviews of our product candidates;

- the number and types of products we develop and commercialize;

- the costs of preparing, filing and prosecuting patent applications and maintaining, enforcing and defending intellectual property-related claims; and

- the extent and scope of our general and administrative expenses.

If we do not adhere to the financial covenants set forth in the Loan and Security Agreement 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 Annual Report on Form 10-K.

The Loan and Security Agreement contains a minimum liquidity covenant that requires us to maintain cash and cash equivalents and availability under the Loan and Security Agreement of not less than an amount that varies based on the loan amount and reduces as the loan amount is reduced with a maximum cash requirement of $9.0 million if the loan amount exceeds $19.0 million and a potential minimum cash requirement of $2.5 million if the loan amount is $7.0 million or less. As of June 6, 2016, the minimum liquidity covenant was $4.5 million . We anticipate we will need to refinance the Loan and Security Agreement or obtain additional funding early in the third quarter of 2016 to maintain compliance with the minimum liquidity covenant through the next twelve months. Furthermore, if we are unable to access additional funds prior to becoming non-compliant with the liquidity covenant, the entire remaining balance of the Loan and Security Agreement could become immediately due and payable at the option of Hercules Technology.

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

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

To the extent that we raise additional capital through the sale of equity or convertible debt securities, your ownership interest may be diluted, and the terms may include liquidation or other preferences that adversely affect your rights as a stockholder. Debt financing, if available, may involve agreements that include covenants limiting or restricting our ability to take specific actions such as incurring additional debt, making capital expenditures or declaring dividends. If we raise additional funds through collaboration and licensing arrangements with third parties, we may have to relinquish valuable rights to our technologies or products or grant licenses on terms that are not favorable to us. Any of these events could adversely affect our ability to achieve our product development and commercialization goals and have a material adverse effect on our business, financial condition and results of operations.

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

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

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

We are required to test acquired goodwill for impairment on an annual basis. Goodwill represents the excess of the amount paid over the fair value of the net assets at the date of the acquisition. We have chosen to complete our annual impairment reviews of goodwill at the end of each calendar year. We also are required to test goodwill for impairment between annual tests if events occur or circumstances change that would more likely than not reduce our enterprise fair value below its book value. In addition, we are required to test our finite-lived intangible assets for impairment if events occur or circumstances change that would indicate the remaining net book value of the finite-lived intangible assets might not be recoverable. These events or circumstances could include a significant change in the business climate, including a significant sustained decline in our market value, legal factors, operating performance indicators, competition, sale or disposition of a significant portion of our business and other factors.

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

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

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

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

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

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

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

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

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

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

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

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

- failure to obtain financing necessary to bear the cost of designing and conducting clinical trials;
- failure to obtain approval from the FDA or foreign regulatory authorities to commence investigational studies;
- conditions imposed on us by the FDA or foreign regulatory authorities regarding the scope or design of our clinical trials;
- failure to find a qualified CRO to conduct our clinical trials or to negotiate a CRO services agreement on favorable terms;
- delays in obtaining or in our maintaining required approvals from institutional review boards or other reviewing entities at clinical sites selected for participation in our clinical trials;
- insufficient supply of our product candidates or other materials necessary to conduct our clinical trials;
- difficulties in enrolling patients in our clinical trials;
- negative or inconclusive results from clinical trials, or results that are inconsistent with earlier results, that necessitate additional clinical studies;
- failure on the part of the CRO to conduct the clinical trial in accordance with regulatory requirements;
- our failure to maintain a successful relationship with the CRO or termination of our contractual relationship with the CRO before completion of the clinical trials;
- serious or unexpected side effects experienced by patients in whom our product candidates are implanted; or
- failure by any of our third-party contractors or investigators to comply with regulatory requirements or meet other contractual obligations in a timely manner.

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

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

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

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

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

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

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

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

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

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

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

In addition, FDA regulations and guidance are often revised or reinterpreted by the FDA in ways that may significantly affect our business and our products. Any new regulations or revisions or reinterpretations of existing regulations may impose additional costs or lengthen review times of our products. Delays in receipt of or failure to receive regulatory clearances or approvals for our new products would have a material adverse effect on our business, results of operations and financial condition. In addition, the FDA is currently evaluating the 510(k) process and may make substantial changes to industry requirements, including which devices are eligible for 510(k) clearance, the ability to rescind previously granted 510(k) clearances and additional requirements that may significantly impact the process.

Among policy makers and payers in the United States and elsewhere, there is significant interest in promoting changes in healthcare systems with the stated goals of containing healthcare costs, improving quality and expanding access. In the United States, the medical device industry has been a particular focus of these efforts and has been significantly affected by major legislative initiatives. In March 2010, President Obama signed into law the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Affordability Reconciliation Act, or collectively the ACA, a sweeping law intended, among other things, to broaden access to health insurance, reduce or constrain the growth of healthcare spending, enhance remedies against fraud and abuse, add new transparency requirements for the healthcare and health insurance industries, impose new taxes and fees on the health industry and impose additional health policy reforms.

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

- a 2.3% medical device excise tax on the U.S. sales of most medical devices, for which a moratorium on the payment of the excise tax for 2016 and 2017 was enacted in December 2015;
- expansion of healthcare fraud and abuse laws, including the False Claims Act and the Anti-Kickback Statute, and new government investigative powers and enhanced penalties for non-compliance;
- new requirements under the federal Open Payments program and its implementing regulations;
- a new Patient-Centered Outcomes Research Institute to oversee, identify priorities in, and conduct comparative clinical effectiveness research, along with funding for such research; and
- creation of an independent payment advisory board that will submit recommendations to reduce Medicare spending if projected Medicare spending exceeds a specified growth rate.

In addition, other legislative changes have been proposed and adopted since the ACA was enacted. For example, on August 2, 2011, the President signed into law the Budget Control Act of 2011, which, among other things, created the Joint Select Committee on Deficit Reduction to recommend to Congress proposals in spending reductions. The Joint Select Committee on Deficit Reduction did not achieve a targeted deficit reduction of at least $1.2 trillion for the years 2013 through 2021, triggering the legislation's automatic reduction to several government programs. This includes aggregate reductions to Medicare payments to providers of up to 2% per fiscal year, starting in 2013. On January 2, 2013, President Obama signed into law the American Taxpayer Relief Act of 2012, or ATRA, which, among other things, reduced Medicare payments to several types of providers and increased the statute of limitations period for the government to recover overpayments to providers from three to five years. On March 1, 2013, the President signed an executive order implementing the Budget Control Act's 2% Medicare payment reductions, and on April 1, 2013, these reductions went into effect. These new laws may result in additional reductions in Medicare and other healthcare funding, which could have a material adverse effect on our financial operations.

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

In the European Union and some other international markets, the government provides health care at a low cost to consumers and regulates prices of healthcare products, patient eligibility or reimbursement levels to control costs for the government-sponsored health care system. Many countries are reducing their public expenditures and we expect to see strong efforts to reduce healthcare costs in international markets, including patient access restrictions, suspensions on price increases, prospective and possibly retroactive price reductions and other recoupments and increased mandatory discounts or rebates and recoveries of past price increases. These cost control measures could reduce our revenues. In addition, certain countries set prices by reference to the prices in other countries where our products are marketed. Thus, our inability to secure adequate prices in a particular country may not only limit the marketing of our products within that country, but may also adversely affect our ability to obtain acceptable prices in other markets. This may create the opportunity for third-party cross border trade or influence our decision to sell or not to sell a product, thus adversely affecting our geographic expansion plans and revenues.

Risks Related to Our Intellectual Property and Litigation

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

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

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

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

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

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

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

Although we have a number of U.S. and foreign patents and pending applications relating to our solid silicon nitride products or product candidates, we have no patent protection either for the composition of matter for our silicon nitride or for the processes of manufacturing solid silicon nitride. As a result, competitors may create silicon nitride formulations substantially similar to ours, and use their formulations in products that may compete with our silicon nitride products, provided they do not violate our issued product patents. Although we have, and will continue to develop, significant know-how related to these processes, there can be no assurance that we will be able to maintain this know-how as trade secrets, and competitors may develop or acquire equally valuable or more valuable know-how related to the manufacture of silicon nitride.

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

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

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

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

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

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

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

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

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

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

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

Risks Related to Potential Litigation from Operating Our Business

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

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

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

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

We may be required to pay cash or issue shares of common stock and/or warrants exercisable for shares of common stock to satisfy current claims against us

On April 1, 2016, Hampshire MedTech Partners II, GP ("Hampshire GP") filed suit against the Company in the Travis County, Texas 200th Judicial District Court relating to a Warrant to Purchase Shares of Common Stock issued to Hampshire MedTech Partners II, LP ("Hampshire LP") on November 6, 2014 (the "Hampshire Warrant"). Hampshire GP alleges that as a result of a subsequent financing we breached the anti-dilution provision of the Hampshire Warrant by failing to increase the number of shares subject to the Hampshire Warrant as well as failing to reduce the exercise price of the Hampshire Warrant. Hampshire GP seeks damages in excess of $1,000,000. We have not yet answered Hampshire GP's complaint and intend to vigorously defend this suit. We may be required to pay cash or issue shares of common stock and/or warrants exercisable for shares of common stock to satisfy Hampshire GP's claim.

Risks Related to Our Common Stock

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

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

- our ability to sell our current products and the cost of revenue;
- our ability to develop, obtain regulatory clearances or approvals for, and market new and enhanced product candidates on a timely basis;
- our ability to enter into OEM and private label partnership agreements and the terms of those agreements;
- changes in governmental regulations or in the status of our regulatory approvals, clearances or future applications;
- our announcements or our competitors' announcements regarding new products, product enhancements, significant contracts, number and productivity of distributors, number of hospitals and surgeons using products, acquisitions or strategic investments;
- announcements of technological or medical innovations for the treatment of orthopedic pathology;
- delays or other problems with the manufacturing of our products, product candidates and related instrumentation;
- volume and timing of orders for our products and our product candidates, if and when commercialized;
- changes in the availability of third-party reimbursement in the United States and other countries;
- quarterly variations in our or our competitors' results of operations;
- changes in earnings estimates or recommendations by securities analysts, if any, who cover our common stock;
- failure to meet estimates or recommendations by securities analysts, if any, who cover our stock;
- changes in the fair value of our derivative liabilities resulting from changes in the market price of our common stock, which may result in significant fluctuations in our quarterly and annual operating results;
- changes in healthcare policy in the United States and internationally;
- product liability claims or other litigation involving us;
- sales of a substantial aggregate number of shares of our common stock;
- sales of large blocks of our common stock, including sales by our executive officers, directors and significant stockholders;

- disputes or other developments with respect to intellectual property rights;
- changes in accounting principles;
- changes to tax policy;
- general market conditions and other factors, including factors unrelated to our operating performance or the operating performance of our competitors.

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

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

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

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

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

- allow the authorized number of directors to be changed only by resolution of our board of directors;
- provide for a classified board of directors, such that not all members of our board will be elected at one time;
- prohibit our stockholders from filling board vacancies, limit who may call stockholder meetings, and prohibit the taking of stockholder action by written consent;

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

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

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

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

We do not intend to pay cash dividends.

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

Risks Related to Public Companies

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

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

We may take advantage of these exemptions until we are no longer an emerging growth company. Under the JOBS Act, we may be able to maintain emerging growth company status for up to five years, although circumstances could cause us to lose that status earlier, including if the market value of our common stock held by non-affiliates exceeds $700 million as of any June 30 before the end of such five-year period or if we have total annual gross revenue of $1.0 billion or more during any fiscal year before that time, in which cases we would no longer be an emerging growth company as of the following December 31. Additionally, if we issue more than $1.0 billion in non-convertible debt during any three-year period before that time, we would cease to be an emerging growth company immediately.

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

If the bid price of our common stock price drops below $1.00 for a period of 30 consecutive business days, 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, our common stock may be subject to delisting, pursuant to NASDAQ listing requirements. After 30 days, we would have a grace period of 180-calendar days to regain compliance with the minimum bid price requirement. If at any time during the 180-day grace period, the minimum closing bid price per share of our common stock closed at or above $1.00 for a minimum of ten consecutive business days, we would regain compliance and the matter would be closed. If our common stock is delisted, it would adversely impact liquidity of our common stock and potentially result in lower bid prices for our common stock. There is no guarantee that our stock price will remain above $1.00 per share or that it would recover after falling below that price.

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

As a public company, we incur significant legal, insurance, accounting and other expenses, including costs associated with public company reporting. We intend to invest resources to comply with evolving laws, regulations and standards, and this investment will result in increased general and administrative expenses and may divert management's time and attention from product development and commercialization activities. If our efforts to comply with new laws, regulations and standards differ from the activities intended by regulatory or governing bodies due to ambiguities related to practice, regulatory authorities may initiate legal proceedings against us, and our business may be harmed. These laws and regulations could make it more difficult and costly for us to obtain director and officer liability insurance for our directors and officers, and we may be required to accept reduced coverage or incur substantially higher costs to obtain coverage. These factors could also make it more difficult for us to attract and retain qualified executive officers and qualified members of our board of directors, particularly to serve on our audit and compensation committees. In addition, if we are unable to continue to meet the legal, regulatory and other requirements related to being a public company, we may not be able to maintain the listing of our common stock on The NASDAQ Capital Market, which would likely have a material adverse effect on the trading price of our common stock.

Risks Relating to this Offering

If you purchase shares of common stock 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 shares of common stock in this offering will pay a price per share of common stock that substantially exceeds the book value of our tangible assets after subtracting our liabilities. As a result, investors purchasing shares of common stock in this offering will incur immediate dilution of $ per share, based on a public offering price of $ per share of common stock. 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.

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 senior convertible notes held by MG Partners II, Ltd.;
- 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 senior convertible notes held by MG Partners II, Ltd.;
- our ability to succeed in obtaining FDA clearance or approvals for our product candidates;
- our ability to receive CE Marks for our product candidates;
- the timing, costs and other limitations involved in obtaining regulatory clearance or approval for any of our product candidates and product candidates and, thereafter, continued compliance with governmental regulation of our existing products and activities;
- our ability to protect our intellectual property and operate our business without infringing upon the intellectual property rights of others;
- our ability to obtain sufficient quantities and satisfactory quality of raw materials to meet our manufacturing needs;
- the availability of adequate coverage reimbursement from third-party payers in the United States;
- our estimates regarding anticipated operating losses, future product revenue, expenses, capital requirements and liquidity;
- our ability to maintain and continue to develop our sales and marketing infrastructure;
- our ability to enter into and maintain suitable arrangements with an adequate number of distributors;
- our manufacturing capacity to meet future demand;
- our ability to establish Kyocera as a secondary manufacturing source for our silicon nitride products;

- our ability to develop effective and cost efficient manufacturing processes for our products;
- our reliance on third parties to supply us with raw materials and our non-silicon nitride products and instruments;
- the safety and efficacy of products and product candidates;
- the timing of and our ability to conduct clinical trials;
- potential changes to the healthcare delivery systems and payment methods in the United States or internationally;
- any potential requirement by regulatory agencies that we restructure our relationships with referring surgeons;
- our ability to develop and maintain relationships with surgeons, hospitals and marketers of our products; and
- our ability to attract and retain a qualified management team, engineering team, sales and marketing team, distribution team, design surgeons, surgeon advisors and other qualified personnel and advisors.

In some cases, you can identify forward-looking statements by terms such as "may," "could," "will," "should," "would," "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 the net proceeds from this offering will be approximately $, or $ if the underwriters exercise their option to purchase additional shares in full, after deducting underwriting discounts and estimated offering expenses payable by us.

We intend to use the net proceeds from this offering for the following purposes: (i) to redeem in full the senior convertible note held by MG Partners II; (ii) to repay the outstanding principal amount and prepayment fees under the subordinated convertible promissory note held by Riverside Merchant Partners, LLC; (iii) to support debt service under our existing senior secured credit facility with Hercules Technology Group; (iv) to support working capital needs and other general corporate purposes; (v) 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 (vi) to continue to build sales, marketing and distribution capabilities for our silicon nitride technology platform and other products, including the costs of inventory and instruments.

Repayment of Magna Notes

On April 2, 2015, we entered into an Amendment and Exchange Agreement (the "Amendment Agreement") with MG Partners II Ltd. ("Magna"). The Amendment Agreement provides for the issuance by us to Magna of two new senior convertible notes, one with a principal amount of $800,000 and a maturity date in June 2016 and one with a principal amount of $3.5 million and a maturity date in August 2016 (the "June Note", the "August Note," and collectively the "Exchange Convertible Notes").

On September 8, 2015, we entered into a Settlement and Waiver Agreement ("Settlement Agreement") with Magna. Pursuant to the Settlement Agreement, we paid Magna an aggregate of $4.2 million to redeem the entire $800,000 of outstanding principal amount and the accrued interest of the June Note and to partially redeem $2.8 million of the principal amount of the August Note and any accrued interest. Pursuant to the Settlement Agreement, we have agreed to pay approximately an additional $900,000 to redeem in full the remaining August Note principal balance and interest and to satisfy other amounts due pursuant to the terms of the Settlement Agreement if we receive gross proceeds of $3.6 million from the sale of equity securities. We intend to use a portion of the net proceeds to us from this offering to redeem in full the remaining August Note principal balance and interest and to satisfy all other amounts due pursuant to the terms of the Settlement Agreement.

Repayment of Riverside Note

On April 27, 2016, we entered into an exchange agreement (the "Exchange Agreement") with Riverside Merchant Partners, LLC ("Riverside"), pursuant to which we agreed to exchange $1.0 million of the principal amount outstanding under the Hercules Term Loan (as defined below) held by Riverside for a subordinated convertible promissory note in the principal amount of $1.0 million (the "Exchange Note").

All principal accrued under the Exchange Note is convertible into shares of common stock at the election of the Holder at any time at a fixed conversion price of $1.43 per share. All principal outstanding under the Exchange Note will be due on April 3, 2018 (the "Maturity Date"). The Exchange Note bears interest at a rate of 6% per annum, with the interest that would accrue on the initial principal amount of the Exchange Note during the first 12 months being guaranteed and deemed earned as of the date of issuance. Prior to the Maturity Date, all interest accrued under the Exchange Note is payable in cash or, if certain conditions are met, payable in shares of common stock at our option, at a fixed conversion price of $1.34 per share. Any cash prepayment of principal under the Exchange Note is subject to a 15% prepayment fee.

As of June 6, 2016, $300,000 of the Exchange Note, and the interest related to the Exchange Note has been converted into 254,566 shares of common stock leaving the total principal balance outstanding under the Exchange Note at $700,000. We intend to use a portion of the net proceeds to us from this offering to repay in full the remaining Exchange Note principal balance and prepayment fees.

Support Debt Service under the Hercules Term Loan

On June 30, 2014, the Company entered into a Loan and Security Agreement with Hercules Technology Group (the "Hercules Term Loan") which provided us with a $20 million term loan. The amount outstanding at June 6, 2016 was $10.6 million. The Hercules Term Loan matures on January 1, 2018. The Hercules Term Loan bears interest at the rate of the greater of either (i) the prime rate plus 9.2%, and (ii) 12.5%, and was 12.7% at March 31, 2016. Interest accrues from the closing date of the loan and interest payments are due monthly. Principal payments are currently being made in equal monthly installments of approximately $500,000, with the remainder due at maturity. Our obligations to Hercules are secured by a first priority security interest in substantially all of our assets, including intellectual property. We intend to use a portion of the net proceeds to us from this offering to support debt service under the Hercules Term Loan.

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 and our board of directors 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 The NASDAQ Capital Market since our initial public offering, for the periods indicated (the amounts in the following table have been adjusted to reflect a reverse stock split which was effective as of January 25, 2016 whereby each 15 shares of common stock were replaced with one share of common stock, see “Subsequent Events”):

	2016	
	High	**Low**
First Quarter	$ 3.09	$ 1.59
Second Quarter (through June 7, 2016)	$ 2.02	$ 1.30

	2015	
	High	**Low**
First Quarter	$ 15.15	$ 5.27
Second Quarter	$ 10.50	$ 3.30
Third Quarter	$ 11.61	$ 4.68
Fourth Quarter	$ 5.49	$ 1.44

	2014	
	High	**Low**
First Quarter	$ 132.15	$ 101.55
Second Quarter	$ 114.90	$ 67.50
Third Quarter	$ 69.30	$ 24.15
Fourth Quarter	$ 39.00	$ 8.70

As of June 6, 2016, there were approximately 414 stockholders of record of our common stock. This number does not include an undetermined number of stockholders whose stock is held in “street” or “nominee” name.

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. Any future determination to pay dividends will be at the discretion of our board of directors and will depend upon a number of factors, including our results of operations, financial condition, future prospects, contractual restrictions, restrictions imposed by applicable law and other factors our board of directors deems relevant. Our future ability to pay cash dividends on our stock may also be limited by the terms of any future debt or preferred securities or future credit facility.

Capitalization

The table below reflects our unaudited capitalization as of March 31, 2016 on an actual basis; and an as adjusted basis to give effect to our receipt of estimated net proceeds of approximately $ million from the sale of common stock in this offering at a public offering price of $ per share, after deducting underwriting discounts and estimated offering expenses payable by us (assuming no exercise of the underwriters' over-allotment option).

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 March 31, 2016 (unaudited) (in thousands, except share and per share data)	
	Actual	As Adjusted
Cash, restricted cash and cash equivalents	$ 7,943	
Debt:		
Current portion of long-term debt	14,785	
Total debt	14,785	
Stockholders' Equity:		
Common stock, $0.01 par value; 250,000,000 shares authorized; 11,422,636 and 10,886,248 shares issued and outstanding at March 31, 2016 and December 31, 2015, respectively	114	
Additional paid-in capital / (capital deficiency)	210,744	
Accumulated deficit	(199,925)	
Total stockholders' equity	10,933	
Total capitalization	$ 33,661	

In the discussion and table above, we assume no exercise of outstanding options or warrants. The discussion above is based on 11,422,636 shares of common stock outstanding as of March 31, 2016 and excludes:

- 121,675 shares of common stock issuable upon the exercise of outstanding options to purchase common stock as of March 31, 2016 under the 2012 Plan, at a weighted-average exercise price of $35.95 per share;
- 921,248 additional shares of common stock reserved for issuance under the 2012 Plan as of June 6, 2016;
- 806,500 shares of common stock issuable upon the exercise of warrants for shares of our common stock outstanding as of June 6, 2016, at a weighted-average exercise price of $11.01 per share;
- 38,139 units at an exercise price of $21.38, which could be converted into 38,139 shares of common stock and warrants exercisable for 38,139 shares of common stock at an exercise price of $22.20 per share;
- 2,372,229 shares of common stock issuable upon conversion of an aggregate of $3.0 million of convertible notes and related interest issued by the Company in April of 2016 (1,882,718 shares of common stock had been issued as of June 6, 2016); and
- up to shares of common stock issuable upon the exercise of the warrants to be issued to the underwriters in this offering.

Dilution

Our net tangible book value as of March 31, 2016, was approximately $1.2 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 March 31, 2016. Dilution in net tangible book value per share represents the difference between the amount per share of common stock 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 shares of common stock in this public offering at an offering price of $ per share, and after deducting underwriting discounts and commissions and estimated offering expenses payable by us, our as adjusted net tangible book value as of March 31, 2016 would have been approximately $ million, or approximately $ per share. This represents an immediate dilution of $ per share to new investors purchasing shares of common stock in this offering. The following table illustrates this dilution.

Assumed public offering price per unit		
Net tangible book value per share as of March 31, 2016	$	0.11
Increase in net tangible book value per share attributable to new investors in this offering		
As adjusted net tangible book value per share after giving effect to this offering		
Dilution per share to investors in this offering		

If the underwriters exercise in full their option to purchase addition shares of common stock, the adjusted net tangible book value per share after giving effect to this offering would be $ per share, and the dilution in as adjusted net tangible book value per share to investors in this offering would be $ per share.

This information is based on 11,422,636 shares of common stock outstanding as of March 31, 2016 and excludes:

- 121,675 shares of common stock issuable upon the exercise of outstanding options to purchase common stock as of March 31, 2016 under the 2012 Plan, at a weighted-average exercise price of $35.95 per share;
- 921,248 additional shares of common stock reserved for issuance under the 2012 Plan as of June 6, 2016; and
- 806,500 shares of common stock issuable upon the exercise of warrants for shares of our common stock outstanding as of June 6, 2016, at a weighted-average exercise price of $11.01 per share;
- 38,139 units at an exercise price of $21.38, which could be converted into 38,139 shares of common stock and warrants exercisable for 38,139 shares of common stock at an exercise price of $22.20 per share;
- 2,372,229 shares of common stock issuable upon conversion of an aggregate of $3.0 million convertible notes and related interest issued by the Company in April 2016 (1,882,718 shares of common stock had been issued as of June 6, 2016); and
- up to shares of common stock issuable upon the exercise of the warrants to be issued to the underwriters in this offering.

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, 2015 and 2014 and selected consolidated balance sheet data as of December 31, 2015 and 2014 were derived from our audited consolidated financial statements that are incorporated by reference herein. The selected consolidated statement of comprehensive loss data for the three months ended March 31, 2016 and 2015 and selected consolidated balance sheet data as of March 31, 2016 were derived from our unaudited consolidated financial statements that are incorporated by reference herein. The historical results presented below are not necessarily indicative of financial results to be achieved in future periods, and the results for the quarter ended March 31, 2016 are not necessarily indicative of results to be expected for the full year.

	As of March 31, 2016	As of December 31, 2015	As of December 31, 2014
	(unaudited)	(audited)	(audited)
		(in thousands)	
Consolidated Balance Sheet Data:			
Cash, restricted cash and cash equivalents	$ 7,943	$ 11,485	$ 18,247
Inventories, net	8,492	9,131	11,675
Total assets	31,081	35,862	46,506
Current debt	14,785	16,365	17,993
Total liabilities	20,148	21,630	39,599
Convertible preferred stock	-	-	-
Accumulated deficit	(199,925)	(196,537)	(172,505)
Total stockholders' equity	10,933	14,232	6,907

	Three Months Ended March 31,		Year Ended December 31,	
	2016	2015	2015	2014
	(unaudited)	(unaudited)	(audited)	(audited)
	(in thousands except share and per share amounts)			
Consolidated Statement of Comprehensive Loss Data:				
Product revenue	$ 4,173	$ 4,743	$ 19,453	$ 22,765
Total cost of revenue	893	1,522	6,250	7,910
Total operating expenses	5,764	7,227	25,244	39,022
Net loss from operations	(2,484)	(4,006)	(12,041)	(24,167)
Net loss	(3,388)	(5,381)	(23,912)	(32,582)
Net loss per share:				
Basic and diluted	$ (0.30)	$ (3.00)	(5.50)	(39.93)
Weighted average common shares outstanding :				
Basic and diluted	11,193,250	1,795,296	4,344,253	815,997

Principal Stockholders

The following table sets forth certain information regarding the beneficial ownership of our common stock as of June 6, 2016 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 June 6, 2016, 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 June 6, 2016, 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 13,306,001 shares issued and outstanding on June 6, 2016.

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 prior to offering**	**Percentage after offering**
Directors and Named Executive Officers:			
B. Sonny Bal, M.D. (1)	7,082	*	
David W. Truetzel (2)	39,304	*	
Jeffrey S.White (3)	4,891	*	
Eric A. Stookey (4)	4,251	*	
Ty Lombardi (5)	8,318	*	
Bryan McEntire (6)	11,455	*	
All executive officers and directors as a group (6 persons)	75,301	0.6%	

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

(1) Consists of 1,716 shares of common stock held by Dr. Bal, 2,260 shares of common stock held by Dr. Bal and his spouse, 3,009 common stock options and 97 common stock warrants.

(2) Consists of 1,575 shares of common stock held by Mr. Truetzel, 23,640 shares of common stock held by Truetzel Revocable Trust of which Mr. Truetzel and his spouse are the sole beneficiaries, 14,008 stock options and 81 common stock warrants.

(3) Consists of 640 shares of common stock and 4,251 common stock options.

(4) Consists of 4,251 common stock options.

(5) Consists of 3,467 shares of common stock and 4,851 common stock options.

(6) Consists of 4,500 shares of common stock and 6,955 common stock options.

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 June 6, 2016, there were 13,306,001 shares of common stock outstanding, which were held of record by 414 stockholders, no shares of preferred stock outstanding, 121,675 common stock options outstanding and 806,500 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.

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 June 6, 2016, there were warrants outstanding to purchase a total of 806,500 shares of our common stock, all of which expire between February 2018 and April 2021. Each of these warrants entitles the holder to purchase one share of common stock at prices ranging from $1.43 to $850.50 per common share, with a weighted average exercise price of $11.01 per share. Certain of these warrants have a net exercise provision under which its holder may, in lieu of payment of the exercise price in cash, surrender the warrant and receive a net amount of shares based on the fair market value of our common stock at the time of exercise of the warrant after deduction of the aggregate exercise price. Each of these warrants also contains provisions for the adjustment of the exercise price and the aggregate number of shares issuable upon the exercise of the warrant in the event of dividends, share splits, reorganizations and reclassifications and consolidations. Certain of these warrants contain a provision requiring a reduction to the exercise price in the event we issue common stock, or securities convertible into or exercisable for common stock, at a price per share lower than the warrant exercise price.

The holders of certain of these warrants have registration rights that are outlined below under the heading “Registration Rights.”

Convertible Promissory Notes

In April of 2016 the Company exchanged $3,000,000 of the principal amount outstanding under the Loan and Security Agreement, dated June 30, 2014, for convertible promissory notes in the aggregate principal amount of $3,000,000, each of which is convertible into shares of common stock of the Company. As of June 6, 2016, there was an aggregate of $700,000 outstanding under the convertible promissory notes all of which was convertible at a fixed conversion price of $1.43 per share.

Underwriters' Unit Purchase Options

In connection with our November 2014 public offering of units we issued to the underwriters in that offering unit purchase options to purchase 38,139 units with an exercise price of $21.38 per unit. Each unit consists of one share of our common stock and one warrant to acquire one share of our common stock at an exercise price of $22.20 per share. The units may be exercised on a cashless basis. Each warrant to be issued upon the exercise of each unit has a net exercise provision under which its holder may, in lieu of payment of the exercise price in cash, surrender the warrant and receive a net amount of shares based on the fair market value of our common shares at the time of exercise of the warrant after deduction of the aggregate exercise price. These warrants also contain provisions for the adjustment of the exercise price and the aggregate number of shares issuable upon the exercise of these warrants in the event of dividends, share splits, reorganizations and reclassifications and consolidations. As of June 6, 2016, the underwriters had not exercised any of their unit purchase options.

Registration Rights

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

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

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

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

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

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

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

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

Classified Board of Directors; Appointment of Directors to Fill Vacancies; Removal of Directors for Cause. Our restated certificate of incorporation provides that our board of directors will be divided into three classes as nearly equal in number as possible. Each year the stockholders will elect the members of one of the three classes to a three-year term of office. All directors elected to our classified board of directors will serve until the election and qualification of their respective successors or their earlier resignation or removal. The board of directors is authorized to create new directorships and to fill any positions so created and is permitted to specify the class to which any new position is assigned. The person filling any of these positions would serve for the term applicable to that class. The board of directors (or its remaining members, even if less than a quorum) is also empowered to fill vacancies on the board of directors occurring for any reason for the remainder of the term of the class of directors in which the vacancy occurred. Members of the board of directors may only be removed for cause and only by the affirmative vote of holders of at least 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 dated with Ladenburg Thalmann & Co. Inc., as the representative of the underwriters (the "representative") named below and the sole book-running manager of this offering. Subject to the terms and conditions of the underwriting agreement, the underwriters have agreed to purchase the number of our securities set forth opposite its name below.

Underwriter	Shares
Ladenburg Thalmann & Co Inc.	
Maxim Group LLC	
Total	

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

We have been advised by the underwriters that they propose to offer the shares directly to the public at the public offering price set forth on the cover page of this prospectus. Any securities sold by the underwriters to securities dealers will be sold at the public offering price less a selling concession not in excess of $ per share. The underwriters may allow and these selected dealers may re-allow a concession of not more than $ per share to other brokers and dealers.

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

No action has been taken by us or the underwriters that would permit a public offering of the shares and warrants to in any jurisdiction where action for that purpose is required. None of our securities included in this offering may be offered or sold, directly or indirectly, nor may this prospectus or any other offering material or advertisements in connection with the offer and sales of any of the securities offering hereby be distributed or published in any jurisdiction except under circumstances that will result in compliance with the applicable rules and regulations of that jurisdiction. Persons who receive this prospectus are advised to inform themselves about and to observe any restrictions relating to this offering of securities and the distribution of this prospectus. This prospectus is neither an offer to sell nor a solicitation of any offer to buy the shares in any jurisdiction where that would not be permitted or legal.

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

Underwriting Discount and Expenses

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

	Per Share	Total
Public offering price	$	
Underwriting discount to be paid to the underwriters by us (8%)		
Proceeds to us (before expenses)		

We estimate the total expenses payable by us for this offering to be approximately $ which amount includes (i) the underwriting discount of $ ($ if the underwriters' over-allotment option is exercised in full) and (ii) reimbursement of the accountable expenses of the representative equal to $80,000 including the legal fees of the representative being paid by us and (iii) other estimated company expenses of approximately $ which includes legal accounting printing costs and various fees associated with the registration and listing of our shares.

In addition to the underwriting discount to be paid by us, we have agreed to issue to the representative or its designees warrants to purchase the number of shares of our common stock that is equivalent to 2% of the number of shares of common stock sold in this offering at an exercise price equal to 125% of the per share equivalent paid by the investors in this offering. The underwriters' warrants will have a term of exercise expiring five years from the effective date of this registration statement. In addition, pursuant to FINRA Rule 5110(g), neither the warrants issued to the underwriters nor any warrant shares issued upon exercise of the warrants shall 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 the securities by any person for a period of 180 days immediately following the date of effectiveness or commencement of sales of this offering, except the transfer of any security:

- by operation of law or by reason of reorganization;
- to any FINRA member firm participating in the offering and the officers or partners thereof if all securities so transferred remain subject to the lock-up restriction for the remainder of the time period;
- if the aggregate amount of our securities held by the holder of the warrants or related persons 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 for the remainder of the time period.

The underwriters' warrants are exercisable for cash or on a cashless basis. The exercise price and number of shares issuable upon exercise of the warrants may be adjusted in certain circumstances including in the event of a stock dividend or our recapitalization, reorganization, merger, or consolidation. However, the warrant exercise price or underlying shares will not be adjusted for issuances of common stock at a price below the warrant exercise price.

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

Over-allotment Option

We have granted to the underwriters an option exercisable not later than 45 days after the date of this prospectus to purchase up to a number of additional shares of common stock equal to 15% of the number of shares of common stock sold in the primary offering. Any shares so purchased shall be sold at a price per share equal to the public offering price less the underwriting discount. The underwriters may exercise the option solely to cover overallotments, if any, made in connection with this offering. If any additional shares of common stock, the underwriters will offer these shares of common stock on the same terms as those on which the other securities are being offered.

Determination of Offering Price

Our Common stock is currently traded on the Nasdaq Capital Market under the symbol "AMDA." On June 7, 2016 the closing price of our common stock was $1.43 per share.

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

- our history and our prospects;
- the industry in which we operate;
- our past and present operating results;
- the previous experience of our executive officers; and
- the general condition of the securities markets at the time of this offering.

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

Lock-up Agreements

Our officers, directors, and each of their respective affiliates and associated partners and certain of our stockholders, have agreed with the representative to be subject to a lock-up period of 90 days following the date of this prospectus. This means that, during the applicable lock-up period, such persons may not offer for sale, contract to sell, sell, distribute, grant any option, right or warrant to purchase, pledge, hypothecate or otherwise dispose of, directly or indirectly, any shares of our common stock or any securities convertible into, or exercisable or exchangeable for, shares of our common stock. Certain limited transfers are permitted during the lock-up period if the transferee agrees to these lock-up restrictions. We have also agreed, in the underwriting agreement, to similar lock-up restrictions on the issuance and sale of our securities for 90 days following the closing of this offering, although we will be permitted to issue stock options or stock awards to directors, officers and employees under our existing plans. The lock-up period is subject to an additional extension to accommodate for our reports of financial results or material news releases. The representative may, in its sole discretion and without notice, waive the terms of any of these lock-up agreements.

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is American Stock Transfer and Trust Company.

Stabilization, Short Positions and Penalty Bids

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

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

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

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

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

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

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

Indemnification

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

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 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.

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, as property held for investment). This discussion does not address all aspects of U.S. federal income taxation that may be relevant to a particular non-U.S. holder in light of that non-U.S. holder's individual circumstances nor does it address any aspects of state, local or non-U.S. taxes, or, U.S. federal taxes other than income taxes, such as federal 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 provided the holder satisfies applicable certification and disclosure requirements. If we are unable to determine, at the time of payment of a distribution on shares of our common stock, whether the distribution will constitute a dividend, we may nonetheless choose 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 should 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 generally 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 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 commonly referred to as the Foreign Account Tax Compliance Act, or FATCA, generally will impose a U.S. federal withholding tax of 30% on payments to certain non-U.S. entities (including certain intermediaries) unless such persons comply with certain U.S. information reporting, due diligence, disclosure and certification regime. This 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 dividend payments on our common stock, if any, and also to payments of gross proceeds from the sale or other dispositions of our common stock paid after December 31, 2018. Although administrative guidance and proposed regulations have been issued, regulations implementing the FATCA regime continues to be issued and the exact scope of these rules is subject to 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.

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 Dorsey & Whitney LLP, Salt Lake City, Utah. Ellenoff Grossman & Schole LLP, New York, New York, is acting as counsel for the underwriters in connection with certain legal matters in connection with this offering.

Change in Certifying Accountant

On April 15, 2014, we informed Ernst & Young LLP ("Ernst & Young") of their dismissal as our independent registered public accounting firm. The dismissal was authorized by our audit committee and our board of directors.

The reports of Ernst & Young on our financial statements for the fiscal years ended December 31, 2013 and 2012 contained an explanatory paragraph describing conditions that raised substantial doubt about the Registrant's ability to continue as a going concern.

In connection with the audits of our financial statements for each of the two fiscal years ended December 31, 2013 and 2012 and in the subsequent interim period through April 15, 2014, there were no disagreements with Ernst & Young on any matters of accounting principles or practices, financial statement disclosure, or auditing scope and procedures, which, if not resolved to the satisfaction of Ernst & Young would have caused Ernst & Young to make reference to the matter in their report.

In connection with the audits of our financial statements for the years ended December 31, 2013 and 2012, Ernst & Young identified four material weaknesses in our internal control over financial reporting. The material weaknesses related to (i) 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, (ii) a deficiency in the design and operation of our controls to account for inventory, (iii) deficiencies in our income tax accounting and (iv) our 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 its financial close process.

On April 15, 2014 the audit committee engaged Mantyla McReynolds as our independent registered public accounting firm for the fiscal year ending December 31, 2014. We did not consulted with Mantyla McReynolds during the two fiscal years prior to its appointment or during the subsequent interim period prior to its appointment as our auditor with respect to the application of accounting principles to a specified transaction, either completed or proposed, or the type of audit opinion that might be rendered on our consolidated financial statements, or any other matters or reportable events as identified in Items 304(a)(2)(i) and (ii) of Regulation S-K.

We requested that Ernst & Young furnish a letter addressed to the United States Securities and Exchange Commission stating whether it agreed with the above statements. A copy of the letter of Ernst & Young, dated April 18, 2014, was filed as Exhibit 16.1 to the Current Report on Form 8-K filed with the Securities and Exchange Commission on April 18, 2014.

Experts

The consolidated financial statements of Amedica Corporation at December 31, 2015 and 2014, and for each of the two years in the period ended December 31, 2015, incorporated by reference herein have been audited by Mantyla McReynolds LLC, independent registered public accounting firm, as set forth in their report thereon (which contains an explanatory paragraph describing conditions that raise substantial doubt about 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 Can You 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, 2015 filed on March 23, 2016;
- our Definitive Proxy Statement on Schedule 14A for our annual meeting of stockholders, filed with the SEC on April 12, 2016;
- our Quarterly Report on Form 10-Q for the quarter ended March 31, 2016 filed on May 13, 2016;
- our Current Reports on Form 8-K filed on January 7, 2016, January 22, 2016, January 25, 2016, January 28, 2016, February 9, 2016, February 23, 2016, March 23, 2016, April 5, 2016, April 18, 2016, April 28, 2016 , May 3, 2016 and May 27, 2016; 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.

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 13. Other Expenses of Issuance and Distribution.

The following table sets forth an itemization of the various costs and expenses, all of which we will pay, in connection with the sale of the securities being registered. All of the amounts shown are estimated except the SEC Registration Fee and FINRA Filing Fee.

SEC Registration Fee	$	1,181
FINRA Filing Fee		2,260
Legal Fees and Expenses		125,000
Accounting Fees and Expenses		10,000
Transfer Agent Fee and Expenses		15,000
Miscellaneous		23,000
Total	$	176,441

Item 14. Indemnification of Directors and Officers.

Our amended and restated certificate of incorporation and amended and restated bylaws provide that each person who was or is made a party or is threatened to be made a party to or is otherwise involved (including, without limitation, as a witness) in any action, suit or proceeding, whether civil, criminal, administrative or investigative, by reason of the fact that he or she is or was one of our directors or officers or is or was serving at our request as a director, officer, employee or agent of another corporation, or of a partnership, joint venture, trust or other enterprise, including service with respect to an employee benefit plan, whether the basis of such proceeding is alleged action in an official capacity as a director, officer or trustee or in any other capacity while serving as a director, officer or trustee, shall be indemnified and held harmless by us to the fullest extent authorized by the Delaware General Corporation Law against all expense, liability and loss (including attorneys' fees, judgments, fines, Employee Retirement Insurance Security Act excise taxes or penalties and amounts paid in settlement) reasonably incurred or suffered in connection with legal proceedings. These provisions limit the liability of our directors and officers to fullest extent permitted under Delaware law. A director or officer will not receive indemnification if he or she is found not to have acted in good faith and in a manner he or she reasonably believed to be in, or not opposed to, our best interest.

Section 145 of the Delaware General Corporation Law permits a corporation to indemnify any director or officer of the corporation against expenses (including attorney's fees), judgments, fines and amounts paid in settlement actually and reasonably incurred in connection with any action, suit or proceeding brought by reason of the fact that such person is or was a director or officer of the corporation, if such person acted in good faith and in a manner that he reasonably believed to be in, or not opposed to, the best interests of the corporation, and, with respect to any criminal action or proceeding, if he or she had no reasonable cause to believe his or her conduct was unlawful. In a derivative action, (i.e., one brought by or on behalf of the corporation), indemnification may be provided only for expenses actually and reasonably incurred by any director or officer in connection with the defense or settlement of such an action or suit if such person acted in good faith and in a manner that he or she reasonably believed to be in, or not opposed to, the best interests of the corporation, except that no indemnification shall be provided if such person shall have been adjudged to be liable to the corporation, unless and only to the extent that the court in which the action or suit was brought shall determine that such person is fairly and reasonably entitled to indemnity for such expenses despite such adjudication of liability.

Pursuant to Section 102(b)(7) of the Delaware General Corporation Law, Article Eighth of our amended and restated certificate of incorporation eliminates the liability of a director to us or our stockholders for monetary damages for such a breach of fiduciary duty as a director, except for liabilities arising:

- from any breach of the director's duty of loyalty to us or our stockholders;
- from acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law;
- under Section 174 of the Delaware General Corporation Law; or
- from any transaction from which the director derived an improper personal benefit.

We carry insurance policies insuring our directors and officers against certain liabilities that they may incur in their capacity as directors and officers. We have entered into indemnification agreements with certain of our executive offices and directors. These agreements, among other things, indemnify and advance expenses to our directors and officers for certain expenses, including attorney's fees, judgments, fines and settlement amounts incurred by any such person in any action or proceeding, including any action by us arising out of such person's services as our director or officer, or any other company or enterprise to which the person provides services at our request. We believe that these provisions and agreements are necessary to attract and retain qualified persons as directors and officers. We have entered into agreements to indemnify all of our directors and officers.

Additionally, reference is made to the Underwriting Agreement filed as Exhibit 1.1 hereto, which provides for indemnification by the underwriters of Amedica Corporation, our directors and officers who sign the registration statement and persons who control Amedica Corporation, under certain circumstances.

Item 15. Recent Sales of Unregistered Securities

Since May 18, 2013, we have sold the following securities that were not registered under the Securities Act. All share numbers and prices set forth below have been adjusted to reflect a reverse stock split effective as of January 25, 2016 whereby each 15 shares of common stock were replaced with one share of common stock (with no fractional shares issued).

(a) Issuances of Capital Stock and Warrants

The sale and issuance of the securities set forth below were deemed to be exempt from registration under the Securities Act by virtue of Section 4(2) or Rule 506 promulgated under Regulation D promulgated thereunder and Section 3(a)(9). Each of the recipients of securities in these transactions was an accredited investor within the meaning of Rule 501 of Regulation D under the Securities Act and had adequate access, through employment, business or other relationships, to information about us. No underwriters were involved in these transactions.

On August 30, 2013 and September 20, 2013, we issued and sold a total of 94.8 units, each unit consisting of 3,334 shares of our Series F convertible preferred stock and a warrant to acquire 65 shares of our common stock at an exercise price of $386.55 per share, to 45 accredited investors at $100,000 per unit for an aggregate purchase price of $9,480,000. The purchase of these units resulted in our issuance of 316,064 shares of our Series F convertible preferred stock and warrants to purchase 6,131 shares of our common stock. In connection with this offering, we issued warrants to purchase an aggregate of 621 shares of our common stock, at an exercise price of $850.50 per share, to TGP Securities, Inc.

On March 20, 2014, we issued 3,334 shares of our common stock to a service provider for services previously rendered with respect to certain corporate development activities.

On June 30, 2014, we issued a warrant to purchase 34,409 shares of our common stock to Hercules Technology in connection with a Loan and Security Agreement. This warrant was amended on September 8, 2015 increasing the amount of shares to be purchased to 103,226.

On June 30, 2014, we issued a warrant to purchase warrants to purchase up to 37,926 shares of our common stock to Magna pursuant to a Securities Purchase Agreement.

On September 17, 2014, we issued a warrant to purchase 3,334 shares of our common stock to a service provider to be a financial advisor in connection with a financing.

On October 31, 2014, we issued a warrant to purchase 1,667 shares of our common stock to a service provider to serve as a non-exclusive financial advisor.

On November 6, 2014, in connection with a bridge loan, we issued to the bridge loan lender a warrant to purchase up to 17,826 shares of the Company's common stock.

On November 12, 2014, we issued a warrant to purchase 10,000 shares of our common stock to a financial advisor with respect to certain services provided.

On January 22, 2015, we issued 2,000 shares of our common stock to a service provider for services with respect to certain corporate development activities.

On September 8, 2015, we issued to issue investors Series A Warrants and Series C Warrants, each exercisable for 874,891 shares of our Common Stock.

On October 19, 2015, we issued 16,000 shares of our common stock to a service provider for services with respect to certain corporate development activities.

On January 28, 2016, we issued a warrant to purchase 275,000 shares of our common stock to a financial advisor.

On April 4, 2016 and again on April 27, 2016, in connection with a debt exchange agreement we issued to the lender warrants to purchase 100,000 shares of common stock of the Company.

(b) Certain Grants and Exercises of Stock Options

From January 1, 2013 through March 31, 2014, we granted a total of 128,537 RSUs and 11,980 options at exercise prices ranging from $85.20 to $386.55. During the same period, 4,048 options to purchase shares of common stock were exercised.

Option grants, RSU grants and the issuances of common stock upon exercise of such options were exempt pursuant to Rule 701 and Section 4(2) of the Securities Act of 1933.

Item 16. Exhibits and Financial Statement Schedules.

(a) Exhibits

(3) Exhibits

The exhibits listed on the accompanying Exhibit Index are filed or incorporated by reference as part of this Annual Report and such Exhibit Index is incorporated by reference.

Exhibit Number	Exhibit Description	Filed with this Report	Incorporated by Reference herein from Form or Schedule	Filing Date	SEC File/Reg. Number
1.1	Form of Underwriting Agreement **				
3.1	Restated Certificate of Incorporation of the Registrant		Form 8-K (Exhibit 3.1)	2/20/14	001-33624
3.1.1	Certificate of Amendment to the Restated Certificate of Incorporation of Amedica Corporation		Form 8-K (Exhibit 3.1)	1/22/16	001-33624
3.2	Restated Bylaws of the Registrant		Form 8-K (Exhibit 3.1)	2/20/14	001-33624
4.1	Form of Common Stock Certificate of the Registrant		Amendment No. 3 to Form S-1 (Exhibit 4.1)	1/29/14	333-192232
4.2	Form of Warrant to Purchase Shares of Common Stock of the Registrant, issued on May 9, 2011		Amendment No. 3 to Form S-1 (Exhibit 4.9)	1/29/14	333-192232
4.3	Warrant to Purchase Shares of Series F Convertible Preferred Stock by and between the Registrant and GE Capital Equity Investments, Inc., dated as of December 17, 2012		Form S-1 (Exhibit 4.10)	11/8/13	333-192232
4.4	Warrant to Purchase Shares of Series F Convertible Preferred Stock by and between the Registrant and Zions First National Bank, dated as of December 17, 2012		Form S-1 (Exhibit 4.11)	11/8/13	333-192232
4.5	Form of Warrant to Purchase Shares of Common Stock of the Registrant, issued on March 4, 2011 and May 9, 2011		Form S-1 (Exhibit 4.12)	11/8/13	333-192232
4.6	Form of Amendment to Warrant to Purchase Shares of Common Stock of the Registrant, dated as of December 18, 2012		Form S-1 (Exhibit 4.13)	11/8/13	333-192232
4.7	Form of Amendment No. 2 to Warrant to Purchase Shares of Common Stock of the Registrant, dated as of February 1, 2013		Form S-1 (Exhibit 4.14)	11/8/13	333-192232
4.8	Form of Warrant to Purchase Shares of Common Stock of the Registrant, issued on August 30, 2013 and September 20, 2013, as amended		Amendment No. 2 to Form S-1 (Exhibit 4.17)	12/20/13	333-192232

4.9	Form of Amendment to Warrant to Purchase Common Stock of the Registrant, dated as of December 23, 2013	Amendment No. 3 to Form S-1 (Exhibit 4.17.1)	1/29/14	333-192232
4.10	Form of Warrant to Purchase Shares of Common Stock of the Registrant, issued to TGP Securities, Inc. on August 30, 2013 and September 20, 2013, as amended	Amendment No. 2 to Form S-1 (Exhibit 4.20)	12/20/13	333-192232
4.11	Form of Amendment to Warrant to Purchase Shares of Common Stock of the Registrant, issued to TGP Securities, Inc., dated as of December 23, 2013	Amendment No. 3 to Form S-1 (Exhibit 4.21)	1/29/14	333-192232
4.12	Hercules Warrant to Purchase Common Stock	Form 8-K (Exhibit 4.3)	7/1/2014	001-33624
4.13	Form of Warrant Issued to Investors	Amendment No. 3 to Form S-1 (Exhibit 4.24)	11/19/14	333-199753
4.14	Form of Unit Purchase Option Issued to the Underwriters	Amendment No. 3 to Form S-1 (Exhibit 4.25)	11/19/14	333-199753
4.15	Form of Warrant Agent Agreement by and between the Registrant and American Stock Transfer and Trust Company	Amendment No. 3 to Form S-1 (Exhibit 4.26)	11/19/14	333-199753
4.16	Warrant to purchase shares of common stock of the Registrant by and between the Registrant and Hampshire MedTech Partner II, L.P., dated as of November 6, 2014	Form 8-K (Exhibit 4.1)	11/7/14	001-33624
4.17	Form of Warrant to Purchase Shares of Common Stock of the Registrant issued on September 17, 2014.	Form 10-K (Exhibit 4.27)	3/24/15	001-33624
4.18	Form of Warrant to Purchase Shares of Common Stock of the Registrant issued on November 12, 2014.	Form 10-K (Exhibit 4.28)	3/24/15	001-33624
4.19	Senior Convertible Note by Registrant payable to MG Partners II, Ltd., Issuance Date: August 12, 2014, Exchange Date: April 2, 2015	Form 8-K (Exhibit 4.2)	4/3/15	001-33624
4.20	Form of Series B Warrant	Form 8-K (Exhibit 4.2)	9/8/15	001-33624
4.21	Form of Series D Warrant	Form 8-K (Exhibit 4.4)	9/8/15	001-33624
4.22	Form of Amended and Restated Series A warrant	Form 8-K (Exhibit 4.1)	12/14/15	001-33624
4.23	Form of Amended and Restated Series C Warrant	Form 8-K (Exhibit 4.2)	12/14/15	001-33624

4.24	Common Stock Purchase Warrant	Form 8-K (Exhibit 4.1)	4/5/15	001-33624
4.25	Form of Warrant to be Issued in Offering **			
5.1	Opinion of Counsel with respect to the legality of the securities being registered**			
10.1	Securities Purchase Agreement by and between the Registrant and MG Partners II Ltd, dated as of June 30, 2014	Form 8-K (Exhibit 10.1)	7/1/2014	001-33624
10.2	Registration Rights Agreement by and between the Registrant and MG Partners II Ltd., dated as of June 30, 2014	Form 8-K (Exhibit 10.2)	7/1/2014	001-33624
10.3	Loan and Security Agreement by and among the Registrant, its subsidiary, Hercules Technology Growth Capital, Inc., and Hercules Technology III, L.P., dated as of June 30, 2014	Form 8-K (Exhibit 10.3)	7/1/2014	001-33624
10.4	Centrepointe Business Park Lease Agreement Net by and between the Registrant and Centrepointe Properties, LLC, dated as of April 21, 2009	Form S-1 (Exhibit 10.10)	11/8/13	333-192232
10.5	First Addendum to Centrepointe Business Park Lease Agreement Net by and between the Registrant and Centrepointe Properties, LLC, dated as of January 31, 2012	Form S-1 (Exhibit 10.11)	11/8/13	333-192232
10.6	Form of Change of Control Agreement*	Form 8-K (Exhibit 10.1)	7/22/15	001-33624
10.7	Form of Indemnification Agreement by and between the Registrant and its officers and directors	Amendment No. 2 to Form S-1 (Exhibit 10.14)	12/20/13	333-192232
10.8	Amedica Corporation Amended and Restated 2012 Equity Incentive Plan*	Amendment No. 4 to Form S-1 (Exhibit 10.15)	2/12/14	333-192232
10.9	Form of 2012 Stock Option Grant Notice and Stock Option Agreement*	Amendment No. 4 to Form S-1 (Exhibit 10.16)	2/12/14	333-192232
10.10	Form of 2012 Restricted Stock Award and Restricted Stock Unit Agreement*	Amendment No. 4 to Form S-1 (Exhibit 10.17)	2/12/14	333-192232
10.11	Amedica Corporation 2003 Stock Option Plan*	Form S-1 (Exhibit 10.18)	11/8/13	333-192232

10.12	Form of 2003 Non-Qualified Stock Option Agreement and Notice of Exercise of Non-Qualified Stock Option thereunder*	Form S-1 (Exhibit 10.19)	11/8/13	333-192232
10.13	Form of 2003 Incentive Stock Option Agreement and Notice of Exercise of Incentive Stock Option thereunder*	Form S-1 (Exhibit 10.20)	11/8/13	333-192232
10.14	Amendment and Exchange Agreement, date April 2, 2015, by and between the Registrant and MG Partners II, Ltd	Form 8-K (Exhibit 10.1)	4/3/15	001-33624
10.15	Consent and First Amendment to Loan and Security Agreement dated September 8, 2015 by and among Hercules Technology Growth Capital Inc., the financial institutions signatory thereto, Amedica Corporation, and the guarantors signatory thereto.	Form 8-K (Exhibit 10.1)	9/8/15	001-33624
10.16	First Amendment to Warrant to Purchase Shares of Common Stock of Amedica Corporation dated September 8, 2015, by and between Amedica Corporation and Hercules Technology III, L.P.	Form 8-K (Exhibit 10.2)	9/8/15	001-33624
10.17	Settlement and Waiver Agreement dated September 8, 2015, by and among Amedica Corporation and MG Partners II, Ltd.	Form 8-K (Exhibit 10.3)	9/8/15	001-33624
10.18	Placement Agency Agreement between Amedica Corporation and Ladenburg Thalmann & Co. Inc.	Form 8-K (Exhibit 10.4)	9/8/15	001-33624
10.19	Form of Securities Purchase Agreement between Amedica Corporation and the Purchasers Dated September 8, 2015	Form 8-K (Exhibit 10.5)	9/8/15	001-33624
10.20	Form of Registration Rights Agreement	Form 8-K (Exhibit 10.6)	9/8/15	001-33624
10.21	Form of Leak-Out Agreement	Form 8-K (Exhibit 10.1)	12/14/15	001-33624
10.22	Assignment and Second Amendment to Loan and Security Agreement, dated April 4, 2016, by and among the Company, Riverside Merchant Partners, LLC, Hercules Technology III, L.P. and Hercules Capital, Inc., the financial institutions signatory thereto, Amedica Corporation, and the guarantors signatory thereto.	Form 8-K (Exhibit 10.1)	4/5/15	001-33624
10.23	Exchange Agreement, dated April 4, 2016, by and among Amedica Corporation and Riverside Merchant Partners, LLC	Form 8-K (Exhibit 10.2)	4/5/15	001-33624

10.24	Subordinated Convertible Promissory Note, dated April 4, 2016, by and among Amedica Corporation and Riverside Merchant Partners, LLC		Form 8-K (Exhibit 10.3)	4/5/15	001-33624
21.1	List of Subsidiaries of the Registrant		Form S-1 (Exhibit 21.1)	11/8/13	333-192232
23.1	Consent of Independent Registered Public Accounting Firm	X			
23.2	Consent of Dorsey & Whitney LLP (included as part of Exhibit 5.1)**				
24.1	Power of Attorney (included on the signature page to this registration statement)	X			
*	Management contract or compensatory plan or arrangement.				
**	To be filed by amendment				

Item 17. Undertakings

(a) The undersigned registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) To include any prospectus required by section 10(a)(3) of the Securities Act of 1933;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; AND

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post- effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(4) That, for the purpose of determining liability of the registrant under the Securities Act of 1933 to any purchaser in the initial distribution of the securities: The undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

(i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;

(ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;

(iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and

(iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.

(b) Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or Controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant certifies that it has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in Salt Lake City, Utah on June 8, 2016.

AMEDICA CORPORATION

By: */s/ B. Sonny Bal MD*

B. Sonny Bal
Chief Executive Officer and President

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities held on the dates indicated.

Signature	Title	Date
/s/ B. Sonny Bal B. Sonny Bal, MD	Chief Executive Officer, President and Chairman of the Board of Directors (principal executive officer)	June 8, 2016
/s/ Ty Lombardi Ty A. Lombardi	Chief Financial Officer (principal financial and accounting officer)	June 8, 2016
* Eric A. Stookey	Director	June 8, 2016
* David W. Truetzel	Director	June 8, 2016
* Jeffrey S. White	Director	June 8, 2016

*By: */s/ B. Sonny Bal*
B. Sonny Bal, MD
Attorney-in-fact

EXHIBIT 23.1

Consent of Independent Registered Public Accounting Firm

The Board of Directors
Amedica Corporation

We hereby consent to the incorporation by reference in this Registration Statement on Amendment No. 1 of Form S-1 (File No. 333-211520) and related Prospectus, of our report dated March 23, 2016 with respect to the audited consolidated financial statements of Amedica Corporation as of December 31, 2015 and 2014 and for the years then ended, which contains an explanatory paragraph describing the conditions that raise substantial doubt about the Company's ability to continue as a going concern as described in Note 1 to the financial statements.

We also consent to the reference to us under the heading "Experts" in this Registration Statement.

/s/ Mantyla McReynolds, LLC
Mantyla McReynolds, LLC
Salt Lake City, Utah
June 8, 2016