

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION**  
Washington, DC 20549

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

**AMEDICA CORPORATION**

(Exact name of registrant as specified in its charter)

**Delaware**  
(State or other jurisdiction of  
incorporation or organization)

**3841**  
(Primary Standard Industrial  
Classification Code Number)

**84-1375299**  
(IRS Employer  
Identification No.)

**615 Arapeen Drive  
Suite 302  
Salt Lake City, Utah 84108  
(801) 583-5100**

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

**Ashok C. Khandkar, Ph.D.  
Chief Executive Officer  
Amedica Corporation  
615 Arapeen Drive  
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Salt Lake City, Utah 84108  
(801) 583-5100**

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

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**Approximate date of commencement of proposed sale to public:** As soon as practicable after this Registration Statement becomes effective.

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

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

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

**CALCULATION OF REGISTRATION FEE**

Title of Each Class of Securities to be Registered	Proposed Maximum Aggregate Offering Price <sup>(1)</sup>	Amount of Registration Fee <sup>(1)</sup>
Common Stock, \$0.01 par value per share	\$ 74,750,000	\$ 2,294.83

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

amended.

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**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 or until the Registration Statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to Section 8(a), may determine.**

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The Information in this 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 securities, and we are not soliciting offers to buy these securities, in any state where the offer or sale is not permitted.

*PROSPECTUS (Subject to Completion)*  
*Issued May 22, 2007*

*Shares*



*Amedica Corporation is offering \_\_\_\_\_ shares of its common stock. This is our initial public offering and no public market currently exists for our shares. We anticipate that the initial public offering price will be between \$ \_\_\_\_\_ and \$ \_\_\_\_\_ per share.*

*We have applied to have our common stock approved for listing on The NASDAQ Global Market under the symbol "AMCA."*

*Investing in our common stock involves risks. See "[Risk Factors](#)" beginning on page 9.*

*PRICE \$ \_\_\_\_\_ A SHARE*

<i>Per Share</i>	<i>Price to Public</i>	<i>Underwriting Discounts and Commissions</i>	<i>Proceeds to Amedica</i>
<i>Total</i>	<i>\$ _____</i>	<i>\$ _____</i>	<i>\$ _____</i>

*We have granted the underwriters the right to purchase up to an additional \_\_\_\_\_ shares of common stock to cover over-allotments.*

*The Securities and Exchange Commission and state securities regulators have not approved or disapproved these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.*

*The underwriters expect to deliver the shares to purchasers on or about \_\_\_\_\_, 2007.*

**MORGAN STANLEY**

**JEFFERIES & COMPANY**

**CIBC WORLD MARKETS**

, 2007

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You should rely only on the information contained in this prospectus or contained in any free writing prospectus that we may authorize to be delivered to you. We have not, and the underwriters have not, authorized any other person to provide you with information different from, or in addition to, that contained in this prospectus or any related free writing prospectus. We are offering to sell, and seeking offers to buy, shares of common stock only in jurisdictions where offers and sales are permitted. The information contained in this prospectus or any related free writing prospectus is accurate only as of its date, regardless of the time of its delivery, or of any sale of common stock.

**Through and including \_\_\_\_\_, 2007 (25 days after the date of this prospectus), all dealers that buy, sell or trade shares of our common stock, whether or not participating in this offering, may be required to deliver a prospectus. This delivery requirement is in addition to the obligation of dealers to deliver a prospectus when acting as underwriters and with respect to their unsold allotments or subscriptions.**

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 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.

## PROSPECTUS SUMMARY

*This summary highlights what we believe are the most important features of this offering and the information contained elsewhere in this prospectus. This summary is not complete and does not contain all of the information that you should consider before investing in our common stock. You should read the entire prospectus carefully, including "Risk Factors" and our financial statements and the related notes included in this prospectus. Unless the context requires otherwise, references to "Amedica," "we," "our" and "us" in this prospectus refer to Amedica Corporation.*

## AMEDICA CORPORATION

### Overview

We are an orthopedic implants company focused on using our silicon nitride ceramic technologies to develop, manufacture and commercialize a broad range of advanced, high-performance spine and joint implants. We have developed a formulation of silicon nitride which we believe has the strength, toughness and wear resistance necessary to overcome the limitations of currently available orthopedic implants. Upon introduction to market, our implants will represent the first commercial use of silicon nitride ceramics in orthopedic applications and will have the potential to provide an improved combination of characteristics, including substantially greater strength and resistance to fracture, superior resistance to wear, greater ability to promote bone attachment, and better compatibility with surgical and diagnostic imaging. Based on these potential advantages, we believe that our silicon nitride product candidates will achieve better long-term clinical outcomes due to their enhanced durability, longevity, biocompatibility and patient fit. As a result, we intend to establish our silicon nitride implants as new standards of care for the largest and fastest growing orthopedic implant markets: the spine, hip and knee markets.

Our lead product candidates under development are our *Valeo*<sup>TM</sup> family of spinal implants, which will be used to restore and maintain the alignment of vertebrae in the cervical, or neck region, and lumbar, or lower back region, of the spine. We expect to launch these product candidates by mid-2008, subject to clearance by the U.S. Food and Drug Administration, or the FDA. In 2006, we received clearance from the FDA for the first ever ceramic spinal spacer for insertion between two vertebrae to help stabilize the spine, which will be the predicate device for the first of our product candidates that we intend to commercialize. We plan to introduce additional spinal spacers by the end of 2008, subject to regulatory clearance, including cortico-cancellous spacers that feature a bone-like structure with a solid, or cortical, load-bearing portion and a cancellous, or porous, structure that is intended to promote bone attachment for secure spinal fixation. Subsequently, subject to regulatory approval, we plan to introduce cortico-cancellous spinal spacers with a surface coating designed to further enhance bone attachment. Our *Valeo* family of spinal implant candidates also includes an all-ceramic, motion-preserving cervical disc, for which we anticipate commencing a clinical trial by mid-2009. In addition, we are incorporating our silicon nitride ceramic technology into the development of our *Infinia*<sup>TM</sup> family of total hip and knee implants. We anticipate commencing a clinical trial for our first total hip implant product candidate in 2009.

During the past two years, we have been developing our own manufacturing facility and processes that will provide us the ability to control the commercial-scale production of our silicon nitride ceramic implants from powder form to devices ready for sterilization and packaging. We are currently producing our lead ceramic spinal product candidates on a pilot scale in our manufacturing facility. We anticipate our facility will be fully operational for commercial-scale production by the end of 2007, which we believe would make us the only vertically integrated silicon nitride orthopedic implant manufacturer in the world.

## **Our Market Opportunity**

According to the Millennium Research Group, approximately 1.5 million patients undergo spine, hip and knee surgery involving the use of implants each year in the United States, and this number is expected to grow primarily due to the rising incidence of arthritis. In 2005, an estimated 46 million U.S. adults suffered from doctor-diagnosed arthritis, and nearly two-thirds of those afflicted were younger than age 65. Osteo-arthritis, a condition involving the degeneration, or wearing away, of the cartilage at the end of bones, is a common form of arthritis, and often results in progressive joint disease and pain. The prescribed treatment for osteo-arthritis disorders depends on the severity and duration of the disorder and ranges from non-operative procedures including bed rest, medication, lifestyle modifications, exercise, physical therapy, chiropractic care and steroid injections, to surgical intervention including total joint replacement. In cases where surgical intervention is prescribed, the use of implants has evolved into the standard of care in spine, hip and knee surgery.

The spine market is the fastest growing market for orthopedic implants, accounting for \$3.3 billion in sales in the United States in 2006, and is projected to grow at an average annual rate of 12.0% through 2011 to approximately \$5.9 billion. Spinal fixation surgeries currently represent the vast majority of procedures in this market. Approximately 500,000 spinal fixation surgery procedures were performed in the United States in 2006, accounting for approximately \$3.2 billion of the total \$3.3 billion in U.S. spine implant market.

Orthopedic implants used in hip and knee replacement surgeries generated approximately \$5.6 billion in sales in 2006 in the United States, and such sales are projected to increase at an average annual rate of 9.4% through 2011 to approximately \$8.8 billion. Approximately one million primary hip and knee replacement procedures were performed in the United States in 2006.

We believe that the market for implants used in spine, hip and knee surgical procedures will continue to grow because of the following market dynamics:

- growth of the aging population;
- changing lifestyle expectations;
- earlier surgical intervention;
- rising number of revision surgeries;
- introduction of new technologies; and
- market expansion into new geographic areas.

## **Our Solution**

We believe our silicon nitride ceramic technologies, *MC<sup>2</sup>* and *C<sup>S</sup>C*, will overcome many of the limitations associated with currently available implant materials by providing an improved combination of characteristics, including:

- substantially greater strength and resistance to fracture than currently marketed ceramic implants;
- superior resistance to wear compared to implants made of plastics and metals;
- greater ability to promote bone attachment than traditional plastic and metal implants such as polyetheretherketone, or PEEK, and titanium; and
- better compatibility with surgical and diagnostic imaging techniques.

We believe that the anticipated greater strength and fracture resistance of our silicon nitride implant candidates will allow us to offer a wider range of design and size options along with substantially reduced risk of

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fracture compared to currently marketed implants made of ceramic materials. We further believe that the anticipated superior wear resistance and the improved biocompatibility over the life of our silicon nitride product candidates will reduce the risk of bone loss and allergic response to metal wear particles. Based on these potential advantages, we believe that our silicon nitride product candidates will achieve better long-term clinical outcomes with a combination of improved durability, longevity, biocompatibility and patient fit. Our ceramic product categories include:

- *Micro-Composite Ceramic, or MC<sup>2</sup>*. We refer to our formulation of silicon nitride as *MC<sup>2</sup>*, or Micro-Composite Ceramic. We expect that all of our ceramic product candidates will be made using our *MC<sup>2</sup>* silicon nitride.
- *Cortico-cancellous Structured Ceramics, or C<sup>SC</sup>*. We also are developing silicon nitride ceramic implants that mimic the structure of natural bone by incorporating both a dense load-bearing component and a porous component, coupled with a surface coating, to promote bone attachment. We call our ceramic implants based on this technology *C<sup>SC</sup>*, or Cortico-cancellous Structured Ceramic, implants.

### **Our Strategy**

Our goal is to become a leading orthopedic company offering advanced silicon nitride ceramic implants for a broad range of orthopedic indications. We intend to use our ceramic technologies to develop implants that have significant performance advantages compared to existing implants. We believe that the combined benefits of our *MC<sup>2</sup>* and *C<sup>SC</sup>* technologies will give our product candidates the potential to become a new standard of care for spine, hip and knee procedures.

Key elements of our strategy to achieve this objective include the following:

- launch near-term product candidates that address substantial market opportunities and build market awareness;
- build a broad portfolio of ceramic implants targeting expanded indications and additional surgical procedures;
- leverage the expertise of our surgeon advisors to design physician-preferred product features and to drive market awareness;
- establish a hybrid sales organization utilizing experienced, independent sales agencies and a direct sales force; and
- selectively establish collaborations for our implants with leading orthopedic companies.

### **Our Product Candidates**

We are using our *MC<sup>2</sup>* and *C<sup>SC</sup>* ceramic technologies to develop and commercialize innovative orthopedic implant products for the spine, hip and knee implant markets.

#### ***Our Spinal Implant Products***

We have designed our lead product candidates in our *Valeo* family of spinal implants as a complete solution for surgical procedures for spinal fixation. These products, if cleared or approved by the FDA, include spinal spacers, a cervical bone plate system, a pedicle screw system, and a set of surgical instruments that facilitate the placement of our implants in the body. We are also developing an all-ceramic motion-preserving cervical disc.

*Valeo Cortical and C<sup>SC</sup> Spinal Spacers*. We have designed our *Valeo* family of spinal spacers, using silicon nitride ceramic, as intervertebral fixation implants for stabilizing the spine that replace a portion of a vertebra

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that has collapsed, been damaged, or becomes unstable due to disease or trauma. We believe that each of our *Valeo Spinal Spacers* will have significant competitive advantages compared to existing spinal implants. We developed and received FDA clearance for our *Arx™* Intervertebral Spacers made from *MC<sup>2</sup>* silicon nitride, which will serve as the predicate device for the 510(k) premarket notification for our *Valeo Cortical Spinal Spacers* product candidate.

*Valeo Cervical Plate System and Pedicle Screw System.* We are developing our *Valeo Cervical Plate System* and *Valeo Pedicle Screw System* as titanium alloy supplemental fixation implants to be used in conjunction with our *Valeo Spinal Spacers*. Our design and instruments combine special features to enable surgeons, in a single step, to hold the cervical plate in place, ensure proper angling and insertion of the screws into the vertebrae, and achieve a consistent supplemental fixation outcome. Our screw system incorporates modularity in the system components to permit such flexibility, which we believe will provide better clinical outcomes.

*Valeo Cervical Disc.* We are developing our *Valeo Cervical Disc*, using both our *MC<sup>2</sup>* and *C<sup>S</sup>C* technologies, as a silicon nitride ceramic implant to meet the unmet market need for a disc replacement implant that will restore natural motion and provide uncompromised wear resistance and favorable imaging characteristics in the cervical spine. We believe our *Valeo Cervical Disc* will represent a significant advance over currently available disc implants.

### ***Our Hip Implant Products***

*Infinia Total Hip Implant.* We are developing our *Infinia Total Hip Implant* for patients undergoing total hip replacement surgery for the treatment of degenerative joint disease. In our first hip replacement implant, we will use silicon nitride ceramic for the femoral head component of this implant. The counter-bearing, or mating component, of the hip implant, will be a polyethylene liner, fixed into a metal acetabular cup, using industry-recognized designs and materials. We anticipate that our *Infinia Total Hip Implant*, if cleared by the FDA based on clinical trial results, will provide significant competitive advantages over traditional total hip replacement implants presently on the market.

*Infinia Total Hip Implant II.* We are developing our second generation *Infinia Total Hip Implant II* which, if approved by the FDA, will feature our *Infinia* monoblock cup, an industry-first, one-piece, fully ceramic acetabular cup, our large diameter *Infinia* ceramic and metal femoral heads, and our *Infinia* femoral stem. The *Infinia* monoblock cup will be made from silicon nitride ceramic and will incorporate a smooth bearing surface on the inside of the cup integrated with a bone attachment surface incorporating our *C<sup>S</sup>C* technology on the outside of the cup that comes into contact with a patient's pelvis. The femoral head of the implant will be a large-diameter head offered in two versions, one made of silicon nitride and the other of cobalt-chromium metal alloy. The femoral head will be used with a metal stem inserted into the femur. In contrast to currently marketed ceramic femoral heads, we are designing our *MC<sup>2</sup>* femoral head to offer surgeons a range of size and design options comparable to those available in metal femoral heads.

### ***Our Knee Implant Product***

*Infinia Total Knee Implant.* Our *Infinia Total Knee Implant* will incorporate silicon nitride bearing components for the femoral condyle. The tibial tray will be made from traditional metal. The tibial insert will be made from polyethylene in a rotating platform design intended to give the knee implant a range of motion and flexion similar to the natural knee. We anticipate that this total knee replacement product candidate, if approved by the FDA, will provide natural anatomic motion and will offer a low-wear knee replacement option, providing significantly improved longevity compared with current metal-on-polyethylene knee implants.

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### **Risks Associated with Our Business**

Our business is subject to a number of risks that you should be aware of before making an investment decision. These risks are discussed more fully in the section of this prospectus entitled “Risk Factors.” We have not received regulatory clearance or approval to commercialize our *Valeo* or *Infinia* product candidates for any intended use. If we are unable to successfully develop, receive regulatory clearance for and commercialize our implant products, we may never generate revenue or be profitable and may have to cease operations. We have a limited operating history and no products in commercial distribution. To date, our only significant revenue has been from research grants from the National Institutes of Health and with the exception of a small net income for the years ended December 31, 2002 and 1999, we have incurred net losses in each year since our inception. Our ability to expand the use of our ceramic technologies may be limited by a number of factors, including intellectual property held by other parties. Our competitors and potential competitors include much larger companies with more resources and commercialization experience than we have. We have generated no revenues from operations, and as of March 31, 2007, we had an accumulated deficit during the development stage of \$18.2 million. We expect to continue to incur additional, and possibly increasing, losses through at least the end of 2010.

### **Corporate Information**

We were incorporated in Delaware in 1996 under the name Amedica Corp. and have since changed our name to Amedica Corporation. Our principal executive offices are located at 615 Arapeen Drive, Suite 302, Salt Lake City, Utah 84108, and our telephone number is (801) 583-5100. Our web site address is [www.amedicacorp.com](http://www.amedicacorp.com). The information on, or that may be accessed through, our web site is not incorporated by reference into this prospectus and should not be considered a part of this prospectus. As used in this prospectus, references to “we,” “our,” “us” and “Amedica” refer to Amedica Corporation unless the context requires otherwise.

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.

We have applied for federal registration of the marks “Altia”, “AMCA”, “Amedica”, “C<sup>SC</sup>”, “Improving Function. Enhancing Lives.”, “Infinia”, “Infinite Possibility”, “MC<sup>2</sup>”, and “Valeo”. All other trademarks, trade names and service marks appearing in this prospectus are the property of their respective owners.

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**THE OFFERING**

Common stock offered by us	shares
Common stock to be outstanding after this offering	shares
Over-allotment option	shares
Use of proceeds	We intend to use the net proceeds from this offering to fund the development and commercialization of our lead products, build our sales, marketing and distribution capabilities, establish commercial-scale manufacturing operations, fund research and development activities for our pipeline products and for other general corporate purposes. See “Use of Proceeds.”
Proposed NASDAQ Global Market symbol	AMCA

The information above is based on 8,678,995 shares of common stock outstanding as of May 1, 2007, and assumes the conversion of all of our preferred stock outstanding as of May 1, 2007, into 31,856,558 shares of common stock upon the completion of this offering. It does not include:

- 3,457,627 shares of common stock issuable upon the exercise of outstanding options to purchase common stock, at a weighted average exercise price of \$0.40 per share;
- 4,057,040 shares of common stock issuable upon the exercise of warrants for shares of Series A, Series B, Series C and Series D convertible preferred stock, on an as-converted basis, outstanding as of May 1, 2007, at a weighted average exercise price of \$1.36 per share; and
- 857,163 additional shares of common stock reserved for issuance under our 2003 Stock Option Plan.

Unless otherwise indicated, all information contained in this prospectus:

- assumes that the underwriters do not exercise their over-allotment option;
- reflects a one-for- reverse split of our common stock to be effected immediately prior to the completion of this offering;
- reflects the automatic conversion of all of our outstanding shares of preferred stock into 31,856,558 shares of common stock upon completion of this offering; and
- assumes the adoption of our amended and restated certificate of incorporation and amended and restated bylaws upon the completion of this offering.

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**SUMMARY FINANCIAL DATA**

The summary financial data set forth below should be read in conjunction with our financial statements and the related notes and “Management’s Discussion and Analysis of Financial Condition and Results of Operations” included elsewhere in this prospectus.

	Years Ended December 31,					Three Months Ended March 31,		Period from December 10, 1996 (inception) through March 31, 2007 (unaudited)
	2002	2003	2004	2005	2006	2006 (unaudited)	2007 (unaudited)	
<b>Statement of Operations Data:</b>								
Grant revenue	\$ 304,333	\$ 299,583	\$ 208,252	\$ 69,207	\$ 94,850	\$ —	\$ —	\$ 1,234,476
Operating expenses:								
Research and development	207,298	380,771	1,419,293	2,966,991	4,974,380	1,100,125	1,479,340	11,802,694
General and administrative	67,551	142,377	398,208	576,295	1,113,500	184,425	405,380	2,806,322
Sales and marketing	—	—	—	416,847	607,538	111,038	125,740	1,150,125
Total operating expenses	274,849	523,148	1,817,501	3,960,133	6,695,418	1,395,588	2,010,460	15,759,141
Income (loss) from operations	29,484	(223,565)	(1,609,249)	(3,890,926)	(6,600,568)	(1,395,588)	(2,010,460)	(14,524,665)
Interest income (expense), net	(16,705)	(6,863)	107,211	248,838	727,939	150,487	129,148	1,153,775
Change in value of preferred stock warrants	—	—	(254,089)	(577,000)	(290,925)	(72,731)	(3,681,413)	(4,803,427)
Net income (loss)	\$ 12,779	\$ (230,428)	\$ (1,756,127)	\$ (4,219,088)	\$ (6,163,554)	\$ (1,317,832)	\$ (5,562,725)	\$ (18,174,317)
Basic and diluted loss per share	\$ 0.00	\$ (0.03)	\$ (0.20)	\$ (0.49)	\$ (0.71)	\$ (0.15)	\$ (0.64)	
Weighted average number of shares outstanding—basic and diluted	8,000,000	8,110,933	8,585,873	8,612,014	8,661,713	8,655,595	8,678,995	

	As of March 31, 2007 (unaudited)	
	Actual	Pro Forma <sup>(1)</sup> as Adjusted <sup>(1)(2)</sup>
<b>Balance Sheet Data:</b>		
Cash, cash equivalents and marketable securities	\$ 10,325,322	\$ 22,725,322
Working capital	9,541,106	21,941,106
Total assets	17,207,969	29,607,969
Long-term debt, including current portion	1,556,241	1,556,241
Convertible preferred stock	26,389,982	—
Total stockholders’ equity (deficit)	(17,559,966)	27,534,979

- (1) The pro forma balance sheet data above reflect our unaudited capitalization as of March 31, 2007, on a pro forma basis giving effect to (i) the issuance of 4,456,500 shares of our Series D convertible preferred stock in April 2007 for net proceeds of approximately \$12.4 million, (ii) the automatic conversion of all outstanding shares of our convertible preferred stock, including our Series D convertible preferred stock into an aggregate of 31,856,558 shares of our common stock upon the completion of this offering, and (iii) the conversion of warrants to purchase 4,057,040 shares of our convertible preferred stock into warrants to purchase an equal number of shares of our common stock (but not assuming the exercise of these common stock warrants), including warrants to purchase a total of 253,290 shares of Series D convertible preferred stock issued in April 2007 and the related reclassification of the preferred stock warrant liability to additional paid in capital.
- (2) The pro forma as adjusted balance sheet data above reflect the issuance of \_\_\_\_\_ shares of common stock upon the completion of this offering at an assumed initial public offering price of \$ \_\_\_\_\_ per share, the midpoint of the range on the front cover of this prospectus.

The common share information above does not include:

- 3,457,627 shares of common stock issuable upon the exercise of options to purchase common stock, at a weighted average exercise price of \$0.40 per share outstanding as of March 31, 2007;

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- 4,057,040 shares of common stock issuable upon the exercise of warrants for shares of Series A, Series B, Series C and Series D convertible preferred stock, on an as-converted basis, outstanding as of May 1, 2007, at a weighted average exercise price of \$1.36 per share; and
- 857,163 additional shares of common stock reserved for issuance under our 2003 Stock Option Plan.

## RISK FACTORS

*An investment in our common stock 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, including our financial statements and the related notes, before deciding to invest in our common stock. If any of the following risks occur, our business, financial condition, results of operations or cash flows could be materially harmed. 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 are an early stage company with no product revenues, and if we fail to execute effectively on all elements of our business plan, we may not succeed in our goal of becoming a profitable orthopedic implants company.***

We have not yet commercialized any products, we do not expect to introduce any of our lead product candidates until 2008 and we do not anticipate introducing one of our lead spinal spacer product candidates until the second half of 2008. We do not expect to start clinical trials of the earliest of our pipeline products before the first half of 2009. There is no assurance that we will succeed in bringing any of our product candidates to market. In order to succeed in our commercialization efforts, we must execute effectively on all elements of our business plan, including product development and testing, obtaining regulatory clearances and approvals, establishing our sales and marketing capabilities, and developing certified, validated and effective commercial-scale manufacturing operations. 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 near-term success depends substantially on our ability to obtain regulatory clearance or approval and thereafter commercialize our most advanced spinal implant product candidates; we cannot be certain that we will be able to do so in a timely fashion or at all.***

The process of obtaining regulatory clearances or approvals to market a medical device from the U.S. Food and Drug Administration, or 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 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 *Inifinia Total Hip Implant*, the FDA has indicated that it will require clinical data as part of the 510(k) process.

Our regulatory strategy is to try to accelerate market introduction of our most advanced product candidates by submitting either a traditional or a Special 510(k). We currently intend to seek Special 510(k) clearance for certain of our lead spinal implant products under development. We expect to submit a 510(k) for our *Inifinia Total Hip Implant*, which will include our ceramic femoral head, and we anticipate that the FDA will require clinical trials in support of this 510(k) as well as for our applications through the PMA process for the rest of our pipeline product candidates.

There is no certainty, however, that any of our lead product candidates, particularly those incorporating silicon nitride ceramic materials, will be cleared by the FDA by means of either a traditional or a Special 510(k). In correspondence relating to a 510(k) we submitted for spinal product candidates we were developing using zirconia-toughened alumina, the FDA raised a number of questions that are potentially applicable to several of our current spinal product candidates, including our lead product candidates incorporating silicon nitride ceramic materials, and which could result in our having to perform additional studies. While we believe that our current product candidates incorporating silicon nitride ceramic materials differ significantly from our previous product

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candidates employing zirconia-toughened alumina, we cannot assure you that the FDA will not raise similar questions regarding our current spinal product candidates. If the FDA takes a similar position regarding our product candidates incorporating silicon nitride ceramic materials, our ability to bring our lead products to market could be delayed and we can give no assurance that we would ultimately receive marketing approval.

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 lead 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 most advanced product candidates will be delayed or prevented, which will adversely affect our ability to generate 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. Any of these contingencies could adversely affect our business.

***Even if we succeed in obtaining FDA clearance or approvals for our lead product candidates and pipeline product candidates within the time frames we anticipate, our products may not be commercially successful.***

Even if we receive regulatory clearances or approvals for our lead product candidates and pipeline product candidates, our 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:

- lower than expected clinical benefits in comparison with other implant products;
- surgeons' perception that there are insufficient advantages of our implants relative to currently available implant products;
- lack of coverage or adequate payment from managed care plans and other third-party payors for the procedures that use our products;
- ineffective marketing and distribution support;
- inadequate training of surgeons in the proper use of our products;
- the development of alternative implant materials and products that render our products less competitive or obsolete; and
- timing of the introduction of competitive products to market.

If orthopedic surgeons do not perceive our implant products as attractive alternatives to existing products, we will not be able to generate significant revenues, if any.

***The orthopedic implant 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 spine, 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. For example, in 2006, Medtronic Spinal and Biologics, a subsidiary of Medtronic, Inc.; Synthes, Inc.; DePuy Spine, Inc., a subsidiary of Johnson & Johnson; Stryker Spine, a division of Stryker Corporation; Biomet Spine and Biomet Trauma, a subsidiary of Biomet, Inc.; and Zimmer Spine, a subsidiary of Zimmer Holdings, Inc., accounted for over 80% of spine implant sales worldwide. In the hip and knee implant market, Zimmer Holdings, Inc.; DePuy Orthopaedics, Inc., a subsidiary of Johnson & Johnson; Stryker Orthopaedics, a division of Stryker Corporation; Biomet, Inc.; and Smith & Nephew Orthopaedics, a subsidiary of Smith & Nephew plc, accounted for over 80% of sales worldwide.

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These companies enjoy significant competitive advantages over us, including:

- broad implant product offerings, which address the needs of orthopedic surgeons and hospitals in a wide range of implant procedures;
- 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;
- more extensive intellectual property portfolios and 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 or approvals for products and product enhancements;
- established manufacturing operations and contract manufacturing relationships;
- significantly greater name recognition and more recognizable trademarks; and
- established relationships with healthcare providers and payors.

Even if we successfully introduce implant products to market based on our ceramic materials, we may not succeed in overcoming the competitive advantages of these large and dominant orthopedic implant companies. In addition, emerging and small innovative companies may seek to increase their market share and they may later possess competitive advantages, which could also impact our business even if we successfully introduce implant products based on our ceramic materials. Moreover, many other companies are seeking to develop ceramic-based implant products, and these companies may introduce products which compete effectively against our products in terms of performance, price or both.

***If we are unable to establish a sales and marketing infrastructure and enter into suitable arrangements with independent sales agencies, we will not be able to commercialize our product candidates.***

Upon FDA clearance, we intend to market and sell our lead spinal products in the United States using a hybrid distribution network that includes a combination of experienced, independent sales agents with strong, existing surgeon relationships and a direct sales force in selected markets. A similar hybrid sales force will also be used to market our hip and knee reconstructive products. We have not yet established an internal sales organization, and we will need to recruit and train sales and marketing personnel in time for the launch of our most advanced product candidates, as well as expand our marketing capabilities as we grow our business. The establishment of our sales force will be expensive and time consuming, and we cannot assure you that we will be able to recruit and train a sufficient number of experienced and effective sales personnel on a timely basis.

In addition, we cannot assure you that we will succeed in entering into productive arrangements with an adequate number of sales agencies that are sufficiently dedicated to selling our products. The establishment of a network of sales agencies is expensive and time consuming. Furthermore, many potential sales agencies will market and sell the products of our competitors. Even if these sales agencies agree to market and sell our products, our competitors may be able, by offering higher commission payments or other incentives, to persuade these sales agencies to reduce or terminate their sales and marketing efforts of our products. Even if we enter into agreements with independent sales agencies, 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. If we are not successful in building an effective external sales and marketing network to complement our internal sales force, we will have difficulty commercializing our product candidates, which would adversely affect our business and financial condition.

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***We are in the process of establishing our own certified manufacturing facility and validating of our manufacturing processes to produce our silicon nitride-based implant products, and we may not be successful in developing the necessary commercial-scale manufacturing processes, facilities and capabilities.***

Prior to March 2006, we utilized an internal pilot manufacturing facility to produce prototypes of some of our ceramic product candidates, and we used third parties to produce components of some of our other ceramic product candidates, such as silicon nitride ball blanks for femoral heads. We are currently in the process of developing internal manufacturing operations, and we will need to continue our efforts to develop scaled-up processes, equip our facility and recruit and train manufacturing personnel before the commercial launch of our lead implant products. We anticipate our facility becoming fully operational for commercial-scale production by the end of 2007. Although we have received an International Standards Organization, or ISO, certification for our facility from the British Standards Institution, our facilities are yet to be inspected by the FDA. In addition to developing and working to scale-up a process for the manufacture of our silicon nitride ceramic products, we are also currently verifying a manufacturing process for our implant products that incorporate features of our C<sup>5</sup>C technology. We cannot assure you that we will be able to establish commercial-scale production of our products using cost-effective, reliable processes in facilities that meet applicable regulatory requirements. If we are unable to manufacture our products with consistent and satisfactory quality, at competitive costs, and sufficient quantities to meet demand, any of these circumstances may cause us to delay the introduction of our products or, once our products are introduced, may cause hospitals and surgeons to refrain from placing orders for them.

***If we fail to comply with the FDA's quality system regulation, the manufacture of our products could be delayed or interrupted and our products may be subject to product recalls.***

We will be required to comply with the FDA's quality system regulation, or QSR, which covers, among other things, the methods and documentation of the design, testing, production, control, quality assurance, labeling, packaging, sterilization, storage and shipping of our products. The FDA monitors compliance with the QSR through inspections of manufacturing facilities. If we are determined not to be in compliance or if any corrective action plan is not sufficient, we could be prevented or forced to delay the manufacture of our products, which could have a material adverse effect on our business, financial condition and results of operations. Moreover, after we have introduced products, any failure to maintain QSR compliance could force us to cease the manufacture of our products and subject us to other enforcement sanctions, including withdrawal of our products from the market, and delay or interrupt the manufacture of additional products.

***We are in the process of developing a cost-effective process for the manufacture of our products based on our C<sup>5</sup>C technology, and if we are unable to implement such a process on a timely basis, we will experience delays in the introduction of our implant products that incorporate our C<sup>5</sup>C technology.***

We are in the process of implementing an exclusively licensed process for the manufacture of our product candidates that will incorporate our C<sup>5</sup>C technology. We cannot assure you that we will succeed in our process implementation efforts for the manufacture of our product candidates that will incorporate our C<sup>5</sup>C technology. Delays in achieving a cost-effective and reliable process for commercial-scale production of implant products that incorporate our C<sup>5</sup>C technology could impede the introduction of those product candidates and would adversely affect our business.

***We depend on a limited number of third-party suppliers for key raw materials used in our manufacturing processes, 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 implant products that will be made using silicon nitride, and we currently are developing arrangements with secondary sources for these raw materials. Our dependence on a limited number of third-party suppliers and the challenges we may face in obtaining adequate supplies of raw materials involve several risks, including limited

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control over pricing, availability, quality, and delivery schedules. We cannot be certain that our current suppliers will continue to provide us with the quantities of these raw materials that we require or satisfy our anticipated specifications and quality requirements. Any supply interruption in limited or sole 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. Although we believe there are other suppliers of these raw materials, we may be unable to find a sufficient alternative supply channel in a reasonable time or on commercially reasonable terms. Any performance failure on the part of our suppliers could delay the development and commercialization of our implant products, including limiting supplies necessary for clinical trials and regulatory approvals, or interrupt production of then existing products that are already marketed, which would have a material adverse effect on our business.

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

Successful sales of our products will depend on the availability of coverage and adequate payments from third-party payors, including government programs such as Medicare and Medicaid, private insurance plans and managed care programs for procedures utilizing our future products. Hospitals and other healthcare providers that purchase orthopedic implant products for treatment of their patients generally rely on third-party payors to pay for all or part of the costs and fees associated with the procedures performed with or utilizing these devices. The existence of coverage and adequate payments for our products and the procedures performed with them by government and private insurance plans are central to acceptance of our lead and pipeline products. Many private payors currently base their reimbursement policies on the coverage decisions and payment amounts determined by the Centers for Medicare and Medicaid Services, or CMS, which administers the Medicare program. Others may adopt different coverage or payment 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. Our success may also be impacted by future action by CMS or other government agencies aimed at limiting payments to physicians, outpatient centers and hospitals. Additionally, as the portion of the U.S. population eligible for Medicare continues to grow, we will be more vulnerable to reimbursement limitations imposed by Medicare. For example, in 2006 CMS issued a national coverage decision denying Medicare coverage for DePuy's CHARITE™ prosthetic intervertebral disc implant for patients over 60 years old. Also, the healthcare industry in the United States has experienced a trend toward cost containment as government and private insurers seek to control healthcare costs by paying service providers lower rates. Therefore, we cannot be certain that our products or the procedures performed with them will be covered or adequately reimbursed and thus we may be unable to sell our products profitably if third-party payors deny 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.

In addition, future reimbursement may be subject to international regulatory approval requirements and increased restrictions in international markets. Medical device regulatory requirements and healthcare payment systems vary significantly from country to country, and each country's health care system may include both government sponsored healthcare and private insurance. Many countries have also instituted price ceilings on specific product lines. Any failure to receive regulatory and reimbursement approvals would negatively impact market acceptance of our products in any other international markets in which those approvals are sought.

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

We have not entered into employment agreements with any of the members of our senior management team, and, therefore, there are no assurances that the services of any of these individuals will be available to us for any specified period of time. 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.

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

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

We intend to seek clearance or approval for each of our lead and pipeline product candidates through the FDA's 510(k) or PMA process depending on the product candidate. 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 and requires little or no additional supporting clinical data. 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, 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 for our pipeline product candidates. We have no experience conducting clinical trials, they may proceed more slowly than anticipated, and we cannot be certain that our products will be shown to be safe and effective for human use.***

In order to commercialize our pipeline product candidates, we must submit a PMA for most of these product candidates, which will require us to conduct clinical trials. Even though we plan to seek FDA clearance of our pipeline *Infinia Total Hip Implant* product through the 510(k) process, the FDA has indicated that it expects us to conduct a clinical trial in support of our 510(k). We will receive approval from the FDA to commercialize pipeline products requiring a clinical trial only if we can demonstrate to the satisfaction of the FDA, in well-designed and properly conducted clinical trials, that our product candidates are safe and effective and otherwise meet the appropriate standards required for approval 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. 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 a particular pipeline product candidate:

- failure to obtain approval from the FDA or any foreign regulatory authority to commence an investigational study;
- conditions imposed on us by the FDA or any foreign regulatory authority regarding the scope or design of our clinical trials;
- 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 pipeline 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;

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- serious or unexpected side effects experienced by patients in whom our pipeline 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 not begin as planned, may need to be redesigned, and 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.

***Once our products are commercialized, we and our independent sales agents must comply with various federal and state anti-kickback, self-referral, false claims and similar laws, any breach of which could cause a material adverse effect on our business, financial condition and results of operations.***

Once our products are commercialized, our relationships with surgeons, hospitals and the marketers of our products will become subject to scrutiny under various federal anti-kickback, self-referral, false claims and similar laws, often referred to collectively as healthcare fraud and abuse laws. Healthcare fraud and abuse laws are complex, and even minor, inadvertent violations can give rise to claims that the relevant law has been violated. Possible sanctions for violation of these fraud and abuse laws include monetary fines, civil and criminal penalties, exclusion from federal and state healthcare programs, including Medicare, Medicaid, Veterans Administration health programs, workers' compensation programs and TRICARE (the healthcare system administered by or on behalf of the U.S. Department of Defense for uniformed services beneficiaries, including active duty and their dependents, retirees and their dependents), and forfeiture of amounts collected in violation of such prohibitions. Certain states in which we intend to market our products have similar fraud and abuse laws, imposing substantial penalties for violations. Any government investigation or a finding of a violation of these laws would likely result in a material adverse effect on the market price of our common stock, as well as our business, financial condition and results of operations.

Anti-kickback laws and regulations prohibit any knowing and willful offer, payment, solicitation or receipt of any form of remuneration in return for the referral of an individual or the ordering or recommending of the use of a product or service for which payment may be made by Medicare, Medicaid or other government-sponsored healthcare programs. We have entered into consulting agreements and product development agreements with surgeons, including some who may make referrals to us or order our products after our products are introduced to market. In addition, some of these surgeons own our stock, which they purchased in arms' length transactions on terms identical to those offered to non-surgeons, or received stock options from us as consideration for consulting services performed by them. Other surgeons may be offered shares as part of this offering under our directed share program as described in the "Underwriters" section of this prospectus. While these transactions were structured with the intention of complying with all applicable laws, including the federal ban on physician self-referrals, commonly known as the "Stark Law," state anti-referral laws and other applicable anti-kickback laws, it is possible that regulatory or enforcement agencies or courts may in the future view these transactions as prohibited arrangements that must be restructured or for which we would be subject to other significant civil or criminal penalties, or prohibit us from accepting referrals from these surgeons. Because our strategy relies on the involvement of surgeons who consult with us on the design of our product candidates, we could be materially impacted if regulatory or enforcement agencies or courts interpret our financial relationships with our surgeon advisors who refer or order our products to be in violation of applicable laws and determine that we would be unable to achieve compliance with such applicable laws. This could harm our reputation and the reputations of our surgeon advisors. In addition, the cost of non-compliance with these laws could be substantial since we could be subject to monetary fines and civil or criminal penalties, and we could also be excluded from federally-funded healthcare programs, including Medicare and Medicaid, for non-compliance.

The scope and enforcement of all of these laws is uncertain and subject to rapid change, especially in light of the lack of applicable precedent and regulations. There can be no assurance that federal or state regulatory or

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enforcement authorities will not investigate or challenge our current or future activities under these laws. Any investigation or challenge could have a material adverse effect on our business, financial condition and results of operations. Any state or federal regulatory or enforcement review of us, regardless of the outcome, would be costly and time consuming. Additionally, we cannot predict the impact of any changes in these laws, whether these changes are retroactive or will have effect on a going-forward basis only.

### ***We face significant uncertainty in the industry due to government healthcare reform.***

Political, economic and regulatory influences are subjecting the healthcare industry to fundamental changes. Reforms under consideration in the United States include mandated basic healthcare benefits, controls on healthcare spending, increases in insurance premiums and increased out-of-pocket requirements for patients, the creation of large group purchasing organizations that aim to reduce the costs of products that their member hospitals consume, and significant modifications to the healthcare delivery system. We anticipate that the U.S. Congress and state legislatures will continue to review and assess alternative healthcare delivery systems and payment methods. Due to uncertainties regarding the ultimate features of reform initiatives and the timing of their enactment and implementation, we cannot predict which, if any, of such reform proposals will be adopted, when they may be adopted or what impact reform initiatives may have on us.

### **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 implants successfully will be harmed, and we may not be able to operate our business profitably.***

Our success depends significantly on our ability to protect our proprietary rights to the technologies incorporated in our products. We currently have four issued U.S. patents, twelve pending U.S. patent applications, and ten pending foreign patent applications. 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. 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 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 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 also rely on an exclusive license from Dytech Corporation Ltd., or Dytech, for rights under three patents relating to a manufacturing process that can be used to implement our C<sup>SC</sup> technology. Our exclusive license from Dytech will be in effect for as long as we continue to have payment obligations to Dytech under the license,

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unless the license is earlier terminated on account of a continuing material violation of the license agreement. In the event of an early termination, we would not be able to rely on Dytech's patents for the manufacturing process for the implementation of our  $C^3C$  technology, and our ability to manufacture and commercialize our products incorporating this technology would be significantly impacted in an adverse manner.

Further, in the event that we are not able to commercialize a product or product candidate incorporating the licensed technology from Dytech within three years of the effective date of the agreement, or December 20, 2009 (or four years in the event clinical trials are required for FDA clearance, or December 20, 2010), Dytech will have the right, upon thirty days prior written notice to us, to convert the exclusive license into a non-exclusive license. In the event that our exclusive license is converted into a non-exclusive license, other competitors may be able to obtain licenses similar to ours that would substantially impair our ability to prevent competitors from commercializing products similar to ours.

We have also entered into confidentiality and assignment of intellectual property agreements with certain 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 one of our patents, our licensed 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 our formulation of silicon nitride or the process we use for manufacturing silicon nitride, and competitors may create doped-silicon nitride implant products substantially similar to ours, which could significantly diminish the effect of any competitive advantages that we might otherwise have had.***

The composition of silicon nitride formulated with dopants such as yttria and alumina is generally known or is readily knowable, and we have no patent protection either for the composition of our formulation of silicon nitride, which we refer to as  $MC^2$ , or for the process of manufacturing our  $MC^2$  silicon nitride and implant products made from that material. Moreover, we are aware of at least one ceramic manufacturer that already has the capability of manufacturing silicon nitride with strength, fracture resistance, and wear resistance characteristics similar to our  $MC^2$  silicon nitride. If other orthopedic companies decide to compete with us by manufacturing implants made from silicon nitride, or by marketing implants with silicon nitride components purchased from suppliers, we will have no ability to prevent them from doing so, except to the extent that specific implant embodiments are covered by our issued patents. To date, we have been issued one U.S. patent related to our  $MC^2$  technology, directed to the use of silicon nitride, with certain flexural strength and toughness characteristics, in the concave component of an articulating implant, where the convex component is made of a cobalt chromium metal alloy. Although we have submitted patent applications directed to other implant embodiments, such as an articulating implant where the concave component is made of a cobalt chromium metal alloy and the convex component is made of silicon nitride, or where both the concave and convex components are made of silicon nitride, there is no assurance that such applications will issue as patents. If we fail to obtain patents with claims of a scope necessary to cover the various embodiments of orthopedic implants we intend to develop, our competitors will have the right to seek to develop and market substantially similar orthopedic implants made of silicon nitride. We are aware of one other company that appears to be developing at least one implant component made from silicon nitride, and we cannot assure you that our competitors will not seek to develop and market orthopedic implants made of silicon nitride in the future. The introduction by our competitors of orthopedic implants made from silicon nitride could negatively impact our ability to maintain a competitive advantage based on our  $MC^2$  technology, particularly if such competitive silicon nitride implants possessed strength, fracture resistance, wear resistance and imaging characteristics similar to our  $MC^2$  silicon nitride.

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We continue to develop and refine our manufacturing processes to produce silicon nitride implants, and we believe we have already developed, and will continue to develop, significant know-how related to these processes. However, there is 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 implants. Further, if any of our competitors is able to obtain patent protection for its composition of silicon nitride or for its process for manufacturing silicon nitride, we could become subject to patent infringement claims and further be prevented from continuing the manufacture of our silicon nitride based implant products.

***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 product candidates under development, 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 market for spine, hip and knee implants 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 have agreements with other orthopedic companies pursuant to which they have agreed to assign to those other companies 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 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 gives it ownership rights in the invention. 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.

***If our ceramic technologies or our product candidates conflict with the rights of others, we may not be able to manufacture or market our 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. We are aware of an issued patent that was recently granted to DePuy by the European Patent Office (EP 1212013) based on international patent application no. WO 01/17464, entitled "Combination

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of Material for Joint Prosthesis” (the “EP ’013 patent”). The EP ’013 patent was granted for nineteen different designated European states and claims an orthopedic joint prosthesis having metal on ceramic articulating surfaces, wherein the hardness of the metallic material is at least about 2500 MPa, and the hardness of the ceramic material is greater than that of the metallic material by at least about 4000 MPa, where the articulating surfaces have sphericity not more than 0.01 microns and surface roughness more than 0.05 microns.

We are aware that several third parties, including Biomet UK Ltd, have filed post-grant oppositions to the EP ’013 patent raising objections as to its scope and validity. An opposition is a proceeding that allows third parties to challenge the validity of a European patent granted by the European Patent Office. There can be no assurances that any of these oppositions will be successful, although in the majority of cases, the European patents concerned are at least reduced in scope. Three possible outcomes are: (i) some or all of the claims survive the opposition as issued; (ii) some or all of the claims are narrowed; and/or (iii) some or all of the claims are held invalid. We are monitoring this situation closely. Final resolution of the opposition proceedings (including any appeals) may take a number of years. If this patent is not held invalid or limited in scope, and if our activities are determined to be covered by the patent, we cannot provide any assurance that DePuy would be willing to grant us a license on terms we or they would consider commercially reasonable, if at all. As a consequence, we could be prevented from manufacturing and marketing high-strength ceramic-on-metal articulating implants in the European countries where the European patent remains in force, which would have a material and adverse effect on our business, financial condition and results of operations.

The EP ’013 patent has a corresponding U.S. counterpart patent application pending in the U.S. involving similar claims (U.S. Pub. 2005/0033442). The U.S. patent office recently rejected all of these claims, although DePuy has an opportunity to amend the claims or argue that the examiner is wrong. The U.S. patent office has issued similar rejections with respect to applications where patents having equivalent or substantially similar claims were ultimately issued. We are monitoring prosecution of this U.S. patent application closely.

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.

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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.

***We could be prevented from using the trademark “Amedica” as our name and could be prevented from using “Amedica” in conjunction with our products, which could eliminate any goodwill associated with “Amedica” and negatively impact the marketing of our products.***

We applied for but have not yet received a registration in the United States for the trademark “Amedica”. Another company, Amedica Biotech, has an earlier filed, trademark registration for the same mark. Amedica Biotech registered its mark for use in commerce with certain types of pharmaceutical products. Through we are seeking registration for use in connection with medical apparatuses, if the U.S. Patent and Trademark Office finds that we were not the first to use the mark in commerce and that a likelihood of confusion exists, we may not be able to register our mark. Further, Amedica Biotech may seek to enjoin our use of the mark. If Amedica Biotech is successful, we would have to change our name, which could be an expensive and time-consuming process, and we would lose any goodwill we have thus far created in the mark.

We also filed an application on August 31, 2006 to register “Amedica” with the Office for Harmonization of the Internal Market, which is the trademark and industrial design registry of the European Union. We have learned that an opposition to this application was filed on February 26, 2007 by Addmedica (S.A.S.), or Addmedica, a French company, claiming a likelihood of confusion. The opposition was deemed admissible on March 9, 2007. We are currently in the “cooling off period” during which we and Addmedica have the opportunity to reach a negotiated settlement. This period, which commenced on May 11, 2007, runs for two months and may be extended by consent of the parties for up to an additional twenty-two months. If the cooling-off period is extended, either party may opt-out at any time after July 11, 2007 and proceed with an adversarial opposition. In order to reach a settlement with Addmedica, we may be forced to make concessions such as altering the European labeling of our products, restricting the European channels of distribution we plan to use to market our products, narrowing the description of goods and services in our pending application, or limiting the geographic markets we seek to operate in within Europe, any of which could have an adverse effect on our operations. If we are unable to reach a negotiated settlement and the opposition is successful, we could be prevented from using “Amedica” in commerce in the European Union. This could require us to market our products under different names in the European Union and the United States. This could adversely impact our efforts to achieve cross-border name recognition for our products, lead us to select a different trademark for the marketing of our products worldwide or to change our company name.

***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 implant companies, including our competitors and potential competitors. Many of our 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.

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### **Risks Related to Potential Litigation from Operating Our Business**

*If we successfully commercialize our products under development, we will become subject to potential product liability claims, and we may be required to pay damages that exceed our insurance coverage.*

We expect that our business will expose us to potential product liability claims that are inherent in the design, testing, manufacture, sale and distribution of orthopedic implants. Spine, hip and knee implants 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 ceramic implant products will involve the use of hazardous materials, it is possible that regulatory authorities may disagree or that changes to our manufacturing processes may result in such use. Our business and facilities and those of our suppliers and future suppliers may therefore be subject to foreign, federal, state and local laws and regulations governing the use, manufacture, storage, handling and disposal of hazardous materials and waste products. We may incur significant expenses in the future relating to any failure to comply with environmental laws. Any such future expenses or liability could have a significant negative impact on our business, financial condition and results of operations.

### **Risks Related to Our Need for Financing**

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

We will 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 and to establish effective marketing and sales capabilities. We do not expect our existing capital resources and the net proceeds from this offering to be sufficient to enable us to fund the completion of the development and commercialization of all of our product candidates. We expect that our existing capital resources and the net proceeds from this offering will enable us to maintain currently planned operations through the end of 2009. However, our operating plan may change, and we may need additional funds sooner than anticipated to meet our operational needs and capital requirements for product development, clinical trials and commercialization.

We currently have no committed sources of capital. Additional funds may not be available when we need them on terms that are acceptable to us, or at all. 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 establishment of sales and marketing capabilities or other activities necessary to commercialize our product candidates.

Our future capital requirements will depend on many factors, including:

- the scope, progress, results and cost of our product development efforts;
- the costs, timing and outcomes of regulatory reviews of our implant products;
- the number and types of implant products we develop and commercialize;
- the costs of establishing sales and marketing infrastructure and of establishing commercial-scale manufacturing operations;

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- the costs of preparing, filing and prosecuting patent applications and maintaining, enforcing and defending intellectual property-related claims;
- our ability to establish strategic collaborations or other arrangements on terms acceptable to us, the amount and timing of our expenditures, and our collaborators' contributions under such arrangements; and
- the extent and scope of our general and administrative expenses.

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

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

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

We have a limited operating history, have never generated any revenue from product sales and have incurred substantial net losses since our inception in 1996. As of March 31, 2007, we had an accumulated deficit of \$18.2 million. Our net loss was \$6.2 million for the year ended December 31, 2006, and \$5.6 million for the three months ended March 31, 2007. Our losses have resulted principally from costs incurred in connection with our research and development activities and from general and administrative expenses associated with our operations. We have not yet commercialized any products, we do not expect to introduce any of our lead product candidates until 2008 and we do not anticipate introducing one of our lead spinal spacer product candidates until the second half of 2008. We do not expect to start clinical trials of the earliest of our pipeline products before the first half of 2009. Until we receive FDA clearances for our lead implant products and successfully launch those products, we expect to continue to incur substantial losses for the foreseeable future. We also expect our research and development expenses and general and administrative expenses to increase substantially following the completion of this offering as our products advance through the development cycle and we expand our infrastructure. As a result, we will need to generate significant revenues to pay these expenses and achieve profitability.

If we are unable to develop and commercialize any of our product candidates, if development is delayed, or if sales revenue from any product that receives marketing approval is insufficient, we may never become profitable. Even if we do become profitable, we may not be able to sustain or increase our profitability on a quarterly or annual basis.

### **Risks Related to Our Common Stock and this Offering**

***There has been no prior public market for our common stock and an active trading market may not develop.***

Prior to this offering, there has been no public market for our common stock. We cannot predict the extent to which investor interest in our company will lead to the development of an active trading market on The NASDAQ Global Market or otherwise or how liquid that market might become. The lack of an active market may impair the value of your shares and your ability to sell your shares at the time you wish to sell them. An inactive market may also impair our ability to raise capital by selling our common stock and may impair our ability to acquire other companies, products or technologies by using our common stock as consideration.

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*We expect that the price of our common stock will fluctuate substantially and you may not be able to sell your shares at or above the offering price.*

You should consider an investment in our common stock risky and invest only if you can withstand a significant loss and wide fluctuations in the market value of your investment. The initial public offering price for the shares of our common stock sold in this offering will be determined by negotiation between the underwriters and us based on several factors. This price may not reflect the market price of our common stock following this offering. You may be unable to sell your shares of common stock at or above the initial public offering price due to fluctuations in the market price of our common stock arising from changes in our operating performance or prospects. In addition, the volatility of orthopedic implant company stocks often does not correlate to the operating performance of the companies represented by such stocks. Some of the factors that may cause the market price of our common stock to fluctuate include:

- our ability to develop, obtain regulatory clearances or approvals for, and market new and enhanced implant product candidates on a timely basis;
- 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 implant product candidates and related instrumentation;
- volume and timing of orders for 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 healthcare policy in the United States and internationally;
- product liability claims or other litigation involving us;
- 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; and
- general market conditions and other factors, including factors unrelated to our operating performance or the operating performance of our competitors.

These and other external factors may cause the market price and demand for our common stock to fluctuate substantially, which may limit or prevent investors 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 outcome. Such a lawsuit also would divert the time and attention of our management.

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### ***Securities analysts may not initiate coverage of our common stock or may issue negative reports, which may have a negative impact on the market price of our common stock.***

Securities analysts may elect not to provide research coverage of our common stock after the completion of this offering. If securities analysts do not cover our common stock after the completion of this offering, 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, recently adopted rules mandated by the Sarbanes-Oxley Act and a global settlement reached in 2003 among the Securities and Exchange Commission, or the SEC, other regulatory agencies and a number of investment banks have led to a number of fundamental changes in how analysts are reviewed and compensated. In particular, 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.

### ***If our executive officers, directors and principal stockholders choose to act together, they will be able to exert significant influence over us and our significant corporate decisions and may act in a manner that advances their best interests and not necessarily those of other stockholders.***

Upon completion of this offering, our executive officers, directors, and beneficial owners of 5% or more of our outstanding common stock and their affiliates will beneficially own approximately % of our outstanding common stock, or approximately % if the underwriters' over-allotment option is exercised in full. As a result, these persons, acting together, will have the ability to influence significantly the outcome of all matters requiring stockholder approval, including the election and removal of directors and any merger, consolidation, or sale of all or substantially all of our assets and they may act in a manner that advances their best interests and not necessarily those of other stockholders, including investors in this offering, by, among other things:

- delaying, deferring or preventing a change in control of us;
- entrenching our management and/or our board of directors;
- impeding a merger, consolidation, takeover or other business combination involving us;
- discouraging a potential acquirer from making a tender offer or otherwise attempting to obtain control of us; or
- causing us to enter into transactions or agreements that are not in the best interests of all stockholders.

We also plan to reserve up to % of the shares offered in this offering under a directed share program in which our executive officers and directors, principal stockholders, employees, business associates and related persons may be able to purchase shares in this offering at the initial public offering price. This program may further increase the percentage of stock held by persons whose interests are aligned with the interests of our executive officers, directors and principal stockholders.

### ***Our management team may allocate the proceeds of this offering in ways in which you may not agree.***

We intend to use the net proceeds from this offering to fund our product development efforts and the clearance or approval and subsequent commercialization of our product candidates; to establish our hybrid sales and marketing organization; to scale-up our manufacturing operations, continue to build out and equip our manufacturing facilities and to recruit and train manufacturing personnel; to support our research and development efforts; and for general corporate purposes. For a further description of our intended use of the net proceeds of this offering, see the "Use of Proceeds" section of this prospectus.

Because of the number and variability of factors that will determine our use of the net proceeds from this offering, our ultimate use of these proceeds may vary substantially from their currently intended use. Our

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management will have considerable discretion over the use of the net proceeds of this offering. Stockholders may not agree with such uses, and the net proceeds may be used in a manner that does not increase our operating results or market value.

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

Upon completion of this offering, our current stockholders will hold a substantial number of shares of our common stock that they will be able to sell in the public market in the near future. Sales by our current stockholders of a substantial number of shares after this offering could significantly reduce the market price of our common stock. Moreover, following the completion of this offering, the holders of 15,273,673 shares of common stock, assuming the conversion of our convertible preferred stock, and holders of warrants to purchase 4,057,040 shares of common stock, assuming the conversion of preferred stock warrants into common stock warrants, will have rights, subject to some conditions, to require us to include their shares in registration statements that we may file for ourselves or other stockholders. These shares of common stock, totaling 19,330,713 shares, assuming the exercise of the common stock warrants, represent approximately % of the total number of shares of our common stock to be outstanding immediately after this offering, assuming no exercise of the underwriters' over-allotment option. Please see the "Description of Capital Stock—Registration Rights" section of this prospectus for a description of the registration rights of these stockholders. In addition, immediately upon completion of this offering, approximately 16,567,865 and 19,496,188 shares of our outstanding common stock then held by existing stockholders which are deemed to be "restricted securities" pursuant to Rule 144 under the Securities Act of 1933, as amended, or the Securities Act, will be eligible for sale in reliance on Rule 144(k) and Rule 144, respectively, subject to the lock-up agreements described in the "Underwriters" section of this prospectus. Upon completion of this offering, a holder of warrants to acquire shares of our common stock will be able to net exercise such warrants by surrendering a portion of that holder's warrants as payment of the exercise price rather than paying the exercise price in cash. As of May 1, 2007, warrants to acquire approximately 1,717,452 and 2,086,298 shares of our common stock would be eligible to rely upon on Rule 144(k) and Rule 144, respectively, if they are net exercised subject to the lock-up agreements.

We have options for 3,457,627 shares outstanding as of May 1, 2007 which we intend to register, and we may issue additional options before the completion of this offering that we may register. Shares issued by us upon exercise of options granted under our stock plans would be eligible for sale in the public market upon the effective date of the registration statement for those shares, subject to the lock-up agreements described in the "Underwriters" section of this prospectus. If any of these holders cause a large number of securities to be sold in the public market, the sales could reduce the trading price of our common stock. These sales also could impede our ability to raise future capital. Please see the "Shares Eligible for Future Sale" section of this prospectus for a description of sales that may occur in the future.

***We will incur increased costs as a result of changes in laws and regulations relating to corporate governance matters.***

As a public reporting company, we will need to comply with the Sarbanes-Oxley Act of 2002 and the related rules and regulations adopted by the SEC and by The NASDAQ Global Market, including expanded disclosures, accelerated reporting requirements and more complex accounting rules. Compliance with Section 404 of the Sarbanes-Oxley Act of 2002 and other requirements will increase our costs and require additional management resources. Additionally, these laws and regulations could make it more difficult or more costly for us to obtain certain types of insurance, including director and officer liability insurance, and we may be forced to accept reduced policy limits and coverage or incur substantially higher costs to obtain the same or similar coverage. The impact of these events could also make it more difficult for us to attract and retain qualified persons to serve on our board of directors, our board committees or as executive officers. We are presently evaluating and monitoring developments with respect to these laws and regulations and cannot predict or estimate the amount or timing of additional costs we may incur to respond to their requirements.

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***Anti-takeover provisions in our organizational documents and Delaware law may discourage or prevent a change of 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 amended and restated certificate of incorporation and amended and restated bylaws that will be in effect upon the completion of this offering contain provisions that could discourage, delay or prevent a merger, acquisition or other change of 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;
- 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;
- 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;
- prohibiting our stockholders from making certain changes to our amended and restated certificate of incorporation or amended and restated bylaws except with the approval of holders of % of the outstanding shares of our capital stock entitled to vote; and
- require advance written notice of stockholder proposals that can be acted upon at stockholders meetings and director nominations to 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 of control transaction or changes in our board of directors could cause the market price of our common stock to decline.

***Investors in this offering will pay a much higher price than the book value of our common stock and, therefore, you will incur immediate and substantial dilution of your investment.***

If you purchase common stock in this offering, you will pay more for your shares than the amounts paid by existing stockholders for their shares. You will incur immediate and substantial dilution of \$ per share, representing the difference between the initial public offering price per share of our common stock and our pro forma net tangible book value per share after giving effect to this offering at the assumed initial public offering price of \$ per share of our common stock. In the past, we also issued options and warrants to acquire common stock at prices significantly below the assumed initial public offering price. To the extent these outstanding options are ultimately exercised, you will sustain further dilution. For a further description of the dilution you will incur in this offering, see the “Dilution” section of this prospectus.

***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 use in the operation and expansion of our business. In addition, the terms of any future debt or credit facility may preclude us from paying any dividends. As a result, capital appreciation, if any, of our common stock will be your sole source of potential gain in your investment for the foreseeable future.

## SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains forward-looking statements that are based on our management's beliefs and assumptions and on information currently available to us. The forward-looking statements are contained principally in, but not limited to, the sections entitled "Prospectus Summary," "Risk Factors," "Management's Discussion and Analysis of Financial Condition and Results of Operations" and "Business." 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 market, commercialize and achieve market acceptance of any of our product candidates that we are developing or may develop in the future;
- our ability to become a profitable orthopedics implant company;
- our ability to succeed in obtaining FDA clearance for our lead product candidates or FDA approvals for our pipeline product candidates;
- the timing, costs and other limitations involved in obtaining regulatory clearance or approval for any of our product candidates and, thereafter, continued compliance with governmental regulation of our then existing products and activities;
- our ability to protect our intellectual property and operate our business without infringing upon the intellectual property rights of others;
- our ability to obtain sufficient quantities and satisfactory quality of raw materials to meet our manufacturing needs;
- the availability of adequate coverage reimbursement from third-party payors in the United States;
- our estimates regarding anticipated operating losses, future revenue, expenses, capital requirements, liquidity and our needs for additional financing;
- our ability to establish a sales and marketing infrastructure and enter into suitable arrangements with independent sales agencies;
- our ability to scale-up our manufacturing capabilities and facilities and become fully operational for commercial-scale production;
- our ability to develop effective and cost efficient manufacturing processes for our products;
- the safety and efficacy of our product candidates;
- the timing of and our ability to conduct clinical trials;
- our use of the proceeds of this offering;
- potential changes to the healthcare delivery systems and payment methods by Congress and certain state legislatures;
- 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 implants; and
- our ability to attract and retain a qualified management team, engineering team, sales and marketing team, key surgeon advisors and other qualified personnel and advisors.

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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 update or revise any forward-looking statements contained in this prospectus, whether as a result of new information, future events or otherwise. The Private Securities Litigation Reform Act of 1995 and Section 27A of the Securities Act do not protect any forward-looking statements that we make in connection with this offering.

## USE OF PROCEEDS

We estimate that we will receive approximately \$ \_\_\_\_\_ million in net proceeds from the sale of \_\_\_\_\_ shares of common stock that we are offering, or approximately \$ \_\_\_\_\_ million if the underwriters exercise their over-allotment option in full, based upon the assumed initial public offering price of \$ \_\_\_\_\_ per share, the midpoint of the range on the front cover of this prospectus, and after deducting underwriting discounts and commissions and estimated offering expenses payable by us. A \$1.00 per share increase (decrease) in the assumed initial public offering price of \$ \_\_\_\_\_ per share would increase (decrease) the net proceeds to us from this offering by \$ \_\_\_\_\_ million, or approximately \$ \_\_\_\_\_ million if the underwriters exercise their over-allotment option in full, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting the underwriting discounts and commissions and estimated offering expenses payable by us.

The principal purposes of this offering are to fund the development and commercialization of our lead products, to build our sales, marketing and distribution capabilities, to establish commercial-scale manufacturing operations, to fund research and development activities for our pipeline product candidates, to increase our working capital, to create a public market for our common stock, to increase our ability to access the capital markets in the future, to provide liquidity for our existing stockholders, and for general corporate purposes.

We currently expect to use the net proceeds from this offering in the following manner:

- approximately \$ \_\_\_\_\_ to fund the development and commercialization of our lead product candidates;
- approximately \$ \_\_\_\_\_ to fund research and development and commercialization activities of our pipeline product candidates;
- approximately \$ \_\_\_\_\_ to build sales, marketing and distribution capabilities for spine and reconstructive implants; and
- the remainder for working capital and other general corporate purposes.

In addition, we may use a portion of our net proceeds to introduce our spine, hip and knee implant products into selected international markets. Also, while we have no present understandings, commitments, or agreements to enter into any potential acquisitions, a portion of the net proceeds may also be used to acquire or invest in complementary businesses, technologies, services or products.

As of the date of this prospectus, we cannot specify with certainty all of the particular uses for the net proceeds to be received upon the completion of this offering. The amount and timing of our actual expenditures may vary significantly depending upon numerous factors, including 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 pipeline product candidates, our revenues, operating costs and capital expenditures, and other factors described under "Risk Factors." We may find it necessary or advisable to use the net proceeds for other purposes, and our management will retain broad discretion in the allocation of our 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.

As of March 31, 2007, we had cash, cash equivalents and marketable securities of approximately \$10.3 million. We believe that the net proceeds from this offering, together with our cash and cash equivalent balances and interest we earn on these balances, will be sufficient to meet our anticipated cash requirements through the end of 2009. We will need to raise substantial additional funds before we can expect to commercialize all of our product candidates. We may satisfy our future cash needs through the sale of equity securities, debt financings, working capital lines of credit, corporate collaborations or license agreements, grant funding, or through interest income earned on cash balances.

**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.

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**CAPITALIZATION**

The table below includes:

- our unaudited cash, cash equivalents and marketable securities and our unaudited capitalization on an actual basis as of March 31, 2007;
- our unaudited cash, cash equivalents and marketable securities and our unaudited capitalization as of March 31, 2007, on a pro forma basis giving effect to (i) the issuance of 4,456,500 shares of our Series D convertible preferred stock in April 2007 for net proceeds of approximately \$12.4 million, (ii) the automatic conversion of all outstanding shares of our convertible preferred stock, including our Series D convertible preferred stock into an aggregate of 31,856,558 shares of our common stock upon the completion of this offering, and (iii) the conversion of 4,057,040 preferred stock warrants into common stock (but not assuming the exercise of these common stock warrants), including warrants to purchase a total of 253,290 shares of Series D convertible preferred stock issued in April 2007, and the related reclassification of the preferred stock warrant liability to additional paid in capital; and
- our unaudited cash, cash equivalents and marketable securities and our unaudited capitalization as of March 31, 2007, on a pro forma basis, as adjusted to give effect to the sale of        shares of common stock in this offering at an assumed initial public offering price of \$        per share, the midpoint of the range on the front cover of this prospectus, after deducting underwriting discounts and commissions and estimated offering expenses.

You should read this table together with “Selected 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 this prospectus.

	<u>As of March 31, 2007 (unaudited)</u>		
	<u>Actual</u>	<u>Pro Forma</u>	<u>Pro Forma (as adjusted)</u>
Cash, cash equivalents, and marketable securities	\$ 10,325,322	\$ 22,725,322	\$
Current portion of long-term debt	\$ 418,616	\$ 418,616	\$
Long-term debt	1,137,625	1,137,625	
Preferred stock warrant liability	6,304,963	—	
Convertible preferred stock (consisting of Series A, Series B, Series C convertible preferred stock on an aggregated basis), \$0.01 par value; 40,000,000 shares authorized, 27,400,058 shares issued and outstanding actual, and no shares issued and outstanding, pro forma and pro forma as adjusted	26,389,982	—	
Stockholders’ equity (deficit):			
Common stock, \$0.01 par value; 60,000,000 shares authorized, 8,678,995 shares issued and outstanding actual, 40,535,553 shares issued and outstanding pro forma; shares issued and outstanding pro forma as adjusted	86,790	405,356	
Additional paid-in-capital	527,561	45,303,940	
Deficit accumulated during the development stage	(18,174,317)	(18,174,317)	
Total stockholders’ equity (deficit)	(17,559,966)	27,534,979	
Total capitalization	\$ 16,691,220	\$ 29,091,220	\$

A \$1.00 per share increase (decrease) in the assumed initial public offering price of \$        per share would increase (decrease) each of additional paid-in-capital, total stockholders’ equity (deficit) and total capitalization by approximately \$        million, assuming that the number of shares offered by us, as set forth

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on the cover page of this prospectus, remains the same and after deducting underwriting discounts and commissions and estimated offering expenses payable by us. The pro forma information discussed above is illustrative only and following the completion of this offering will be adjusted based on the actual initial public offering price and other terms of this offering determined at pricing.

The outstanding share information set forth above is as of March 31, 2007, and excludes:

- 3,457,627 shares of common stock issuable upon the exercise of outstanding options to purchase common stock, at a weighted average exercise price of \$0.40 per share;
- 4,057,040 shares of common stock issuable upon the exercise of warrants for shares of Series A, Series B, Series C and Series D convertible preferred stock, on an as-converted basis, outstanding as of May 1, 2007, at a weighted average exercise price of \$1.36 per share; and
- 857,163 additional shares of common stock reserved for issuance under our 2003 Stock Option Plan.

## DILUTION

If you invest in our common stock, your ownership interest will be diluted to the extent of the difference between the initial public offering price per share of our common stock and the pro forma net tangible book value per share of our common stock after this offering. We calculate net tangible book value per share by dividing the net tangible book value, or tangible assets less total liabilities, by the number of outstanding shares of common stock.

Our historical net tangible book value as of March 31, 2007 was a deficit of \$17,559,966 or \$2.02 per share of common stock. Our pro forma net tangible book value at March 31, 2007 was \$27,534,979, or \$0.68 per share, based on 40,535,553 shares of our common stock outstanding after giving effect to the conversion of all outstanding shares of our preferred stock, including 4,456,500 shares of our Series D convertible preferred stock issued in April 2007, into common stock and the conversion of 4,057,040 preferred stock warrants into common stock warrants, including warrants to purchase a total of 253,290 shares of Series D convertible preferred stock issued in April 2007, and the related reclassification of the preferred stock warrant liability to additional paid in capital, upon the closing of this offering. After giving effect to the sale of \_\_\_\_\_ shares of common stock by us at an assumed initial public offering price of \$ \_\_\_\_\_ per share, less the underwriting discounts and commissions and our estimated offering expenses, our pro forma net tangible book value at March 31, 2007 would be \$ \_\_\_\_\_ million, or \$ \_\_\_\_\_ per share. This represents an immediate increase in the pro forma net tangible book value of \$ \_\_\_\_\_ per share to existing stockholders and an immediate dilution of \$ \_\_\_\_\_ per share to new investors purchasing shares at an assumed initial public offering price of \$ \_\_\_\_\_ per share. The following table illustrates this per share dilution:

Assumed initial public offering price per share	\$
Actual net tangible deficit per share as of March 31, 2007	(2.02)
Pro forma increase per share attributable to conversion of preferred stock and preferred stock warrants	<u>2.70</u>
Pro forma net tangible book value per share as of March 31, 2007, before this offering	0.68
Increase in pro forma net tangible book value per share attributable to new investors	<u>          </u>
Pro forma net tangible book value per share after this offering	<u>          </u>
Dilution in pro forma net tangible book value per share to new investors	<u>\$</u>

A \$1.00 increase (decrease) in the assumed initial public offering price of \$ \_\_\_\_\_ per share would increase (decrease) the pro forma net tangible book value by \$ \_\_\_\_\_ million, the pro forma net tangible book value per share after this offering by \$ \_\_\_\_\_ per share and the dilution in pro forma net tangible book value per share to investors in this offering by \$ \_\_\_\_\_ per share, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting the underwriting discounts and commissions and estimated offering expenses payable by us.

If the underwriters exercise their over-allotment option in full to purchase \_\_\_\_\_ additional shares of common stock in this offering, the pro forma as adjusted net tangible book value per share after the offering would be \$ \_\_\_\_\_ per share, the increase in the pro forma net tangible book value per share to existing stockholders would be \$ \_\_\_\_\_ per share and the dilution to new investors purchasing common stock in this offering would be \$ \_\_\_\_\_ per share.

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The following table shows on a pro forma basis at March 31, 2007, after giving effect to the automatic conversion of all outstanding shares of our convertible preferred stock, including 4,456,500 shares of our Series D convertible preferred stock issued in April 2007, into an aggregate of 31,856,558 shares of common stock upon the closing of this offering, the difference between the number of shares of common stock purchased from us, the total consideration paid to us and the average price paid per share by existing stockholders and by new public investors purchasing common stock in this offering:

	<u>Shares Purchased</u>		<u>Total Consideration</u>		<u>Average Price</u>
	<u>Number</u>	<u>Percent</u>	<u>Amount</u>	<u>Percent</u>	<u>Per Share</u>
Existing stockholders	40,535,553	%	\$44,910,038	%	\$ 1.11
New public investors		%		%	
Total		100%	\$	100%	\$

A \$1.00 increase (decrease) in the assumed initial public offering price of \$ per share would increase (decrease) the total consideration paid by new investors by \$ million, or increase (decrease) the percent of total consideration paid by new investors by %, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same.

If the underwriters exercise their option in full, sales by us in this offering will reduce the percentage of shares held by existing stockholders to % and will increase the number of shares held by new investors to , or %.

This information is based on shares outstanding as of March 31, 2007 and excludes:

- 3,457,627 shares of common stock issuable upon the exercise of outstanding options to purchase common stock, at a weighted average exercise price of \$0.40 per share;
- 4,057,040 shares of common stock issuable upon the exercise of warrants for shares of Series A, Series B, Series C and Series D convertible preferred stock, on an as-converted basis, outstanding as of May 1, 2007, at a weighted average exercise price of \$1.36 per share; and
- 857,163 additional shares of common stock reserved for issuance under our 2003 Stock Option Plan.

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



## MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

*You should read the following discussion and analysis of our financial condition and results of operations together with our financial statements and related notes appearing elsewhere in this prospectus. This discussion and analysis contains forward-looking statements that involve risks, uncertainties and assumptions. You should review the "Risk Factors" section of this prospectus for a discussion of important factors that could cause actual results to differ materially from the results described in or implied by the forward-looking statements described in the following discussion and analysis.*

### Overview

We are an orthopedic implants company focused on using our silicon nitride ceramic technologies to develop, manufacture and commercialize a broad range of advanced, high-performance spine and joint implants. We have developed a formulation of silicon nitride which we believe has the strength, toughness and wear resistance necessary to overcome the limitations of currently available orthopedic implants. Upon introduction to market, our implants will represent the first commercial use of silicon nitride ceramics in orthopedic applications and will have the potential to provide an improved combination of characteristics, including substantially greater strength and resistance to fracture, superior resistance to wear, greater ability to promote bone attachment, and better compatibility with surgical and diagnostic imaging. Based on these potential advantages, we believe that our silicon nitride product candidates will achieve better long-term clinical outcomes due to their enhanced durability, longevity, biocompatibility and patient fit. As a result, we intend to establish our silicon nitride implants as new standards of care for the largest and fastest growing orthopedic implant markets: the spine, hip and knee markets.

Our lead product candidates under development are our *Valeo*<sup>™</sup> family of spinal implants. Our *Valeo* spinal fixation implants will be used to restore and maintain the alignment of vertebrae in the cervical, or neck region, and lumbar, or lower back region, of the spine. The *Valeo* spinal fixation implants will feature silicon nitride ceramic spinal spacers for insertion between two vertebrae to help stabilize the spine, along with a metal cervical bone plate system and a metal pedicle screw system for supplemental fixation. We expect to launch these product candidates by mid-2008, subject to clearance by the U.S. Food and Drug Administration, or the FDA. In 2006, we received clearance from the FDA for the first ever ceramic spinal spacer, which will be the predicate device for the first of our product candidates that we intend to commercialize. We plan to introduce additional spinal spacers by the end of 2008, subject to regulatory clearance, including spacers that feature a bone-like structure with a solid, or cortical, load-bearing portion and a cancellous, or porous, structure that is intended to promote bone attachment for secure spinal fixation. Subsequently, subject to regulatory approval, we plan to introduce cortico-cancellous spinal spacers with a surface coating designed to further enhance bone attachment. Our *Valeo* family of spinal implant candidates also includes an all-ceramic, motion-preserving cervical disc, for which we anticipate commencing a clinical trial by mid-2009. In addition, we are incorporating our silicon nitride ceramic technology into the development of our *Infinia*<sup>™</sup> family of total hip and knee implants. We anticipate commencing a clinical trial for our first total hip implant product candidate in 2009.

During the past two years, we have been developing our own manufacturing facility and processes that will provide us the ability to control the commercial-scale production of our silicon nitride ceramic implants from powder form to devices ready for sterilization and packaging. We are currently producing our lead ceramic spinal product candidates on a pilot scale in our manufacturing facility. We anticipate our facility will be fully operational for commercial-scale production by the end of 2007, which we believe would make us the only vertically integrated silicon nitride orthopedic implant manufacturer in the world.

We are a development stage company with a limited operating history and we currently have no product candidates cleared or approved for sale that we intend to commercialize. To date, our only significant revenue has been from research grants from the National Institutes of Health, or NIH, and with the exception of a small net income for the years ended December 31, 2002 and 1999, we have incurred net losses in each year since our

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inception. We expect our losses to continue and to increase as we build sales, marketing and distribution capabilities for our spine, hip and knee implant products, establish commercial-scale manufacturing operations, continue our research and development activities, and complete the regulatory clearance and approval process for our lead and pipeline product candidates, including the commencement of clinical trial activities for many of our pipeline product candidates. We plan to manufacture our own ceramic components while outsourcing other components. We have financed our operations to date primarily through private placements of our equity securities.

### ***Revenue and Deferred Revenue***

To date, we have not generated any revenue from the sale of any product. We do not expect to generate revenue from the sale of any product until the first half of 2008, subject to FDA clearance of our lead implant product candidates. We have received revenue from research grants from the NIH primarily related to development of ceramic implants. Revenue under grants is recognized when earned, and revenue is considered earned as the related qualified research and development expenses are incurred, up to the limit of the approved funding amounts.

### ***Research and Development Expenses***

Our research and development costs consist of engineering, product development, test-part manufacturing, testing, developing and validating our manufacturing process, and regulatory related costs. Research and development expenses also include employee compensation, employee and non-employee stock-based compensation, supplies and materials, consultant services, and travel and facilities expense related to research activities. From our inception through March 31, 2007, we have incurred approximately \$11.8 million in research and development expenses.

We expect to incur increasing research and development expenses in future periods as we conduct more research and perform clinical trials for our *Valeo Cervical Disc*, *Infinia Total Hip Implant* and *Infinia Total Knee Implant* product candidates. We cannot predict our future research and development expenses with any degree of certainty.

### ***General and Administrative Expenses***

General and administrative expenses consist primarily of compensation for executive, finance, and administrative personnel, including stock-based compensation, and facilities expenses related to general and administrative activities. Other significant expenses include travel expenses and professional fees for accounting and legal services. From our inception through March 31, 2007, we have incurred \$2.8 million in general and administrative expenses. We expect our general and administrative expenses to increase during future periods to support future growth and as a result of increased compensation costs related to additional personnel, as well as higher legal, accounting, insurance and other professional service costs relating to compliance with rules and regulations associated with being a publicly traded company.

### ***Sales and Marketing Expenses***

Our sales and marketing expenses consist primarily of compensation for sales and marketing personnel, including stock-based compensation, travel, consulting, marketing-related charges, and facilities expenses related to sales and marketing activities. From our inception through March 31, 2007, we have incurred \$1.2 million in sales and marketing expenses related to the establishment and development of our sales and marketing infrastructure in anticipation of our 2008 product launches. We expect our sales and marketing expenses to increase due to the costs associated with the building of sales, marketing and distribution capabilities for our spine, hip and knee implant product candidates, including the amortization of our instrumentation sets to be used by surgeons to implant our product candidates.

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### *Arrangements with Surgeon Advisors*

We have entered into consulting and development agreements with some of our advisors, including some of our surgeon advisors. We have agreed to pay some of our surgeon advisors a portion of our net after-tax profits attributable to the sale of specific spine, hip and knee implant product candidates for which the surgeon advisor provided us with consulting and related services related to the conceptualization, development, testing, clearance, approval and/or related matters involving our implant product candidates. Because more than one of our surgeon advisors contribute to our development efforts, we are obligated to pay royalties to as many as five surgeon advisors in connection with some of our product candidates. These royalty payments will be recorded as cost of goods sold once we begin commercial sales of the relevant product candidate. Pursuant to these agreements, these surgeon advisors also have been granted options to purchase shares of our common stock. Generally, these consulting and development agreements, unless earlier terminated, continue until the later of (a) ten years from the date of the agreement and (b) the expiration of the patent rights relating to the product candidates covered by the agreement. We account for equity instruments issued to our surgeon advisors in accordance with the provisions of Emerging Issues Task Force, or EITF, No. 96-18, *Accounting for Equity Instruments That Are Issued to Other Than Employees for Acquiring, or in Conjunction with Selling, Goods or Services*, using a fair-value approach marked to market during the vesting period and record the related expense as research and development expense.

### **Critical Accounting Policies and Significant Judgments and Estimates**

Our management's discussion and analysis of our financial condition and results of operations are based on our financial statements and notes, which have been prepared in accordance with U.S. generally accepted accounting principles. The preparation of these financial statements requires us to make estimates and assumptions that affect the reported amounts of assets, liabilities, convertible preferred stock, and stockholders' equity (deficit) and the disclosure of contingent liabilities at the date of the financial statements, as well as the reported revenue and expenses during the reporting periods. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets, liabilities, convertible preferred stock, and stockholders' equity (deficit) that are not readily apparent from other sources. We evaluate our estimates and judgments on an ongoing basis. Actual results may differ materially from these estimates under different assumptions or conditions.

While our significant accounting policies are more fully described in Note 1 to our financial statements included elsewhere in this prospectus, we believe that the following accounting policies and estimates are most critical to a full understanding and evaluation of our reported financial results.

#### ***Stock-Based Compensation***

Prior to January 1, 2006, we accounted for stock-based employee compensation arrangements using the intrinsic value method in accordance with the recognition and measurement provisions of Accounting Principles Board Opinion, or APB, No. 25, *Accounting for Stock Issued to Employees*, and related interpretations, including the Financial Accounting Standards Board Interpretation, or FIN, No. 44, *Accounting for Certain Transactions Involving Stock Compensation, an Interpretation of APB Opinion No. 25*, as permitted by Statement of Financial Accounting Standards, or SFAS, No. 123, *Accounting for Stock-Based Compensation*. In accordance with APB No. 25, stock-based compensation was calculated using the intrinsic value method and represents the difference between the deemed per share market price of our common stock and the per share exercise price of the stock option. Based on this method, our compensation expense under APB No. 25 was zero.

Effective January 1, 2006, we adopted the provisions of SFAS No. 123R, *Share-Based Payments*. In March 2005, the Securities and Exchange Commission, or SEC, issued Staff Accounting Bulletin, or SAB, No. 107 relating to SFAS No. 123R. We have applied the provisions of SAB No. 107 in our adoption of SFAS No. 123R. Under SFAS No. 123R, stock-based awards, including stock options, are recorded at fair value as of the grant

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date and recognized to expense over the employee's requisite service period (generally the vesting period), which we have elected to amortize on a straight-line basis. The pro forma disclosures previously permitted under SFAS No. 123 are no longer an alternative to financial statement recognition. We are no longer able to apply the minimum value method and instead must calculate the fair value of our employee stock options using an estimated volatility rate. We adopted the provisions of SFAS No. 123R using the prospective transition method. Under the prospective transition method, beginning January 1, 2006, compensation cost recognized includes: (a) compensation cost for all share-based payments granted prior to, but not yet vested as of December 31, 2005, based on the intrinsic value in accordance with the provisions of APB No. 25, and (b) compensation cost for all share-based payments granted subsequent to December 31, 2005, based on the grant-date fair value estimated in accordance with the provisions of SFAS No. 123R. All awards granted, modified, or settled after the date of adoption are accounted for using the measurement, recognition, and attribution provisions of SFAS No. 123R.

Stock-based compensation expense, which is a non-cash charge, results from the issuance of options under SFAS No. 123R, based on the fair value of the stock options. During the year ended December 31, 2006 and the first three months of 2007, we granted options to employees and members of our board of directors to purchase a total of 630,400 shares of common stock, at an exercise price of \$1.00 per share.

Our board of directors, with the assistance of management and independent consultants, performed a contemporaneous fair value analysis for the value of our common stock as of October 31, 2006 and a retrospective fair value analyses for the valuation of our common stock as of December 31, 2005 and December 31, 2006. For grants made on dates for which there was no valuation performed by an independent consultant to utilize in setting the exercise price of our common stock, and given the absence of an active market for our common stock, our board of directors determined the fair value of our common stock on the date of grant based on several factors, including:

- important developments in our operations;
- equity market conditions affecting comparable public companies;
- the likelihood of achieving a liquidity event for the shares of common stock, such as an initial public offering or an acquisition of the company, given prevailing market conditions;
- the prices at which we issued preferred stock in February 2006 and the rights and privileges associated with those preferred stock issuances; and
- the illiquidity of our common stock as a private company.

In connection with the preparation of the financial statements included elsewhere in this prospectus, we utilized the results of an independent contemporaneous valuation as of October 31, 2006 and independent retrospective valuations as of December 31, 2005 and December 31, 2006 to determine the estimated fair value of our common stock. The valuations used a market approach and an income approach to determine the fair value of our common stock on the valuation dates. The market approach bases fair value on what similar enterprises or comparable transactions indicate value to be. These valuations included examination of the value of comparable companies in the orthopedic implant industry and other high growth med-tech companies.

For periods between valuation dates, we reassessed the value of our common stock taking into account a number of factors including, among others, the proximity of the grant to the independent valuations and internal milestones that we achieved in the period between the two valuation dates.

### *Milestones affecting reassessed value between December 31, 2005 (our retrospective valuation) and February 12, 2006*

In reassessing fair value per share between December 31, 2005, which, based on our retrospective valuation, was \$0.72, and February 12, 2006, the date of our option grant at an estimated fair value per share of \$1.00, we assigned an incremental value based on proximity of the grant to the retrospective valuation and the estimated

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value created by the interim milestones achieved during the period from December 31, 2005 and February 2006. Specifically, we considered the following additional milestones in connection with the grant:

- The anticipated FDA clearance of the *Arx* predicate device, our first ceramic spinal spacer, for which clearance was received in February 2006.
- Receipt of a patent in February 2006 related to our *Valeo Cervical Disc*.
- The sale in February 2006 of 8,400,000 shares of our Series C convertible preferred stock at \$2.00 per share for gross proceeds of \$16.8 million.
- The fact that our common stock does not share the rights and preferences inherent in our preferred stock, including the liquidation preferences and dividend rights.

As a result of these factors, we assessed the value of \$1.00 assigned to our February 2006 option grants to be a reasonable estimate of the then fair value.

*Milestones affecting reassessed value between October 31, 2006 (our contemporaneous valuation), December 31, 2006 (our retrospective valuation) and January 5, 2007*

The contemporaneous valuation that we received as of October 2006 assessed the value of common shares at \$0.99 per share and the December 31, 2006 retrospective valuation assessed fair value at \$1.06 per share. The estimated fair value that we assigned to the common stock in December 2006 was \$1.00 per share. No significant milestones occurred during the interim period between the date of the retrospective valuation (December 31, 2006) and the option grant in January 2007 that would significantly change the estimated fair value used for the January 2007 grant other than continued development of our product candidates.

Based upon the assessments discussed above, we determined the estimated fair value of \$1.00 per share for the options to purchase shares of common stock granted in 2006 and 2007 to be a reasonable estimate of the fair value. We took into account the factors identified above in determining the estimated fair value of the common stock as of each grant date. Information on employee and director stock options granted during 2006 and the first three months of 2007 is summarized as follows:

<u>Grant Date</u>	<u>Number of Shares Granted</u>	<u>Exercise Price per Share</u>	<u>Reassessed Fair Value Per Share</u>	<u>Intrinsic Value</u>
2/12/2006	193,200	\$ 1.00	\$ 1.00	\$ —
12/11/2006	372,200	1.00	1.00	—
1/5/2007	65,000	1.00	1.06	0.06

Information on non-employee stock options granted in 2006 is summarized as follows:

<u>Grant Date</u>	<u>Number of Shares Granted</u>	<u>Exercise Price per Share</u>	<u>Reassessed Fair Value Per Share</u>	<u>Intrinsic Value</u>
2/12/2006	38,000	\$ 1.00	\$ 1.00	\$ —
12/11/2006	147,000	1.00	1.00	—

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The fair value of each employee option grant in the year ended December 31, 2006 and the three months ended March 31, 2006 and 2007 was estimated on the date of grant using the Black-Scholes valuation model with the following assumptions.

	Year ended December 31, 2006	Three months ended March 31, (unaudited)	
		2006	2007
Weighted average risk-free interest rate	4.53%	4.58%	4.67%
Weighted-average expected life (in years)	6.25	6.25	5.00
Expected dividend yield	0%	0%	0%
Weighted average expected volatility	91%	101%	81%
Weighted-average estimated fair value of employee options	\$0.78	\$0.82	\$0.73

Our computation of expected volatility for the year ended December 31, 2006 and the three months ended March 31, 2006 and 2007 is based on an average of the historical volatility of a peer-group of similar companies. Our computation of expected life utilizes the simplified method in accordance with SAB No. 107. The risk-free interest rate for periods within the contractual life of the option is based on the U.S. Treasury yield curve in effect at the time of grant. We recognize stock-based compensation expense for the fair values of these awards on a straight-line basis over the requisite service period of each of these awards.

As of December 31, 2006 and March 31, 2007, total compensation related to unvested options not yet recognized in the financial statements was approximately \$377,000 and \$351,000, respectively, and the weighted average period over which it is expected to be recognized is approximately 3.66 and 3.45 years, respectively.

As a result of adopting SFAS No. 123R on January 1, 2006, the net loss for the year ended December 31, 2006 and three months ended March 31, 2006 and 2007 was higher by approximately \$39,000, \$5,000 and \$28,000, respectively, than if we had continued to account for stock-based compensation under APB No. 25. Basic and diluted loss per share applicable to common stockholders for the periods presented would be the same as if we had continued to account for stock-based compensation under APB No. 25.

We account for equity instruments issued to non-employees in accordance with the provisions of Emerging Issues Task Force, or EITF, No. 96-18, *Accounting for Equity Instruments That Are Issued to Other Than Employees for Acquiring, or in Conjunction with Selling, Goods or Services*, using a fair value approach. The equity instruments, consisting of stock options and warrants granted to lenders and consultants, are valued using the Black-Scholes valuation model. The measurement of stock-based compensation is subject to periodic adjustments as the underlying equity instruments vest and are recognized as an expense over the term of the related financing or the period over which services are received.

We valued the non-employee stock options granted during the years ended December 31, 2004, 2005 and 2006 and the three month period ended March 31, 2007 using the Black-Scholes valuation model, using a volatility rate of between 83% and 101%, a remaining contractual life of between eight and ten years, an expected dividend yield of 0% and a risk-free interest rate ranging from 3.83% to 4.36%. We granted 70,000, 82,500 and 185,000 options to consultants for services in the years ended December 31, 2004, 2005 and 2006, respectively. No options were granted to consultants during the three months ended March 31, 2007. The exercise price of the consultant stock options ranges from \$0.25 to \$1.00 per share. The estimated fair value of options granted to consultants that vested during the years ended December 31, 2004, 2005 and 2006 and the three months ended March 31, 2006 and 2007 was \$18,000, \$44,000, \$92,000, \$23,000 and \$49,000, respectively, and was charged to research and development expense. The amount of the stock compensation expense is subject to management's estimate of the fair value of the underlying common stock absent a public market for our common stock.

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### ***Income Taxes***

We account for income taxes under the liability method in accordance with the provision of SFAS No. 109, *Accounting for Income Taxes* ("SFAS 109"). SFAS 109 requires recognition of deferred taxes to provide for temporary differences between financial reporting and the tax basis of assets and liabilities. Deferred taxes are measured using enacted tax rates expected to be in effect in a year in which the basis difference is expected to reverse. We continue to record a valuation allowance for the full amount of deferred assets, which would otherwise be recorded for tax benefits relating to operating loss and tax credit carryforwards, since realization of such deferred tax assets cannot be determined to be more likely than not. Utilization of the net operating loss carryforwards may be subject to a substantial annual limitation due to the ownership change limitations provided by the Internal Revenue Code of 1986, as amended, and similar state provisions. The annual limitation may result in the expiration of the net operating loss carryforwards before utilization.

In July 2006, the Financial Accounting Standards Board, or FASB, issued FASB Interpretation No. 48, *Accounting for Uncertainty in Income Taxes* ("FIN 48"). FIN 48 is an interpretation of FASB Statement No. 109, *Accounting for Income Taxes*. FIN 48 seeks to reduce the diversity in practice associated with certain aspects of measurement and recognition in accounting for income taxes. In addition, FIN 48 provides guidance on derecognition, classification, interest and penalties, and accounting in interim periods and requires expanded disclosure with respect to the uncertainty in income taxes. We became subject to the provisions of FIN 48 as of January 1, 2007. We believe that our income tax filing positions and deductions will be sustained on audit and do not anticipate any adjustments that will result in a material change to our financial position. Therefore, no reserves for uncertain income tax positions have been recorded pursuant to FIN 48. In addition, we did not record a cumulative effect adjustment related to the adoption of FIN 48.

Our policy for recording interest and penalties associated with audits is to record such items as a component of income before taxes. Penalties and interest paid or received are recorded in interest expense or interest income, respectively. During the three months ended March 31, 2007, we did not record any interest income, interest expense, or penalties related to the settlement of audits for prior periods. Tax years 2003 through 2006 are subject to examination by the United States federal tax authorities.

### ***Estimation of Fair Value of Warrants to Purchase Convertible Preferred Stock***

In connection with our preferred stock offerings, the placement agent received warrants to purchase convertible preferred stock. These warrants are fully exercisable after one year from issuance and expire after seven years. The exercise price of these warrants is equal to 110% of the offering price of the underlying convertible preferred stock. On the closing of an initial public offering, these warrants will convert into warrants to purchase shares of common stock at the then applicable conversion rate for the related preferred stock (currently 1:1).

We have accounted for these warrants under the provisions of Financial Accounting Standards Board Staff Position ("FSP") No. 150-5, *Issuer's Accounting under Statement No. 150 for Freestanding Warrants and Other Similar Instruments on Shares that Are Redeemable*, an interpretation of SFAS No. 150, *Accounting for Certain Financial Instruments with Characteristics of Both Liabilities and Equity*. Pursuant to FSP 150-5, freestanding warrants for shares that are either puttable or warrants for shares that are redeemable are classified as liabilities on the balance sheet at fair value. In connection with the grant of the warrants to purchase Series A and Series B convertible preferred stock in 2004 and Series C convertible preferred stock in 2006, the Company recorded the initial fair values of the warrants of \$413,080, \$159,831 and \$928,625, respectively, as a preferred stock warrant liability. At the end of each reporting period, changes in fair value during the period are recorded as a component of other income or expense.

In order to estimate the liability associated with these warrants, management utilized an independent retrospective valuation as of each reporting date. The valuations used a market approach and an income approach to determine the fair value of our common stock into which the preferred stock is convertible on the valuation dates.

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The market approach bases fair value on what similar enterprises or comparable transactions indicate value to be. These valuations included examination of the value of comparable companies in the orthopedic implant industry and other high growth med-tech companies.

The fair value of these warrants was determined using the Black-Scholes valuation model using the following assumptions:

	Year ended December 31,			Three months ended March 31,	
	2004	2005	2006	2006	2007
				(unaudited)	
Weighted-average risk-free interest rate	3.85%	4.36%	4.70%	4.70%	4.55%
Weighted-average remaining life (in years)	6.24	5.24	4.85	4.85	4.60
Expected dividend yield	0%	0%	0%	0%	0%
Weighted-average expected volatility	108%	94%	75%	75%	70%

For the years ended December 31, 2004, 2005 and 2006, and for the three month periods ended March 31, 2006 and 2007, we recorded approximately \$254,089, \$577,000, \$290,925, \$72,731, and \$3,681,413, respectively, as other expense for the increase in fair value of all preferred stock warrants. We will continue to adjust the liabilities for changes in fair value until the earlier of the exercise of the warrants to purchase shares of convertible preferred stock or the completion of a liquidation event, including the completion of an initial public offering.

Upon the closing of this offering, all outstanding warrants to purchase shares of our preferred stock will become warrants to purchase shares of our common stock and, as a result, will no longer be subject to FSP 150-5. The then-current aggregate fair value of these warrants, after a final remeasurement of fair value, will be reclassified from liabilities to additional paid-in capital, a component of stockholders' equity, and we will cease to record any related periodic fair value adjustments.

## Results of Operations

### *Comparison of Three Months Ended March 31, 2006 and 2007*

	Three months ended March 31,		Dollar Change	% Change
	2006	2007		
	(unaudited)			
Grant revenue	\$ —	\$ —	\$ —	*
Operating expenses:				
Research and development	1,100,125	1,479,340	379,215	34%
General and administrative	184,425	405,380	220,955	120%
Sales and marketing	111,038	125,740	14,702	13%
Total operating expenses	<u>1,395,588</u>	<u>2,010,460</u>	<u>614,872</u>	44%
Loss from operations	(1,395,588)	(2,010,460)	(614,872)	44%
Other income (expense):				
Interest income	150,487	166,870	16,383	11%
Interest expense	—	(37,722)	(37,722)	*
Change in value of preferred stock warrant liability	(72,731)	(3,681,413)	(3,608,682)	4,962%
Total other income (expense)	<u>77,756</u>	<u>(3,552,265)</u>	<u>(3,630,021)</u>	4,668%
Net loss	<u>\$(1,317,832)</u>	<u>\$(5,562,725)</u>	<u>\$(4,244,893)</u>	322%

\* Not meaningful.

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*Grant Revenue.* We recorded no grant revenue in either period due to our internal product development projects in 2006 and 2007, which were not related to our existing grants. We were awarded an \$800,000 NIH grant in late 2006, for which we expect to begin recognizing revenue in the second half of 2007 as we provide services under the related grant contract.

*Research and Development Expenses.* The increase in research and development expense in the three months ended March 31, 2007 compared to the same period in 2006 was due primarily to an increase in salaries and benefits of approximately \$130,000 due to the hiring of additional personnel, an increase of approximately \$180,000 from depreciation due to additional equipment in our manufacturing facility, and an increase in rent of \$90,000 for our new manufacturing facility.

*General and Administrative Expenses.* The increase in general and administrative expenses for the three months ended March 31, 2007 compared to the same period in 2006 was due primarily to an additional \$215,000 in legal fees incurred in the three months ended March 31, 2007 in connection with a review of our intellectual property position.

*Sales and Marketing Expenses.* The increase in sales and marketing expenses in the three months ended March 31, 2007 compared to the same period in 2006 was due primarily to consulting, marketing studies and trade show fees incurred during the three months ended March 31, 2007.

*Interest Income.* The increase in interest income in the three months ended March 31, 2007 compared to the same period in 2006 was due primarily to higher average interest rates in 2007.

*Interest expense.* Interest expense in the three months ended March 31, 2007 was related to our 42-month term loan which we entered into in January 2007 upon the conversion of our equipment financing arrangement, which allowed for advances to us for equipment purchased during 2006 and which we utilized during the second half of 2006.

*Change in Value of Preferred Stock Warrant Liability.* The increase in the change in value of preferred stock warrant liability for the three months ended March 31, 2007 compared to the same period in 2006 was due to valuation increases in our common stock into which the preferred stock is convertible as well as a greater number of warrants outstanding during the three months ended March 31, 2007 as a result of our Series C convertible preferred stock offering that closed on February 24, 2006. In April 2007, we issued additional warrants to purchase 253,290 shares of preferred stock to our placement agent and its designee in connection with our Series D convertible preferred stock offering. See Note 7 to our financial statements included elsewhere in this prospectus.

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### *Comparison of Years Ended December 31, 2004, 2005 and 2006*

	Years ended December 31,		Dollar Change	% Change	Years ended December 31,		Dollar Change	% Change
	2004	2005			2005	2006		
Grant revenue	\$ 208,252	\$ 69,207	\$ (139,045)	-67%	\$ 69,207	\$ 94,850	\$ 25,643	37%
Operating expenses:								
Research and development	1,419,293	2,966,991	1,547,698	109%	2,966,991	4,974,380	2,007,389	68%
General and administrative	398,208	576,295	178,087	45%	576,295	1,113,500	537,205	93%
Sales and marketing	—	416,847	416,847	*	416,847	607,538	190,691	46%
Total operating expenses	<u>1,817,501</u>	<u>3,960,133</u>	<u>2,142,632</u>	118%	<u>3,960,133</u>	<u>6,695,418</u>	<u>2,735,285</u>	69%
Loss from operations	(1,609,249)	(3,890,926)	(2,281,677)	142%	(3,890,926)	(6,600,568)	(2,709,642)	70%
Other income (expense):								
Interest income	107,211	248,838	141,627	132%	248,838	805,437	556,599	224%
Interest expense	—	—	—	*	—	(77,498)	(77,498)	*
Change in value of preferred stock warrant liability	(254,089)	(577,000)	(322,911)	127%	(577,000)	(290,925)	286,075	-50%
Total other income	<u>(146,878)</u>	<u>(328,162)</u>	<u>(181,284)</u>	123%	<u>(328,162)</u>	<u>437,014</u>	<u>765,176</u>	-233%
Net loss	<u>\$ (1,756,127)</u>	<u>\$ (4,219,088)</u>	<u>\$ (2,462,961)</u>	140%	<u>\$ (4,219,088)</u>	<u>\$ (6,163,554)</u>	<u>\$ (1,944,466)</u>	46%

\* Not meaningful.

*Grant Revenue.* The decreases in 2005 and 2006 grant revenue compared to the 2004 amount were due to our performing more NIH contract work in 2004 and our incurring fewer qualifying expenditures in 2005 and 2006 related to our NIH contracts as we refocused our efforts on internal product development projects.

*Research and Development Expenses.* The increase in research and development expenses in 2006 compared to 2005 was due primarily to an increase of approximately \$800,000 for producing test parts and testing of our ceramics materials and producing prototypes and related instrumentation. We also experienced an increase of approximately \$400,000 related to increases in our personnel costs, an increase of approximately \$190,000 for additional rent and \$340,000 of additional depreciation related to our new manufacturing facility and related equipment. The increase in research and development expenses in 2005 compared to 2004 was primarily attributable to an increase of \$800,000 related to increases in personnel costs, and \$370,000 related to general lab supplies, product testing and validation costs. We also had an additional \$140,000 of depreciation expenses in 2005 compared to 2004 due to the purchase of additional research equipment.

*General and Administrative Expenses.* The increases in general and administrative expenses in 2006 compared to 2005 was due primarily to \$370,000 in additional salaries and benefits due to an increase in personnel and \$130,000 in legal fees in connection with a review of our intellectual property position. The increase in general and administrative expenses in 2005 compared to 2004 was due primarily to an increase in legal costs of approximately \$40,000 related to filing and protecting our patents, and an additional \$70,000 in personnel costs.

*Sales and Marketing Expenses.* In 2005, we commenced hiring of sales and marketing personnel to assist in the development of our product commercialization strategy. The increase in sales and marketing expense in 2006 compared with 2005 was due to an increase in personnel costs as well as an increase in external market research and trade shows in preparation for our anticipated product candidate launches in 2008.

*Interest Income.* The increases in interest income in 2006 compared to 2005 and in 2005 compared to 2004 were due primarily to the timing of our receipt of the proceeds of our convertible preferred stock financings,

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which we invested in interest-bearing investments. These increases were also partially due to general increases in average interest rates in 2006 compared to 2005 and in 2005 compared to 2004.

*Interest Expense.* Interest expense in 2006 was for interest charges related to an equipment financing arrangement which we utilized during the second half of 2006 and under which we borrowed a total of \$1.6 million. Interest on this financing arrangement was 10.25%. In January 2007, we converted the outstanding balance to a 42-month term loan bearing interest at the fixed rate of 9.09%.

*Change in Value of Preferred Stock Warrant Liability.* The increase in the change in value of preferred stock warrant liability in 2006 compared to 2005 and in 2005 compared to 2004 was due to valuation increases in our common stock as well as a greater number of warrants outstanding during 2006 compared to 2005 and in 2005 compared to 2004 as a result of our Series A preferred stock offering in January 2004, our Series B preferred stock offering in November 2004 and our Series C preferred stock offering in February 2006. See Note 7 to our financial statements included elsewhere in this prospectus.

### **Liquidity and Capital Resources**

We have incurred a cumulative loss since our inception in December 1996 and as of March 31, 2007 we had a deficit accumulated during the development stage of \$18.2 million. We have funded our operations to date principally from private placements of convertible preferred stock, raising net proceeds totaling \$27.9 million through March 31, 2007. As of March 31, 2007, we had approximately \$10.3 million in cash, cash equivalents and marketable securities included in current assets. We invest our available cash balances in bank deposits, money market funds, U.S. government securities, auction rate securities, and other investment grade debt securities that have strong credit ratings.

In April 2007, we issued 4,456,500 shares of our Series D convertible preferred stock at \$3.00 per share, and received net proceeds of approximately \$12.4 million. Dividends, liquidation preferences, conversion and voting rights of our Series D convertible preferred stock are substantially similar to those of Series A, B and C convertible preferred stock. In conjunction with this offering, the placement agent received warrants to purchase 253,290 shares of Series D convertible preferred stock at an exercise price of \$3.30 per share. These warrants are fully exercisable at the earlier of one year after issuance or the completion of this offering and expire after seven years. The estimated fair value of these warrants at the time of issuance was \$450,000. In connection with the offering of our Series D convertible preferred stock, we also paid our placement agent \$758,870 as commission and \$100,000 for expenses.

Net cash used in operating activities was \$1.3 million, \$3.5 million and \$5.5 million for the years ended December 31, 2004, 2005 and 2006, respectively, and \$761,000 and \$2.4 million for the three months ended March 31, 2006 and 2007, respectively. The net cash used in each of these periods primarily reflects internal personnel costs associated with our research and development programs and infrastructure costs supporting our research and development activities. Included in net cash used in operating activities are non-cash charges related to revaluations of our preferred stock warrant liability, depreciation and amortization expense, and other net changes in assets and liabilities affecting cash, including accounts payable and accrued liabilities that are primarily dependent upon the timing of our payments to our suppliers, vendors and employees.

Net cash provided by (used in) investing activities was (\$9.3) million, \$2.6 million and (\$10.8) million for the years ended December 31, 2004, 2005 and 2006, respectively, and \$(14.1) million, and \$2.8 million for the three months ended March 31, 2006 and 2007, respectively. Net cash provided by (used in) investing activities in each of these periods reflects primarily the net purchases and maturities of marketable securities and purchases of property and equipment. Purchases of property and equipment increased in 2006 to \$3.2 million compared to \$854,000 in 2005 as a result of equipment purchasing and leasehold improvements associated with our new manufacturing facility.

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Net cash provided by (used in) financing activities was \$7.5 million, \$17,000 and \$16.8 million for the years ended December 31, 2004, 2005 and 2006, respectively, and \$15.2 million and (\$66,000) for the three months ended March 31, 2006 and 2007, respectively. Net cash provided by (used in) financing activities was attributable primarily to the issuance of shares of our Series A convertible preferred stock in January 2004, the issuance of shares of our Series B convertible preferred stock in November 2004, and the issuance of shares of our Series C convertible preferred stock in February 2006. In addition, we borrowed \$1.6 million under our equipment financing arrangement during 2006 which was converted in early 2007 to a 42-month term loan. We made payments of \$66,000 on the loan during the three months ended March 31, 2007.

We do not expect to generate any product revenue until the first half of 2008 at the earliest. We will not generate any domestic product revenue unless and until we obtain FDA clearance or approval to market our lead implant product candidates. We believe that our cash, cash equivalents and marketable securities, together with interest income we earn on these investments, will be sufficient to meet our anticipated cash requirements through the second quarter of 2008. We believe that the net proceeds from our initial public offering, together with our cash, cash equivalents and marketable securities, together with interest income we earn on these investments, will be sufficient to meet our anticipated cash requirements through the end of 2009. If our available cash, cash equivalents, marketable securities and net proceeds from our initial public offering are insufficient to satisfy our liquidity requirements, or if we develop additional product candidates or submit additional applications for clearance or approval of our product candidates, we may seek to sell additional equity or debt securities or arrange for a credit facility. The sale of additional equity and debt securities may result in additional dilution to our shareholders. If we raise additional funds through the issuance of equity or debt securities, these securities could have rights and preferences senior to those of our common stock and could contain covenants that would restrict our operations. We may require additional capital beyond our currently forecasted amounts. Any such required additional capital may not be available on reasonable terms, if at all. If we are unable to obtain additional financing, we may be required to reduce the scope of, delay, or eliminate some or all of our planned research, product development and commercialization activities, which could materially harm our business.

Our forecast of the period of time through which our financial resources will be adequate to support our operations and the costs to complete development of product candidates are forward-looking statements and involve risks and uncertainties, and actual results could vary materially and negatively as a result of a number of factors, including the factors discussed in the "Risk Factors" section of this prospectus. We have based these estimates on assumptions that may prove to be wrong, and we could utilize our available capital resources sooner than we currently expect.

Because of the numerous risks and uncertainties associated with the development of medical devices, we are unable to estimate the exact amounts of capital outlays and operating expenditures necessary to complete ongoing clinical trials and successfully deliver a commercial product to market. Our future funding requirements will depend on many factors, including but not limited to:

- the timing of regulatory clearances or approvals;
- the scope, rate of progress and cost of our research and development activities;
- the scope, rate of progress and cost of any clinical trials we are required to conduct, and the results of these clinical trials;
- the cost and timing of establishing sales, marketing and distribution capabilities;
- the rate of market acceptance of our product candidates;
- the cost of filing and prosecuting patent applications and defending and enforcing our patents and other intellectual property rights;
- the cost of defending, in litigation or otherwise, any claims that we infringe third-party patents or other third-party intellectual property rights;
- the cost of defending other litigation or disputes with third parties;

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- the cost of establishing clinical and commercial supplies of our current pipeline of product candidates and any product candidates that we may develop;
- the development of an efficient manufacturing process;
- the effect of competing products and market developments; and
- any revenue generated by sales of our future product candidates.

Future capital requirements will also depend on the extent to which we acquire or invest in businesses, products and technologies, although we currently have no commitments or agreements relating to any of these types of transactions.

### ***Contractual Obligations***

In May 2006, we entered into an equipment financing arrangement which allowed for advances to us for equipment purchased during 2006. These amounts are collateralized by certain of our qualifying manufacturing and lab equipment and \$750,000 which is invested in an interest bearing escrow account and is reflected on the accompanying balance sheet as restricted cash. If the balance of our cash and marketable securities becomes equal to or less than the then remaining balance of the loan at any time during the term, the bank has the right to exercise a contingent pledge with respect to all remaining cash and marketable securities.

As of December 31, 2006, \$1,621,898 had been advanced under this financing arrangement. In January 2007, this amount was refinanced into long-term debt with a fixed interest rate of 9.09% and with a 42-month term. This loan does not permit the transfer of more than 25% of the ownership interests in us. We are currently seeking a waiver or an amendment that would eliminate application of this loan provision to us.

We are committed to making future cash payments on operating leases. We have not guaranteed the debt of any other party. Future minimum payments under all noncancelable lease obligations and payments under our long-term debt agreement are as follows as of March 31, 2007:

<u>Year ended December 31,</u>	<u>Operating Leases</u>	<u>Long-term Debt</u>
2007 (remainder of year)	\$ 339,875	\$ 407,193
2008	463,392	542,922
2009	400,991	542,922
2010	263,154	316,705
2011	91,605	—
	<u>\$1,559,017</u>	<u>1,809,742</u>
Less amounts representing interest		<u>(253,501)</u>
		<u>\$1,556,241</u>

The information above reflects only payment obligations that are fixed and determinable. Our commitments for operating leases primarily relate to the lease for our corporate headquarters and manufacturing facility in Salt Lake City, Utah.

In December 2006, we entered into an agreement to license patent rights directed to a manufacturing process for porous ceramic for use in our product candidates that incorporate our *C<sup>S</sup>C* technology. At the time this agreement was signed, we paid \$50,000. During February 2007, we paid an additional \$100,000 upon the transfer of technology to us. We are obligated to pay an additional \$100,000 upon FDA clearance of the first product in the United States which utilizes the licensed technology. We are also obligated to pay future royalties on net sales of products which utilize this technology.

We have entered into consulting and development agreements with some of our advisors, including some of our surgeon advisors. We have agreed to pay some of our surgeon advisors a portion of our net after-tax profits

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attributable to the sale of specific spine, hip and knee implant product candidates for which the surgeon advisor provided us with consulting and related services related to the conceptualization, development, testing, clearance, approval and/or related matters involving our implant product candidates. Because more than one of our surgeon advisors contribute to our development efforts, we are obligated to pay royalties to as many as five surgeon advisors in connection with some of our product candidates. Pursuant to these agreements, these surgeon advisors also have been granted options to purchase shares of our common stock. Generally, these consulting and development agreements, unless earlier terminated, continue until the later of (a) ten years from the date of the agreement and (b) the expiration of the patent rights relating to the product candidates covered by the agreement.

We have executed agreements with some of our executive officers which, upon the occurrence of specified events related to a change of control, require payments to be made to the executives equal to two to three times his annual salary and accelerate the vesting of then outstanding stock options held by the executive.

Effective through February 2009, in the event of a future acquisition of our capital stock, merger, tender offer, recapitalization, or asset sale prior to our initial public offering resulting in a change in control, as defined in the engagement letter with the placement agent for our offering of Series C convertible preferred stock, the placement agent will have the right to receive up to \$2.5 million.

### **Off-Balance Sheet Arrangements**

Since inception, we have not engaged in any off-balance sheet activities, including the use of structured finance, special purpose entities or variable interest entities.

### **Quantitative and Qualitative Disclosures About Market Risk**

Our exposure to market risk is confined to our cash, cash equivalents and marketable securities, all of which have maturities of less than one year. The primary objective of our investment activities is to preserve our capital for the purpose of funding operations while at the same time maximizing the income we receive from our investments without significantly increasing risk. To achieve these objectives, our investment policy allows us to maintain a portfolio of cash equivalents and investments in investment grade marketable securities, including commercial paper, option rate preferred securities, money market funds and corporate debt securities and U.S. government securities. As of December 31, 2006 our marketable securities balance was approximately \$11.8 million, which consisted of auction rate securities with rates that reset every 28 days. As of December 31, 2006, our long-term debt balance was approximately \$1.6 million. The long-term debt bears interest at a fixed rate of 9.09% and has a term of 42 months. On a net basis, we believe that there is no material exposure to interest rate risk.

## BUSINESS

### Overview

We are an orthopedic implants company focused on using our silicon nitride ceramic technologies to develop, manufacture and commercialize a broad range of advanced, high-performance spine and joint implants. We have developed a formulation of silicon nitride which we believe has the strength, toughness and wear resistance necessary to overcome the limitations of currently available orthopedic implants. Upon introduction to market, our implants will represent the first use of silicon nitride ceramics in orthopedic applications and will have the potential to provide an improved combination of characteristics, including substantially greater strength and resistance to fracture, superior resistance to wear, greater ability to promote bone attachment, and better compatibility with surgical and diagnostic imaging. Based on these advantages, we believe that our silicon nitride product candidates will achieve better long-term clinical outcomes due to their enhanced durability, longevity, biocompatibility and patient fit. As a result, we intend to establish our silicon nitride implants as new standards of care for the largest and fastest growing orthopedic implant markets: the spine, hip and knee markets.

Our lead product candidates under development are our *Valeo*<sup>™</sup> family of spinal implants. Our *Valeo* spinal fixation implants will be used to restore and maintain the alignment of vertebrae in the cervical, or neck region, and lumbar, or lower back region, of the spine. The *Valeo* spinal fixation implants will feature silicon nitride ceramic spinal spacers for insertion between two vertebrae to help stabilize the spine, along with a metal cervical bone plate system and a metal pedicle screw system for supplemental fixation. We expect to launch these product candidates by mid-2008, subject to clearance by the U.S. Food and Drug Administration, or the FDA. In 2006, we received clearance from the FDA for the first ever ceramic spinal spacer, which will be the predicate device for the first of our product candidates that we intend to commercialize. We plan to introduce additional spinal spacers by the end of 2008, subject to regulatory clearance, including cortico-cancellous spacers that feature a bone-like structure with a solid, or cortical, load-bearing portion and a cancellous, or porous, structure that is intended to promote bone attachment for secure spinal fixation. Subsequently, subject to regulatory approval, we plan to introduce cortico-cancellous spinal spacers with a surface coating designed to further enhance bone attachment. Our *Valeo* family of spinal implant candidates also includes an all-ceramic, motion-preserving cervical disc, for which we anticipate commencing a clinical trial by mid-2009. In addition, we are incorporating our silicon nitride ceramic technology into the development of our *Infinia*<sup>™</sup> family of total hip and knee implants. We anticipate commencing a clinical trial for our first total hip implant product candidate in 2009.

During the past two years, we have been developing our own manufacturing facility and processes that will provide us the ability to control the commercial-scale production of our silicon nitride ceramic implants from powder form to devices ready for sterilization and packaging. We are currently producing our lead ceramic spinal product candidates on a pilot scale in our manufacturing facility. We anticipate our facility will be fully operational for commercial-scale production by the end of 2007, which we believe would make us the only vertically integrated silicon nitride orthopedic implant manufacturer in the world.

### Market Opportunity

According to the Millennium Research Group, approximately 1.5 million patients undergo spine, hip and knee surgery involving the use of implants each year in the United States, and this number is expected to grow primarily due to the rising incidence of arthritis. In 2005, an estimated 46 million U.S. adults suffered from doctor-diagnosed arthritis, and nearly two-thirds of those afflicted were younger than age 65. Osteo-arthritis, a condition involving the degeneration, or wearing away, of the cartilage at the end of bones, is a common form of arthritis, and often results in progressive joint disease and pain. The prescribed treatment for osteo-arthritis disorders depends on the severity and duration of the disorder and ranges from non-operative procedures including bed rest, medication, lifestyle modifications, exercise, physical therapy, chiropractic care and steroid injections, to surgical intervention including total joint replacement.

In cases where surgical intervention is prescribed, the use of implants has evolved into the standard of care in spine, hip and knee surgery. Surgeons replace affected joints with artificial implants, which currently are made

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from metal alloys, plastics such as polyethylene, allograft bone, or bone taken from a human cadaver donor, and ceramics. Implants such as hip and knee replacement implants, and motion-preserving disc implants, have components which move, or articulate, against each other and are known as articulating implants. Surgeons select the implants according to their patient's weight, sex, age, activity level and other medical considerations. After surgery and rehabilitation, the patients usually experience less pain and swelling, and gain improved range of motion.

We believe that the market for implants used in spine, hip and knee surgical procedures will continue to grow because of the following market dynamics:

- *Growth of the aging population.* The population segment most likely to experience arthritis-related back and joint pain is expected to grow as a result of aging baby boomers, people born between 1946 and 1965, and increasing life expectancy. A majority of hip and knee replacement procedures performed in the United States are performed on the over-65 population, which is expected to increase from approximately 35 million in 2000 to approximately 71 million by 2030.
- *Changing lifestyle expectations.* Middle-aged and older patients increasingly expect to enjoy active lifestyles, and consequently demand effective treatments for painful spine and joint conditions, including better performing and longer lasting implants.
- *Earlier surgical intervention.* The clinical success of implant procedures, improved diagnostics, advances in minimally invasive surgical procedures, and better performing, longer lasting implants are expected to result in an increase in surgical treatment of patients at a younger age.
- *Rising number of revision surgeries.* Premature failures of currently available implants, due in part to the limitations of low wear resistance materials, have resulted in a rapid rise in revision surgeries to replace worn or defective implants. In 2006, approximately 49,700 revision hip surgeries and 48,000 revision knee surgeries were performed in the United States. An estimated 73,400 revision hip surgeries and 87,400 revision knee surgeries will be performed in the United States in 2011.
- *Introduction of new technologies.* Newer implants with improved function, such as articulating disc implants and other motion-preserving implant systems, are expected to drive additional growth of the spinal market. In addition, longer lasting implants are expected to drive growth in the hip and knee market by being indicated at an earlier stage for patients with degenerative joint disease.
- *Market expansion into new geographic areas.* As implant procedures are introduced to and become more widely accepted in underserved countries such as China and India, it is anticipated that demand for implants will increase.

### ***Spine Implant Market***

The spine market is the fastest growing market for orthopedic implants, accounting for \$3.3 billion in sales in the United States in 2006, and is projected to grow at an average annual rate of 12.0% through 2011 to approximately \$5.9 billion. Spinal fixation surgeries currently represent the vast majority of procedures in this market. Approximately 500,000 spinal fixation surgery procedures were performed in the United States in 2006, accounting for approximately \$3.2 billion of the total \$3.3 billion in U.S. spine market sales.

#### *Limitations of Current Spinal Implants*

Spinal fixation is the current standard of care for the surgical treatment of disc herniation, a condition where the disc bulges from between two vertebrae and impinges on nerves causing pain. Spinal fixation procedures aim to relieve the impingement on the nerves by removing the portion of the disc and/or bone responsible for compressing the neural structures and destabilizing the spine. The excised disc or bone is replaced with one or more intervertebral implants, or spacers, placed between the adjacent vertebrae. To provide initial support and long-term stabilization, surgeons commonly use supplemental fixation implants to immobilize the treated area of

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the spine. These supplemental fixation implants consist of a pedicle screw system for the lumbar area of the spine, and a bone plate system for the cervical area of the spine. To enhance bone attachment, surgeons often pack pulverized bone harvested from the patient, known as autograft bone, in and around fixation implants. Autograft bone is rich in natural bone morphogenic proteins, or BMPs, which promote growth of new bone tissue into and around spinal implants to fuse the vertebrae. As an alternative, synthetic BMPs are also often used to promote bone growth and achieve fusion more quickly.

Currently marketed spine implants have significant performance limitations due to the materials from which they are made. Spine implants are manufactured using allograft, or cadaver bone; metals, such as titanium; or plastics, such as polyetheretherketone, or PEEK. While all of these materials enable manufacturers to produce load-bearing spacers, none of the currently available spinal spacers possess all of the important characteristics desired by surgeons. Drawbacks include:

- *Limited availability and inconsistent quality of allograft bone.* Allograft bone is in short supply and is subject to inconsistent quality and size, often requiring surgeons to make compromises on fit while operating on patients. Patients also face a relatively remote but finite risk of disease transmission and immune response when introducing allograft bone into the body.
- *Current materials require supplemental bone fusion promoters.* Current spacer materials are bio-inert and require growth factors such as synthetic BMPs to promote bone attachment. However, with cost-containment initiatives from hospitals and public and private payors alike, separate reimbursement for the use of BMPs in spinal fixation procedures have come under increasing cost/benefit scrutiny. BMPs are also known to provoke inflammation in the cervical spine and to form abnormal bone growth in the lumbar spine, which may impinge on neural structures. Alternatively, surgeons can use autograft bone which requires secondary surgery, resulting in increased pain, a longer recovery period, higher costs and greater risk of infection.
- *Currently available spinal implant materials lack optimal imaging-compatible characteristics.* Surgeons use X-ray imaging and magnetic resonance imaging, or MRI, during spinal fixation procedures to assist in the proper placement of implants, as well as to assess the quality of post-operative bone fusion. Traditional metal alloy materials restrict the ability of physicians to detect the extent and quality of bone attachment and ingrowth due to their X-ray density or magnetic nature. PEEK products are hard to detect using X-ray, even with the embedded markers that surgeons use to enable them to place the implants during surgery and confirm their location and the quality of attachment to bone after surgery.

Although spinal fixation procedures may address symptoms in the short term, they prevent natural movement among vertebrae, which can result in a reduction in a patient's range of natural motion and accelerated degeneration of healthy discs at levels above and below the fixed vertebrae. Therefore, many orthopedic implant companies are pursuing the development of a new generation of disc replacement implants designed to restore natural motion between vertebrae. Similar to the evolution of articulating implants for hips and knees, motion-preserving disc implants are emerging as a promising alternative to spinal fixation. To date, the only motion-preserving disc replacement implants approved for marketing in the United States are metal-on-polyethylene implants, which have a risk of slippage or dislocation due to a three-piece construction. Although the clinical experience of these implants is recent and longer-term outcomes are not established, they may have limitations due to unfavorable imaging and wear characteristics commonly associated with metal-on-polyethylene articulating implants.

### ***Hip and Knee Implant Market***

Orthopedic implants used in hip and knee replacement surgeries generated approximately \$5.6 billion in sales in 2006 in the United States, and such sales are projected to increase at an average annual rate of 9.4% through 2011 to approximately \$8.8 billion. Approximately one million primary hip and knee replacement procedures were performed in the United States in 2006.

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### *Limitations of Current Hip and Knee Implants*

Total hip replacement involves removing the diseased joint and replacing it with an artificial hip implant. This procedure entails the removal of the head, or the upper end of the thigh bone, known as the femur, and replacing it with an artificial femoral head, consisting of a ball mounted on an artificial stem which is inserted into the femur. The artificial femoral head articulates against an artificial socket, called an acetabular liner, which is placed inside an acetabular cup affixed into the pelvic bone. The femoral head and acetabular liner are often referred to as bearings.

Total knee replacement also involves removing the diseased joint and replacing it with an artificial knee implant. This procedure entails removal of the lower end of the femur, known as the condyle, removal of the upper end of the major lower leg bone, or tibia, and the removal of the knee cap, or patella. Following removal of the diseased tissue, an artificial knee implant is inserted, consisting of four main components: a femoral condyle, or a specially shaped bearing that is affixed to the lower end of the femur; a tibial tray that is affixed to the upper end of the tibia; a tibial insert that is rigidly fixed to the tibial tray and serves as the surface against which the femoral bearing moves; and a patella.

Because articulating implants have components that move against each other, causing friction, wear debris has been a clinical problem experienced in the hip and knee implant market. With conventional articulating implants, such as a hip replacement implant with a metal femoral head articulating against a polyethylene acetabular liner, friction can degrade the liner, causing small polyethylene wear particles to break off in the body. The human immune system rejects this foreign debris, attacking it much like it would attack an infection. Because wear debris typically settles around the site of the implant, the immune system also attacks and degrades the surrounding bone tissue, which is known as osteolysis. As a patient loses bone tissue in his or her hip, the implant can become loose and unable to function.

Orthopedic surgeons identify osteolysis as a leading cause of joint implant failure, resulting in the need for revision procedures to replace the failed implant. Ever since the connection between polyethylene particles and implant failures was established over two decades ago, articulating joint components made with alternative materials, including cross-linked polyethylene, metals and ceramics, have been used to reduce wear. Currently available implants for total hip and knee replacements are primarily differentiated by the materials used for the alternate bearing surfaces of the implants, the most common of which are metal-on-cross-linked polyethylene, metal-on-metal, and ceramic-on-ceramic. While all of these alternative materials have resulted in improved wear resistance, none of them possess all of the important characteristics desired by surgeons. Drawbacks include:

- *Risk of premature implant failure with cross-linked polyethylene.* Despite its greater resistance to wear, cross-linked polyethylene is more brittle than traditional polyethylene and consequently is prone to fatigue failure. In addition, cross-linked polyethylene wear particles can generate a stronger adverse biologic response, resulting in bone loss and premature implant failure, the very problem that cross-linked polyethylene was designed to address.
- *Design and size limitations of implants with cross-linked polyethylene.* Surgeons prefer the use of larger diameter femoral heads because they are less likely to dislocate from the acetabular liners. However, higher wear is observed for larger sized cross-linked polyethylene liners, leading to greater wear debris. Consequently, some surgeons avoid the use of large sized cross-linked polyethylene components.
- *High metal ion concentrations with metal-on-metal bearings.* Metal-on-metal bearings generate fine metal particles or metal ions which are absorbed in the body. These particles are excreted from the body through the kidneys. Increasingly, surgeons are voicing concerns about the potential toxic effects of such high metal concentrations and the burden on the kidneys. Some patients also exhibit a hypersensitivity or allergic response to metals in their body.
- *Design and size limitations of implants with currently available ceramic bearings.* Currently marketed ceramic implants are limited by the strength and fracture resistance of currently available ceramic materials. Current ceramic acetabular cups, for example, require a metal shell to contain and reinforce

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the ceramic liner. This two-piece design limits the size of the femoral head that may be used because of cumulative thickness of the multiple pieces in a restricted joint space. However, physicians prefer the use of larger heads to minimize the risk of hip dislocation. In addition, ceramic femoral heads are limited in the depths to which they can be seated on the femoral stem, thereby restricting the ability to restore proper leg length. Significant leg length discrepancy results in a limp, which is the primary cause for malpractice lawsuits related to hip replacement surgeries.

We believe the rising market demand for orthopedic implants, coupled with the significant drawbacks associated with existing materials used for current implants, creates a substantial market opportunity for implants made with higher performing materials.

### **Our Solution**

We believe our silicon nitride ceramic technologies,  $MC^2$  and  $C^SC$ , will overcome many of the limitations associated with currently available implant materials by providing an improved combination of characteristics, including:

- *substantially greater strength and resistance to fracture* than currently marketed ceramic implants;
- *superior resistance to wear* compared to implants made of plastics and metals;
- *greater ability to promote bone attachment* than traditional plastic and metal implants such as PEEK and titanium; and
- *better compatibility with surgical and diagnostic imaging techniques.*

We believe that the anticipated greater strength and fracture resistance of our silicon nitride product candidates will allow us to offer a wider range of design and size options along with a substantially reduced risk of fracture compared to currently marketed implants made of ceramic materials. We further believe that the anticipated superior wear resistance and the improved biocompatibility over the life of our silicon nitride implant candidates will reduce the risk of osteolysis and allergic response to metal wear particles. Based on these potential advantages, we believe that our silicon nitride product candidates will achieve better long-term clinical outcomes with a combination of improved durability, longevity, biocompatibility and patient fit.

*Micro-Composite Ceramic, or  $MC^2$ .* We refer to our formulation of silicon nitride as  $MC^2$ , or Micro-Composite Ceramic. We expect that all of our ceramic product candidates will be made using our  $MC^2$  silicon nitride. Since our inception we have focused on the development of a uniformly dense, micro-particle formulation of silicon nitride ceramic that has the strength, toughness and wear resistance necessary to overcome the limitations of currently available orthopedic implants. This ceramic is made from silicon nitride formulated with dopants such as yttria and alumina. We believe we are the first company to engage in the development of ceramic-based spine and joint implants made from silicon nitride, which in the past has been used in mission-critical aerospace and other applications requiring high-strength and low-friction of moving parts. For the demanding applications represented by human implants, we produce a biocompatible silicon nitride ceramic of precise specifications with the high strength and toughness necessary to achieve the required fracture resistance and reliability. We believe that we have developed significant know-how related to the manufacture of spine and joint implants made from silicon nitride. We also have an issued patent and pending patent applications directed to certain articulating implants with silicon nitride components.

*Cortico-cancellous Structured Ceramic, or  $C^SC$ .* We also are developing implants made with our  $MC^2$  silicon nitride that mimic the structure of natural bone by incorporating both a dense load-bearing component and a porous component, coupled with a surface coating, designed to promote bone attachment. We call our ceramic implants based on this technology  $C^SC$ , or Cortico-cancellous Structured Ceramic, implants. We are developing our  $C^SC$  implants for applications where the promotion of secure bone attachment is important for successful implant fixation. We have been issued two U.S. patents directed to our implants that will have both a dense load-bearing, or cortical, component and a porous, or cancellous, component, together with a surface coating. We also

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have pending patent applications directed to our cortico-cancellous structured implants using our  $C^5C$  technology. In addition, we have exclusively licensed three U.S. patents and foreign counterparts, together with related know-how, directed to manufacturing processes for the production of porous ceramics for use in our orthopedic implants.

### **Our Strategy**

Our goal is to become a leading orthopedic company offering advanced silicon nitride ceramic implants for a broad range of orthopedic indications. We intend to use our ceramic technologies to develop implants that have significant performance advantages compared to existing implants. We believe that the combined benefits of our  $MC^2$  and  $C^5C$  technologies will give our product candidates the potential to become a new standard of care for spine, hip and knee procedures.

Key elements of our strategy to achieve this objective include the following:

- *Launch near-term product candidates that address substantial market opportunities and build market awareness.* We intend to pursue the FDA's 510(k) pathway for clearance of our lead product candidates targeting spinal fixation, adding stepwise improvements to previously cleared products to help expedite the FDA review process. Subject to FDA clearance, we expect to introduce three of our lead spinal fixation product candidates, the *Valeo Cortical Ceramic Spacers*, the *Valeo Cervical Plate System* and the *Valeo Pedicle Screw System* by mid-2008. Thereafter, we plan to introduce our *Valeo Cortico-Cancellous Spinal Spacers* by the end of 2008, followed by our *Valeo Coated Cortico-Cancellous Spinal Spacers* by mid-2009. We expect that the introduction of these product candidates will accelerate physician awareness and acceptance of our ceramic-based implants and therefore help to facilitate market penetration of our pipeline product candidates.
- *Build a broad portfolio of ceramic implants targeting expanded indications and additional surgical procedures.* We are continuing to develop our product candidate portfolio to introduce future generations of implant products and expand the range of surgical indications and procedures that our implants address. These next generation product candidates will enable us to offer the broad suite of implants sought by orthopedic surgeons and distributors, including total disc replacements and total hip and total knee implant systems. We believe that the product candidates we are developing will be longer lasting and can be used for earlier intervention, resulting in better patient care.
- *Leverage the expertise of our surgeon advisors to design physician-preferred product features and to drive market awareness.* Our surgeon advisors participate throughout our product development process for both our spine and joint reconstructive product candidates. Our surgeon advisors include leading orthopedic surgeons in the United States, such as Aaron A. Hofmann, M.D., the designer of the Natural Knee™, a widely used total knee implant. We work closely with our surgeon advisors in the design of our implants and expect to benefit from their strong networks of national and international surgeon relationships to facilitate awareness of our product candidates.
- *Establish a hybrid sales organization utilizing experienced, independent sales agencies and a direct sales force.* We intend to partner with independent sales agencies to leverage their experience and strong surgeon relationships in both the spine and joint reconstructive markets to help us penetrate both U.S. and international markets. In the United States, we plan to establish a direct sales force to complement our independent sales agents in selected markets.
- *Selectively establish collaborations for our implants with leading orthopedic companies.* We intend to develop collaborations in markets outside of the United States where we believe that having a large, well-established partner will enable us more efficiently to gain access to those markets. In addition, we may establish collaborations in the United States in instances when access to a larger sales and marketing organization may help to expand the market or accelerate penetration for selected product candidates.

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**Our Product Candidates**

The table below identifies our products under development, lists their regulatory status, and indicates the anticipated launch dates of our lead spinal fixation product candidates and the anticipated start of clinical trials of product candidates in our development pipeline.

	PRODUCT DESCRIPTION	CERAMIC TECHNOLOGY	REGULATORY PATHWAY*	REGULATORY STATUS	ANTICIPATED PRODUCT LAUNCH OR CLINICAL TRIAL START
<b>SPINAL IMPLANT PRODUCTS</b>					
<i>Predicate Device</i>					
<i>Arx Intervertebral Spacers</i>	Ceramic spacers for Intervertebral Fixation	MC <sup>2</sup>	510(k)	Cleared	N/A
<i>Lead Products</i>					
<i>Valeo Spinal Spacers</i>					
Cortical	Ceramic Spacers for Intervertebral Fixation	MC <sup>2</sup>	Special 510(k)	Submission planned H2 2007	Product Launch H1 2008
Cortico-Cancellous	Ceramic Spacers with Cancellous Structure for Intervertebral Fixation	MC <sup>2</sup>	Special 501(k)	Submission planned H1 2008	Product Launch H2 2008
Coated Cortico-Cancellous	Coated Ceramic Spacers with Cancellous Structure for Intervertebral Fixation	MC <sup>2</sup> /C <sup>2</sup> C	510(k)	Submission Planned H1 2008	Product Launch H2 2008 - H1 2009
<i>Valeo Cervical Plate System</i>	Metal Cervical Spine Fixation Plate, Screws and Drill Guide	N/A	510(k)	Submission Planned H2 2007	Product Launch H1 2008
<i>Valeo Pedicle Screw System</i>	Metal Lumbar Spine Fixation Rods, Hooks and Screws	N/A	510(k)	Submission Planned H2 2007	Product Launch H1 2008
<i>Pipeline Product</i>					
<i>Valeo Cervical Disc</i>	Motion Preserving Ceramic Total Disc Implant for Cervical Spine	MC <sup>2</sup> /C <sup>2</sup> C	PMA	IDE Submission Planned H2 2008	Clinical Trial Start H1 2009
<b>HIP IMPLANT PRODUCTS</b>					
<i>Pipeline Products</i>					
<i>Infinia Total Hip Implant</i>	Hip Implant with Ceramic Femoral Head, Polyethylene Liner and Metal Shell	MC <sup>2</sup>	510(k) with IDE to Support Clearance	IDE Submission Planned H1 2009	Clinical Trial Start H2 2009
<i>Infinia Total Hip Implant II</i>	Hip Implant with Ceramic Femoral Head and Ceramic Monoblock Cup	MC <sup>2</sup> /C <sup>2</sup> C	PMA	IDE Submission Planned H2 2009	Clinical Trial Start H2 2009
	Hip Implant with Cobalt-Chromium Metal Femoral Head and Ceramic Monoblock Cup	MC <sup>2</sup> /C <sup>2</sup> C	PMA	IDE Submission Planned H2 2009	Clinical Trial Start H2 2009
<b>KNEE IMPLANT PRODUCT</b>					
<i>Pipeline Product</i>					
<i>Infinia Total Knee Implant</i>	Knee Implant with Ceramic Condyle, Polyethylene Tibial Insert and Metal Tibial Tray	MC <sup>2</sup> /C <sup>2</sup> C	PMA	IDE Submission Planned H2 2009	Clinical Trial Start H1 2010

\* Anticipated regulatory pathways for future submissions to the FDA of applications for product candidates.

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Our planned strategy for clearance of our *Valeo Cortical Spinal Spacers* described in the foregoing table will be to submit two successive Special 510(k) notifications for clearance of two different aspects of this product candidate. We expect these Special 510(k) clearances will serve as the basis for clearance of the next spinal spacers product candidate we plan to launch.

### ***Our Spinal Implant Products***

We have designed our lead product candidates in our *Valeo* family of spinal implants as a complete solution for surgical procedures for spinal fixation. These products include spinal spacers, a cervical bone plate system, a pedicle screw system, and a set of surgical instruments that facilitate the placement of our implants in the body. We are also developing an all-ceramic motion-preserving cervical disc.

#### *Valeo Spinal Spacers*

We have designed our *Valeo* family of spinal spacers, using silicon nitride ceramic, as intervertebral fixation implants for stabilizing the spine by replacing a portion of a vertebra that has collapsed, been damaged, or becomes unstable due to disease or trauma. Intervertebral implants were estimated to comprise an annual U.S. market of approximately \$805 million in 2006. We believe that each of our *Valeo Spinal Spacers*, if cleared by the FDA, will have significant competitive advantages compared to existing spinal implants made from allograft bone, PEEK or metals, and the ability to permit X-ray and MRI imaging during and after the surgical procedure. We developed and received FDA clearance for our *Arx* Intervertebral Spacers made from *MC<sup>2</sup>* silicon nitride, which will serve as the predicate device for the 501(k) premarket notification for our *Valeo Cortical Spinal Spacers* product candidate.

*Cortical.* We are conducting tests on our *Valeo Cortical Spinal Spacers* made of silicon nitride ceramic in anticipation of submitting two successive Special 510(k)s in the second half of 2007. We anticipate launching our *Valeo Cortical Spinal Spacers* by mid-2008.

*Cortico-Cancellous.* We have designed our *Valeo Cortico-Cancellous Spinal Spacers* to be identical to our *Valeo Cortical Spinal Spacers* except that this implant, in addition to its cortical structure, also will include a cancellous, or porous, structure that will facilitate bone attachment to the cancellous portion of the implant. We are conducting tests on our *Valeo Cortico-Cancellous Spinal Spacers* in anticipation of submitting a Special 510(k) to the FDA by mid-2008 and we anticipate launching the *Valeo Cortico-Cancellous Spinal Spacers* by the end of 2008.

*Coated Cortico-Cancellous.* We have designed our *Valeo Coated Cortico-Cancellous Spinal Spacers* to be identical to our *Valeo Cortico-Cancellous Spinal Spacers* except that this product candidate also will include a surface coating made of hydroxy-apatite designed to enable natural bone to more effectively attach to the cancellous portion of the implant. We are conducting tests on our *Valeo Coated Cortico-Cancellous Spinal Spacers* in anticipation of submitting a 510(k) premarket notification to the FDA by mid-2008, and we anticipate launching the *Valeo Coated Cortico-Cancellous Spinal Spacers* by mid-2009.

#### *Valeo Cervical Plate System*

We are developing our *Valeo Cervical Plate System* as a titanium alloy supplemental fixation implant to be used in conjunction with our *Valeo Spinal Spacers*. Currently available bone plate systems accounted for an estimated \$428 million in U.S. sales in 2006. We consulted extensively with our spine surgeon advisors in the design of the *Valeo* cervical plate product and related surgical instruments in order to incorporate features aimed at making cervical fixation procedures more efficient, simpler and more consistent. Our design and instruments combine special features to enable surgeons, in a single step, to hold the cervical plate in place, ensure proper angling and insertion of the screws into the vertebrae, and achieve a consistent supplemental fixation outcome. We also believe that our *Valeo Cervical Plate System* product candidate, because of its design features, may be an attractive option for use with other spacers for cervical spine fixation.

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We have finalized the design of our *Valeo Cervical Plate System*. We anticipate completing product testing and verification and submitting a 510(k) premarket notification in the second half of 2007. We anticipate launching this product by mid-2008.

### *Valeo Pedicle Screw System*

We are developing our *Valeo Pedicle Screw System* as a titanium alloy, low profile, and modular implant system to be used in conjunction with our *Valeo Spinal Spacers* for supplemental fixation of the lumbar spine. Pedicle screw systems accounted for an estimated \$1.2 billion in U.S. sales in 2006. We consulted extensively with our spine surgeon advisors in the design of the *Valeo Pedicle Screw System* in order to incorporate features allowing surgeons greater flexibility in the positioning of screws and rods and selection of rod diameters during surgery. We have designed modularity in the system components to permit such flexibility, which we believe will provide better clinical outcomes. We also believe that our *Valeo Pedicle Screw System* product candidate, because of its design features, may be an attractive option for use with other spacers for lumbar spine fixation.

We have finalized the design of our *Valeo Pedicle Screw System*. We anticipate completing the product testing and verification and submitting a 510(k) premarket notification in the second half of 2007. We anticipate launching this product by mid-2008.

### *Valeo Cervical Disc*

We are developing our *Valeo Cervical Disc*, using both our *MC<sup>2</sup>* and *C<sup>S</sup>C* technologies, as a silicon nitride ceramic implant to meet the unmet market need for a disc replacement implant that will restore natural motion and provide uncompromised wear resistance and favorable imaging characteristics in the cervical spine. This product candidate is aimed at the cervical disc market which is estimated to generate in excess of \$450 million in U.S. sales by 2011. We believe to date, that two companies have introduced lumbar discs which seek to mimic the natural biomechanics of the spine, and numerous other orthopedic implant companies are pursuing the development of disc implants to restore natural spinal motion. However, to our knowledge, most of these companies are using traditional metal-on-polyethylene bearings or metal-on-metal bearings, both of which are known to produce wear debris with less than optimal long-term outcomes. To our knowledge, a small number of companies are pursuing the development of disc implants with ceramic bearing surfaces, but we understand these bearing surfaces are embedded in metal backings which may interfere with imaging. We believe our *Valeo Cervical Disc*, if approved by the FDA, will represent a significant advance over currently available disc implants by mimicking the natural biomechanics of the spine, eliminating plastic and metal wear particles, promoting secure attachment to adjacent vertebrae, and allowing improved X-ray and MRI imaging.

We are finalizing the design of our *Valeo Cervical Disc*. We anticipate submitting an IDE, or investigational device exemption, application to the FDA in the second half of 2008, and beginning clinical trials of this implant in the first half of 2009. We are also exploring the possibility of developing a similar product for use in the lumbar spine.

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### **Our Hip Implant Products**

#### *Infinia Total Hip Implant*

We are developing our *Infinia Total Hip Implant* for patients undergoing total hip replacement surgery for the treatment of degenerative joint disease. This product candidate targets the market for total hip implants, estimated at \$2.4 billion in the United States in 2006. In our first hip replacement implant, we will use silicon nitride ceramic for the femoral head component of this implant. The counter-bearing, or mating component, of the hip implant, will be a polyethylene liner, fixed into a metal acetabular cup, using industry-recognized designs and materials. We anticipate that our *Infinia Total Hip Implant*, if cleared by the FDA based on clinical trial results, will provide the following significant competitive advantages over traditional total hip replacement implants presently on the market:

- Our femoral head will use silicon nitride ceramic material that significantly reduces polyethylene wear debris which is believed to be the primary reason for implant failures in implants using plastic bearings. We believe this reduction in wear debris should significantly improve the performance and longevity of our implants; and
- Our use of silicon nitride ceramic will enable us to offer femoral heads with sizing options comparable to metal femoral heads and substantially greater than currently marketed ceramic heads. This will reduce the dislocation risk associated with smaller femoral heads. In addition, our silicon nitride ceramic will enable us to offer offset sizing options comparable to metal femoral heads which will minimize, if not entirely eliminate, the need for surgeons to settle for less than optimal leg length results. We also believe that we will be able to offer heads with substantially greater strength than currently marketed ceramic heads.

We are finalizing the design of our *Infinia Total Hip Implant*. We anticipate submitting a 510(k) premarket notification and an IDE application to perform clinical trials to support our 510(k) premarket notification to the FDA in the first half of 2009, and beginning clinical trials of this implant in the second half of 2009.

#### *Infinia Total Hip Implant II*

We are developing our second generation *Infinia Total Hip Implant II* featuring our *Infinia* monoblock cup, an industry-first, one-piece, fully ceramic acetabular cup, our large diameter *Infinia* ceramic and metal femoral heads, and our *Infinia* femoral stem. The *Infinia* monoblock cup will be made from our *MC<sup>2</sup>* silicon nitride ceramic and will incorporate a smooth bearing surface on the inside of the cup integrated with a bone attachment surface incorporating our *C<sup>SC</sup>* technology on the outside of the cup that comes into contact with a patient's pelvis. The strength of silicon nitride ceramic allows us to design the *Infinia* monoblock cup as a one-piece component without the need for a separate liner, which will allow the use of larger femoral head sizes. Larger diameter femoral heads are known to have a lower incidence of dislocation.

The femoral head of the implant will be a large-diameter head offered in two versions, one made of silicon nitride and the other of cobalt-chromium. The femoral head will be used with a metal stem inserted into the femur. In contrast to currently marketed ceramic femoral heads, we are designing our *MC<sup>2</sup>* femoral head to offer surgeons a range of size and design options comparable to those available in metal femoral heads.

We are currently designing our *Infinia* monoblock cup, femoral head and femoral stem components. We have also begun testing the various silicon nitride components of our *Infinia Total Hip Implant II*. We anticipate that the femoral stem utilized in our first generation *Infinia Total Hip Implant* will be incorporated in our *Infinia Total Hip Implant II*. We anticipate submitting an IDE application for our *Infinia Total Hip Implant II* in the first half of 2009 and beginning clinical trials of this product candidate in the second half of 2009.

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### ***Our Knee Implant Product***

#### *Infinia Total Knee Implant*

Our *Infinia Total Knee Implant* will incorporate our *MC<sup>2</sup>* silicon nitride bearing components for the femoral condyle and will target the market for total knee implants estimated at \$3.3 billion in the United States in 2006. The tibial tray will be made from traditional metal. The tibial insert will be made from polyethylene in a rotating platform design intended to give the knee implant a range of motion and flexion similar to the natural knee. As currently planned, this knee design will also feature an asymmetric design to closely simulate natural anatomy, together with a low profile metal tibial tray, to allow surgeons to implant the *Infinia Total Knee Implant* using minimally invasive surgical techniques. We anticipate that this knee implant will provide natural anatomic motion and will offer a low-wear knee replacement option, providing significantly improved longevity compared with current metal-on-polyethylene knee implants.

We are currently designing the *Infinia Total Knee Implant*. We anticipate submitting an IDE application for this implant system in the second half of 2009 and beginning clinical trials of this product candidate in the first half of 2010.

### **Our Ceramic Technologies**

Since our inception, we have focused on the development of two technologies based on which we intend to commercialize advanced, high-performance orthopedic implant candidates:

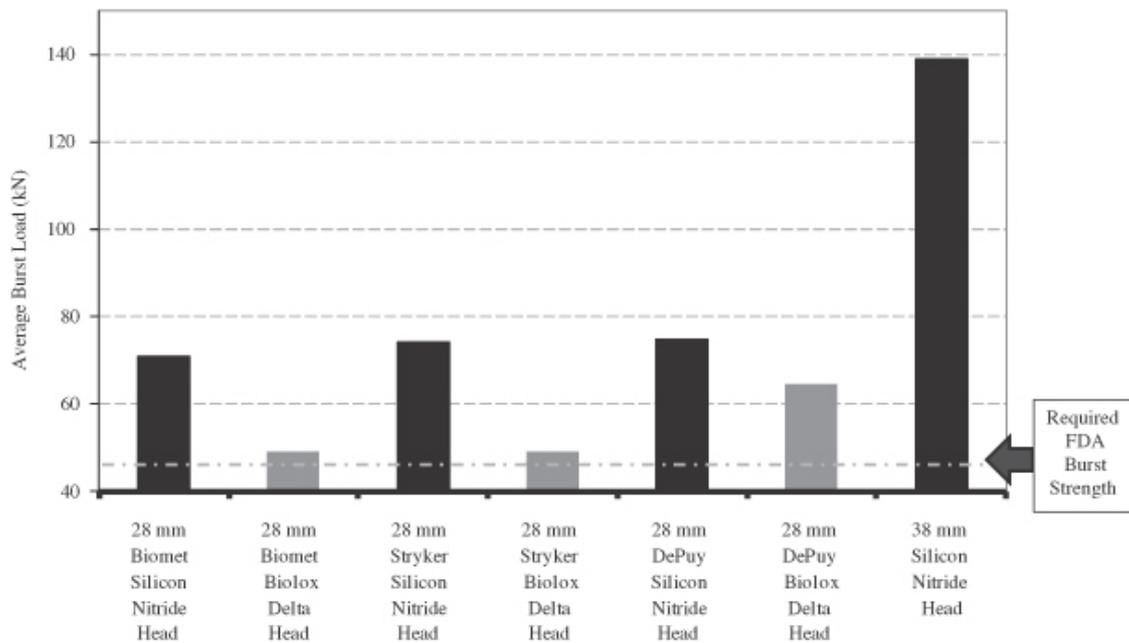
- We have developed a uniformly dense, micro-particle formulation of silicon nitride ceramic. We refer to the product candidates that we are developing based on this ceramic as our *MC<sup>2</sup>*, or *Micro-Composite Ceramic*, implants.
- We have developed implants that mimic the structure of natural bone by incorporating both a dense, load-bearing component and a porous component to promote bone attachment. We call these our *C<sup>SC</sup>*, or *Cortico-cancellous Structured Ceramic*, implants.

#### ***Our MC<sup>2</sup> Implants***

The ceramic that we produce for our *MC<sup>2</sup>* implants is made from silicon nitride formulated with dopants such as yttria and alumina. We believe we are the first company to engage in the development of ceramic-based spine and joint implants made from silicon nitride. We believe our implant candidates will provide a combination of high strength, fracture resistance, wear resistance and radiolucency that can overcome the limitations of currently available orthopedic implants.

*Strength and Resistance to Fracture.* We have conducted mechanical tests, following FDA guidelines, to compare the strength of 28 mm femoral heads made using silicon nitride ceramic material produced by a contract manufacturer to our specifications, with 28 mm femoral heads made using the strongest commercially available ceramic, BioloX Delta™. In these tests, we compared the “burst strength” of three designs of the silicon nitride femoral heads, made to the design specifications of three different orthopedic manufacturers, with the burst strength of comparably designed femoral heads made using BioloX Delta. We applied a load to the femoral heads, each of which was mounted on a typical hip implant stem, until the heads burst, which enabled us to measure the strength of the femoral heads and provided an indication of the fracture resistance. We also conducted burst strength tests of 38 mm femoral heads made from silicon nitride. The burst strength comparing the different femoral head designs are shown in the chart on the following page.

Femoral Head Burst Strength Comparison



These tests demonstrated that the silicon nitride femoral heads had substantially greater burst strength than the femoral heads made with Biolox Delta. The silicon nitride femoral heads had burst strengths ranging from 71 kilo-Newtons, or kN, to 75 kN compared to average burst strengths ranging from 49 kN to 65 kN for the Biolox Delta femoral heads. We also have proven that larger silicon nitride femoral heads of 38 mm diameter have even greater burst strengths which averaged approximately 139 kN. The minimum FDA average burst strength requirement to legally market ceramic femoral heads is 46 kN.

We anticipate that the superior strength of the silicon nitride ceramic material that we intend to use for our implant products will provide us with a greater ability to develop implants that offer surgeons a wider size and design range than is possible with currently marketed ceramics. This, we believe, will provide surgeons with more flexibility than currently possible when choosing implants for patients, resulting in better clinical outcomes.

*Wear Resistance.* We commissioned an independent wear study conducted at the Loma Linda University on a similar silicon nitride ceramic material produced by a contract manufacturer to our specifications. In this study, we tested silicon nitride femoral heads articulating against silicon nitride ceramic acetabular liners and cobalt-chromium metal alloy femoral heads articulating against silicon nitride ceramic acetabular liners. Using well-established protocols in a hip simulator, the silicon nitride ceramic bearings demonstrated:

- over 100 times lower wear than reported for metal-on-polyethylene hip bearings;
- 20 times lower wear than reported for metal-on-cross-linked polyethylene hip bearings;
- 10 times lower wear than reported for metal-on-metal hip bearings; and
- comparable wear to that reported for existing ceramic-on-ceramic hip bearings.

We also commissioned a separate independent wear study at the Loma Linda University and tested silicon nitride ceramic femoral heads made from material produced by the same contract manufacturer, articulating against commercially available polyethylene liners. One of the conclusions from this simulator wear study was that the silicon nitride ceramic head-polyethylene liner combination exhibited low wear comparable to the low

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wear reported for the widely used combination of an alumina ceramic head articulating against a polyethylene liner. As indicated in the clinical literature presented at the American Academy of Orthopedic Surgeons, ceramic-on-polyethylene bearings exhibit about 50% lower wear than metal femoral head-polyethylene liner combinations. The study also demonstrated the superior scratch resistance of the silicon nitride ceramic femoral heads compared with metal femoral heads, the latter having an 8-fold increase in surface roughness compared to the silicon nitride ceramic heads.

*Radiolucency.* We conducted a study to compare the imaging characteristics of discs made of metals such as titanium, plastics such as PEEK and silicon nitride using a cadaver human vertebral body. Images of the vertebral body and the discs were obtained using X-ray fluoroscopy, an imaging technique using a fluorescent screen to examine the internal structure of the body, computer tomography, or CT, an imaging technique for visualizing a three-dimensional image of the internal structure of the body, and MRI under identical conditions. We assessed the radiolucent characteristics of the discs in X-ray fluoroscopy images quantitatively, assessed the presence of scatter in CT scans qualitatively, and assessed distortion in MRI quantitatively. We found that in X-ray fluoroscopy, the metal discs did not permit visualization of the underlying bone of the vertebral body while PEEK was transparent, rendering its location difficult to determine. The silicon nitride disc had an intermediate radiolucency that rendered it visible as well as allowing a visual assessment of the underlying bone of the vertebral body. CT and MRI scans of the metal discs indicated the presence of distortion while silicon nitride and PEEK exhibited no scattering. The study thus demonstrated that the combination of partial radiolucency in X-ray fluoroscopy, and no distortion in CT and MRI scans would facilitate both placement of spinal spacers during surgery and post-operative monitoring of bone attachment.

*MC<sup>2</sup> Biocompatibility.* We have conducted a full complement of required biocompatibility tests, following guidelines of the FDA and the International Standards Organization, or ISO. These tests confirmed that the silicon nitride ceramic produced by a contract manufacturer to our specifications met required biocompatibility standards for human use. We have submitted a master file to the FDA for this silicon nitride ceramic containing these test results. We intend to repeat the full battery of biocompatibility tests on silicon nitride produced in our manufacturing facility.

### ***Our C<sup>5</sup>C Implants***

Like natural bone, which has a cortical, or dense, load-bearing outer surface, and a cancellous, or porous, inner region, our C<sup>5</sup>C implant candidates have a solid load-bearing portion adjacent to a porous portion. By integrating both load-bearing and porous structures, our C<sup>5</sup>C implant candidates are designed to provide structural integrity while at the same time facilitating the attachment of surrounding bone to the implant. Our C<sup>5</sup>C implant candidates also incorporate a coating to promote bone attachment. While our C<sup>5</sup>C technology can be applied to any ceramic material, we are using it with our MC<sup>2</sup> silicon nitride to develop implant candidates for applications where the promotion of secure bone attachment is important for successful implant fixation. We believe that the inertness of our silicon nitride ceramic material, coupled with the porous structure that mimics natural cancellous bone, will promote bone attachment. We also believe that this combination, together with a surface coating, may alleviate the need for bone morphogenic proteins to promote bone attachment. We have been issued two U.S. patents directed to our C<sup>5</sup>C technology. We also have exclusively licensed three U.S. patents and foreign counterparts, together with related know-how, directed to manufacturing processes for the production of porous ceramics for use in our orthopedic implants. These processes are versatile and allow us to manufacture our implants from our MC<sup>2</sup> silicon nitride with a range of porosity and pore size that mimic natural cancellous bone.

*Osteointegrative Properties.* We conducted a pilot animal study using skeletally mature sheep to evaluate the ability of the porous portion of our C<sup>5</sup>C-designed implants to promote osteointegration, or the growth of new bone, within the test animals in a knee-defect model. In this study, we implanted porous cylinders made of a commonly used ceramic in the condyle, or lower end, of the femur, or thigh bone, of the sheep. This animal study showed the rapid osteointegration potential of the porous implants. The porous implants also had extensive new

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bone formation at and into the implant surface, and showed the presence of new bone at the center of the implants. We believe this study indicates the potential of our *C<sup>5</sup>C* implants to promote bone attachment.

### **Sales and Marketing**

Our marketing strategy will highlight our ceramic technologies and the design advantages of our product candidates. We intend to make strong distribution channels and technical education our strategic focal points.

Upon FDA clearance, we intend to market and sell our lead spinal products in the United States using a hybrid distribution network that includes a combination of experienced, independent sales agents with strong, existing surgeon relationships and a direct sales force in selected markets. A similar hybrid sales force will also be used to market our hip and knee reconstructive products. We intend to employ a clinically experienced technical support team consisting of health care professionals to assist in the training of clinicians and their staff.

We intend to use our surgeon advisors to help implement an awareness campaign for educating other spine and reconstructive joint surgeons about our products. As part of this campaign we plan to provide educational materials to treating physicians, referring physicians and patients. We also intend to organize regional training seminars where our product and training managers, engineers, and sales and marketing staff, together with our surgeon advisors, will educate other surgeons and sales agent support staff in the use of our products.

In selected international markets, such as Europe, Japan, Australia and Canada, we may also seek to establish collaborations with leading orthopedic companies where we believe that a large, well-established partner may provide better access to those markets. In addition, we may establish collaborations in the United States under circumstances where access to a larger sales and marketing organization may help to expand the market or accelerate penetration for selected products.

### **Product Manufacturing**

In order to control the quality, cost and availability of our silicon nitride implants, we are developing our own manufacturing capabilities. Until August 2006, we conducted our manufacturing operations in a 3,378 square-foot pilot and prototype manufacturing facility at our present location in Salt Lake City, Utah, and we used third parties to produce some components of our other ceramic product candidates, such as silicon nitride ball blanks for femoral heads. During the past two years, we have also been developing scaled-up manufacturing processes and building out of our manufacturing facility, certified under the ISO 13485 standard for medical devices, located in an approximately 17,000 square-foot facility near our corporate offices. We expect our manufacturing facility to be fully operational by the end of 2007. It will be equipped with state-of-the-art, computerized mixing equipment, sintering furnaces, robotic machining centers and other testing equipment that will enable us to control the entire process for manufacturing our ceramic implants from powder form to devices ready for sterilization and packaging. To our knowledge, we will be the only vertically integrated orthopedic implant company in the world with the capability to make spine and joint implants from silicon nitride.

Our ceramic manufacturing strategy includes the purchase of raw materials from one or more vendors which are ISO registered and approved by us. These raw materials, consisting of silicon nitride ceramic powder and dopant chemical compounds, are characterized and tested in our facility in accordance with our specifications, and then blended to formulate our silicon nitride material. Subsequently, we form the silicon nitride material into implant components using specialized processing equipment, including computer-controlled machining centers and sintering furnaces. In addition, for our *C<sup>5</sup>C* implants, we have licensed, on a worldwide exclusive basis, a patented technology and related know-how to manufacture porous ceramics.

We plan to rely exclusively on third-parties for the manufacture of products or components made from metals or plastics, including our *Valeo Cervical Plate System*, *Valeo Pedicle Screw System*, the metal components of our *Infinia* hip and knee implants, and surgical instrumentation sets. Our outsourcing strategy is targeted at using contract manufacturers that are FDA registered and which meet the ISO 13485 certification

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standard. We believe the use of third-party sources for metals or plastics will reduce our capital investment requirements and allow us to strategically focus our resources on the development of our product candidates.

We are currently working with our ceramic raw material vendors and parts suppliers to ensure that they can meet our commercialization requirements. We are currently developing and qualifying alternative sources of supply for our raw materials.

### **Intellectual Property**

We rely on a combination of patents, trademarks, trade secrets and other intellectual property laws, nondisclosure agreements, proprietary information ownership agreements and other 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.

Currently, we have four issued U.S. patents, 12 pending U.S. patent applications, and ten pending foreign patent applications. Our U.S. Patent No. 6,881,229, issued April 19, 2005, is directed to an articulating joint prosthesis having a cobalt chromium head and a cup made from a high strength, high toughness doped silicon nitride ceramic. Our U.S. Patent Nos. 6,846,327, issued January 25, 2005, and 6,790,233, issued September 14, 2004, are directed to a bone graft and spinal fixation cage having a cortico-cancellous structure with a bioactive and resorbable surface coating. Our U.S. Patent No. 6,994,727, issued February 7, 2006, is directed to a novel prosthesis for use in replacing a spinal disc. Our issued patents begin to expire in 2022, with the last of these patents expiring in 2023.

Our pending patent applications are directed to additional aspects of our technologies including, among other things:

- additional embodiments of implants using our *MC<sup>2</sup>* silicon nitride in one or more implant components;
- additional embodiments of cortico-cancellous structured implants using our *C<sup>S</sup>C* technology, including such implants without a bioactive, resorbable coating;
- designs for cervical plates;
- designs for pedicle screws;
- designs for cervical disc implants;
- designs for intervertebral spacers;
- designs for hip implants; and
- designs for knee implants.

We also have exclusively licensed from Dytech Corporation Ltd. three U.S. patents and foreign counterparts, together with related know-how, directed to manufacturing processes for the production of porous ceramics for use in our orthopedic implants. Individual patents extend for varying periods depending on the effective date of filing of the patent application or the date of patent issuance, and the legal term of the patents in the countries in which they are obtained. Generally, since our U.S. patent applications were filed on or after June 8, 1995, our patents issued, and those to be issued, in the United States are effective for 20 years from the earliest effective filing date. The term of our foreign patents will vary in accordance with provisions of applicable local law, but typically will be 20 years from the earliest effective filing date.

We also expect to rely on trade secrets, know-how, continuing technological innovation and in-licensing opportunities to develop and maintain our intellectual property position. However, trade secrets are difficult to protect. We seek to protect the trade secrets in our proprietary technology and processes, in part, by entering into confidentiality agreements with commercial partners, collaborators, employees, consultants, scientific advisors and other contractors and into invention assignment agreements with our employees and some of our commercial

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partners and consultants. These agreements are designed to protect our proprietary information and, in the case of the invention assignment agreements, to grant us ownership of the technologies that are developed.

### **Industry Competition**

The orthopedic implant industry is highly competitive. We believe our main global competitors in the spine implant market include Medtronic Spinal and Biologics, a subsidiary of Medtronic, Inc.; Synthes, Inc.; DePuy Spine, Inc., a subsidiary of Johnson & Johnson; Stryker Spine, a division of Stryker Corporation; Biomet Spine and Biomet Trauma, a subsidiary of Biomet, Inc.; and Zimmer Spine, a subsidiary of Zimmer Holdings, Inc., which, in 2006, together accounted for over 80% of the market. We believe our main competitors in the hip and knee implant market are Zimmer Holdings, Inc.; DePuy Orthopaedics, Inc., a subsidiary of Johnson & Johnson; Stryker Orthopaedics, a division of Stryker Corporation; Biomet, Inc.; and Smith & Nephew Orthopaedics, a subsidiary of Smith & Nephew plc, which, in 2006, together accounted for over 80% of the market.

Competition within the industry is primarily based on technology, innovation, product quality, and the product awareness and acceptance by orthopedic surgeons. Our principal competitors have substantially greater financial, technical and marketing resources, as well as significantly greater manufacturing capabilities, than we do, and they may succeed in developing products that render our products non-competitive. Our ability to compete successfully will depend upon our ability to develop innovative products with advanced performance features based on our ceramic technologies.

We anticipate that orthopedic companies will also seek to introduce new ceramic-based implants to compete with ours. Presently, these companies buy ceramic components from manufacturers such as Ceramtec, Metoxit, Morgan-Matroc, Kyocera and NTK. These companies manufacture and provide ceramic femoral heads on an original equipment manufacturer, or OEM, basis to orthopedic implant companies such as Stryker, DePuy and Zimmer. We will seek to compete with their products based on the performance advantages offered by our silicon nitride-based ceramic technologies.

### **Government Regulation of Medical Devices**

Governmental authorities in the United States, at the federal, state and local levels, and other countries extensively regulate, among other things, the research, development, testing, manufacture, labeling, promotion, advertising, distribution, marketing and export and import of products such as those we are developing. Failure to obtain approval to market our products under development and to meet the ongoing requirements of these regulatory authorities could prevent us from marketing and continuing to market our products.

#### *United States*

In the United States, before a new medical device can be marketed, its manufacturer must either obtain marketing clearance through a premarket notification under Section 510(k) of the Federal Food, Drug and Cosmetic Act or marketing approval of a premarket approval application, or PMA. User fees, which increase each year and which are specific for the type of submission that is made, must be paid to the FDA at the time that the 510(k) or PMA is submitted. The information that must be submitted to the FDA in order to obtain clearance or approval to market a new medical device varies depending on how the medical device is classified by the FDA. Medical devices are classified into one of three classes on the basis of the controls deemed by the FDA to be necessary to reasonably ensure their safety and effectiveness. Class I devices are subject to general controls, including labeling, premarket notification and adherence to the quality systems regulation, or QSR, which sets forth device-specific good manufacturing practices. Class II devices are subject to general controls and special controls, including performance standards and post-market surveillance. Class III devices are subject to most of the previously identified requirements as well as to premarket approval.

A 510(k) premarket notification must demonstrate that the device in question is substantially equivalent to another legally marketed device, or predicate device, that does not require premarket approval. In evaluating the

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510(k), the FDA must determine that (i) the device has the same intended use as the predicate device and (ii) has the same technological characteristics as the predicate device, or (a) has different technological characteristics, (b) the data submitted establishes that the device is substantially equivalent and contains information, including clinical data if deemed necessary by the FDA, that demonstrates that the device is as safe and as effective as a legally marketed device and (c) the device does not raise different questions of safety and effectiveness than the predicate device. Most 510(k)s do not require clinical data for clearance, but a minority do require clinical data support. The FDA is supposed to issue a decision letter within 90 days if it has no additional questions or send a first action letter requesting additional information within 75 days; however, the FDA does not always meet the applicable performance goal review time. In addition, requests for additional data, including clinical data, will increase the time necessary to review the notice. Most Class I devices and many Class II devices are exempt from the 510(k) requirement. If the FDA does not agree that the new device is substantially equivalent to the predicate device, the new device will be classified in Class III, and the manufacturer must submit a PMA or may, depending on the nature of the device, petition the FDA to make a risk-based determination of the new device and reclassify the new device in Class I or II. Modifications to a 510(k)-cleared medical device may require the submission of another 510(k) or a PMA if the changes could significantly affect the safety or effectiveness or constitute a major change in the intended use of the device.

Modifications to a 510(k)-cleared device frequently require the submission of a traditional 510(k), but modifications meeting certain conditions may be candidates for FDA review under a Special 510(k). If a device modification requires the submission of a 510(k), but the modification does not affect the intended use of the device or alter the fundamental scientific technology of the device, then summary information that results from the design control process associated with the cleared device can serve as the basis for clearing the application. A Special 510(k) allows a manufacturer to declare conformance to design controls without providing new data. When the modification involves a change in material, the nature of the “new” material will determine whether a traditional or Special 510(k) is necessary. For example, in its Device Advice on How to Prepare a Special 510(k), the FDA uses the example of a change in a material in a finger joint prosthesis from a known metal alloy to a ceramic that has not been used in a legally marketed predicate device as a type of change that should not be submitted as a Special 510(k). However, if the “new” material is a type that has been used in other legally marketed devices within the same classification for the same intended use, a Special 510(k) is appropriate. The FDA gives as an example a manufacturer of a hip implant who changes from one alloy to another that has been used in another legally marketed predicate. Special 510(k)s are typically processed within thirty (30) days of receipt.

The PMA process is more complex, costly and time consuming than the 510(k) clearance procedure. A PMA must be supported by more detailed scientific evidence than a 510(k) notice, including clinical data to demonstrate the safety and efficacy of the device. If the device is determined to present a “significant risk,” the manufacturer may not begin a clinical trial until it submits an investigational device exemption, or IDE, to the FDA and obtains approval from the FDA. Such clinical trials are also subject to the review, approval and oversight of an institutional review board, or IRB, at each institution at which the clinical trial will be performed. The clinical trials must be conducted in accordance with applicable regulations, including but not limited to the FDA’s IDE regulations. Upon completion of the clinical trials, and assuming that the results indicate that the product is safe and effective for its intended use, the manufacturer will then submit a PMA. The FDA has 45 days after a PMA is submitted to determine whether it is sufficiently complete to permit a substantive review. If the PMA is complete, the FDA will file the PMA. The FDA is subject to performance goal review times for PMAs and may issue a decision letter as a first action on a PMA within 180 days of filing, but if it has questions, it will likely issue a first major deficiency letter within 150 days. It may also refer the PMA to an FDA advisory committee for additional review, and will conduct a preapproval inspection of the manufacturing facility to ensure compliance with the QSR, either of which could extend the 180 day target for a response. The FDA may also inspect the investigational sites to ensure compliance with the IDE and other applicable regulations governing the conduct of the trial. While the FDA’s ability to meet its performance goals has generally improved during the past few years, it may not meet these goals in the future. A PMA can take several years to complete and there is no assurance that any submitted PMA will ever be approved. Even when approved, the FDA may

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limit the indication for which the medical device may be marketed or to whom it may be sold. In addition, the FDA may request additional information or request the performance of additional clinical studies as a condition of approval or after the PMA is approved. Changes to the device or its manufacturing process may require the prior approval of a supplemental PMA.

### ***Continuing FDA Regulation***

After a device is placed on the market, numerous regulatory requirements apply. These include:

- compliance with the QSR, which require manufacturers to follow design, testing, control, documentation and other quality assurance procedures during the manufacturing process;
- labeling regulations, which prohibit the promotion of products for unapproved or “off-label” uses and impose other restrictions on labeling; and
- medical device reporting regulations, which require that manufacturers report to the FDA if their device may have caused or contributed to a death or serious injury or malfunctioned in a way that would likely cause or contribute to a death or serious injury if it were to recur.

Failure to comply with applicable regulatory requirements can result in enforcement action by the FDA, which may include any of the following sanctions:

- warning letters;
- fines, injunctions, and civil penalties;
- recall or seizure of our products;
- operating restrictions, partial suspension or total shutdown of production;
- refusal to grant 510(k) clearance or PMA approvals of new products;
- withdrawal of 510(k) clearance or PMA approvals; and
- criminal prosecution.

To ensure compliance with regulatory requirements, medical device manufacturers are subject to market surveillance and periodic, pre-scheduled or unannounced inspections by the FDA, and these inspections may include the manufacturing facilities of our subcontractors.

### ***International Regulation***

International sales of medical devices are subject to foreign government regulations, which vary substantially from country to country. The time required to obtain approval by a foreign country may be longer or shorter than that required for FDA approval, and the requirements may differ. For example, the primary regulatory authority with respect to medical devices in Europe is that of the European Union, which consists of about twenty-four countries encompassing most of the major countries in Europe. Other countries, such as Switzerland, have voluntarily adopted laws and regulations that mirror those of the European Union with respect to medical devices. The European Union has adopted numerous directives and standards regulating the design, manufacture, clinical trials, labeling, and adverse event reporting for medical devices. Devices that comply with the requirements of a relevant directive will be entitled to bear CE conformity marking, indicating that the device conforms to the essential requirements of the applicable directives and, accordingly, can be commercially distributed throughout the European Union, although actual implementation of these directives may vary on a country-by-country basis. The method of assessing conformity varies depending on the class of the product, but normally involves a combination of self-assessment by the manufacturer and a third-party assessment by a “Notified Body.” This third-party assessment may consist of an audit of the manufacturer’s quality system and specific testing of the manufacturer’s product. An assessment by a Notified Body in one country within the

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European Union is required in order for a manufacturer to distribute the product commercially throughout the European Union.

### **Compliance with Fraud and Abuse Laws**

Once our product candidates are commercialized, we must comply with various U.S. federal and state laws, rules and regulations pertaining to healthcare fraud and abuse, including anti-kickback laws and physician self-referral laws, rules and regulations. Violations of the fraud and abuse laws are punishable by criminal and civil sanctions, including, in some instances, exclusion from participation in federal and state healthcare programs, including Medicare, Medicaid, Veterans Administration health programs, workers' compensation programs and TRICARE. We operate our business to be in material compliance with such laws, rules and regulations.

We have entered into agreements with certain surgeons for assistance with the design of our products, some of whom we anticipate may make referrals to us or order our products. A majority of these agreements contain provisions for the payments of royalties and/or stock options. In addition, some surgeons currently own shares of our stock and other surgeons may be offered shares as part of this offering under our directed share program as described in the "Underwriters" section of this prospectus. These transactions were, and will be, structured with the intention of complying with all applicable laws, including fraud and abuse laws. Despite this intention, the laws in this area are both broad and vague, and it is often difficult or impossible to determine how the laws will be applied. Accordingly, there can be no assurance that a particular government agency or court would determine our practices to be in full compliance with such laws. We could be materially impacted if regulatory or enforcement agencies or courts interpret our financial arrangements with surgeons to be in violation of these fraud and abuse laws.

#### ***Anti-Kickback Statute***

The federal Anti-Kickback Statute prohibits persons from knowingly or willfully soliciting, receiving, offering or paying remuneration, directly or indirectly, in exchange for or to induce:

- the referral of an individual for a service or product for which payment may be made by Medicare, Medicaid or any other government-sponsored healthcare program; or
- purchasing, ordering, arranging for, or recommending the ordering of, any service or product for which payment may be made by a government-sponsored healthcare program.

The definition of "remuneration" has been broadly interpreted to include anything of value, including such items as gifts, certain discounts, waiver of payments, and providing anything at less than its fair market value. In addition, several courts have interpreted the law to mean that if "one purpose" of an arrangement is intended to induce referrals, the statute is violated.

The Anti-Kickback Statute is broad and prohibits many arrangements and practices that are lawful in businesses outside of the healthcare industry. Recognizing that the Anti-Kickback Statute is broad and may technically prohibit many innocuous or beneficial arrangements, the Office of Inspector General of the Department of Health and Human Services, or OIG, has issued regulations, commonly known as "safe harbors." These safe harbors set forth certain requirements that, if fully met, will assure healthcare providers, including medical device manufacturers, that they will not be prosecuted under the Anti-Kickback Statute. Although full compliance with these safe harbor provisions ensures against prosecution under the Anti-Kickback Statute, full compliance is often difficult and the failure of a transaction or arrangement to fit within a specific safe harbor does not necessarily mean that the transaction or arrangement is illegal or that prosecution under the Anti-Kickback Statute will be pursued. However, conduct and business arrangements that do not fully satisfy each applicable safe harbor may result in increased scrutiny by government enforcement authorities such as the OIG. The statutory penalties for violating the Anti-Kickback Statute include imprisonment for up to five years and criminal fines of up to \$25,000 per violation. In addition, through application of other laws, conduct that violates the Anti-Kickback Statute can also give rise to False Claims Act lawsuits, civil monetary penalties and possible

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exclusion from Medicare and Medicaid and other federal healthcare programs. In addition to the Federal Anti-Kickback Statute, many states have their own anti-kickback laws. Often, these laws closely follow the language of the federal law, although they do not always have the same scope, exceptions, safe harbors or sanctions. In some states, these anti-kickback laws apply not only to payment made by a government health care program but also with respect to other payors, including commercial insurance companies.

One form of a financial arrangement that is subject to the Anti-Kickback Statute and other fraud and abuse laws is the so-called gainsharing program. While there is no fixed definition of gainsharing, the term typically refers to an arrangement in which a hospital gives physicians a share of any reduction in the hospital's costs attributable in part to the physician's efforts. Such cost reduction activities may relate to certain surgical procedures and surgeons may be asked to select less expensive devices to use in their surgeries, with the surgeons then sharing in the cost savings to the hospital.

Government officials have focused recent kickback enforcement efforts on, among other things, the sales and marketing activities of healthcare companies, including medical device manufacturers, and recently have brought cases against individuals or entities with personnel who allegedly offered unlawful inducements to potential or existing customers in an attempt to procure their business. This trend is expected to continue. Settlements of these cases by healthcare companies have involved significant fines and/or penalties and in some instances criminal plea agreements. We are also aware of governmental investigations of some of the largest orthopedic device companies reportedly focusing on consulting and service agreements between these companies and orthopedic surgeons. These developments are ongoing and we cannot predict the effects they will have on our business.

### ***Physician Self-Referral Laws***

The federal ban on physician self-referrals, commonly known as the "Stark Law," prohibits, subject to certain exceptions, physician referrals of Medicare and Medicaid patients to an entity providing certain "designated health services" if the physician or an immediate family member of the physician has any financial relationship with the entity. The Stark Law also prohibits the entity receiving the referral from billing for any good or service furnished pursuant to an unlawful referral, and any person collecting any amounts in connection with an unlawful referral is obligated to refund these amounts. A person who engages in a scheme to circumvent the Stark Law's referral prohibition may be fined up to \$100,000 for each such arrangement or scheme. The penalties for violating the Stark Law also include civil monetary penalties of up to \$15,000 per service and possible exclusion from federal healthcare programs. In addition to the Stark Law, many states have their own self-referral laws. Often, these laws closely follow the language of the federal law, although they do not always have the same scope, exceptions, safe harbors or sanctions. In some states these self-referral laws apply not only to payment made by a federal health care program but also with respect to other payors, including commercial insurance companies. In addition, some state laws require physicians to disclose any financial interest they may have with a healthcare provider to their patients when referring patients to that provider even if the referral itself is not prohibited.

### ***Other Fraud and Abuse Laws***

The federal False Claims Act, or FCA, prohibits any person from knowingly presenting, or causing to be presented, a false claim or knowingly making, or causing to be made, a false statement to obtain payment from the federal government. Those found in violation of the FCA can be subject to fines and penalties of three times the damages sustained by the government, plus mandatory civil penalties of between \$5,500 and \$11,000 for each separate false claim. Actions filed under the FCA can be brought by any individual on behalf of the government, a *qui tam* action, and this individual, known as a "relator" or, more commonly, as a "whistleblower," may share in any amounts paid by the entity to the government in damages and penalties or by way of settlement. In addition, certain states have enacted laws modeled after the FCA, and this legislative activity is expected to increase. *Qui tam* actions have increased significantly in recent years, causing greater

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numbers of healthcare companies, including medical device manufacturers, to defend false claim actions, pay damages and penalties or be excluded from Medicare, Medicaid or other federal or state healthcare programs as a result of investigations arising out of such actions.

The OIG also has authority to bring administrative actions against entities for alleged violations of a number of prohibitions, including the Anti-Kickback Statute and the Stark Law. The OIG may seek to impose civil monetary penalties or exclusion from the Medicare, Medicaid and other federal healthcare programs. Civil monetary penalties can range from \$2,000 to \$50,000 for each violation or failure plus, in certain circumstances, three times the amounts claimed in reimbursement or illegal remuneration. Typically, exclusions last for five years.

In addition, we must comply with a variety of other laws, such as laws prohibiting false claims for reimbursement under Medicare and Medicaid and laws prohibiting gainsharing programs, all of which can also be triggered by violations of federal anti-kickback laws; the Health Insurance Portability and Accounting Act of 1996, which makes it a federal crime to commit healthcare fraud and make false statements; and the Federal Trade Commission Act and similar laws regulating advertisement and consumer protections.

### **Third-Party Reimbursement**

Because we expect to receive payment directly from hospitals and surgical centers, we do not anticipate relying directly on payment for any of our products from third-party payors, such as Medicare, Medicaid, private insurers and managed care companies. However, our business will be affected by policies administered by federal and state governmental authorities, such as Medicare and Medicaid, as well as private payors, which often follow the policies of these public programs. For example, our business will be indirectly impacted by the ability of a hospital or medical facility to obtain coverage and third-party reimbursement for procedures performed using our products. These third-party payors may deny reimbursement if they determine that a device used in a procedure was not medically necessary, was not used in accordance with cost-effective treatment methods, as determined by the third-party payor, or was used for an unapproved indication. For example, on May 16, 2006, the Centers for Medicare and Medicaid Services issued a national coverage decision denying Medicare coverage for DePuy's CHARITE™ prosthetic intervertebral disc implant for patients over 60 years old. This national coverage decision is under reconsideration and a decision is expected later this year. A national coverage decision denying Medicare coverage could result in private insurers and other third party payors denying coverage for this and similar products.

For inpatient and outpatient spine fracture reduction procedures, including those that will involve use of our products once approved, Medicare reimburses hospitals at a prospectively determined amount, called diagnosis related groups, or DRGs, for inpatient treatment and ambulatory payment classifications for outpatient treatment. Each of these DRG codes is associated with a level of payment and is adjusted from time to time, usually annually. DRG payments are intended to cover most of the non-physician hospital costs incurred in connection with the applicable diagnosis and related procedures. Implant products, such as those we plan to sell, represent part of the total procedure costs, while labor, hospital room and board and other supplies and services represent the balance of those costs. However, the DRG payment amounts are typically set independently of a particular hospital's actual cost for treating a patient and implanting a device. Thus, the payments that a hospital would receive for a particular procedure would not typically be based on the cost of our products.

Medicare has established a number of DRGs for inpatient procedures that involve the use of products similar to ours. Although Medicare has authority to create special DRGs for hospital services that more properly reflect the actual costs of expensive or new-technology devices implanted as part of a procedure, it has recently declined to do so for DePuy's CHARITE™ prosthetic intervertebral disc implant.

We believe that orthopedic implants generally have been well received by third-party payors because of the ability of these implants to greatly reduce long-term health care costs for patients with degenerative joint disease. However, coverage and reimbursement policies vary from payor to payor and are subject to change. As discussed above, hospitals that purchase medical devices for treatment of their patients generally rely on third-party payors

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to reimburse all or part of the costs and fees associated with the procedures performed with these devices. Both government and private third-party coverage and reimbursement levels are critical to new product acceptance. Neither hospitals nor spine surgeons are likely to use our products if they do not receive reimbursement adequate to cover the cost of these procedures.

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. Governmental payors such as Medicare and Medicaid closely regulate provider payment levels and have sought to contain, and sometimes reduce, payment levels. Commercial payors and managed care plans frequently follow government payment policies, and are likewise interested in controlling increases in the cost of medical care. These third-party payors may deny payment if they determine that a procedure was not medically necessary, a device used in a procedure was not used in accordance with cost-effective treatment methods, as determined by the third-party payor, or was used for an unapproved indication.

In addition, some payors are adopting pay-for-performance programs that differentiate payments to health care 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 find ways to deliver the same or better results while consuming fewer resources. As a result of these programs, and related payor efforts to reduce payment levels, hospitals and other providers are seeking ways to reduce their costs, including the amounts they pay to medical device suppliers. Adverse changes in payment rates by payors to hospitals could adversely impact our ability to market and sell our products and negatively affect our financial performance.

In international markets, healthcare payment systems vary significantly by country and many countries have instituted price ceilings on specific product lines. There can be no assurance that our products will be considered cost-effective by third-party payors, that reimbursement will be available or, if available, that the third-party payors' reimbursement policies will not adversely affect our ability to sell our products profitably.

Member countries of the EU offer various combinations of centrally financed health care systems and private health insurance systems. The relative importance of government and private systems varies from country to country. The choice of devices is subject to constraints imposed by the availability of funds within the purchasing institution. Medical devices are most commonly sold to hospitals or health care facilities at a price set by negotiation between the buyer and the seller. A contract to purchase products may result from an individual initiative or as a result of a competitive bidding process. In either case, the purchaser pays the supplier, and payment terms vary widely throughout the EU. Failure to obtain favorable negotiated prices with hospitals or health care facilities could adversely affect sales of our products.

### **Employees**

As of May 14, 2007, we had 33 full-time employees, including three who hold Ph.D. degrees. Of our 33 employees, five are employed in administration, 26 in manufacturing and research and development, and two in sales and marketing. We believe that our success will depend, in part, on our ability to attract and retain qualified personnel. We have never experienced a work stoppage due to labor difficulties and believe that our relations with our employees are good. None of our employees is represented by a labor union.

### **Legal Matters**

We are currently not a party to any material legal proceedings.

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**Facilities**

Our corporate office and our manufacturing facilities are located in Salt Lake City, Utah. We believe that our existing facilities are adequate for our current needs. The table below provides selected information regarding our facilities, all of which are leased.

<u>Location</u>	<u>Use</u>	<u>Approximate Square Footage</u>	<u>Lease Expiration</u>
Salt Lake City, Utah	Corporate headquarters, research and development and administrative offices	9,505	August 2009
Salt Lake City, Utah	Manufacturing	17,439	April 2011

**Plan of Operations**

We believe that the net proceeds from our initial public offering, our anticipated future revenue and our cash, cash equivalent marketable securities balances and interest we earn on these balances, will be sufficient to meet our anticipated cash requirements through the end of 2009. During the period between the date of this prospectus and June 30, 2008, ignoring the impact of potential revenue resulting from sales of three of our lead spinal implant products before June 30, 2008, we believe that it will not be necessary to raise additional funds to meet the expenditures required to operate our business, including expenditures for:

- building sales, marketing and distribution capabilities for our spinal implant products in anticipation of commercialization of some of our lead spinal products, which we plan to launch beginning in the first half of 2008;
- the scale-up of our manufacturing operations to commercial level;
- the continuation of our research and development activities on our pipeline of products in development;
- expenditures relating to our compliance with applicable laws and regulations associated with being a publicly traded company; and
- expenditures relating to our seeking regulatory clearance and approval of our lead products, including the commencement of clinical testing of some of our lead products.

## MANAGEMENT

### Directors and Executive Officers

Our directors and executive officers and their respective ages and positions as of May 1, 2007 are as follows:

<u>Name</u>	<u>Age</u>	<u>Position</u>
Max Link, Ph.D. <sup>(1)(2)</sup>	66	Chairman of the Board of Directors
Ashok C. Khandkar, Ph.D.	50	Director and Chief Executive Officer
Aaron A. Hofmann, M.D.	57	Director
Lawrence D. Dorr, M.D. <sup>(3)</sup>	66	Director
Gregg R. Honigblum	44	Director
Rohit Patel <sup>(1)(2)(3)</sup>	66	Director
Bradford S. Goodwin <sup>(1)(3)</sup>	52	Director
Warionex (“Jose”) Belen	57	President
Reyn E. Gallacher	43	Vice President of Finance, Chief Financial Officer and Assistant Secretary
Bryan J. McEntire	55	Vice President of Manufacturing and Research
Kenneth W. Ludwig, Jr.	55	Vice President of Marketing
Robert M. Wolfarth	44	Director of Regulatory Affairs and Quality Assurance

(1) Member of our audit committee

(2) Member of our nominating and corporate governance committee

(3) Member of our compensation committee

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

*Max Link, Ph.D.* has served as the Chairman of our board of directors since October 2003. Dr. Link served as Chairman of the Board and Chief Executive Officer of Centerpulse AG, the largest orthopedics company in Europe, from March 2002 until October 2003, when Centerpulse was acquired by Zimmer Holdings, Inc. Prior to joining Centerpulse, Dr. Link served as the Chief Executive Officer at Corange Limited/Boehringer Mannheim and as Chairman and Chief Executive Officer at Sandoz Pharmaceuticals (now part of Novartis). Since 1994, Dr. Link has been actively involved as a director in development stage companies in the healthcare and biopharmaceutical field both in the United States and in Europe, including Human Genome Sciences, Inc., Alexion Pharmaceuticals, Inc., Celsion Corporation and Discovery Laboratories, Inc. Dr. Link received his Ph.D. in economics from the University of St. Gallen, Switzerland in 1970.

*Ashok C. Khandkar, Ph.D.* is our co-founder and has been a member of our board of directors since 1996. Dr. Khandkar has been our Chief Executive Officer since we hired him for that position in February 2000. He also served as our President from September 2003 through December 2006. Dr. Khandkar has more than 20 years of experience in senior managerial positions in ceramics development and manufacturing with responsibility for finance, strategic planning and business development. Dr. Khandkar is an inventor on 24 U.S. and international patents. Prior to becoming our Chief Executive Officer, Dr. Khandkar served as a Vice President with Ceramatec, where he started its oxide fuel cell program. He also served as Chief Technology Officer of SOFCo, a joint venture between McDermott Inc. and Ceramatec, where he managed a multi-disciplinary team of engineers, scientists, and manufacturing professionals. Dr. Khandkar has authored more than 30 papers related to ceramics technology. He has served as the vice-chair of the High Temperature Materials Division of the Electrochemical Society and is an Adjunct Associate Professor in the Materials Science and Engineering Department of the University of Utah in Salt Lake City, Utah. Dr. Khandkar earned his Ph.D. in materials science from Arizona State University in 1985.

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*Aaron A. Hofmann, M.D.* is our co-founder and has been a member of our board of directors since 1996. Dr. Hofmann is a nationally and internationally recognized orthopedic surgeon, known for his accomplishments in developing total hip and knee replacement systems, innovative surgical approaches in hip and knee surgery and basic research on human bone dynamics. Dr. Hofmann holds 14 patents, many of which are directed at inventions involving hip and knee implants. Since 2003, Dr. Hofmann has been a design surgeon for Zimmer Holdings, Inc., the largest orthopedics company in the world. Dr. Hofmann, working with a team of orthopedic surgeons, helped design Zimmer's new gender knee specifically designed for women. Since 1992, Dr. Hofmann has been a Professor of Orthopedic Surgery at the University of Utah School of Medicine and Chief of Orthopedics for the Veteran Affairs Medical Center in Salt Lake City, Utah since 1988. He earned his M.D. at the Southwestern Medical School in Dallas, Texas, was a resident at Parkland Memorial Hospital in Dallas, Texas, and a Joint Reconstruction Fellow at the Montreal General Hospital. Dr. Hofmann is a diplomate of the American Board of Orthopaedic Surgery and an active member of the American Orthopaedic Association, the American Academy of Orthopaedic Surgeons, the Orthopaedic Research Society, the Society for Arthritic Joint Surgery and the Knee Society.

*Lawrence D. Dorr, M.D.* has been a member of our board of directors since November 2006. Dr. Dorr is a nationally and internationally recognized orthopedic surgeon, known for his accomplishments in developing total hip and knee replacement systems, innovative minimally invasive surgical approaches and basic research on human bone dynamics. Dr. Dorr founded The Arthritis Institute in February 2001 and has been its Medical Director since then, performing more than 3,500 hip and knee replacements in the past decade. Prior to that he established the Arthritis Service at the Kerlan-Jobe Orthopaedic Clinic in 1983, and later founded the Center for Arthritis and Joint Implant Surgery at the University Hospital at the University of Southern California in 1992. Dr. Dorr served as the President of the American Association of Hip and Knee Surgeons, or AAHKS, from 1993 to 1994 and is the incoming President of the Hip Society in November 2007. Dr. Dorr received the Lifetime Humanitarian Award from the AAOS for Operation Walk in 2005. Dr. Dorr earned his medical degree and master's degree from the University of Iowa. He completed his residency at the L.A. County-University of Southern California Medical Center, where he later served as a full-time teaching member of the Department of Orthopaedics at the University of Southern California.

*Gregg R. Honigblum* has been a member of our board of directors since December 2006. Mr. Honigblum has more than 20 years of experience as a financier for emerging growth companies primarily in the healthcare area. He has been instrumental in providing early stage financing for companies such as Myriad Genetics, Inc. and Acacia Biosciences, Inc., which merged with Rosetta Inpharmatics, Inc. and is now a wholly owned subsidiary of Merck. Since 2001, Mr. Honigblum has been the Chief Executive Officer and founder of Creation Capital LLC, an investment banking firm specializing in the financing and development of early stage medical device and biotechnology companies. Creation Capital has served as the placement agent for our private financings and has provided, through its client base, more than \$44 million of equity capital. Mr. Honigblum holds a B.A. in economics from the University of Texas at Austin.

*Rohit Patel* has been a member of our board of directors since 2003 and an advisor to Amedica since its inception. Since May 2004, Mr. Patel served as the Chief Executive Officer of Ellis, Inc., a technology company developing and marketing English language learning software until retiring from Ellis in October 2006 after successfully transitioning the company to its new owner, Pearson Publishing. Prior to joining Ellis, from 2002 to 2004, he served as a consultant to NIIT, Ltd. of India and Ellis. From September 1996 to December 2001, Mr. Patel served as President of BNA Communications, Inc. and Executive Director of BNA Inc. and was responsible for three of its publishing divisions. BNA, Inc. is a leading publisher of information and analysis products for professionals in law, tax, business, and government based in Washington, D.C. and is the largest employee-owned company in the United States. From 1987 to 1995, Mr. Patel held various positions, including Chief Executive Officer, with Wicat Systems, Inc., a global developer of flight training and desk-top simulation software. Mr. Patel has an M.B.A. from Michigan State University and a M.S. in engineering from the University of Wisconsin.

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*Bradford S. Goodwin* has been a member of our board of directors since May 2007. Mr. Goodwin is currently a director of PDL BioPharma and Rigel, Inc. He was the Chairman of the Board of CoTherix, Inc., a publicly traded company focused on pulmonary arterial hypertension, until its sale to Actelion Pharmaceuticals in early 2007. From 2001 to 2006, Mr. Goodwin was Chief Executive Officer and Director of Novacea, Inc., a publicly traded biopharmaceutical company focused on in-licensing, developing and commercializing novel therapies for cancer. From April 2000 to July 2001, Mr. Goodwin was President, Chief Operating Officer and founder of Collabra Pharma, a company focused on pharmaceutical product licensing and development. From April 1987 to February 2000, he held various senior executive positions with Genentech, Inc., including Vice President of Finance, and was responsible for treasury, purchasing, risk management, real estate, controllership, tax and long-range planning. For ten years prior to joining Genentech, Mr. Goodwin worked at Price Waterhouse LLP, now PricewaterhouseCoopers LLP, as a certified public accountant, serving ultimately as Senior Audit Manager. Mr. Goodwin also served on expert advisory committees of the American Institute of Certified Public Accountants, the Financial Accounting Standards Board and the International Accounting Standards Board. Mr. Goodwin holds a B.S. in business administration from the University of California, Berkeley.

*Warionex ("Jose") Belen* has served as our President since December 2006. Mr. Belen held the position of Vice President of Products from May 2005 until December 2006. Mr. Belen has 34 years of experience in the orthopedics industry in engineering, marketing and national sales accounts. For 22 years prior to joining Amedica, Mr. Belen held various positions with Centerpulse AG prior to its acquisition by Zimmer Holdings, Inc. Prior to joining Amedica, until April 2005, he served as Director of Surgeon Consulting Services for Centerpulse, where he formalized product development agreements and managed surgeons who were members of Centerpulse AG's product development teams.

*Reyn E. Gallacher* joined Amedica in January 2006 as our Controller, and has served as our Vice President of Finance since January 2007, and as our Chief Financial Officer and Assistant Secretary since March 2007. Mr. Gallacher has more than 20 years of financial and management experience working with both public and private companies, with responsibilities for financings as well as mergers and acquisitions. Prior to joining Amedica, Mr. Gallacher served as an internal auditor with Deseret Management Corporation from 2004 to 2006. Mr. Gallacher served as the Corporate Controller of AMI Semiconductor, a publicly traded semiconductor company, from 2003 to 2004. Mr. Gallacher also was the Corporate Controller of Pharmadign, Inc. from 2001 to 2003 and TrainSeek, Inc. from 2000 to 2001. From 1994 to 1999, Mr. Gallacher served in various financial and business management capacities with TheraTech, Inc., a transdermal drug delivery company, playing a key role with the due diligence and valuation work completed as part of the acquisition of TheraTech by Watson Pharmaceuticals. From 1987 to 1994, Mr. Gallacher served in various roles, most recently as a senior manager with KPMG in both their Salt Lake City, Utah and Montvale, New Jersey offices. While with KPMG, Mr. Gallacher specialized in working with small to mid-size companies in the health care and high technology industries. Mr. Gallacher holds a B.S. in accounting from the University of Utah and an M.B.A. from Weber State University.

*Bryan J. McEntire* has served as our Vice President of Manufacturing since August 2004 and as our Vice President of Research since December 2006. Mr. McEntire has more than 30 years of experience in advanced ceramic product development, quality engineering and manufacturing. Prior to joining Amedica, Mr. McEntire served as a senior director of supply chain management at Applied Materials in Silicon Valley from April 1998 to August 2004, where he managed the supply chain, which included the negotiation of supply contracts, and supervision of vendor production of various parts, including precision ceramic parts, which were integrated into the capital equipment made and sold by Applied Materials. Prior to joining Applied Materials, he was the General Manager of Norton Advanced Ceramics, a division of Saint-Gobain Industrial Ceramics Corporation, from 1993 to 1998, where he managed four ceramic product manufacturing plants in the United States.

*Kenneth W. Ludwig, Jr.* joined Amedica in May 2006 with 25 years of experience in the orthopedics devices industry, and 32 years of overall medical industry experience. In December 2006, Mr. Ludwig was promoted as our Vice President of Marketing. From 2001 to May 2006, he served as Vice President, Orthopedics at Aesculap, Inc. Between 1992 and 2001, Mr. Ludwig served as Vice President, Marketing and Vice President, Sales and Marketing - Spine at Encore Orthopedics, of which he was a co-founder. Mr. Ludwig began his career with

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Howmedica in the early 1980's and subsequently joined Intermedics Orthopedics in 1984. Mr. Ludwig earned a B.S. in biology from St. Lawrence University in 1974.

*Robert M. Wolfarth* has served as our Director of Regulatory Affairs and Quality Assurance since January 2005. From March 2003 to December 2004, Mr. Wolfarth was the Regulatory Affairs Programs Manager at Centerpulse Orthopedics, prior to its acquisition by Zimmer Holdings, Inc., where he was responsible for worldwide regulatory submissions. From March 2000 to March 2003, Mr. Wolfarth was the Regulatory Affairs Manager at Ascension Orthopedics where he was responsible for worldwide regulatory submissions and compliance. He has more than 14 years experience working in the medical devices industry, primarily with respect to large- and small-joint orthopedics, in addition to cardiovascular and medical imaging applications.

### **Surgeon Advisors**

We have engaged surgeon advisors to assist us in designing implants to improve the management of spinal, hip and knee arthritic and trauma disorders. The surgeons are well-known and respected in the spinal and reconstructive orthopedic community. Their works are published in peer reviewed journals, and they frequently serve on the faculty at many society meetings throughout the year. We consult with these surgeons as needed.

The following individuals are our spinal surgeon advisors:

- Jean-Jacques Abitbol, M.D.
- Scott D. Boden, M.D.
- Darrel S. Brodke, M.D.
- Andrew T. Dailey, M.D.
- Gregg S. Gurwitz, M.D.
- Alan S. Hilibrand, M.D.
- Carl Lauryssen, M.D.
- Harvinder S. Sandhu, M.D.
- Jeffrey C. Wang, M.D.
- James A. Youssef, M.D.

The following individuals are our reconstructive surgeon advisors:

- B. Sonny Bal, M.D.
- Michael P. Bolognesi, M.D.
- Steven T. Lyons, M.D.
- Rodney L. Plaster, M.D.

*Jean-Jacques Abitbol, M.D.* is an advisor for our ceramic spinal implants. Dr. Abitbol is in private practice and is the co-founder of California Spine Group in San Diego, California. He is a former President of the North American Spine Society and the Federation of Spine Associations. Dr. Abitbol has received several awards, including the Cervical Spine Research Society Award for Outstanding Spine Research, the AME Traveling Fellowship Award from the University of Toronto, the Young Investigator Award from the Orthopaedic Research Society, and the Outstanding Spine Research Award from the North American Spine Society AcroMed. He has contributed to more than 27 book chapters, published 36 articles in peer-reviewed journals, and presented 24 abstracts and eight exhibits in the area of spine treatment. He also is an editorial reviewer for the journal *Spine*.

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*B. Sonny Bal, M.D.* is an advisor for our ceramic hip and knee implants. Dr. Bal is an Assistant Professor of Orthopaedic Surgery at the University of Missouri, Columbia, specializing in hip and knee replacement surgery. He also is an Adjunct Professor of Material Sciences at the University of Missouri at Rolla. Dr. Bal received his M.D. from Cornell University and an M.B.A. from Northwestern University, and is a member of the American Academy of Orthopaedic Surgeons and the American Association of Hip and Knee Surgeons.

*Scott D. Boden, M.D.* is an advisor for our pedicle screw system. Dr. Boden is an internationally recognized orthopaedic surgeon who has served as the Director of the Emory Orthopaedics and Spine Center in Atlanta, Georgia since January 1, 2004. He is a member of many medical societies and editorial boards and serves on the board of several medical societies. Dr. Boden has received numerous honors and awards in his field. Dr. Boden also holds several patents relating to his specialty. Dr. Boden has performed research focusing on three principal areas. One of those areas is cell/molecular biology of osteoblast differentiation, including the study of the mechanism of action of bone growth factors (BMPs) and regional bone gene therapy. The second area in which Dr. Boden has performed significant research focuses on various animal models of spine fixation in an effort to better understand the biology of the healing process and the efficacy of various bone graft substitutes. The third area that Dr. Boden has studied focuses on clinical outcomes relating to spinal disorders, diagnostic imaging and the utilization of health care resources.

*Michael P. Bolognesi, M.D.* is an advisor for our ceramic hip and knee implants. Dr. Bolognesi is a nationally recognized orthopedic surgeon who specializes in the practice of total joint reconstruction surgery. He also is an Assistant Professor of Surgery at Duke University Medical Center in Durham, North Carolina, where he instructs medical students, residents and fellows in total hip and knee replacement and revision surgery, computer assisted orthopedic surgery, and minimally invasive hip and knee replacement surgery. Dr. Bolognesi received his M.D. from Duke University School of Medicine and served as a resident at Duke University Medical Center. Dr. Bolognesi completed his fellowship training in orthopedic surgery at the University of Utah Medical Center. He has authored many papers on orthopedic surgery and joint reconstruction related topics, presented at national meetings and frequently lectures on the treatment of joint disease. Dr. Bolognesi is an active member of the American Association of Orthopaedic Surgeons, the American Association of Hip and Knee Surgeons and the North Carolina Orthopaedic Association. He has received the Eastern Orthopaedic Association Resident Travel Award, the John Harrelson Chief Resident Teaching Award and the Zimmer Career Development Award.

*Darrel S. Brodke, M.D.* is an advisor for our ceramic spinal implants. Dr. Brodke is a recognized expert in the field of spine surgery. He also is an Associate Professor in the Department of Orthopedics, University of Utah School of Medicine, and is the Chief of the Spine Service and Medical Director of the University Spine Center. Dr. Brodke is a fellow of the American Academy of Orthopedic Surgery and an active member of the American Medical Association, the North American Spine Society and the Cervical Spine Research Society.

*Andrew T. Dailey, M.D.* is an advisor for our ceramic spinal implants. Dr. Dailey is Associate Professor in the Department of Neurological Surgery at the University of Utah. Prior to that he was an Associate Professor in the Department of Neurosurgery at the University of Washington and also practiced at Swedish Medical Center in Seattle, Washington, where he specialized in the surgical treatment of cervical, thoracic and lumbar disorders. He completed his residency and fellowship training at the University of Washington. Dr. Dailey is a member of the American Association of Neurological Surgeons, the North America Spine Society and AO North America. Dr. Dailey has authored papers in peer reviewed publications, including *Neurosurgery*, *Journal of Neurosurgery*, *Journal of Bone and Joint Surgery* and *Clinical Orthopedics*.

*Gregg S. Gurwitz, M.D.* is an advisor for our ceramic spinal implants. Dr. Gurwitz is an active orthopedic surgeon in San Antonio, Texas, who specializes in treating spinal disease. He completed medical school at Southwestern University in Dallas, Texas, and served as an orthopaedic surgery resident at Vanderbilt University in Nashville, Tennessee. Dr. Gurwitz is an Associate Clinical Professor of Orthopaedic Surgery at the University of Texas Health Science Center at San Antonio. He is a diplomate of the American Board of Orthopaedic Surgery and a fellow of the American Academy of Orthopaedic Surgeons as well as a member of the North American Spine Society. During his 13 years in clinical practice and 10 years of training, Dr. Gurwitz has

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authored many papers on orthopedic surgery and spinal related topics, presented at national meetings and frequently lectures on the treatment of spinal disease.

*Alan S. Hilibrand, M.D.* is an advisor for our ceramic spinal implants. Dr. Hilibrand is an Associate Professor of Orthopaedic Surgery and Neurosurgery and is the Director of Orthopedic Medical Education at Jefferson Medical College and The Rothman Institute, both in Philadelphia, Pennsylvania. He is a fellow of the American Academy of Orthopedic Surgeons and a member of the American Orthopaedic Association. Dr. Hilibrand also is the Chairman of the Research Committee of the Cervical Spine Research Society and an active member of the North American Spine Society and the International Society for Study of the Lumbar Spine. Dr. Hilibrand has authored more than 70 peer-reviewed publications and has spoken nationally and internationally on spinal disorders.

*Carl Laurysen, M.D.* is an advisor for our ceramic spinal implants. Dr. Laurysen is a nationally recognized neurosurgeon who specializes in spine treatment and surgery at the Olympia Medical Center in Beverly Hills, California. Prior to that he was an Associate Professor in the Department of Neurological Surgery at Washington University School of Medicine, St. Louis, Missouri and directed the advanced neurosurgical spine program at Barnes-Jewish Hospital in St. Louis, Missouri. Dr. Laurysen completed his medical school training at the University of Cape Town, South Africa, and served as a resident at University of Calgary, Alberta, Canada and the University of Alabama in Birmingham, Alabama. He has conducted significant research focusing on traumatic spinal cord injury, cervical spondylotic myelopathy, and minimally invasive procedures. Dr. Laurysen has received the Young Investigator Award from the Neurologic Surgeon's Society.

*Steven T. Lyons, M.D.* is an advisor for our ceramic hip and knee implants. Dr. Lyons is a board certified orthopaedist in private practice with the Florida Orthopaedic Institute in Tampa, Florida, specializing in total hip and knee replacement surgery. He received his M.D. from Rush University School of Medicine in Chicago, Illinois, and served as a general surgery internship and orthopaedic surgery resident at Wayne State University Medical Center in Detroit, Michigan. He also was a total joint fellow under Dr. Hofmann at the University of Utah. Dr. Lyons is a diplomate of the National Board of Medical Examiners and is an active member of the American Academy of Orthopaedic Surgeons and the Florida Orthopaedic Society. He also has authored numerous papers on total joint replacement surgery and related topics, has presented at national meetings and frequently lectures on the treatment of joint disease. Dr. Lyons advises and consults with several medical device manufacturers.

*Rodney L. Plaster, M.D.* is an advisor for our ceramic hip and knee implants. Dr. Plaster is the Director of the Eastern Oklahoma Orthopedic Total Joint Center in Tulsa, Oklahoma and an Assistant Adjunct Professor at the University of Utah Medical Center. He completed his fellowship training at the University of Utah Medical Center. Dr. Plaster has authored many papers on orthopedic surgery and related topics, presented at national meetings and frequently lectures on the treatment of lower joint diseases. Dr. Plaster is a member of the American Academy of Orthopedic Surgeons.

*Harvinder S. Sandhu, M.D.* is an advisor for our pedical screw system and our bone-plate system. Dr. Sandhu is an Attending Spine Surgeon at the Hospital for Special Surgery and Cornell Medical Center in New York City where he specializes in the surgical treatment of cervical, thoracic and lumbar disorders. He also is the Director of the Spine and Scoliosis Fellowship at the Hospital for Special Surgery. Dr. Sandhu is an active scientist in the Clinical Research division of the institution and teaches medical students, residents and fellows on state-of-the-art techniques in spinal surgery. Prior to joining the Hospital for Special Surgery, Dr. Sandhu was the Chief of the Spine Surgery section of the Department of Orthopaedic Surgery at the University of California, Los Angeles, or UCLA, Medical Center. Dr. Sandhu completed his residency at the State University of New York and fellowship training in spinal surgery at UCLA. He also received an M.B.A. from the Columbia University School of Business. Dr. Sandhu has performed extensive research in the area of bone biology and spinal fixation with an emphasis on methods of stimulating successful fixation. His work led to the commercialization of InFuse Bone Graft Substitute, a highly successful orthobiologic product. Dr. Sandhu has received research awards from the North American Spine Society, the Orthopaedic Research Society and the International Society for the Study

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of the Lumbar Spine. He has published more than 70 peer-reviewed scientific articles and lectures frequently at national and international symposia. Dr. Sandhu advises and consults with several medical device manufacturers.

*Jeffrey C. Wang, M.D.* is an advisor for our ceramic spinal implants. Dr. Wang is a nationally recognized expert in the field of spine surgery. He is the Chief of Spine Service of the Department of Orthopedic Surgery at the UCLA School of Medicine; the Director of the Orthopedic Spine Fellowship with the Center for Health Sciences at UCLA; a co-Director of the UCLA Spine Center; and Chief of the Spine Service at the West Los Angeles Veterans Administration, California. He is also an Associate Professor of Orthopaedics and Neurosurgery at the UCLA School of Medicine, and serves on the board of directors of the North American Spine Society and on the Editorial Committee of *SpineLine* magazine.

*James A. Youssef, M.D.* is an advisor for our ceramic spinal implants. Dr. Youssef is a recognized expert in the field of spine surgery. He received his M.D. at University of California, Irvine School of Medicine in 1991. Dr. Youssef completed his internship in general surgery at Oregon Health Sciences University in 1992 and his residency in orthopedic surgery at Dartmouth-Hitchcock Medical Center in 1996. He completed his Spine fellowship at the University of California, Davis Medical Center in 1997. Dr. Youssef is the co-founder of SpineColorado and a senior partner in Durango Orthopedic Assoc., P.C. He also is a fellow of the American Academy of Orthopedic Surgery and an active member of the American Medical Association, the North American Spine Society and the Orthopedic Trauma Association.

### **Board Composition**

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

- The Class I directors will be \_\_\_\_\_, and their terms will expire at the annual meeting of stockholders to be held in 2008;
- The Class II directors will be \_\_\_\_\_, and their terms will expire at the annual meeting of stockholders to be held in 2009; and
- The Class III directors will be \_\_\_\_\_, and their terms will expire at the annual meeting of stockholders to be held in 2010.

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

### ***Director Independence***

Our board of directors has reviewed the materiality of any relationship between us and each of our directors, either directly or indirectly. Based on this review, the board has determined that Max Link, Ph.D., Lawrence D. Dorr, M.D., Rohit Patel and Bradford S. Goodwin are “independent directors” as defined by the SEC and NASDAQ. The rules of The NASDAQ Global Market require that a majority of the board of directors of a listed company consist of independent directors, as defined by the rules of The NASDAQ Global Market. We currently have a board of directors consisting of a majority of independent directors.

### **Committees of the Board of Directors**

Our board of directors has an audit committee, a compensation committee and a nominating and corporate governance committee, each of which has the composition and responsibilities described below. The rules of The

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NASDAQ Global Market require that the audit committee consist of at least three members of our board of directors, each of whom must be independent, as established under the rules of The NASDAQ Global Market and the SEC.

### *Audit Committee*

Our audit committee is composed of Bradford S. Goodwin (Chairman), Max Link, Ph.D. and Rohit Patel, each of whom is independent within the meaning of the rules of the SEC and the listing standards of The NASDAQ Global Market. Our board of directors has appointed Bradford S. Goodwin as our audit committee financial expert. All of our independent auditors and management periodically meet privately with our audit committee. Our audit committee is authorized to:

- approve and retain the independent auditors to conduct the annual audit of our books and records;
- review the proposed scope and results of the audit;
- review and pre-approve the independent auditor's audit and non-audit services rendered;
- approve the audit fees to be paid;
- review accounting and financial controls with the independent auditors and our financial and accounting staff;
- review and approve transactions between us and our directors, officers and affiliates;
- recognize and prevent prohibited non-audit services;
- establish procedures for complaints received by us regarding accounting matters;
- oversee internal audit functions; and
- prepare the report of the audit committee that SEC rules require to be included in our annual meeting proxy statement.

### *Compensation Committee*

Our compensation committee is composed of Rohit Patel (Chairman), and Lawrence D. Dorr, M.D., and Bradford S. Goodwin, each of whom is independent within the meaning of the rules of the SEC and The NASDAQ Global Market. Gregg R. Honigblum served as a member of our compensation committee from December 2006 until March 2007. Our compensation committee is authorized to:

- review and recommend the compensation arrangements for management, including the compensation for our president and chief executive officer;
- establish and review general compensation policies with the objective to attract and retain superior talent, to reward individual performance and to achieve our financial goals;
- administer our stock incentive plan; and
- prepare the report of the compensation committee that SEC rules require to be included in our annual meeting proxy statement.

### *Nominating and Governance Committee*

Our nominating and governance committee is composed of Rohit Patel (Chairman) and Max Link, Ph.D., each of whom is independent within the meaning of the rules of the SEC and The NASDAQ Global Market. Our nominating and governance committee is authorized to:

- identify and nominate members of the board of directors;

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- develop and recommend to the board of directors a set of corporate governance principles applicable to our company; and
- oversee the evaluation of the board of directors and management.

### **Compensation Committee Interlocks and Insider Participation**

Our compensation committee is composed of Rohit Patel, Lawrence D. Dorr, M.D., Bradford S. Goodwin and Gregg R. Honigblum served as a member of our compensation committee from December 2006 until March 2007. No member of our compensation committee has at any time been an employee of ours. None of our executive officers serves as a member of the board of directors or compensation committee of any entity that has one or more executive officers serving as a member of our board of directors or compensation committee.

Each of Mr. Patel, Dr. Dorr and Mr. Honigblum have participated in transactions with us since January 2004. For a detailed description of these transactions, see “Certain Relationships and Related Person Transactions” on page 97.

## COMPENSATION DISCUSSION AND ANALYSIS

### Overview

The following Compensation Discussion and Analysis describes material aspects of our executive compensation policies and decisions as they relate to the compensation of our named executive officers. In this section of this prospectus we discuss and analyze the objectives of our compensation program and what our compensation program is designed to reward. We also discuss and analyze the material elements of our compensation program, why we choose to pay each element, how we determine the amount of each element, and how each element of compensation fits into our overall compensation objectives. In addition, we describe actions regarding compensation taken before and after 2006 to the extent these comparisons enhance the understanding of our executive compensation program.

As our business has developed, and with the guidance and input of the compensation committee, we have developed and implemented compensation policies, plans and programs over the past few years that we believe help us achieve the goals and objectives of our compensation program. Our board of directors appoints the members of our compensation committee and delegates to that committee oversight of the administration of our executive compensation. The compensation committee assesses executive compensation by applying the following principles: the level of executive compensation should depend upon both corporate performance and individual performance; the interests of our executives should be closely aligned with those of our stockholders through equity-based compensation; and compensation should be commensurate with our stage of development. The compensation committee generally makes recommendations to our board of directors based upon management's requests and recommendations provided to it by our Chief Executive Officer. Our board of directors considers and must ultimately approve the recommendations of the compensation committee regarding the compensation of our executive officers.

#### *Executive Compensation Program Objectives and Philosophy*

The primary objectives of our executive compensation program are to:

- attract, motivate and retain talented and dedicated executive officers to a development-stage company;
- provide our executive officers with both cash and equity incentives to promote strong performance;
- provide our executive officers with long-term incentives, in the form of stock options, in order to align the interests of our executive officers with those of our stockholders; and
- provide continuity during our development stage.

Either in the fourth quarter of the prior fiscal year or in the first quarter of the then current fiscal year, the compensation committee, in conjunction with management, sets recommendations for base salaries to be paid and stock option awards to be granted to all employees, including our executive officers. In making annual recommendations for base salaries and stock option awards, the compensation committee reviews our overall corporate position and product development progress at the end of the fiscal year and the individual performance of each executive officer. The Chief Executive Officer and executive officers who report directly to the Chief Executive Officer establish the individual goals for those executive officers. Generally, annual base salary increases and annual stock option awards granted to executives are tied to our overall financial position, product development progress and the achievement of each individual's performance goals. Beginning with fiscal year 2006, the compensation committee established, and our board of directors approved, goals for our Chief Executive Officer where our Chief Executive Officer was eligible to receive a cash bonus of up to a maximum of 25% of his 2006 base salary subject to the achievement of specified performance goals, including the launch of specified product candidates and the completion of an initial public offering. Beginning with fiscal year 2007, the compensation committee established, and our board of directors approved, the grant of stock options to our President, Vice President of Finance and Chief Financial Officer, Vice President of Manufacturing, and Vice President of Marketing that include an accelerated vesting feature tied to the achievement of certain individual and corporate performance goals. The corporate goals relate to development milestones for our lead product

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candidates, and the individual goals are related to one or more corporate functions for which each such executive is responsible. If an executive's individual goals are achieved, then a specified portion of the executive's option immediately vests, and if all of the executive's individual goals are achieved and all of the corporate goals are achieved, then the executive's option will immediately become fully vested. If the corporate goals and the executive's individual goals are not met, then these stock options vest over a four-year period following the date they were granted.

With the exception of our Chief Executive Officer, the written evaluation of our executive officers is performed in January of each year. Our Chief Executive Officer's performance evaluation, which generally is conducted by the compensation committee in December of each year, influences his base salary adjustments and stock awards, if any. Our Chief Executive Officer prepares written evaluations of the other executive officers. Both the Chief Executive Officer and other executive officer then meet to discuss the executive officer's evaluation and the performance of that executive officer relative to established goals. Supervisors are responsible for completing a written evaluation of the performance of all employees who report directly to them. Individual goals for the following year are proposed and agreed to jointly by the individual employee and his or her direct supervisor. The following year, the supervisor and employee meet to discuss the evaluation and his or her performance relative to these established goals. This process culminates in a recommendation by the Chief Executive Officer and Chief Financial Officer to the compensation committee for annual executive officer and employee base salary increases and annual stock option awards, if any. The compensation committee determines the award of any base salary increases and stock option grants to our executive officers. Base salary increases for individual employees, including our executive officers, are allocated based on individual merit and other considerations from a "pool" equal to a specified percentage of aggregate current base salaries. These recommendations are then reviewed by the compensation committee and recommended to the board of directors for approval.

### *The Elements of Our Compensation Program*

The principal elements of our executive compensation program are base salary, long-term equity incentives in the form of stock options to purchase our common stock, post-termination severance, and acceleration of stock option vesting upon certain termination and/or change in control events. We do not currently have an annual cash bonus program.

### **Base Salary**

Base salary is used to compensate our executive officers based on the breadth of their experience, skills, knowledge and responsibilities, taking into account our overall financial position and product development progress. Salaries for our executive officers are reviewed by our Chief Executive Officer and the compensation committee on an annual basis, as well as at the time of promotion or times of other significant changes in responsibilities. The recommended base salaries for our executive officers for 2006 were determined by the compensation committee after reviewing a number of factors, including:

- the responsibilities associated with the position held by each of our executive officers and where that position fits within our overall corporate structure;
- the seniority of the individual executive's position;
- the base salary level of each executive officer in prior years;
- our overall financial position and product development progress; and
- for executive officers other than the Chief Executive Officer, recommendations made by the Chief Executive Officer.

The compensation committee does not assign relative weights or rankings to these factors, but instead makes a subjective determination taking into account all of these factors.

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In December 2005, the compensation committee recommended and our board of directors approved, a 7% merit increase in the base salary of our Chief Executive Officer effective as of December 1, 2005. In December 2006, the compensation committee recommended, and our board approved, a 5% merit increase in the base salary of our Chief Executive Officer effective as of January 2007. The compensation committee based this increase on his ongoing contributions to our growth and development, and the compensation committee's confidence in his ability to further our corporate goals.

In May 2007, in order to more closely align the salaries of our executive officers relative to their individual positions and in connection with the promotion of Mr. Gallacher to be our Vice President of Finance and Chief Financial Officer, the compensation committee recommended, and our board of directors approved, an increase in the base salaries of each of our Chief Executive Officer, Dr. Khandkar, and Mr. Gallacher by approximately 15%. The base salary increases are retroactive to March 2007. See “—Executive Compensation—Employment Arrangements with Ashok C. Khandkar, Ph.D.—Offer Letters” below.

### **Long-Term Incentives**

We provide the opportunity for our executive officers to earn long-term equity incentive awards. Long-term equity incentive awards provide our executives with the incentive to continue their employment with us for longer periods of time, which in turn, provides us with greater continuity during our growth stage. In 2006, our long-term equity incentive program consisted solely of grants of stock options. Also, these grants of stock are less costly to us in the short-term than cash compensation.

#### ***Initial Stock Options***

Executive officers who join us are awarded initial stock option grants. These grants have an exercise price equal to the fair market value of our common stock on the grant date and a four-year vesting schedule with 25% of the shares vesting on the first anniversary of the date of grant, and 1/36<sup>th</sup> of the remaining unvested shares vesting monthly thereafter. The amount of the initial stock option award is determined based on the executive's position and our overall financial position and product development progress. The initial stock option grants are intended to provide the executive, promptly upon joining us, with an incentive to build value in our company over an extended period of time. The amount of the initial stock option award is also determined in light of the executive's base salary and other compensation to ensure that the executive's total compensation is in line with our overall compensation philosophy.

#### ***Annual Stock Options***

It is the intention of the compensation committee to award long-term equity incentives to executives on an annual basis as part of our overall performance review process, although more frequent awards may be made at the recommendation of the compensation committee and upon approval by the board of directors, such as in the case of promotions or newly hired executives. The size of individual executive stock option grants is influenced by several factors, including our overall financial position and product development progress, the responsibilities of the individual executive officer, the executive officer's past performance, anticipated future contributions, prior option grants, and the executive officer's total cash compensation. Our equity incentive awards granted to executive officers in 2006 were recommended by our compensation committee and approved by our board of directors based on these factors and were intended to provide management with a strong incentive to maximize corporate performance and the creation of stockholder value over the long term. We granted stock options to all of our executive officers at exercise prices equal to the fair market value of our common stock on the date of grant. All of these option grants are subject to a four-year vesting schedule with 25% of the shares vesting on the first anniversary of the date of grant, and 1/36<sup>th</sup> of the remaining unvested shares vesting monthly thereafter. We believe that these time-based vesting provisions reward the longevity and commitment of our executive officers. We have used stock options as our form of equity compensation because, among other things, stock options result in less immediate dilution of existing stockholders' interest and, prior to our adoption of SFAS 123(R), resulted in less compensation expense for us relative to other types of equity awards.

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In December 2006, the compensation committee, as part of its annual review process and based upon our overall financial position and product development progress, recommended, as it did in 2005, that our board of directors grant stock options to our executive officers in order to reward the contributions they made towards the achievement of our corporate goals and to more closely align our executives' ownership interests with the long-term interests of our stockholders.

In May 2007, the compensation committee recommended, and our board of directors approved, the grant of stock options to our President, Vice President of Finance and Chief Financial Officer, Vice President of Manufacturing and Vice President of Marketing that include an accelerated vesting feature tied to the achievement of certain individual and corporate performance goals. See “—Executive Compensation—Offer Letters” below.

### **Other Compensation**

We maintain broad-based benefits that are provided to all employees, including health insurance, of which we pay 50% of the premiums, life insurance, long-term disability insurance, and a 401(k) plan. Effective upon the completion of our first full payroll period following July 1, 2007, we plan to begin matching the contributions of our employees who participate in our 401(k) plan as follows: a match of 100% on the first 3% of compensation contributed by a plan participant and a match of 50% on amounts above 3%, up to a limit of 5%, of compensation contributed by a plan participant.

### **Severance and Change in Control Benefits**

We provide employment protections for our named executive officers and our Vice President of Marketing by including severance benefits and change in control provisions in their severance agreements. We provide these protections in order to attract and retain highly skilled and experienced executive officers, as well as to align the interests of our executives with those of our stockholders.

If, within one year following a change in control, our Chief Executive Officer is terminated by us other than for cause, or resigns for good reason, he is entitled to receive a lump sum severance payment of an amount equal to three times his highest annual base salary and bonus during the preceding three-year period, including the year of such termination. Under the same circumstances, our other named executives are entitled to receive a lump sum severance payment of an amount equal to two times their highest annual base salary and bonus during the preceding three-year period, including the year of termination. If it is determined that the amounts payable to each executive officer under his severance agreement, when considered together with any other payments payable to him in connection with a change in control of Amedica, cause these payments to be treated as excess parachute payments under Section 280G of the U.S. Internal Revenue Code of 1986, as amended, or the Internal Revenue Code, then we will be required to make an additional “gross up” payment in order to pay for any additional tax imposed on him pursuant to Section 4999 of the Internal Revenue Code. We believe that the increased difficulty of finding comparable employment opportunities at the level of chief executive officer requires us to provide longer terms for severance payments in order to attract and retain highly skilled and experienced individuals for this position. In addition, within one year following a change in control, certain provisions of our executive officers' severance agreements allow for acceleration of equity awards in the event the executive is terminated without cause or the executive terminates their employment for good reason. We believe that this equity vesting acceleration mechanism provides an incentive for our executive officers to achieve corporate and individual goals and rewards them for their part in increasing our value, while contemporaneously incentivizing them to maintain their employment after a friendly change in control.

Our severance and change in control provisions for our executive officers and the definitions of cause, good reason, and change in control are summarized in “—Potential Payments Upon Termination or Change in Control” below.

### **Conclusion**

Our compensation policies are designed and are continually being developed to retain and motivate our executives and to reward them for outstanding individual and corporate performance.

**EXECUTIVE COMPENSATION****Summary Compensation Table**

The following table shows the total compensation paid or accrued during the fiscal year ended December 31, 2006 to (1) our Chief Executive Officer, (2) our President, (3) our current Vice President, Finance and Chief Financial Officer, (4) our former Vice President, Finance and Chief Financial Officer, and (5) our only other executive officer who earned more than \$100,000 during the fiscal year ended December 31, 2006. The table also includes an additional executive officer who earned more than \$100,000 during the 2006 fiscal year but who was not serving as an executive officer of Amedica at December 31, 2006.

<u>Name and Principal Position at May 1, 2007</u>	<u>Year</u>	<u>Salary</u>	<u>Option Awards<sup>(1)</sup></u>	<u>All Other Compensation</u>	<u>Total</u>
Ashok C. Khandkar, Ph.D. Chief Executive Officer	2006	\$190,372	\$10,874	\$ —	\$201,246
Warionex (“Jose”) Belen President	2006	155,262	4,708	—	159,970
Bryan J. McEntire Vice President, Manufacturing and Research	2006	155,758	9,225	—	164,983
Reyn E. Gallacher Vice President, Finance, Chief Financial Officer and Assistant Secretary <sup>(2)</sup>	2006	105,923	7,558	—	113,481
Eugene B. Jones Former Vice President, Finance and Chief Financial Officer <sup>(3)</sup>	2006	155,446	9,388	95,489 <sup>(4)</sup>	260,323
Cameron G. Rouns, Former Vice President, Sales and Marketing <sup>(5)</sup>	2006	135,661	3,586	—	139,247

- (1) The dollar amounts in this column represent the compensation cost for the year ended December 31, 2006 of stock option awards granted in and prior to 2006. These amounts have been calculated in accordance with FASB Statement No. 123 (revised), “Share-Based Payment,” or SFAS No. 123R, using the Black-Scholes Valuation model. See Notes 1 and 7 to our financial statements included elsewhere in this prospectus for details as to assumptions used to determine the fair value of the option awards. See also our discussion of stock-based compensation under “Management’s Discussion and Analysis of Financial Condition and Results of Operations—Critical Accounting Policies and Significant Judgments and Estimates—Stock-Based Compensation.”
- (2) Mr. Gallacher served as our Controller during the fiscal year ended December 31, 2006 and became our Vice President, Finance on January 6, 2007, and our Chief Financial Officer and Assistant Secretary in March 2007.
- (3) Mr. Jones resigned effective January 5, 2007.
- (4) Represents a lump sum severance payment in connection with Mr. Jones’ separation of employment.
- (5) Mr. Rouns resigned effective December 1, 2006.

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### Grants Of Plan-Based Awards

The following table shows information regarding grants of plan-based awards that we made during the fiscal year ended December 31, 2006 to each of the executive officers named in the Summary Compensation Table.

Name	Grant Date	All Other Option Awards: Number of Securities Underlying Options	Exercise or Base Price of Option Awards (per share)	Grant Date Fair Value of Stock and Option Awards <sup>(1)</sup>
Ashok C. Khandkar, Ph.D. Chief Executive Officer	2/12/2006 <sup>(2)</sup> 2/12/2006 <sup>(2)</sup>	40,000 40,000	\$ 1.00 1.00	\$ 0.82 0.76
Warionex (“Jose”) Belen President	2/12/2006 <sup>(2)</sup> 12/11/2006 <sup>(3)</sup>	6,000 30,000	1.00 1.00	0.82 0.76
Bryan J. McEntire Vice President, Manufacturing and Research	2/12/2006 <sup>(2)</sup> 12/11/2006 <sup>(3)</sup>	30,000 30,000	1.00 1.00	0.82 0.76
Reyn E. Gallacher Vice President, Finance, Chief Financial Officer and Assistant Secretary	2/12/2006 <sup>(4)</sup> 12/11/2006 <sup>(3)</sup>	40,000 30,000	1.00 1.00	0.82 0.76
Eugene B. Jones Former Vice President, Finance and Chief Financial Officer	2/12/2006 <sup>(2)</sup>	30,000	1.00	0.82
Cameron G. Rouns Former Vice President, Sales and Marketing	2/12/2006 <sup>(2)</sup>	6,000	1.00	0.82

- (1) See Notes 1 and 7 to our financial statements included elsewhere in this prospectus for details as to assumptions used to determine the fair value of the option awards. See also our discussion of stock-based compensation under “Management’s Discussion and Analysis of Financial Condition and Results of Operations—Critical Accounting Policies and Significant Judgments and Estimates—Stock-Based Compensation.”
- (2) Represents an annual stock option granted for performance during the fiscal year ended December 31, 2005.
- (3) Represents an annual stock option granted for performance during the fiscal year ended December 31, 2006.
- (4) Represents a stock option granted to Mr. Gallacher when he joined us on January 6, 2006.

### Employment Arrangements with Ashok C. Khandkar, Ph.D.

We do not have a written employment agreement with Ashok C. Khandkar, Ph.D., our Chief Executive Officer, and he is employed by us on an at-will basis. As of December 31, 2006, Dr. Khandkar’s base salary was \$190,000. In addition, Dr. Khandkar is eligible to receive annual stock option grants based upon our overall financial position and product development progress, and the attainment of specified performance goals recommended by the compensation committee and approved by our board of directors. Based upon our overall financial position and product development process for the fiscal year ended December 31, 2005, Dr. Khandkar received an option to purchase 40,000 shares of our common stock at an exercise price of \$1.00 per share on February 12, 2006. For the fiscal year ending December 31, 2006, Dr. Khandkar was eligible to receive a cash bonus of up to 25% of his base salary based upon the achievement of certain performance goals established by our board of directors. Because we did not launch any of our product candidates in 2006 and we did not complete an initial public offering, Dr. Khandkar was not paid a cash bonus for 2006. Based upon our overall financial position and product development progress for the fiscal year ended December 31, 2006, Dr. Khandkar received a 5% merit base salary increase, which increased his salary to \$200,000 effective January 1, 2007, and he received an option to purchase 40,000 shares of our common stock at an exercise price of \$1.00 per share. The option is subject to a four-year vesting schedule with 25% of the shares vesting on the first anniversary of the

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date of grant, and 1/36<sup>th</sup> of the remaining unvested shares vesting monthly thereafter. In May 2007, in order to more closely align the salaries of our executive officers relative to their individual positions within our organization, the compensation committee recommended, and our board of directors approved, an increase in Dr. Khandkar's base salary to \$230,000 per year retroactive to March 2007.

Dr. Khandkar has entered into a confidentiality and assignment of inventions agreement pursuant to which he has agreed to maintain the confidentiality of our business information and assign his past and present inventions to us. In addition, Dr. Khandkar is entitled to certain benefits in connection with a termination of his employment upon a change in control discussed below under “—Potential Payments Upon Termination or Change in Control.”

### **Offer Letters**

We do not have written employment agreements with any of our other named executive officers and each of our executive officers is employed by us on an at-will basis. However, certain elements of the executive officers' compensation and other employment arrangements are set forth in letter agreements that we executed with the executive officers at the time their employment with us commenced. These letter agreements provide, among other things, the executive officer's initial annual base salary and initial stock option grant. As a condition to their employment, each executive officer has entered into a confidentiality and assignment of inventions agreement pursuant to which each officer has agreed to maintain the confidentiality of our business information and assign inventions to us. The letter agreements are further described below. Since the date of each of the letter agreements entered into with our executive officers, the compensation paid to each has been increased and additional stock options have been granted.

*Warionex (“Jose”) Belen, President.* Pursuant to a letter agreement dated May 31, 2005 between us and Mr. Belen, we agreed to employ Mr. Belen as our Vice President of Products beginning on May 31, 2005. In December 2006, Mr. Belen began serving as our President and, in connection with his promotion, his base salary was increased to \$195,000 effective January 1, 2007. Based upon our overall financial position, our product development progress and to the extent he met his individual performance goals for the fiscal year ended December 31, 2005, Mr. Belen received an option to purchase 6,000 shares of our common stock at an exercise price of \$1.00 per share on February 12, 2006. Based upon our financial position and product development progress for the fiscal year ended December 31, 2006, Mr. Belen also received an option to purchase 30,000 shares of our common stock at an exercise price of \$1.00 per share. The option is subject to a four-year vesting schedule with 25% of the shares vesting on the first anniversary of the date of grant, and 1/36<sup>th</sup> of the remaining unvested shares vesting monthly thereafter. In May 2007, the compensation committee recommended, and our board of directors approved, the grant of 100,000 stock options to Mr. Belen that include an accelerated vesting feature tied to the achievement of certain individual and corporate performance goals for 2007 and 2008. Mr. Belen is entitled to certain benefits in connection with a termination of his employment upon a change in control discussed below under “—Potential Payments Upon Termination or Change in Control.”

*Bryan J. McEntire, Vice President, Manufacturing and Research.* Pursuant to a letter agreement dated May 29, 2004 between us and Mr. McEntire, we agreed to employ Mr. McEntire as our Vice President of Manufacturing beginning August 1, 2004. He became our Vice President of Research in December 2006. In order to more closely align the salaries of our executive officers relative to their individual position and in recognition of Mr. McEntire's ongoing contributions to our growth and development, his base salary was increased to \$190,000 effective January 1, 2007. Based upon our overall financial position, our product development progress and to the extent he met his individual performance goals for the fiscal year ended December 31, 2005, Mr. McEntire received an option to purchase 30,000 shares of our common stock at an exercise price of \$1.00 per share on February 12, 2006. Based upon our financial position and product development progress for the fiscal year ended December 31, 2006, Mr. McEntire also received an option to purchase 30,000 shares of our common stock at an exercise price of \$1.00 per share. The option is subject to a four-year vesting schedule with 25% of the shares vesting on the first anniversary of the date of grant, and 1/36<sup>th</sup> of the remaining unvested shares vesting monthly thereafter. In May 2007, the compensation committee

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recommended, and our board of directors approved, the grant of 100,000 stock options to Mr. McEntire that include an accelerated vesting feature tied to the achievement of certain individual and corporate performance goals for 2007 and 2008. Mr. McEntire is entitled to certain benefits in connection with a termination of his employment upon a change in control discussed below under “—Potential Payments Upon Termination or Change in Control.”

*Reyn E. Gallacher, Vice President, Finance, Chief Financial Officer and Assistant Secretary.* Pursuant to a letter agreement dated January 3, 2006 between us and Mr. Gallacher, we agreed to employ Mr. Gallacher as our Controller beginning on January 6, 2006. Mr. Gallacher received an initial stock option grant of 40,000 shares upon joining Amedica. As of December 31, 2006, his base salary was \$108,000. In January 2007, Mr. Gallacher began serving as our Vice President of Finance and his salary was increased to \$130,000 effective January 1, 2007. Based upon our financial position, our product development progress and to the extent he met his individual performance goals for the fiscal year ended December 31, 2006, Mr. Gallacher received an option to purchase 30,000 shares of our common stock at an exercise price of \$1.00 per share. The option is subject to a four-year vesting schedule with 25% of the shares vesting on the first anniversary of the date of grant, and 1/36<sup>th</sup> of the remaining unvested shares vesting monthly thereafter. Since March 2007, Mr. Gallacher has served as our Chief Financial Officer. In May 2007, in connection with his promotion, the compensation committee recommended, and our board of directors approved, an increase in Mr. Gallacher’s base salary to \$150,000 per year retroactive to March 2007. Also in May 2007, the compensation committee recommended, and our board of directors approved, the grant of 40,000 stock options to Mr. Gallacher that include an accelerated vesting feature tied to the achievement of certain individual and corporate performance goals for 2007 and 2008. Mr. Gallacher is entitled to certain benefits in connection with a termination of his employment upon a change in control discussed below under “—Potential Payments Upon Termination or Change in Control.”

*Eugene B. Jones, Former Vice President, Finance and Chief Financial Officer.* Pursuant to a letter agreement dated April 2, 2004 between us and Mr. Jones, we agreed to employ Mr. Jones as our Vice President of Finance beginning April 19, 2004. Mr. Jones base salary for the fiscal year ended December 31, 2006 was \$155,000. Mr. Jones resigned effective January 5, 2007 and received certain compensation in connection with his termination discussed under “—Potential Payments Upon Termination or Change in Control.”

*Cameron G. Rouns, Former Vice President, Sales and Marketing.* Pursuant to a letter agreement dated December 17, 2004 between us and Mr. Rouns, we agreed to employ Mr. Rouns as our Vice President of Sales and Marketing beginning January 4, 2005. Mr. Rouns base salary for the fiscal year ended December 31, 2006 was \$136,000. Mr. Rouns resigned from this position effective December 1, 2006.

### ***Our 2003 Stock Option Plan***

All options granted to our employees, including our executive officers, under the 2003 Stock Option Plan are exercisable in accordance with the terms of an option agreement entered into at the time of the grant. Options are generally exercisable for a period of ten years, provided that if an employee is terminated without cause or leaves for any reason other than death or disability, the incentive stock options are generally exercisable within three months after termination of the employee’s employment to the extent then vested on the date of such termination. By contrast, non-qualified stock options are generally exercisable upon termination without cause for the full ten-year term, to the extent then vested on the date of the cessation of employment.

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**Outstanding Equity Awards At Fiscal Year-End**

The following table shows grants of stock options outstanding on the last day of the fiscal year ended December 31, 2006 to each of the executive officers named in the Summary Compensation Table.

Name	Option Awards			
	Number of Securities Underlying Unexercised Options Exercisable	Number of Securities Underlying Unexercised Options Unexercisable	Option Exercise Price	Option Expiration Date
Ashok C. Khandkar, Ph.D. Chief Executive Officer	800,000 <sup>(1)</sup> 20,000 — —	— 20,000 <sup>(2)</sup> 40,000 <sup>(3)</sup> 40,000 <sup>(4)</sup>	\$ 0.11 0.60 1.00 1.00	09/17/2013 12/15/2014 02/12/2016 12/11/2016
Warionex (“Jose”) Belen President	37,500 — —	62,500 <sup>(5)</sup> 6,000 <sup>(3)</sup> 30,000 <sup>(4)</sup>	0.60 1.00 1.00	06/15/2015 02/12/2016 12/11/2016
Bryan J. McEntire Vice President, Manufacturing and Research	125,000 7,500 — —	75,000 <sup>(6)</sup> 7,500 <sup>(2)</sup> 30,000 <sup>(3)</sup> 30,000 <sup>(4)</sup>	0.25 0.60 1.00 1.00	06/08/2014 12/15/2014 02/12/2016 12/11/2016
Reyn E. Gallacher Vice President, Finance, Chief Financial Officer and Assistant Secretary	— —	40,000 <sup>(3)</sup> 30,000 <sup>(4)</sup>	1.00 1.00	02/12/2016 12/11/2016
Eugene B. Jones Former Chief Financial Officer and Vice President, Finance	50,000 15,000 —	75,000 <sup>(6)</sup> 15,000 <sup>(2)</sup> 30,000 <sup>(3)</sup>	0.25 0.60 1.00	06/08/2014 12/15/2014 02/12/2016
Cameron G. Rouns Former Vice President, Sales and Marketing	30,625 —	39,375 <sup>(7)</sup> 6,000 <sup>(3)</sup>	0.60 1.00	03/20/2015 02/12/2016

- (1) The option vested as to 25% of the shares on September 17, 2003, the day this stock option was granted, and vested as to an additional 1/36<sup>th</sup> of the remaining unvested shares per month thereafter.
- (2) The option vested as to 25% of the shares on December 15, 2005 and vests as to an additional 1/36<sup>th</sup> of the remaining unvested shares per month thereafter.
- (3) The option vested as to 25% of the shares on February 12, 2007 and vests as to an additional 1/36<sup>th</sup> of the remaining unvested shares per month thereafter.
- (4) The option vests as to 25% of the shares on December 11, 2007 and vests as to an additional 1/36<sup>th</sup> of the remaining unvested shares per month thereafter.
- (5) The option vested as to 25% of the shares on June 15, 2006 and vests as to an additional 1/36<sup>th</sup> of the remaining unvested shares per month thereafter.
- (6) The option vested as to 25% of the shares on June 8, 2005 and vests as to an additional 1/36<sup>th</sup> of the remaining unvested shares per month thereafter.
- (7) The option vested as to 25% of the shares on March 20, 2006 and vests as to an additional 1/36<sup>th</sup> of the remaining unvested shares per month thereafter.

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### Option Exercises And Stock Vested

The following table shows information regarding exercises of options to purchase our common stock held by each executive officer named in the Summary Compensation Table during the fiscal year ended December 31, 2006.

Name	Option Awards	
	Number of Shares Acquired on Exercise	Value Realized on Exercise
Ashok C. Khandkar, Ph. D. Chief Executive Officer	—	\$ —
Warionex (“Jose”) Belen President	—	—
Bryan J. McEntire Vice President, Manufacturing and Research	—	—
Reyn E. Gallacher Vice President, Finance, Chief Financial Officer and Assistant Secretary	—	—
Eugene B. Jones Former Vice President, Finance and Chief Financial Officer	8,400	6,300
Cameron G. Rouns Former Vice President, Sales and Marketing	—	—

- (1) Amounts shown in this column do not necessarily represent actual value realized from the sale of the share acquired upon exercise of options because in many cases the shares are not sold on exercise but continue to be held by the executive officer exercising the option. The amounts shown represent the difference between the option exercise price and the fair market value on the date of exercise, which is the estimated amount that would have been realized if the shares had been sold immediately upon exercise.

### Pension Benefits

We do not have any qualified or non-qualified defined benefit plans.

### Nonqualified Deferred Compensation

We do not have any nonqualified defined contribution plans or other deferred compensation plans.

### Potential Payments Upon Termination or Change in Control

We have entered into certain agreements and maintain certain plans that may require us to make certain payments and/or provide certain benefits to the executive officers named in the Summary Compensation Table in the event of a termination of employment or change in control.

#### *Termination of Employment and Change in Control Arrangements*

*Ashok C. Khandkar, Ph.D., Chief Executive Officer.* Pursuant to our severance agreement with Dr. Khandkar, dated May 23, 2005, within one year following a change in control, in the event that Dr. Khandkar’s employment is terminated by us other than for cause (but not including termination due to death or disability) or he resigns for good reason, we are required to pay him, in addition to any payments due for services rendered prior to his termination, a lump sum payment of an amount equal to three times his highest annual base salary and bonus payments during the preceding three-year period, including the year of his

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termination. In addition, all of his outstanding options shall become fully vested. If Dr. Khandkar had been terminated under the above referenced circumstances on December 31, 2006, he would have been entitled to receive \$571,620 as a severance payment and all outstanding options would be fully vested, the fair value of which would have been \$14,000.

*Warionex (“Jose”) Belen, President.* Pursuant to our severance agreement with Mr. Belen, dated February 14, 2006, within one year following a change in control, in the event that Mr. Belen’s employment is terminated by us other than for cause (but not including termination due to death or disability) or he resigns for good reason, we are required to pay him, in addition to any payments due for services rendered prior to his termination, a lump sum payment of an amount equal to two times his highest annual base salary and bonus payments during the preceding three-year period, including the year of his termination. In addition, all of his outstanding options shall become fully vested. If Mr. Belen had been terminated under the above referenced circumstances on December 31, 2006, he would have been entitled to receive \$311,400 as a severance payment and all outstanding options would be fully vested, the fair value of which would have been \$30,910.

*Bryan J. McEntire, Vice President, Manufacturing and Research.* Pursuant to our severance agreement with Mr. McEntire, dated May 23, 2005, within one year following a change in control, in the event that Mr. McEntire’s employment is terminated by us other than for cause (but not including termination due to death or disability) or he resigns for good reason, we are required to pay him, in addition to any payments due for services rendered prior to his termination, a lump sum payment of an amount equal to two times his highest annual base salary and bonus payments during the preceding three-year period, including the year of his termination. In addition, all of his outstanding options shall become fully vested. If Mr. McEntire had been terminated under the above referenced circumstances on December 31, 2006, he would have been entitled to receive \$312,100 as a severance payment and all outstanding options would be fully vested, the fair value of which would have been \$67,800.

*Reyn E. Gallacher, Vice President, Finance, Chief Financial Officer and Assistant Secretary.* Pursuant to our severance agreement with Mr. Gallacher, dated March 27, 2007, within one year following a change in control, in the event that Mr. Gallacher’s employment is terminated by us other than for cause (but not including termination due to death or disability) or he resigns for good reason, we are required to pay him, in addition to any payments due for services rendered prior to his termination, a lump sum payment of an amount equal to two times his highest annual base salary and bonus payments during the preceding three-year period, including the year of his termination. In addition, all of his outstanding options shall become fully vested. If Mr. Gallacher had been terminated under the above referenced circumstances on December 31, 2006, he would have been entitled to receive \$216,000 as a severance payment and all outstanding options would be fully vested, the value of which would have been \$4,200.

If it is determined that the amounts payable to each executive officer under his severance agreement, when considered together with any other amounts payable to the executive officer in connection with a change in control of Amedica, cause these payments to be treated as excess parachute payments under Section 280G of the Internal Revenue Code, then we will be required to make an additional “gross up” payment in order to pay for any additional tax imposed on him pursuant to Section 4999 of the Internal Revenue Code. If Dr. Khandkar had been terminated on December 31, 2006 as a result of a change in control, he would have been entitled to receive approximately \$238,135 as an additional “gross up” payment.

As defined in the severance agreements with our executive officers:

- “Cause” means (i) the executive’s commission of a felony (other than through vicarious liability or through a motor vehicle offense); (ii) the executive’s material disloyalty or dishonesty to us; (iii) an act of fraud, embezzlement or misappropriation of funds by the executive; (iv) a material breach by the executive of any material provision of the severance agreement or any other agreement with us, which breach is not cured within 30 days after notice to the executive by us of the breach; or (v) the executive’s refusal to carry out a lawful written directive from our board of directors. Any determination of “cause” will be made by a majority of the members of our board voting on such determination.

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- “Good Reason” means without the executive’s consent: (i) a material change in the principal location at which the executive performs his duties for us to a new location that is at least 50 miles from the prior location; or (ii) a material change in the executive’s authority, functions, duties or responsibilities, which would cause his position with us to become of less responsibility, importance or scope than his position on the date of entering in the severance agreement or as of any subsequent date prior to a change in control, provided, however, that this material change is not in connection with the termination of the executive’s employment by us for any reason.
- “Change in Control” means: (i) any “person” (as such term is used in Sections 13(d) and 14(d) of the Securities Exchange Act of 1934, as amended, or the Exchange Act, becomes the “beneficial owner” (as defined in Rule 13d-3 under the Exchange Act), directly or indirectly, of our securities representing 50% or more of the total voting power represented by our then outstanding voting securities pursuant to a transaction or a series of related transactions of which our board does not approve; (ii) a merger or consolidation of us, whether or not approved by our board, other than a merger or consolidation which would result in our voting securities outstanding immediately prior thereto continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity or the parent of such corporation) at least 50% of the total voting power represented by our voting securities of the surviving entity or parent of the corporation outstanding immediately after the merger or consolidation; or (iii) our stockholders approve an agreement for the sale or disposition by us of all or substantially all of our assets.

*Eugene B. Jones, Former Vice President, Finance and Chief Financial Officer.* Pursuant to an agreement we made with Mr. Jones dated January 5, 2007, regarding his separation from us, we paid Mr. Jones a lump sum of \$95,566. In addition, we granted Mr. Jones a non-qualified stock option exercisable for up to 65,000 shares of our common stock, which expires on June 30, 2014. All of the stock options previously granted to Mr. Jones were terminated upon his separation from us.

### ***Change in Control Arrangements Under Our 2003 Stock Option Plan***

All options granted under our 2003 Stock Option Plan become fully vested upon a change in control provided that the employee, officer, director, surgeon advisors or other consultant holds the position on the date of such change in control. If we are to be consolidated with or acquired by another entity in a merger or sale of all or substantially all of our assets, our board of directors or the board of directors of any entity assuming our obligations under the plan, will, as to outstanding options, take any one or more of the following actions pursuant to our 2003 Stock Option Plan:

- make appropriate provision for the continuation of options granted under the plan by substituting on an equitable basis for the shares of our common stock then subject to these options either the consideration payable with respect to those outstanding shares of our common stock in connection with the merger or sale of our assets or securities of any successor or acquiring entity;
- upon written notice to a participant, provide that the participant’s options must be exercised within a specified number of days of the date of that notice, to the extent then exercisable or, at the discretion of our board of directors, or upon a change in control, all options being made fully exercisable, at the end of which period the options will terminated; or
- terminate all options in exchange for a cash payment equal to the excess of the fair value, as defined in the plan, of the shares of our common stock subject to these options over the exercise price thereof, to the extent then exercisable or, at the discretion of our board of directors, or upon a change in control, all options being made fully exercisable.

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### Director Compensation

The following table shows the total compensation paid or accrued during the fiscal year ended December 31, 2006 to each of our non-employee directors.

<u>Name</u>	<u>Option Awards <sup>(1)</sup></u>	<u>Total</u>
Max Link, Ph.D. <sup>(2)</sup>	\$ 4,804	\$4,804
Bradford S. Goodwin <sup>(3)</sup>	—	—
Lawrence D. Dorr, M.D. <sup>(4)</sup>	169	169
Aaron A. Hofmann, M.D. <sup>(5)</sup>	1,560	1,560
Gregg R. Honigblum <sup>(6)</sup>	—	—
Peter D. Meldrum <sup>(7)</sup>	3,911	3,911
Rohit Patel <sup>(8)</sup>	2,030	2,030

- (1) The dollar amounts in this column represent the compensation cost for the year ended December 31, 2006 of stock option awards granted in and prior to 2006. These amounts have been calculated in accordance with FASB Statement No. 123 (revised), "Share-Based Payment," or SFAS No. 123R, using the Black Scholes Valuation model. See Notes 1 and 7 to our financial statements included elsewhere in this prospectus for details as to assumptions used to determine the fair value of the option awards. See also our discussion of stock-based compensation under "Management's Discussion and Analysis of Financial Condition and Results of Operations—Critical Accounting Policies and Significant Judgments and Estimates—Stock-Based Compensation."
- (2) As of December 31, 2006, Dr. Link held options to purchase 249,790 shares of common stock, of which 216,040 were vested.
- (3) Mr. Goodwin joined our board of directors on May 6, 2007.
- (4) As of December 31, 2006, Dr. Dorr held options to purchase 15,000 shares of common stock, of which none were vested.
- (5) As of December 31, 2006, Dr. Hofmann held options to purchase 45,000 shares of common stock, of which 11,250 were vested.
- (6) Although, Mr. Honigblum received no compensation for his services as a director in fiscal year 2006, he is affiliated with an entity that received compensation from us in connection with our offerings of shares of our preferred stock. For a detailed description of these transactions, see "Certain Relationships and Related Person Transactions."
- (7) Mr. Meldrum resigned from our board of directors effective December 11, 2006. As of December 11, 2006, Mr. Meldrum held options to purchase 607,188 shares of common stock, all of which were vested.
- (8) As of December 31, 2006, Mr. Patel held options to purchase 165,000 shares of common stock, of which 131,250 were vested.

#### **Director Compensation Policy**

Each of our non-employee directors was granted 15,000 stock options pursuant to our 2003 Stock Option Plan as remuneration for his service on our board of directors for the year ended December 31, 2006. Beginning in 2007, newly appointed non-employee directors will now receive an initial grant of 40,000 stock options in addition to the 15,000 stock options that we issue on an annual basis. Because of this change, our board of directors approved a grant of an additional 25,000 stock options to Dr. Dorr and a grant of 40,000 stock options to Mr. Honigblum in May 2007 so that each of these directors will have been granted a total of 40,000 stock options as a result of their recent appointments to our board of directors. The stock options vest over a four-year period, with 25% of the shares vesting on the first anniversary of the date of grant, and 1/36<sup>th</sup> of the remaining unvested shares vesting monthly thereafter. These stock options become fully vested immediately upon a change in control or a sale of all or substantially all of our assets. We reimburse our directors for reasonable out-of-pocket expenses incurred by them in connection with the attendance at quarterly board meetings.

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### **Employee Benefit Plans**

#### ***2003 Stock Option Plan***

Our 2003 Stock Option Plan was approved by our board of directors and our stockholders on August 3, 2003. The board of directors believes the availability of stock options is an important factor in our ability to attract or retain qualified employees and to provide incentives for them to exert their best interests on our behalf.

All of our employees, officers, directors, surgeon advisors and other consultants are eligible to participate in the plan. The 2003 Stock Option Plan is administered by our board of directors, which designates the price and other terms and conditions of any award granted under the plan. Subject to the provisions of the plan, our board of directors may adopt and amend rules and regulations relating to the administration of the plan. Our board of directors may also delegate authority for administration of the plan to a committee of the board of directors.

As of March 31, 2007, we had reserved a total of 4,000,000 shares of our common stock for issuance under the 2003 Stock Option Plan. In May 2007, we reserved an additional 500,000 shares of our common stock for issuance under the plan. As of March 31, 2007, options for 3,457,627 shares are outstanding under the plan. Options to purchase 185,210 shares of common stock have been exercised as of March 31, 2007. The 2003 Stock Option Plan will terminate on August 7, 2013. The plan may be terminated at an earlier date by vote of the shareholders or our board of directors; provided, however, that any such earlier termination shall not affect any options issued prior to the effective date of such termination.

The 2003 Stock Option Plan permits the grant of both incentive stock options, or ISOs, and non-statutory stock options, or NSOs. Shares of common stock awarded under the plan may be authorized and unissued shares of common stock or shares of common stock held by us in our treasury. If any option granted under the plan expires, terminates or is cancelled, the shares of common stock again become available for issuance under the plan.

Our board of directors determines the persons to whom options are granted, the option price, the number of shares of common stock to be covered by each option, the period of each option, the times at which options may be exercised, and whether the option is an ISO, as defined in the Internal Revenue Code, or an NSO.

All options granted under the plan are exercisable in accordance with the terms of an option agreement entered into at the time of the grant. Options are generally exercisable for a period of ten years, provided that if an employee is terminated or leaves without cause, the ISOs are generally exercisable within three months after termination of the employee's employment to the extent then vested on the date of such termination. By contrast, NSOs are generally exercisable upon termination without cause for the full ten-year term, to the extent then vested on the date of such cessation. All options become fully vested upon a change of control provided that the employee, officer, director, surgeon advisors or other consultant holds such position on the date of such change of control.

If we are to be consolidated with or acquired by another entity in a merger or sale of all or substantially all of our assets, our board of directors or the board of directors of any entity assuming our obligations under the plan, will, as to outstanding options, take any one or more of the following actions pursuant to our 2003 Stock Option Plan:

- make appropriate provision for the continuation of such options by substituting on an equitable basis for the shares of our common stock then subject to such options either the consideration payable with respect to such outstanding shares of our common stock in connection with the merger or sale of our assets or securities of any successor or acquiring entity;
- upon written notice to a participant, provide that the participant's options must be exercised within a specified number of days of the date of such notice, to the extent then exercisable or, at the discretion of our board of directors, or upon a change of control, all options being made fully exercisable, at the end of which period the options will terminate; or

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- terminate all options in exchange for a cash payment equal to the excess of the fair market value, as defined in the plan, of the shares of our common stock subject to such options over the exercise price thereof, to the extent then exercisable or, at the discretion of our board of directors, or upon a change of control, all options being made fully exercisable.

### **401(k) Plan**

Our employee savings plan is a tax-qualified profit sharing plan that includes a “cash-or-deferred” (or 401(k)) feature. The plan is intended to satisfy the requirements of Section 401 of the Internal Revenue Code. Our employees may elect to reduce their current compensation by up to the statutorily prescribed annual limit and have a like amount contributed to the plan. In addition, we may make discretionary and/or matching contributions to the plan in amounts determined annually by our board of directors. Effective upon the completion of our first full payroll period following July 1, 2007, we plan to begin matching the contributions of our employees who participate in our 401(k) plan as follows: a match of 100% on the first 3% of compensation contributed by a plan participant and a match of 50% on amounts above 3%, up to 5%, of compensation contributed by a plan participant.

### **Limitation of Directors’ Liability and Indemnification**

The Delaware General Corporation Law authorizes corporations to limit or eliminate, subject to certain conditions, the personal liability of directors to corporations and their stockholders for monetary damages for breach of their fiduciary duties. Our amended and restated certificate of incorporation limits the liability of our directors to the fullest extent permitted by Delaware law.

We have obtained director and officer liability insurance to cover liabilities our directors and officers may occur in connection with their services to us, including matters arising under the Securities Act. Our amended and restated certificate of incorporation and amended and restated bylaws also provide that we will indemnify any of our directors and officers who, by reason of the fact that he or she is one of our officers or directors, is involved in a legal proceeding of any nature. We will repay certain expenses incurred by a director or officer in connection with any civil or criminal action or proceeding, specifically including actions by us or in our name (derivative suits). These indemnifiable expenses include, to the maximum extent permitted by law, attorney’s fees, judgments, civil or criminal fines, settlement amounts and other expenses customarily incurred in connection with legal proceedings. 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.

Prior to the completion of this offering, we plan to enter into agreements to indemnify our directors and officers. These agreements, among other things, will 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.

This limitation of liability and the indemnification of our directors and officers does not affect the availability of equitable remedies. In addition, we have been advised that in the opinion of the SEC, indemnification for liabilities arising under the Securities Act is against public policy as expressed in the Securities Act and is therefore unenforceable.

There is no pending litigation or proceeding involving any of our directors, officers, employees or agents in which indemnification will be required or permitted. We are not aware of any threatened litigation or proceeding that may result in a claim for indemnification under the agreements described in this section.

## CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS

Since January 1, 2004, with the approval of our board of directors, we have engaged in the transactions described below with our directors, executive officers and beneficial owners of more than 5% of our common stock, on an as-converted basis, and affiliates of our directors, executive officers and 5% stockholders. In addition, immediately prior to the consummation of this offering, we expect to effect a one-for- reverse split of our common stock.

### Royalty Payments

One of our co-founders and a member of our board of directors, Aaron A. Hofmann, M.D., is also the sole member and president of Joint Enterprises, L.C., a Utah limited liability company. We and Joint Enterprises, L.C. previously entered into an Assignment Agreement, dated August 1, 2001, which has been amended as of August 12, 2005. Pursuant to this agreement, we acquired rights to the *PreVent Cement Restrictor* in exchange for our agreement to pay a one-time payment of \$25,000 and to pay royalties equal to \$2.50 per unit. Joint Enterprises, L.C. also has the option to elect to receive nonqualified stock options to purchase shares of our common stock in lieu of cash payments, subject to approval by our board of directors. We made the \$25,000 payment to Dr. Hofmann in September 2004. As of the date hereof, no units of this product have been sold and no royalties for this product have been paid pursuant to this agreement.

### Issuance of Stock and Warrants

We have completed various offerings of shares of our Series A, Series B, Series C and Series D convertible preferred stock through Creation Capital LLC, our placement agent for each of these offerings. Gregg Honigblum is the Chief Executive Officer and a 50% co-owner of Creation Capital LLC and he joined our board of directors in December 2006, subsequent to our Series A, Series B and Series C convertible preferred stock offerings but prior to our Series D convertible preferred stock offering. In connection with our third closing of our Series A convertible preferred stock offering, which occurred on January 28, 2004, we raised \$2.3 million in gross proceeds and sold 3,805,018 shares at \$0.60 per share, and we paid our placement agent \$182,640 as commission and \$20,875 for expenses in connection with the third closing of the offering, of which Mr. Honigblum received \$48,125 from Creation Capital LLC as a result of his ownership interest therein. In connection with our Series B convertible preferred stock offering, closings for which occurred on October 25, 2004 and November 9, 2004, we raised an aggregate of \$6.0 million in gross proceeds and sold a total of 5,000,000 shares at \$1.20 per share, and we paid our placement agent \$480,000 as commission and \$40,000 for expenses in connection with the closings, of which Mr. Honigblum received \$135,000 from Creation Capital LLC as a result of his ownership interest therein. In connection with our Series C convertible preferred stock offering, which occurred on February 24, 2006, we raised \$16.8 million in gross proceeds and sold 8,400,000 shares at \$2.00 per share, and we paid our placement agent \$1,511,265 as commission and \$75,000 for expenses in connection with the offering, of which Mr. Honigblum received \$759,500 from Creation Capital LLC as a result of his ownership interest therein. In connection with our Series D convertible preferred stock offering, closings for which occurred on April 17, 2007 and April 27, 2007, we raised \$13.4 million in gross proceeds and sold 4,456,500 shares at \$3.00 per share, and we paid our placement agent \$758,870 as commission and \$100,000 for expenses in connection with the closings, of which Mr. Honigblum received \$300,000 from Creation Capital LLC as a result of his ownership interest therein. In addition, in connection with our Series C convertible preferred stock offering, we agreed to pay Creation Capital LLC a transaction fee in the event that prior to a registered offering of our securities, we complete a stock sale, merger, tender offer, recapitalization or asset sale by February 24, 2009 that results in a change in control of us. The amount of the transaction fee payable to Creation Capital LLC upon such an event would be 1.5%-3% of the aggregate consideration payable to us in connection with the transaction, up to \$2,500,000.

In addition to the cash compensation we paid to Creation Capital LLC for the services it provided as the placement agent for our convertible preferred stock offerings, we agreed to issue warrants to purchase shares of our preferred stock to Creation Capital LLC. In connection with these offerings, we issued to Creation Capital

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LLC, or at its request to certain of its designees, including one of our directors and a principal stockholder, warrants to purchase 2,100,000 shares of Series A convertible preferred stock, 500,000 shares of Series B convertible preferred stock, 1,203,750 shares of Series C convertible preferred stock and 253,290 shares of Series D convertible preferred stock, at an exercise price equal to 110% of the offering price of the underlying convertible preferred stock, or \$0.66 per share, \$1.32 per share, \$2.20 per share and \$3.30 per share of our Series A, Series B, Series C and Series D convertible preferred stock, respectively. The warrants to purchase shares of our Series A, Series B and Series C convertible preferred stock are currently exercisable through the seventh anniversary of the date of issuance of such warrants, or January 28, 2011, November 9, 2011 and February 24, 2013, respectively, and upon completion of the offering, the warrants to purchase shares of our Series D convertible preferred stock will become exercisable through the seventh anniversary of the date of issuance of such warrants, or April 27, 2014.

The following table summarizes the purchases of shares of our Series A (third closing), Series B, Series C and Series D convertible preferred stock by, as well as the issuance of warrants to purchase shares of our convertible stock to, our directors and beneficial owners of 5% or more of our common stock, on an as-converted basis. None of our executive officers participated in any of the offerings.

<u>Name</u>	<u>Series A Preferred Stock</u>	<u>Series A Preferred Stock Warrants</u>	<u>Series B Preferred Stock</u>	<u>Series B Preferred Stock Warrants</u>	<u>Series C Preferred Stock</u>	<u>Series C Preferred Stock Warrants</u>	<u>Series D Preferred Stock</u>	<u>Series D Preferred Stock Warrants</u>
<b>Directors</b>								
Max Link, Ph.D.					100,000		35,000	
Aaron A. Hofmann, M.D.					250,000		35,000 <sup>(1)</sup>	
Lawrence D. Dorr, M.D.							130,000 <sup>(2)</sup>	
Gregg R. Honigblum	62,501 <sup>(3)</sup>	716,673 <sup>(4)</sup>		165,875 <sup>(5)</sup>	12,500 <sup>(6)</sup>	452,125 <sup>(7)</sup>		111,645 <sup>(8)</sup>
Rohit Patel			15,000 <sup>(9)</sup>		25,000 <sup>(10)</sup>		35,000 <sup>(11)</sup>	
<b>Principal stockholder</b>								
Vestal Venture Capital		130,469 <sup>(12)</sup>	805,500 <sup>(13)</sup>	65,751 <sup>(14)</sup>	1,112,500		400,000	

- (1) Consists of 35,000 shares of our Series D convertible preferred stock purchased by Dr. Hofmann's spouse.
- (2) Consists of 130,000 shares of our Series D convertible preferred stock purchased by Dr. Dorr and his spouse.
- (3) Mr. Honigblum is the Chief Executive Officer and a 50% co-owner of Creation Capital LLC and he is currently a member of our board of directors. In accordance with the rules of the SEC, Mr. Honigblum is deemed to beneficially own 50% of the 125,001 shares of our Series A convertible preferred stock purchased by Creation Capital LLC in connection with the third closing of our offering of shares of our Series A convertible preferred stock. Mr. Honigblum disclaims beneficial ownership of the shares held by Creation Capital LLC except to the extent of his proportionate pecuniary interest therein.
- (4) See footnote (3). The warrants noted above consist of warrants to acquire 716,673 shares of our Series A convertible preferred stock issued to Mr. Honigblum at the request of Creation Capital, which Creation Capital LLC was entitled to receive as partial compensation for the services it provided as our placement agent in connection with the completion of the first, second and third closings of our offering of shares of our Series A convertible preferred stock. The warrants noted above exclude warrants to acquire 822,506 shares of Series A convertible preferred stock held by Michael Morris, the President and the other 50% co-owner of Creation Capital LLC.
- (5) See footnote (3). The warrants noted above consist of warrants to acquire 165,875 shares of our Series B convertible preferred stock issued to Mr. Honigblum at the request of Creation Capital LLC, which Creation Capital LLC was entitled to receive as partial compensation for the services it provided as our placement agent in connection with the completion of our offering of shares of our Series B convertible preferred stock. The warrants noted above exclude warrants to acquire an additional 250,000 shares of our Series B convertible preferred stock, which we were obligated to issue to Creation Capital LLC as partial compensation for such services. The warrants noted above exclude warrants to acquire 175,874 shares of Series B convertible preferred stock held by Michael Morris.
- (6) See footnote (3). Mr. Honigblum is deemed to beneficially own 50% of the 25,000 shares of our Series C convertible preferred stock purchased by Creation Capital LLC in connection with our offering of shares of

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- our Series C convertible preferred stock. Mr. Honigblum disclaims beneficial ownership of the shares held by Creation Capital LLC except to the extent of his proportionate pecuniary interest therein.
- (7) See footnote (3). The warrants noted above consist of warrants to acquire 452,125 shares of our Series C convertible preferred stock issued to Mr. Honigblum at the request of Creation Capital LLC, which Creation was entitled to receive as partial compensation for the services it provided as our placement agent in connection with the completion of our offering of our Series C convertible preferred stock. The warrants noted above exclude warrants to acquire 424,125 shares of Series C convertible preferred stock held by Michael Morris.
  - (8) See footnote (3). Mr. Honigblum is deemed to beneficially own 50% of the warrants to acquire 223,290 shares of our Series D convertible preferred stock, which Creation Capital LLC received as partial compensation for the services it provided as our placement agent in connection with the completion of our offering of shares of our Series D convertible preferred stock. Mr. Honigblum disclaims beneficial ownership of the warrants held by Creation Capital LLC except to the extent of his proportionate pecuniary interest therein.
  - (9) Consists of 15,000 shares of our Series B convertible preferred stock previously purchased by Mr. Patel, which have since been gifted to his daughter, granddaughter and two unaffiliated parties.
  - (10) Consists of 25,000 shares of our Series C convertible preferred stock purchased by Mr. Patel, which have since been gifted to The Patel Family Trust U/A/D November 7, 1996, of which Mr. Patel and his spouse are the sole beneficiaries.
  - (11) Consists of 35,000 shares of our Series D convertible preferred stock purchased by The Patel Family Trust U/A/D November 7, 1996, of which Mr. Patel and his spouse are the sole beneficiaries.
  - (12) Consists of warrants to acquire 68,694 and 127,344 shares of our Series A convertible preferred stock issued to Lyonshare Venture Capital and Vestal Venture Capital, respectively, at the request of Creation Capital LLC, which Creation Capital LLC was entitled to receive as partial compensation for the services it provided as our placement agent in connection with the completion of an offering of our Series A convertible preferred stock. Allan R. Lyons is the managing member and sole owner of 21st Century Strategic Investment Planning, L.C., the general partner for both Vestal Venture Capital and Lyonshare Venture Capital. Mr. Lyons disclaims beneficial ownership of the shares held by Vestal Venture Capital and Lyonshare Venture Capital except to the extent of his proportionate pecuniary interest therein.
  - (13) Consists of 130,000 and 675,500 shares of our Series B convertible preferred stock purchased by Lyonshare Venture Capital and Vestal Venture Capital, respectively. See footnote (12).
  - (14) Consists of warrants to acquire 16,013 and 29,738 shares of our Series B convertible preferred stock, issued to Lyonshare Venture Capital and Vestal Venture Capital, respectively, at the request of Creation Capital LLC, which Creation Capital LLC was entitled to receive as partial compensation for the services it provided as our placement agent in connection with the completion of our offering of our Series B convertible preferred stock. Also includes warrants held by Allan R. Lyons to acquire up to 20,000 shares of our Series B convertible preferred stock. See footnote (12).

### **Registration Rights**

The holders of 15,273,673 shares of common stock, assuming the conversion of our convertible preferred stock, and holders of 4,057,040 shares of common stock, assuming the exercise of preferred stock warrants and further assuming the conversion of such shares of convertible preferred stock, have entered into an agreement with us that provides certain registration rights to these holders and certain future transferees of their securities. Such holders include the above-listed directors and holders of 5% or more of our common stock, on an as-converted basis. See “Description of Capital Stock—Registration Rights” on page 104 for a description of these rights.

### **Stock Option Grants**

We have granted options to purchase shares of our common stock to our executive officers and directors. See “Management—Executive Compensation—Summary Compensation Table” on page 86, “Management—Executive Compensation—Grants of Plan-Based Awards” on page 87, “Management—Executive Compensation—

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Outstanding Equity Awards at Fiscal Year-End” on page 90 and “Management—Executive Compensation—Director Compensation” on page 94.

### **Change in Control Agreements**

We have entered into severance agreements with our executive officers as described in the section of this prospectus entitled “Management—Potential Payments Upon Termination or Change in Control” on page 91.

### **Policy for Approval of Related Person Transactions**

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

Following this offering, all future related party transactions will be approved by our audit committee. Pursuant to the written charter of our audit committee, the audit committee is responsible for reviewing and approving, prior to our entry into any transaction involving related parties, all transactions in which we are a participant and in which any parties related to us has or will have a direct or indirect material interest.

In reviewing and approving these transactions, the audit committee shall obtain, or shall direct our management to obtain on its behalf, all information that the committee believes to be relevant and important to a review of the transaction prior to its approval. Following receipt of the necessary information, a discussion shall be held of the relevant factors, if deemed to be necessary by the committee, prior to approval. If a discussion is not deemed to be necessary, approval may be given by written consent of the committee. No related party transaction shall be entered into prior to the completion of these procedures.

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

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### PRINCIPAL STOCKHOLDERS

The following table sets forth certain information regarding the beneficial ownership of our common stock as of May 1, 2007, on an as-converted basis, and as adjusted to reflect the sale of our common stock offered by this prospectus by:

- the executive officers named in the summary compensation table;
- each of our directors;
- all of our current directors and executive officers as a group; and
- each stockholder known by us to own beneficially 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 May 1, 2007, pursuant to the exercise of options or warrants, 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 ownership is based on 40,535,553 shares of common stock outstanding on May 1, 2007, which assumes the conversion of all outstanding shares of preferred stock into common stock, and \_\_\_\_\_ shares of common stock outstanding after the completion of this offering.

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, 615 Arapeen Drive, Suite 302, Salt Lake City, Utah 84108.

Name and Address of Beneficial Owner	Number of Shares Beneficially Owned	Percentage of Shares Beneficially Owned	
		Before Offering <sup>(1)</sup>	After Offering
<b>Directors and Named Executive Officers:</b>			
Ashok C. Khandkar, Ph.D. <sup>(2)</sup>	4,838,333	11.7%	
Aaron A. Hofmann, M.D. <sup>(3)</sup>	4,793,785	11.8%	
Gregg R. Honigblum <sup>(4)</sup>	1,521,319	3.6%	
Max Link, Ph.D. <sup>(5)</sup>	783,334	2.0%	
Rohit Patel <sup>(6)</sup>	195,000	*	
Bryan J. McEntire <sup>(7)</sup>	169,375	*	
Eugene B. Jones <sup>(8)</sup>	140,000	*	
Lawrence D. Dorr, M.D. <sup>(9)</sup>	130,000	*	
Warionex ("Jose") Belen <sup>(10)</sup>	52,000	*	
Reyn E. Gallacher <sup>(11)</sup>	13,333	*	
Bradford S. Goodwin	—	—	
Cameron G. Rouns	—	—	
All directors and executive officers as a group (12 individuals) <sup>(12)</sup>	12,517,667	28.8%	
<b>Five Percent Stockholder:</b>			
Vestal Venture Capital <sup>(13)</sup> 92 Hawley Street, P. O. Box 1330 Binghamton, New York 13902	3,733,127	9.2%	

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

(1) Based on 40,535,553 shares of common stock outstanding on May 1, 2007, which assumes the conversion of all outstanding shares of preferred stock into common stock. Unless otherwise indicated, each person or entity listed has sole investment and voting power with respect to the shares listed.

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- (2) Consists of 2,000,000 shares of our common stock and options to acquire a total of 838,333 shares of our common stock currently exercisable or exercisable within 60 days after May 1, 2007 held by Dr. Khandkar and 2,000,000 shares of our common stock held by Dr. Khandkar's spouse.
- (3) Consists of 4,743,785 shares of our common stock and options to acquire 15,000 shares of our common stock currently exercisable or exercisable within 60 days after May 1, 2007 held by Dr. Hofmann and 35,000 shares of our common stock held by Dr. Hofmann's spouse.
- (4) Mr. Honigblum is the record owner of 1,334,673 shares of our common stock, assuming the exercise of currently exercisable common stock warrants which were issued to him at the request of Creation Capital LLC, which Creation Capital LLC was entitled to receive as partial compensation for the services it provided as our placement agent in connection with the completion of our offering of our preferred stock offerings. Mr. Honigblum is the Chief Executive Officer and a 50% co-owner of Creation Capital LLC and he joined our board of directors in December 2006. Mr. Honigblum is deemed to beneficially own 50% of the 150,001 shares of our common stock and an additional 223,290 shares of our common stock, assuming the exercise of currently exercisable common stock warrants, held by Creation Capital LLC. Mr. Honigblum disclaims beneficial ownership of the shares and warrants held by Creation Capital LLC except to the extent of his proportionate pecuniary interest therein. The shares noted above exclude 519,999 shares of our common stock held by Michael Morris, the President and the other 50% co-owner of Creation Capital LLC.
- (5) Consists of 563,544 shares of our common stock and options to acquire 219,790 shares of our common stock currently exercisable or exercisable within 60 days after May 1, 2007.
- (6) Consists of 60,000 shares of our common stock held by The Patel Family Trust U/A/D November 7, 1996, of which Mr. Patel and his spouse are the sole beneficiaries, and options held by Mr. Patel to acquire 135,000 shares of our common stock currently exercisable or exercisable within 60 days after May 1, 2007.
- (7) Consists of options to acquire 169,375 shares of our common stock currently exercisable or exercisable within 60 days after May 1, 2007.
- (8) Consists of 75,000 shares of our common stock and options to acquire 65,000 shares of our common stock currently exercisable or exercisable within 60 days after May 1, 2007.
- (9) Consists of 130,000 shares of our common stock held jointly by Dr. Dorr and his spouse.
- (10) Consists of 52,000 shares of our common stock currently exercisable or exercisable within 60 days after May 1, 2007.
- (11) Consists of options to acquire an aggregate of 13,333 shares of our common stock currently exercisable or exercisable within 60 days after May 1, 2007.
- (12) See footnotes (2) through (11). Also includes options to acquire an aggregate of 21,188 shares of our common stock currently exercisable or exercisable within 60 days after May 1, 2007, held by one executive officer not named in the table. No additional shares of our common stock or options to acquire any such shares are held by the other executive officer not named in the table.
- (13) Consists of 2,904,669 shares of our common stock and an additional 157,082 shares of our common stock, assuming the exercise of currently exercisable common stock warrants held by Vestal Venture Capital; 566,669 shares of our common stock and an additional 84,707 shares of our common stock, assuming the exercise of currently exercisable common stock warrants held by Lyonshare Venture Capital; and 20,000 shares of our common stock, assuming the exercise of currently exercisable common stock warrants held by Allan R. Lyons. Mr. Lyons is the managing member and sole owner of 21<sup>st</sup> Century Strategic Investment Planning, L.C., the general partner for both Vestal Venture Capital and Lyonshare Venture Capital. Mr. Lyons disclaims beneficial ownership of the shares held by Vestal Venture Capital and Lyonshare Venture Capital except to the extent of his proportionate pecuniary interest therein.

## DESCRIPTION OF CAPITAL STOCK

Upon completion of this offering, we will be authorized to issue \_\_\_\_\_ shares of common stock, \$0.01 par value per share, and \_\_\_\_\_ shares of preferred stock, \$0.01 par value per share, and there will be \_\_\_\_\_ shares of common stock and no shares of preferred stock outstanding. Assuming the conversion of our preferred stock as of May 1, 2007, we had 40,535,553 shares of common stock outstanding held of record by 337 stockholders, and there were outstanding options to purchase 3,457,627 shares of common stock and outstanding warrants to acquire 4,057,040 shares of common stock, assuming the conversion of preferred stock warrants into common stock warrants. 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 amended and restated certificate of incorporation and amended and restated bylaws, effective upon completion of this offering, copies of which have been filed as exhibits to the registration statement, and to the applicable provisions of the Delaware General Corporation Law.

### Common Stock

Holders of 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. Subject to preferences that may be applicable to any outstanding shares of preferred stock, holders of 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 common stock are fully paid and nonassessable, and the shares of common stock to be issued upon completion of this offering 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 the common stock. In the event of any liquidation, dissolution or winding-up of our affairs, holders of 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

Upon the closing of this offering, all outstanding shares of our preferred stock will have been converted into shares of our common stock. Following this offering, our amended and restated certificate of incorporation will be amended and restated to delete all reference to such shares of preferred stock. The preferred stock, if issued, would have priority over the 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 May 1, 2007, we had outstanding warrants to purchase a total of:

- 2,100,000 shares of Series A convertible preferred stock at an exercise price of \$0.66 per share. These warrants are currently exercisable through the seventh anniversary of the date of issuance of such warrants, or January 28, 2011, and upon exercise may be converted into an aggregate of 2,100,000 shares of our common stock.
- 500,000 shares of Series B convertible preferred stock at an exercise price of \$1.32 per share. These warrants are currently exercisable through the seventh anniversary of the date of issuance of such

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warrants, or November 9, 2011, and upon exercise may be converted into an aggregate of 500,000 shares of our common stock.

- 1,203,750 shares of Series C convertible preferred stock at an exercise price of \$2.20 per share. These warrants are currently exercisable through the seventh anniversary of the date of issuance of such warrants, or February 24, 2013, and upon exercise may be converted into an aggregate of 1,203,750 shares of our common stock.
- 253,290 shares of Series D convertible preferred stock at an exercise price of \$3.30 per share. Upon completion of the offering, these warrants will become exercisable through the seventh anniversary of the date of issuance of such warrants, or April 27, 2014 and upon exercise may be converted into an aggregate of 253,290 shares of our common stock.

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

### **Registration Rights**

The holders of 15,273,673 shares of common stock, assuming the conversion of our convertible preferred stock, and holders of 4,057,040 shares of common stock, assuming the exercise of preferred stock warrants and further assuming the conversion of such shares of convertible preferred stock, have entered into an agreement with us that provides certain registration rights to such holders and certain future transferees of their securities. These registration rights are subject to certain conditions and limitations, including our right, based on advice of the lead managing underwriter of a future offering, to limit the number of shares included in any such registration under certain circumstances. We are generally required to pay all expenses incurred in connection with registrations effected in connection with the registration rights below, excluding underwriting discounts and commissions. The registration rights described below with respect to these securities terminate on such date as the holders of such registrable securities become eligible to sell them under Rule 144 under the Securities Act.

*Demand Rights.* At any time after 180 days following the completion of our initial public offering, subject to specified limitations, holders of not less than a majority of then existing registrable securities may require that we effect the registration on Form S-1 or Form S-3 (or any other form we are qualified to use) of securities owned by such holders having an aggregate anticipated price to the public of at least \$10,000,000 (before selling expenses), or at least \$5,000,000 (before selling expenses) in the case of a Form S-3 registration, for sale under the Securities Act. We may be required to effect up to four such registrations in total. We may be required to effect up to two such registrations during the one-year period following the date holders initially notify us of their request that we effect such a registration. Holders of registrable securities who are not among the holders who initially request that we effect a registration are entitled to notice and are entitled to include their shares of common stock in the registration.

*Shelf Registration Rights.* At any time after we become eligible to file a registration statement on Form S-3, holders of not less than a majority of registrable securities may request, in writing, that we effect the registration on Form S-3, or any successor or similar short form, of securities having an aggregate anticipated offering price to the public of at least \$10,000,000 (before selling expenses). We may be required to effect up to two such registrations during the one-year period following the date holders initially notify us of their request that we effect such a registration. Holders with these registration rights who are not among the holders who initially requested that we effect a registration are entitled to notice and are entitled to include their shares of common stock in the registration.

*Piggyback Rights.* If, at any time commencing 180 days following the completion of our initial public offering, we propose to register shares of our common stock under the Securities Act in connection with a public offering of common stock solely for cash, we will, prior to such filing, give written notice to all holders having

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registration rights of our intention to do so. Upon the written request of any holder or holders of registrable securities given to us in a timely manner, we shall cause all securities which we have been requested by such holder or holders to register to be registered under the Securities Act to the extent necessary to permit their sale or other disposition in accordance with the intended methods of distribution specified in the request of the holder or holders. We shall have the right to withdraw any such registration without obligation to any stockholder, except for our obligation to pay all registration expenses related to such withdrawn registration. In addition, under certain circumstances, the underwriters, if any, may limit the number of shares included in any such registration. These piggyback registration rights do not apply to registrations of our securities that we initiate that are (i) incidental to any of our stock option plans or other employee benefit plans or a dividend reinvestment plan, (ii) incidental to a business combination or any other similar transaction, the purpose of which is not to raise capital, or (iii) pursuant to a so-called “unallocated” or “universal” shelf registration statement.

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

The provisions of (1) Delaware law, (2) our amended and restated certificate of incorporation to be effective upon completion of this offering and (3) our amended and restated bylaws to be effective upon completion of this offering 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 of control of our company. These provisions are designed to reduce our vulnerability to an unsolicited acquisition proposal. The provisions also are intended to discourage certain tactics that may be used in proxy fights. 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 amended and 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. 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.

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*Authorization of Blank Check Preferred Stock.* Our amended and restated certificate of incorporation provides that, upon completion of this offering, our board of directors will be 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 amended and 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 by the later of 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 the amended and 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 amended and 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 amended and restated certificate of incorporation requires the affirmative vote of the holders of at least % 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 Amended and Restated Certificate of Incorporation, Our Amended and Restated Bylaws and Delaware Law” or to reduce the number of authorized shares of common stock or preferred stock. This % 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 % vote is also required for any amendment to, or repeal of, our amended and restated bylaws by the stockholders. Our amended and 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 will be .

### **Listing**

At the present time, there is no established trading market for our common stock. We have applied to list our common stock on The NASDAQ Global Market under the symbol “AMCA.”

## SHARES ELIGIBLE FOR FUTURE SALE

Prior to this offering, there has been no market for our common stock. Future sales of substantial amounts of our common stock in the public market, or the anticipation of such sales, could adversely affect market prices prevailing from time to time. Furthermore, because only a limited number of shares will be available for sale shortly after this offering due to existing contractual and legal restrictions on resale as described below, there may be sales of substantial amounts of our common stock in the public market after the restrictions lapse. This may adversely affect the prevailing market price and our ability to raise equity capital in the future.

Upon completion of this offering, we will have \_\_\_\_\_ shares of common stock outstanding, assuming the conversion of all outstanding shares of convertible preferred stock, no exercise of the underwriters' over-allotment option and no exercise of any options and warrants outstanding as of March 31, 2007. Of these shares, all of the shares sold in this offering will be freely transferable without restriction or registration under the Securities Act, except for any shares purchased by one of our existing "affiliates," as that term is defined in Rule 144 under the Securities Act. The remaining shares of common stock are "restricted shares" as defined in Rule 144. Restricted shares may be sold in the public market only if registered or if they qualify for an exemption from registration under Rules 144, 144(k) or 701 of the Securities Act, as described below. Substantially all of these restricted shares will be subject to the 180-day lock-up period described below. Immediately after the 180-day lock-up period, 16,567,865 shares will be freely tradable under Rule 144(k) or Rule 701(g)(3) under the Securities Act and 19,496,188 shares will be eligible for resale under Rule 144 or Rule 701(g)(3), subject to volume limitations. 4,471,500 shares will be freely tradable or eligible for resale at various times after the 180-day lock-up period under Rule 144, Rule 144(k) or Rule 701(g)(3), some of which are subject to volume limitations. In addition, upon completion of this offering, a holder of warrants to acquire shares of our common stock will be able to net exercise such shares by surrendering a portion of that holder's warrants as payment of the exercise price rather than paying the exercise price in cash. As of May 1, 2007, warrants to acquire approximately 1,717,452 and 2,086,298 shares of our common stock would be eligible to rely upon Rule 144(k) and Rule 144, respectively, if they are net exercised, subject to the lock-up agreements. The lock-up agreements may be extended or shortened in certain circumstances. Please see the section below entitled "Lock-up Agreements" for further information.

### Rule 144

In general, under Rule 144 as currently in effect, beginning 90 days after the effective date of the registration statement of which this prospectus is a part, a person, or persons whose shares are aggregated, who owns shares that were purchased from us, or any affiliate, at least one year previously, is entitled to sell within any three-month period a number of shares that does not exceed the greater of:

- 1% of our then-outstanding shares of common stock, which will equal approximately \_\_\_\_\_ shares immediately after this offering; or
- the average weekly trading volume of our common stock on The NASDAQ Global Market during the four calendar weeks preceding the filing of a notice of the sale on Form 144.

Sales under Rule 144 are also subject to manner of sale provisions, notice requirements and the availability of current public information about us. Rule 144 also provides that affiliates that sell our common stock that are not restricted securities must still comply with certain other restrictions of that rule on their manner of sale of our shares, other than the holding period requirement. We are unable to estimate the number of shares that will be sold under Rule 144 since this will depend on the market price for our common stock, the personal circumstances of the stockholder and other factors.

### Rule 144(k)

Under Rule 144(k) as currently in effect, a person who is not deemed to have been one of our affiliates at any time during the 90 days preceding a sale, and who owns shares within the definition of "restricted securities"

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under Rule 144 that were purchased from us, or any affiliate, at least two years previously, would be entitled to sell shares under Rule 144(k) without regard to the volume limitations, manner of sale provisions, public information requirements or notice requirements described above.

### **Rule 701**

In general, under Rule 701 as currently in effect, any of our employees, directors, officers, consultants or advisors who purchased shares from us in connection with a qualified compensatory stock or option plan or other written agreement before the effective date of this offering is eligible to resell such shares 90 days after the effective date of this offering in reliance on Rule 144. Securities issued in reliance on Rule 701 are restricted securities and, subject to the contractual restrictions described above, beginning 90 days after the date of this prospectus, may be sold by persons other than “affiliates,” as defined in Rule 144, subject only to the manner of sale provisions of Rule 144 and by “affiliates” under Rule 144 without compliance with its one year minimum holding requirement.

### **Registration Rights**

The holders of 15,273,673 shares of common stock, assuming the conversion of our convertible preferred stock, and holders of 4,057,040 shares of common stock, assuming the exercise of preferred stock warrants and further assuming the conversion of such shares of convertible preferred stock, have entered into an agreement with us that provides certain registration rights to these holders and certain future transferees of their securities. Registration of these shares under the Securities Act would result in these shares becoming freely tradable without restriction under the Securities Act immediately upon the effectiveness of the registration, except for shares held by affiliates. See “Description of Capital Stock—Registration Rights.”

### **Warrants**

As of May 1, 2007, we had outstanding warrants to purchase a total of:

- 2,100,000 shares of Series A convertible preferred stock at an exercise price of \$0.66 per share. These warrants are currently exercisable through the seventh anniversary of the date of issuance of such warrants, or January 28, 2011, and upon exercise may be converted into an aggregate of 2,100,000 shares of our common stock.
- 500,000 shares of Series B convertible preferred stock at an exercise price of \$1.32 per share. These warrants are currently exercisable through the seventh anniversary of the date of issuance of such warrants, or November 9, 2011, and upon exercise may be converted into an aggregate of 500,000 shares of our common stock.
- 1,203,750 shares of Series C convertible preferred stock at an exercise price of \$2.20 per share. These warrants are currently exercisable through the seventh anniversary of the date of issuance of such warrants, or February 24, 2013 and upon exercise may be converted into an aggregate of 1,203,750 shares of our common stock.
- 253,290 shares of Series D convertible preferred stock at an exercise price of \$3.30 per share. Upon completion of the offering, these warrants will become exercisable and upon exercise through the seventh anniversary of the date of issuance of such warrants, or April 27, 2014, may be converted into an aggregate of 253,290 shares of our common stock.

All 4,057,040 shares of common stock issuable pursuant to these warrants are subject to lock-up agreements.

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### **Stock Options**

As of March 31, 2007, options to purchase a total of 3,457,627 shares of common stock were outstanding and exercisable. Substantially all of the shares subject to options are subject to lock-up agreements. As of March 31, 2007, an additional 857,163 shares of common stock were available for future option grants under our 2003 Stock Option Plan.

Upon completion of this offering, we intend to file a registration statement on Form S-8 under the Securities Act covering all shares of common stock subject to outstanding options or issuable pursuant to our stock plans. Subject to Rule 144 volume limitations applicable to affiliates, shares registered under any registration statements will be available for sale in the open market, except to the extent that the shares are subject to vesting restrictions with us or the contractual restrictions described below.

### **Lock-up Agreements**

We, all of our officers, directors and substantially all of our stockholders have agreed, subject to limited exceptions, not to offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, lend or otherwise transfer or dispose of, directly or indirectly, file any registration statement with the SEC relating to the offering of any shares of our common stock or any securities convertible into or exercisable for shares of our common stock, or enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of any shares of common stock or any securities convertible into or exercisable or exchangeable for shares of common stock held prior to the offering during the period beginning on the date of this prospectus and ending 180 days thereafter, whether any such transaction is to be settled by delivery of our common stock or such other securities, cash or otherwise, without the prior written consent of Morgan Stanley & Co. Incorporated.

Morgan Stanley & Co. Incorporated may in its sole discretion choose to release any or all of these shares from these restrictions prior to the expiration of the 180-day period. The lock-up restrictions will not apply to transactions relating to common stock acquired in open market transactions after the closing of this offering provided that no filing under Section 16(a) of the Exchange Act is required or will be voluntarily made in connection with subsequent sales of common stock or other securities acquired in such market transactions. The lock-up restrictions also will not apply to certain transfers not involving a disposition for value, provided that the recipient agrees to be bound by these lock-up restrictions and provided that such transfers are not required to be reported in any public report or filing with the SEC, or otherwise, during the lock-up period.

The 180-day restricted period described above will be extended if:

- during the last 17 days of the 180-day restricted period, we issue an earnings release or disclose material news or a material event relating to our company occurs; or
- prior to the expiration of the 180-day restricted period, we announce that we will release earnings results during the 16-day period beginning on the last day of the 180-day restricted period;

in which case the restrictions described above will continue to apply until the expiration of the 18-day period beginning on the issuance of the earnings release, the disclosure of the material news or the occurrence of the material event.

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

The following discussion is a general summary of the material U.S. federal income tax consequences of the ownership and disposition of our common stock applicable to “Non-U.S. Holders.” As used herein, a Non-U.S. Holder means a beneficial owner of our common stock that is neither a U.S. person nor a partnership for U.S. federal income tax purposes, and that will hold shares of our common stock as capital assets. For U.S. federal income tax purposes, a U.S. person includes:

- an individual who is a citizen or resident of the United States;
- a corporation (or other business entity treated as a corporation for U.S. federal income tax purposes) created or organized in the United States or under the laws of the United States, any state thereof or the District of Columbia;
- an estate the income of which is includible in gross income regardless of source; or
- a trust that (A) is subject to the primary supervision of a court within the United States and the control of one or more U.S. persons, or (B) otherwise has validly elected to be treated as a U.S. domestic trust for U.S. federal income tax purposes.

If a partnership (including an entity treated as a partnership for U.S. federal income tax purposes) holds shares of our common stock, the U.S. federal income tax treatment of each partner generally will depend on the status of the partner and the activities of the partnership and the partner. Partnerships acquiring our common stock, and partners in such partnerships, should consult their own tax advisors with respect to the U.S. federal income tax consequences of the ownership and disposition of our common stock.

This summary does not consider specific facts and circumstances that may be relevant to a particular Non-U.S. Holder’s tax position and does not consider U.S. state and local or non-U.S. tax consequences. It also does not consider Non-U.S. Holders subject to special tax treatment under the U.S. federal income tax laws (including partnerships or other pass-through entities, banks and insurance companies, dealers in securities, holders of our common stock held as part of a “straddle,” “hedge,” “conversion transaction” or other risk-reduction transaction, controlled foreign corporations, passive foreign investment companies, companies that accumulate earnings to avoid U.S. federal income tax, foreign tax-exempt organizations, former U.S. citizens or residents, persons who hold or receive common stock as compensation and persons subject to the alternative minimum tax). This summary is based on provisions of the Internal Revenue Code, applicable final, temporary and proposed U.S. Treasury regulations, administrative pronouncements of the U.S. Internal Revenue Service, or the IRS, and judicial decisions, all as in effect on the date hereof, and all of which are subject to change, possibly on a retroactive basis, and different interpretations.

**This summary is included herein as general information only. Accordingly, each prospective Non-U.S. Holder is urged to consult its own tax advisor with respect to the U.S. federal, state, local and non-U.S. income, estate and other tax consequences of owning and disposing of our common stock.**

**U.S. Trade or Business Income**

For purposes of this discussion, dividend income and gain on the sale or other taxable disposition of our common stock will be considered to be “U.S. trade or business income” if such income or gain is (i) effectively connected with the conduct by a Non-U.S. Holder of a trade or business within the United States and (ii) in the case of a Non-U.S. Holder that is eligible for the benefits of an income tax treaty with the United States, attributable to a permanent establishment (or, for an individual, a fixed base) maintained by the Non-U.S. Holder in the United States. Generally, U.S. trade or business income is not subject to U.S. federal withholding tax (provided the Non-U.S. Holder complies with applicable certification and disclosure requirements); instead, U.S. trade or business income is subject to U.S. federal income tax on a net income basis at regular U.S. federal

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income tax rates in the same manner as a U.S. person, unless an applicable income tax treaty provides otherwise. Any U.S. trade or business income received by a corporate Non-U.S. holder may 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.

### **Dividends**

Distributions of cash or property that we pay 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). A Non-U.S. Holder generally will be subject to U.S. federal withholding tax at a 30% rate, or, if the Non-U.S. Holder is eligible, at a reduced rate prescribed by an applicable income tax treaty, on any dividends received in respect of our common stock. If the amount of a distribution exceeds our current and accumulated earnings and profits, such excess first will be treated as a tax-free return of capital to the extent of the Non-U.S. Holder’s tax basis in our common stock (with a corresponding reduction in such Non-U.S. Holder’s tax basis in our common stock), and thereafter will be treated as capital gain. In order to obtain a reduced rate of U.S. federal withholding tax under an applicable income tax treaty, a Non-U.S. Holder will be required to provide a properly executed IRS Form W-8BEN certifying under penalties of perjury its entitlement to benefits under the treaty. Special certification requirements and other requirements apply to certain Non-U.S. Holders that are entities rather than individuals. A Non-U.S. Holder of our common stock that is eligible for a reduced rate of U.S. federal withholding tax under an income tax treaty may obtain a refund or credit of any excess amounts withheld by filing an appropriate claim for a refund with the IRS on a timely basis. A Non-U.S. Holder should consult its own tax advisor regarding its possible entitlement to benefits under an income tax treaty and the filing of a U.S. tax return for claiming a refund of U.S. federal withholding tax.

The U.S. federal withholding tax does not apply to dividends that are U.S. trade or business income, as defined and discussed above, of a Non-U.S. Holder who provides a properly executed IRS Form W-8ECI, certifying under penalties of perjury that the dividends are effectively connected with the Non-U.S. Holder’s conduct of a trade or business within the United States.

### **Dispositions of Our Common Stock**

A Non-U.S. Holder generally will not be subject to U.S. federal income or withholding tax in respect of any gain on a sale or other disposition of our common stock unless:

- the gain is U.S. trade or business income, as defined and discussed above;
- the Non-U.S. Holder is an individual who is present in the United States for 183 or more days in the taxable year of the disposition and meets other conditions; or
- we are or have been a “U.S. real property holding corporation,” or a USRPHC, under section 897 of the Internal Revenue Code at any time during the shorter of the five year period ending on the date of disposition and the Non-U.S. Holder’s holding period for our common stock.

In general, a corporation is a USRPHC if the fair market value of its “U.S. real property interests” (as defined in the Internal Revenue Code and applicable Treasury regulations) equals or exceeds 50% of the sum of the fair market value of its worldwide real property interests and its other assets used or held for use in a trade or business. If we are determined to be a USRPHC, the U.S. federal income and withholding taxes relating to interests in USRPHCs nevertheless will not apply to gains derived from the sale or other disposition of our common stock by a Non-U.S. Holder whose shareholdings, actual and constructive, at all times during the applicable period, amount to 5% or less of our common stock, provided that our common stock is regularly traded on an established securities market, within the meaning of the applicable Treasury regulations. We are not currently a USRPHC, and we do not anticipate becoming a USRPHC in the future. However, no assurance can be given that we will not be a USRPHC, or that our common stock will be considered regularly traded on an established securities market, when a Non-U.S. Holder sells its shares of our common stock.

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### **Information Reporting and Backup Withholding Requirements**

We must annually report to the IRS and to each Non-U.S. Holder any dividend income that is subject to U.S. federal withholding tax, or that is exempt from such withholding tax pursuant to an income tax treaty. Copies of these information returns also may be made available under the provisions of a specific treaty or agreement to the tax authorities of the country in which the Non-U.S. Holder resides. Under certain circumstances, the Internal Revenue Code imposes a backup withholding obligation (currently at a rate of 28%) on certain reportable payments. Dividends paid to a Non-U.S. Holder of our common stock generally will be exempt from backup withholding if the Non-U.S. Holder provides a properly executed IRS Form W-8BEN or otherwise establishes an exemption.

The payment of the proceeds from the disposition of our common stock to or through the U.S. office of any broker, U.S. or foreign, will be subject to information reporting and possible backup withholding unless the holder certifies as to its non-U.S. status under penalties of perjury or otherwise establishes an exemption, provided that the broker does not have actual knowledge or reason to know that the holder is a U.S. person or that the conditions of any other exemption are not, in fact, satisfied. The payment of the proceeds from the disposition of our common stock to or through a non-U.S. office of a non-U.S. broker is one that will not be subject to information reporting or backup withholding unless the non-U.S. broker has certain types of relationships with the United States (a “U.S. related person”). In the case of the payment of the proceeds from the disposition of our common stock to or through a non-U.S. office of a broker that is either a U.S. person or a U.S. related person, the Treasury regulations require information reporting (but not backup withholding) on the payment unless the broker has documentary evidence in its files that the holder is a Non-U.S. Holder and the broker has no knowledge to the contrary. Non-U.S. Holders should consult their own tax advisors on the application of information reporting and backup withholding to them in their particular circumstances (including upon their disposition of our common stock).

Backup withholding is not an additional tax. Any amounts withheld under the backup withholding rules from a payment to a Non-U.S. Holder will be refunded or credited against the Non-U.S. Holder’s U.S. federal income tax liability, if any, if the Non-U.S. Holder provides the required information to the IRS on a timely basis. Non-U.S. Holders should consult their own tax advisors regarding the filing of a U.S. tax return for claiming a refund of such backup withholding.

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**UNDERWRITERS**

Under the terms and subject to the conditions contained in an underwriting agreement dated the date of this prospectus, the underwriters named below, for whom Morgan Stanley & Co. Incorporated, Jefferies & Company, Inc. and CIBC World Markets Corp. are acting as representatives, have severally agreed to purchase, and we have agreed to sell to them, the number of shares of common stock indicated in the table below:

<u>Name</u>	<u>Number of Shares</u>
Morgan Stanley & Co. Incorporated	
Jefferies & Company, Inc.	
CIBC World Markets Corp.	
Total	

The underwriters are offering the shares of common stock subject to their acceptance of the shares from us and subject to prior sale. The underwriting agreement provides that the obligations of the several underwriters to pay for and accept delivery of the shares of common stock offered by this prospectus are subject to the approval of certain legal matters by their counsel and to other conditions. The underwriters are obligated to take and pay for all of the shares of common stock offered by this prospectus if any shares are taken. However, the underwriters are not required to take or pay for the shares covered by the underwriters' over-allotment option described below.

The underwriters initially propose to offer part of the shares of common stock directly to the public at the public offering price listed on the cover page of this prospectus, less underwriting discounts and commissions, and part to certain dealers at a price that represents a concession not in excess of \$ \_\_\_\_\_ a share under the public offering price. No underwriter may allow, and no dealer may re-allow, any concession to other underwriters or to certain dealers. After the initial offering of the shares of common stock, the offering price and other selling terms may from time to time be varied by the representatives.

We have granted to the underwriters an option, exercisable for 30 days from the date of this prospectus, to purchase up to an aggregate of \_\_\_\_\_ additional shares of common stock at the public offering price, less underwriting discounts and commissions. The underwriters may exercise this option solely for the purpose of covering over-allotments, if any, made in connection with the offering of the shares of common stock offered by this prospectus. To the extent the option is exercised, each underwriter will become obligated, subject to certain conditions, to purchase approximately the same percentage of the additional shares of common stock as the number listed next to the underwriter's name in the preceding table bears to the total number of shares of common stock listed next to the names of all underwriters in the preceding table. If the underwriters' over-allotment option is exercised in full, the total price to the public would be \$ \_\_\_\_\_, the total underwriters' discounts and commissions would be \$ \_\_\_\_\_ and the total proceeds to us would be \$ \_\_\_\_\_.

The following table shows the per share and total underwriting discounts and commissions that we are to pay to the underwriters in connection with this offering. These amounts are shown assuming both no exercise and full exercise of the underwriters' option.

	<u>No Exercise</u>	<u>Full Exercise</u>
Per share	\$ _____	\$ _____
Total	\$ _____	\$ _____

In addition, we estimate that the expenses of this offering other than underwriting discounts and commissions payable by us will be approximately \$ \_\_\_\_\_ million.

The underwriters have informed us that they do not intend to make sales to accounts over which they exercise discretionary authority in excess of 5% of the total number of shares of common stock offered by them.

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We have applied to have our common stock approved for listing on The NASDAQ Global Market under the symbol “AMCA.”

We, all of our directors and officers and holders of substantially all our outstanding stock and securities exercisable for or convertible into shares of common stock have agreed that, subject to certain limitations, without the prior written consent of Morgan Stanley & Co. Incorporated on behalf of the underwriters, we and they will not, during the period beginning on the date of this prospectus and ending 180 days thereafter:

- offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, lend or otherwise transfer or 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;
- file any registration statement with the SEC relating to the offering of any shares of our common stock or any securities convertible into or exercisable for shares of our common stock; or
- enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of the common stock;

whether any transaction described above is to be settled by delivery of our common stock or such other securities, in cash or otherwise.

Moreover, the 180-day restricted period described in the preceding paragraph will be extended if:

- during the last 17 days of the 180-day restricted period, we issue an earnings release or disclose material news or a material event relating to our company occurs; or
- prior to the expiration of the 180-day restricted period, we announce that we will release earnings results during the 16-day period beginning on the last day of the 180-day restricted period;

in which case the restrictions described in the immediately preceding sentence will continue to apply until the expiration of the 18-day period beginning on the issuance of the earnings release, the disclosure of the material news or the occurrence of the material event.

The restrictions described in the immediately preceding two paragraphs do not apply to:

- the sale of shares to the underwriters;
- the issuance by us of shares of common stock upon the exercise of an option or a warrant or the conversion of a security outstanding on the date of this prospectus of which the underwriters have been advised in writing; or
- transactions by any person other than us relating to shares of common stock or other securities acquired in open market transactions after the completion of this offering of shares.

At our request, the underwriters have reserved for sale at the initial public offering price up to \_\_\_\_\_ of the shares offered hereby for officers, directors, employees and certain other persons associated with us. The number of shares available for sale to the general public will be reduced to the extent such persons purchase such reserved shares. Any reserved shares not so purchased will be offered by the underwriters to the general public on the same basis as the other shares offered hereby. Any shares purchased through this directed share program will be subject to an agreement between the purchaser of the shares and Morgan Stanley & Co. Incorporated, providing that the shares may not be sold, transferred or otherwise disposed of as described in the preceding paragraphs for a period of 25 days after the date of this prospectus, or 180 days after the date of this prospectus if the purchaser is one of our directors or executive officers. The directed share program is being arranged through Morgan Stanley & Co. Incorporated.

In order to facilitate this offering of common stock, the underwriters may engage in transactions that stabilize, maintain or otherwise affect the price of the common stock. Specifically, the underwriters may sell

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more shares than they are obligated to purchase under the underwriting agreement, creating a short position. A short sale is covered if the short position is no greater than the number of shares available for purchase by the underwriters under the over-allotment option. The underwriters can close out a covered short sale by exercising the over-allotment option or by purchasing shares in the open market. In determining the source of shares to close out a covered short sale, the underwriters will consider, among other things, the open market price of shares compared to the price available under the over-allotment option. The underwriters may also sell shares in excess of the over-allotment option, creating a naked short position. The underwriters must close out any naked short position by purchasing shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of the common stock in the open market after pricing that could adversely affect investors who purchase in this offering. In addition, to stabilize the price of the common stock, the underwriters may bid for and purchase shares of common stock in the open market. Finally, the underwriting syndicate may reclaim selling concessions allowed to an underwriter or a dealer for distributing the common stock in the offering if the syndicate repurchases previously distributed common stock to cover syndicate short positions or to stabilize the price of the common stock. These activities may raise or maintain the market price of the common stock above independent market levels or prevent or retard a decline in the market price of the common stock. The underwriters are not required to engage in these activities and may end any of these activities at any time.

The underwriters may in the future provide investment banking services to us for which they would receive customary compensation.

We and the underwriters have agreed to indemnify each other against certain liabilities, including liabilities under the Securities Act.

In relation to each Member State of the European Economic Area which has implemented the Prospectus Directive (each a “Relevant Member State”), each underwriter has represented and agreed that it has not made and will not make an offer to the public of any shares of common stock in that Relevant Member State, except that it may make an offer to the public of shares of common stock in that Relevant Member State at any time under the following exemptions under the Prospectus Directive:

- to legal entities which are authorized or regulated to operate in the financial markets or, if not so authorized or regulated, whose corporate purpose is solely to invest in securities;
- to any legal entity which has two or more of (1) an average of at least 250 employees during the last financial year; (2) a total balance sheet of more than €43,000,000 and (3) an annual net turnover of more than €50,000,000, as shown in its last annual or consolidated accounts;
- an offer addressed to fewer than 100 natural or legal persons in that Relevant Member State (other than qualified investors); or
- in any other circumstances which do not require the publication by us of a prospectus pursuant to Article 3(2) of the Prospectus Directive.

For the purposes of the above, the expression an “offer to the public” in relation to any shares of common stock in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and the shares of common stock to be offered so as to enable an investor to decide to purchase or subscribe the shares of common stock, as the same may be varied in that Member State by any measure implementing the Prospectus Directive in that Member State, the expression “Prospectus Directive” means Directive 2003/71/EC and includes any relevant implementing measure in each Relevant Member State and the expression “qualified investor” has the meaning set forth in Article 2(1) of the Prospectus Directive.

Each underwriter has represented and agreed that it has only communicated or caused to be communicated and will only communicate or cause to be communicated an invitation or inducement to engage in investment activity (within the meaning of Section 21 of the Financial Services and Markets Act 2000) in connection with the issue or sale of the common stock in circumstances in which Section 21(1) of such Act does not apply to us

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and it has complied and will comply with all applicable provisions of such Act with respect to anything done by it in relation to any shares of common stock in, from or otherwise involving the United Kingdom.

### **Pricing of the Offering**

Prior to this offering, there has been no public market for our common stock. The initial public offering price will be determined by negotiations between us and the representatives of the underwriters. Among the factors to be considered in determining the initial public offering price will be our future prospects and those of our industry in general; sales, earnings and other financial operating information in recent periods; and the price-earnings ratios, price-sales ratios and market prices of securities and certain financial and operating information of companies engaged in activities similar to ours. The estimated initial public offering price range set forth on the cover page of this preliminary prospectus is subject to change as a result of market conditions and other factors.

A prospectus in electronic format may be made available on the web sites maintained by one or more underwriters. The underwriters may agree to allocate a number of shares to underwriters for sale to their online brokerage account holders. Internet distributions will be allocated by the representatives to underwriters that may make Internet distributions on the same basis as other allocations.

### **LEGAL MATTERS**

The validity of the issuance of the common stock offered by us in this offering will be passed upon for us by Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C., Boston, Massachusetts. The underwriters are being represented by Davis Polk & Wardwell, Menlo Park, California.

### **EXPERTS**

Ernst & Young LLP, independent registered public accounting firm, has audited our financial statements at December 31, 2005 and 2006 and for each of the three years in the period ended December 31, 2006, as set forth in their report. We have included our financial statements in the prospectus and elsewhere in the registration statement in reliance on Ernst & Young LLP's report, given on their authority as experts in accounting and auditing.

## WHERE YOU CAN FIND ADDITIONAL INFORMATION

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

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

Upon completion of this offering, we will become subject to the information and periodic reporting requirements of the Exchange Act and, accordingly, will file annual reports containing financial statements audited by an independent public accounting firm, quarterly reports containing unaudited financial data, current reports, proxy statements and other information with the SEC. You will be able to inspect and copy such periodic reports, proxy statements and other information at the SEC's public reference room, and the web site of the SEC referred to above. We will also maintain a web site at <http://www.amedicacorp.com>, at which you may access these materials free of charge as soon as reasonably practicable after they are electronically filed with, or furnished to, the SEC. The information contained in, or that can be accessed through, our web site is not part of this prospectus.

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**AMEDICA CORPORATION**  
**(A Development Stage Company)**

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**REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

The Board of Directors and Stockholders of  
Amedica Corporation

We have audited the accompanying balance sheets of Amedica Corporation (a development stage company) as of December 31, 2005 and 2006, and the related statements of operations, convertible preferred stock and stockholders' equity (deficit) and cash flows for each of the three years in the period ended December 31, 2006. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. We were not engaged to perform an audit of the Company's internal control over financial reporting. Our audits included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Amedica Corporation (a development stage company) at December 31, 2005 and 2006, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2006, in conformity with U.S. generally accepted accounting principles.

As discussed in Notes 1 and 7 to the financial statements, Amedica Corporation (a development stage company) changed its method of accounting for stock-based compensation in accordance with guidance provided in Statement of Financial Accounting Standard No. 123(R), *Share-Based Payment* during the year ended December 31, 2006.

/s/ Ernst & Young LLP

Salt Lake City, Utah  
May 18, 2007

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**AMEDICA CORPORATION**  
**(A Development Stage Company)**

**BALANCE SHEETS**

	<u>December 31,</u>		<u>March 31,</u>	<u>Pro Forma</u>
	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>March 31,</u>
			(unaudited)	2007 (unaudited)
<b>ASSETS</b>				
Current assets:				
Cash and cash equivalents	\$ 1,252,570	\$ 1,689,135	\$ 2,045,322	\$ 2,045,322
Marketable securities	4,927,251	11,780,000	8,280,000	8,280,000
Accrued interest receivable	52,240	49,396	27,604	27,604
Prepaid expenses	18,550	45,846	45,846	45,846
<b>Total current assets</b>	<b>6,250,611</b>	<b>13,564,377</b>	<b>10,398,772</b>	<b>10,398,772</b>
Property and equipment, net	1,370,278	4,057,090	4,534,990	4,534,990
Other assets:				
Deferred offering costs	115,297	1,314,588	1,348,952	1,348,952
Restricted cash	100,000	850,000	850,000	850,000
Deposits	151,508	75,255	75,255	75,255
<b>Total other assets</b>	<b>366,805</b>	<b>2,239,843</b>	<b>2,274,207</b>	<b>2,274,207</b>
<b>Total assets</b>	<b>\$ 7,987,694</b>	<b>\$ 19,861,310</b>	<b>\$ 17,207,969</b>	<b>\$ 17,207,969</b>
<b>LIABILITIES, CONVERTIBLE PREFERRED STOCK AND STOCKHOLDERS' EQUITY (DEFICIT)</b>				
Current liabilities:				
Accounts payable	\$ 207,216	\$ 975,162	\$ 241,825	\$ 241,825
Accrued liabilities	175,623	142,968	91,954	91,954
Deferred rent	12,910	3,063	6,338	6,338
Deferred revenue	—	98,933	98,933	98,933
Current portion of long-term debt	—	376,539	418,616	418,616
<b>Total current liabilities</b>	<b>395,749</b>	<b>1,596,665</b>	<b>857,666</b>	<b>857,666</b>
Deferred rent	2,506	79,922	77,699	77,699
Deferred revenue	98,933	—	—	—
Preferred stock warrant liability	1,404,000	2,623,550	6,304,963	—
Long-term debt	—	1,245,359	1,137,625	1,137,625
Commitments and contingencies				
Convertible preferred stock, \$0.01 par value, 40,000,000 shares authorized; 19,000,058 shares issued and outstanding at December 31, 2005 and 27,400,058 shares issued and outstanding at December 31, 2006 and March 31, 2007 (aggregate liquidation value of \$14,400,035 at December 31, 2005, and \$31,200,035 at December 31, 2006 and March 31, 2007); no shares issued and outstanding pro forma	12,153,095	26,389,982	26,389,982	—
Stockholders' equity (deficit):				
Common stock, \$0.01 par value, 60,000,000 shares authorized; 8,655,595 shares issued and outstanding at December 31, 2005 and 8,678,995 shares issued and outstanding at December 31, 2006 and March 31, 2007, 36,079,053 shares issued and outstanding pro forma	86,556	86,790	86,790	360,791
Additional paid-in capital	316,098	450,634	527,561	32,948,505
Accumulated other comprehensive loss	(21,205)	—	—	—
Deficit accumulated during the development stage	(6,448,038)	(12,611,592)	(18,174,317)	(18,174,317)
<b>Total stockholders' equity (deficit)</b>	<b>(6,066,589)</b>	<b>(12,074,168)</b>	<b>(17,559,966)</b>	<b>15,134,979</b>
<b>Total liabilities, convertible preferred stock and stockholders' equity (deficit)</b>	<b>\$ 7,987,694</b>	<b>\$ 19,861,310</b>	<b>\$ 17,207,969</b>	<b>\$ 17,207,969</b>

*The accompanying notes are an integral part of these financial statements.*

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**AMEDICA CORPORATION**  
**(A Development Stage Company)**

**STATEMENTS OF OPERATIONS**

	<u>For the years ended</u> <u>December 31,</u>			<u>Three months ended</u> <u>March 31,</u>		<u>For the period</u> <u>from December 10,</u> <u>1996</u> <u>(inception)</u> <u>through</u> <u>March 31, 2007</u>
	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>(unaudited)</u>		<u>(unaudited)</u>
Grant revenue	\$ 208,252	\$ 69,207	\$ 94,850	\$ —	\$ —	\$ 1,234,476
Operating expenses:						
Research and development	1,419,293	2,966,991	4,974,380	1,100,125	1,479,340	11,802,694
General and administrative	398,208	576,295	1,113,500	184,425	405,380	2,806,322
Sales and marketing	—	416,847	607,538	111,038	125,740	1,150,125
Total operating expenses	<u>1,817,501</u>	<u>3,960,133</u>	<u>6,695,418</u>	<u>1,395,588</u>	<u>2,010,460</u>	<u>15,759,141</u>
Loss from operations	(1,609,249)	(3,890,926)	(6,600,568)	(1,395,588)	(2,010,460)	(14,524,665)
Other income (expense):						
Interest income	107,211	248,838	805,437	150,487	166,870	1,330,365
Interest expense	—	—	(77,498)	—	(37,722)	(176,590)
Change in value of preferred stock warrants	(254,089)	(577,000)	(290,925)	(72,731)	(3,681,413)	(4,803,427)
Total other income (expense)	<u>(146,878)</u>	<u>(328,162)</u>	<u>437,014</u>	<u>77,756</u>	<u>(3,552,265)</u>	<u>(3,649,652)</u>
Net loss	<u>\$ (1,756,127)</u>	<u>\$ (4,219,088)</u>	<u>\$ (6,163,554)</u>	<u>\$ (1,317,832)</u>	<u>\$ (5,562,725)</u>	<u>\$ (18,174,317)</u>
Basic and diluted net loss per share	<u>\$ (0.20)</u>	<u>\$ (0.49)</u>	<u>\$ (0.71)</u>	<u>\$ (0.15)</u>	<u>\$ (0.64)</u>	
Shares used to compute basic and diluted net loss per share	<u>8,585,873</u>	<u>8,612,014</u>	<u>8,661,713</u>	<u>8,655,595</u>	<u>8,678,995</u>	
Pro forma net loss per share (unaudited)			<u>\$ (0.18)</u>		<u>\$ (0.15)</u>	
Shares used to compute pro forma basic and diluted net loss per share (unaudited)			<u>34,795,607</u>		<u>36,079,053</u>	

*The accompanying notes are an integral part of these financial statements.*

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**AMEDICA CORPORATION**  
**(A Development Stage Company)**

**STATEMENTS OF CONVERTIBLE PREFERRED STOCK AND STOCKHOLDERS' EQUITY (DEFICIT)**

	Convertible Preferred Stock		Common Stock			Accumulated Other Comprehensive Income (loss)	Deficit Accumulated During the Development Stage	Total Stockholders' Equity (Deficit)
	Shares	Amount	Shares	Amount	Additional Paid-in Capital			
Issuance of common stock to founders for cash at \$0.000025 per share on December 10, 1996 (inception)	—	\$ —	8,000,000	\$ 80,000	\$ (79,800)	\$ —	\$ —	\$ 200
Net loss	—	—	—	—	—	—	(8,810)	(8,810)
Balance at December 31, 1996	—	—	8,000,000	80,000	(79,800)	—	(8,810)	(8,610)
Net loss	—	—	—	—	—	—	(21,143)	(21,143)
Balance at December 31, 1997	—	—	8,000,000	80,000	(79,800)	—	(29,953)	(29,753)
Net loss	—	—	—	—	—	—	(40,967)	(40,967)
Balance at December 31, 1998	—	—	8,000,000	80,000	(79,800)	—	(70,920)	(70,720)
Net income	—	—	—	—	—	—	8,324	8,324
Balance at December 31, 1999	—	—	8,000,000	80,000	(79,800)	—	(62,596)	(62,396)
Net loss	—	—	—	—	—	—	(87,300)	(87,300)
Balance at December 31, 2000	—	—	8,000,000	80,000	(79,800)	—	(149,896)	(149,696)
Net loss	—	—	—	—	—	—	(105,278)	(105,278)
Balance at December 31, 2001	—	—	8,000,000	80,000	(79,800)	—	(255,174)	(254,974)
Net income	—	—	—	—	—	—	12,779	12,779
Balance at December 31, 2002	—	—	8,000,000	80,000	(79,800)	—	(242,395)	(242,195)
Issuance of common stock in exchange for shareholder note payable and interest at \$0.60 per share in October 2003	—	—	493,785	4,938	291,333	—	—	296,271
Issuance of Series A convertible preferred stock for cash at \$0.60 per share in November 2003 for cash, net of offering costs	10,195,040	5,289,266	—	—	—	—	—	—
Compensation expense related to stock options granted to consultants	—	—	—	—	3,094	—	—	3,094
Net loss	—	—	—	—	—	—	(230,428)	(230,428)
Balance at December 31, 2003	10,195,040	5,289,266	8,493,785	84,938	214,627	—	(472,823)	(173,258)
Issuance of common stock upon exercise of stock options	—	—	95,210	952	22,830	—	—	23,782
Issuance of Series A convertible preferred stock for cash at \$0.60 per share in January 2004, net of offering costs	3,805,018	1,666,405	—	—	—	—	—	—
Issuance of Series B convertible preferred stock for cash at \$1.20 per share in November 2004, net of offering costs	5,000,000	5,197,424	—	—	—	—	—	—
Compensation expense related to stock options granted to consultants	—	—	—	—	18,391	—	—	18,391
Unrealized loss on marketable securities	—	—	—	—	—	(15,525)	—	(15,525)
Net loss	—	—	—	—	—	—	(1,756,127)	(1,756,127)
Comprehensive loss	—	—	—	—	—	—	—	(1,771,652)
Balance at December 31, 2004	19,000,058	\$12,153,095	8,588,995	\$ 85,890	\$ 255,848	\$ (15,525)	\$ (2,228,950)	\$ (1,902,737)

*The accompanying notes are an integral part of these financial statements.*

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**AMEDICA CORPORATION**  
(A Development Stage Company)

**STATEMENTS OF CONVERTIBLE PREFERRED STOCK AND STOCKHOLDERS' EQUITY (DEFICIT)—(Continued)**

	Convertible Preferred Stock		Common Stock			Accumulated Other Comprehensive Income (loss)	Deficit Accumulated During the Development Stage	Total Stockholders' Equity (Deficit)
	Shares	Amount	Shares	Amount	Additional Paid-in Capital			
Issuance of common stock upon exercise of stock options	—	—	66,600	666	15,984	—	—	16,650
Compensation expense related to stock options granted to consultants	—	—	—	—	44,266	—	—	44,266
Unrealized loss on marketable securities	—	—	—	—	—	(5,680)	—	(5,680)
Net loss	—	—	—	—	—	—	(4,219,088)	(4,219,088)
<b>Comprehensive loss</b>								<b>(4,224,768)</b>
Balance at December 31, 2005	19,000,058	12,153,095	8,655,595	86,556	316,098	(21,205)	(6,448,038)	(6,066,589)
Issuance of common stock upon exercise of stock options	—	—	23,400	234	3,366	—	—	3,600
Issuance of Series C convertible preferred stock for cash at \$2.00 per share in February 2006, net of offering costs	8,400,000	14,236,887	—	—	—	—	—	—
Compensation expense related to stock options granted to employees and consultants	—	—	—	—	131,170	—	—	131,170
Decrease in unrealized loss on marketable securities	—	—	—	—	—	21,205	—	21,205
Net loss	—	—	—	—	—	—	(6,163,554)	(6,163,554)
<b>Comprehensive loss</b>								<b>(6,142,349)</b>
Balance at December 31, 2006	27,400,058	\$26,389,982	8,678,995	86,790	450,634	—	(12,611,592)	(12,074,168)
Compensation expense related to stock options granted to employees and consultants (unaudited)	—	—	—	—	76,927	—	—	76,927
Net loss (unaudited)	—	—	—	—	—	—	(5,562,725)	(5,562,725)
<b>Comprehensive loss (unaudited)</b>								<b>(5,562,725)</b>
Balance at March 31, 2007 (unaudited)	27,400,058	\$26,389,982	8,678,995	\$86,790	\$527,561	\$—	\$ (18,174,317)	\$ (17,559,966)

*The accompanying notes are an integral part of these financial statements.*

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**AMEDICA CORPORATION**  
**(A Development Stage Company)**  
**STATEMENTS OF CASH FLOWS**

	For the years ended December 31,			Three Months Ended March 31,		For the period from December 10, 1996
	2004	2005	2006	(unaudited)		(inception) to March 31, 2007 (unaudited)
<b>Cash Flows from Operating Activities:</b>						
Net loss	\$(1,756,127)	\$(4,219,088)	\$ (6,163,554)	\$ (1,317,832)	\$(5,562,725)	\$ (18,174,317)
Adjustments to reconcile net loss to net cash used in operating activities:						
Depreciation and amortization	32,487	164,374	546,100	49,513	237,551	985,135
Loss on impairment of assets	—	—	—	—	—	20,935
Amortization of premiums on marketable securities	29,962	75,075	18,212	10,464	—	123,249
Interest on shareholder loan	—	—	—	—	—	61,370
Stock based compensation	18,391	44,266	131,170	25,474	76,927	273,848
Revaluation of preferred stock warrant liability	254,089	577,000	290,925	72,731	3,681,413	4,803,427
Changes in operating assets and liabilities:						
Interest receivable	(61,359)	9,119	2,844	10,575	21,792	(27,604)
Prepaid expenses	(42,909)	60,519	(27,296)	90,696	—	(45,846)
Deferred offering costs	—	(115,297)	(1,199,291)	115,297	(34,364)	(1,348,952)
Deposits	(74,000)	(77,508)	76,253	76,252	—	(75,255)
Accounts payable and accrued liabilities	203,514	(3,827)	735,291	111,241	(784,351)	333,779
Deferred rent	18,767	(3,351)	67,569	(5,842)	1,052	84,037
Deferred revenue	96,000	2,933	—	—	—	98,933
Net cash used in operating activities	(1,281,185)	(3,485,785)	(5,521,777)	(761,431)	(2,362,705)	(12,887,261)
<b>Cash Flows from Investing Activities:</b>						
Purchases of property and equipment	(694,556)	(854,088)	(3,232,912)	(1,002,168)	(715,451)	(5,541,060)
Purchases of marketable securities	(8,516,594)	(5,193,165)	(30,097,756)	(15,262,044)	—	(43,807,515)
Increase in restricted cash	(100,000)	—	(750,000)	—	—	(850,000)
Maturities of marketable securities	—	8,656,266	23,248,000	2,200,000	3,500,000	35,404,266
Net cash provided by (used in) investing activities:	(9,311,150)	2,609,013	(10,832,668)	(14,064,212)	2,784,549	(14,794,309)
<b>Cash Flows from Financing Activities:</b>						
Proceeds from shareholder note payable	—	—	—	—	—	234,901
Proceeds from issuance of convertible preferred stock and warrants, net of issuance costs	7,436,740	—	15,165,512	15,165,512	—	27,891,518
Proceeds from issuance of common stock	23,782	16,650	3,600	—	—	44,232
Proceeds from long-term debt	—	—	1,621,898	—	—	1,621,898
Repayments of long-term debt	—	—	—	—	(65,657)	(65,657)
Net cash provided by (used in) financing activities	7,460,522	16,650	16,791,010	15,165,512	(65,657)	29,726,892
Net increase (decrease) in cash and cash equivalents	(3,131,813)	(860,122)	436,565	339,869	356,187	2,045,322
Cash and cash equivalents at beginning of period	5,244,505	2,112,692	1,252,570	1,252,570	1,689,135	—
Cash and cash equivalents at end of period	\$ 2,112,692	\$ 1,252,570	\$ 1,689,135	\$ 1,592,439	\$ 2,045,322	\$ 2,045,322
<b>Noncash financing activities:</b>						
Common stock issued in exchange for shareholder note and accrued interest	\$ —	\$ —	\$ —	\$ —	\$ —	\$ 296,271
Warrants issued in connection with preferred stock offerings	572,911	—	928,625	928,625	—	1,501,536
<b>Supplemental cash flow information</b>						
Cash paid for interest	\$ —	\$ —	\$ 76,574	\$ —	\$ 37,722	\$ 114,296

*The accompanying notes are an integral part of these financial statements.*

**AMEDICA CORPORATION**  
**(A Development Stage Company)**

**NOTES TO FINANCIAL STATEMENTS**

**(Information as of March 31, 2007, for the three months ended March 31, 2006 and 2007, and for the period from December 10, 1996 (inception) to March 31, 2007 is unaudited)**

**1. Organization and Summary of Significant Accounting Policies**

Amedica Corporation (“Amedica” or the “Company”), incorporated in the state of Delaware on December 10, 1996, is a development stage orthopedic implants company focusing on using silicon nitride ceramic technologies to develop, manufacture and commercialize a broad range of advanced, high-performance spine and joint implants.

The Company is considered a development stage company as planned principal operations have not yet commenced and the revenue generated from research grants did not constitute significant and sustained revenue. Since inception, the Company has devoted substantially all of its resources to start-up activities, raising capital, research and development, and build-out of its ceramics manufacturing facility.

***Unaudited Interim Financial Information***

The accompanying balance sheet as of March 31, 2007, and the related statements of operations and cash flows for the three month periods ended March 31, 2006 and 2007 and for the period from December 10, 1996 (inception) to March 31, 2007 and the statement of convertible preferred stock and stockholders’ equity (deficit) for the three months ended March 31, 2007 and related information contained in the notes to financial statements are unaudited. These unaudited financial statements and notes have been prepared in accordance with U.S. generally accepted accounting principles. In the opinion of the Company’s management, the unaudited financial statements have been prepared on the same basis as the audited financial statements and include all adjustments, consisting of only normal recurring adjustments, necessary for the fair presentation of the Company’s financial position, results of operations and cash flows for the three months ended March 31, 2006 and 2007 and for the period from December 10, 1996 (inception) to March 31, 2007. The results for the three months ended March 31, 2007 are not necessarily indicative of the results of operations to be expected for the year ending December 31, 2007 or for any other interim period or future year.

***Unaudited Pro Forma Balance Sheet***

In May 2007, the board of directors authorized management of the Company to file a registration statement with the Securities and Exchange Commission permitting the Company to sell shares of its common stock to the public. The unaudited pro forma balance sheet as of March 31, 2007 and pro forma basic and diluted net loss per share reflect the automatic conversion of all of the Series A, Series B and Series C convertible preferred stock outstanding at the time of the offering into 27,400,058 shares of common stock upon the closing of the Company’s initial public offering. The unaudited pro forma balance sheet, as adjusted for the assumed conversion of the preferred stock and the conversion of 3,803,750 preferred stock warrants into common stock warrants and the related reclassification of the preferred stock warrant liability to additional paid in capital, is set forth in the accompanying pro forma balance sheet as of March 31, 2007.

***Use of Estimates***

The preparation of financial statements in conformity with U.S. generally accepted accounting principles requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. Actual results could differ from those estimates.

**AMEDICA CORPORATION**  
**(A Development Stage Company)**

**NOTES TO FINANCIAL STATEMENTS—(Continued)**  
**(Information as of March 31, 2007, for the three months ended March 31, 2006 and 2007, and for the period from December 10, 1996 (inception) to March 31, 2007 is unaudited)**

***Fair Value of Financial Instruments***

Financial instruments, including cash and cash equivalents, marketable securities, and restricted cash are carried at fair value. Other financial instruments, including other current assets, accounts payable and accrued liabilities are carried at cost, which management believes approximates fair value given their short-term nature.

***Concentration of Credit Risk***

Financial instruments, which potentially subject the Company to concentrations of credit risk, consist primarily of cash, cash equivalents, marketable securities and restricted cash. The Company limits its exposure to credit loss by placing its cash with high credit-quality financial institutions. The Company has established guidelines relative to diversification of its cash and investment securities and their maturities that are intended to secure safety and liquidity. These guidelines are periodically reviewed and modified to take advantage of trends in yields and interest rates and changes in the Company's operations and financial position.

***Cash, Cash Equivalents and Marketable Securities***

The Company invests its available cash balances in bank deposits, money market funds, U.S. government securities and other investment grade debt securities that have strong credit ratings. The Company considers all highly liquid investments with an original maturity of three months or less at the time of purchase to be cash equivalents.

The Company accounts for its investments in marketable securities in accordance with Statement of Financial Accounting Standards ("SFAS") No. 115, *Accounting for Certain Investments in Debt and Equity Securities*. Management determines the appropriate classification of securities at the time of purchase. To date, all marketable securities have been classified as available-for-sale, and are carried at fair value as determined based on quoted market prices with unrealized gains and losses reported as a component of accumulated other comprehensive income (loss) as a component of stockholders' equity (deficit). The Company views its available-for-sale portfolio as available for use in current operations. Accordingly, the Company has classified all investments as short term.

The amortized cost of debt securities is adjusted for amortization of premiums and accretion of discounts to maturity. Such amortization is included in interest income. Realized gains and losses and declines in value judged to be other-than-temporary on available-for-sale securities, if any, are included in interest income and expense and have not been material. Realized gains and losses are computed on a specific identification basis. Interest and dividends are included in interest income.

***Property and Equipment***

Property and equipment, including leasehold improvements, are stated at cost, less accumulated depreciation and amortization. Property and equipment is depreciated using the straight-line method over the estimated useful lives of the assets, which range from three to five years. Leasehold improvements are amortized over the shorter of their estimated useful lives or the related lease term, generally five years. Deposits on equipment consist of amounts paid to vendors as down-payments on certain specialty manufacturing equipment and are not depreciated until the equipment is placed into service.

**AMEDICA CORPORATION**  
**(A Development Stage Company)**

**NOTES TO FINANCIAL STATEMENTS—(Continued)**

**(Information as of March 31, 2007, for the three months ended March 31, 2006 and 2007, and for the period from December 10, 1996 (inception) to March 31, 2007 is unaudited)**

***Impairment of Long-Lived Assets***

SFAS No. 144, *Accounting for the Impairment or Disposal of Long-Lived Assets*, requires losses from impairment of long-lived assets used in operations to be recorded when indicators of impairment are present and the undiscounted cash flows estimated to be generated by those assets are less than the assets' carrying amount. The Company periodically evaluates the carrying value of long-lived assets to be held and used when events and circumstances indicate that the carrying amount of an asset may not be recovered.

***Deferred Rent***

Lease incentives, including rent holidays and rent escalation provisions, are accrued as deferred rent. The Company recognizes rent expense on a straight-line basis over the term of the lease.

***Revenue Recognition***

Revenue consists primarily of amounts earned under research grants with the National Institutes of Health (NIH). The Company's federal government research grants provide for the reimbursement of qualified expenses for research and development as defined under the terms of each grant. Revenue under grants is recognized when earned, and revenue is considered earned as the related qualified research and development expenses are incurred, up to the limit of the approved funding amounts.

***Research and Development***

All research and development costs, including those funded by third parties, are expensed as incurred. Research and development costs consist of engineering, product development, test-part manufacturing, testing, developing and validating the manufacturing process, and regulatory related costs. Research and development expenses also include employee compensation, employee and non-employee stock-based compensation, supplies and materials, consultant services, and travel and facilities expenses related to research activities.

***Income Taxes***

The Company utilizes the liability method of accounting for income taxes as required by SFAS No. 109, *Accounting for Income Taxes*. Under this method, deferred tax assets and liabilities are determined based on differences between financial reporting and tax reporting bases of assets and liabilities and are measured using enacted tax rates and laws that are expected to be in effect when the differences are expected to reverse. Valuation allowances are established when necessary to reduce deferred tax assets to the amounts expected to be realized. Currently, there is no provision for income taxes as the Company has incurred operating losses to date.

***Comprehensive Income (Loss)***

SFAS No. 130, *Reporting Comprehensive Income*, requires components of other comprehensive income, including unrealized gains and losses on available-for-sale investments, to be included as part of accumulated other comprehensive income (loss). The Company displays comprehensive loss and its components as part of the statement of convertible preferred stock and stockholders' equity (deficit). Comprehensive loss consists of net loss and unrealized gains and losses on available-for-sale investments.

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**AMEDICA CORPORATION**  
(A Development Stage Company)

**NOTES TO FINANCIAL STATEMENTS—(Continued)**

(Information as of March 31, 2007, for the three months ended March 31, 2006 and 2007, and for the period from December 10, 1996 (inception) to March 31, 2007 is unaudited)

**Loss per Common Share**

The computation of basic and diluted net loss per common share is based on the weighted average number of shares outstanding as follows:

	Years Ended December 31,			Three months ended March 31,	
	2004	2005	2006	2006	2007 (unaudited)
<b>Historical:</b>					
Net loss (numerator)	\$ (1,756,127)	\$ (4,219,088)	\$ (6,163,554)	\$ (1,317,832)	\$ (5,562,725)
Weighted average number of shares outstanding (denominator)	8,585,873	8,612,014	8,661,713	8,655,595	8,678,995
Basic and diluted loss per common share	\$ (0.20)	\$ (0.49)	\$ (0.71)	\$ (0.15)	\$ (0.64)
<b>Pro forma:</b>					
Weighted average number of shares outstanding (above)			8,661,713		8,678,995
Pro forma adjustments to reflect assumed weighted-average effect of conversion of preferred stock (unaudited)			26,133,894		27,400,058
Shares used to compute pro forma basic and diluted net loss per share (unaudited)			34,795,607		36,079,053
Pro forma basic and diluted net loss per share (unaudited)			\$ (0.18)		\$ (0.15)
Securities excluded from net loss calculations as their impact would be antidilutive:					
Convertible preferred stock	19,000,058	19,000,058	27,400,058	27,400,058	27,400,058
Stock options	2,774,540	3,057,190	3,658,627	3,258,390	3,457,627
Preferred stock warrants	2,600,000	2,600,000	3,803,750	3,803,750	3,803,750
Total	24,374,598	24,657,248	34,862,435	34,462,198	34,661,435

**Stock-Based Compensation**

Prior to January 1, 2006, the Company accounted for stock-based employee compensation arrangements using the intrinsic value method in accordance with the recognition and measurement provisions of Accounting Principles Board Opinion (“APB”) No. 25, *Accounting for Stock Issued to Employees*, and related interpretations, including the Financial Accounting Standards Board Interpretation (“FIN”) No. 44, *Accounting for Certain Transactions Involving Stock Compensation, an Interpretation of APB Opinion No. 25* as permitted by SFAS No. 123, *Accounting for Stock-Based Compensation*. In accordance with APB No. 25, stock-based compensation is calculated using the intrinsic value method and represents the difference between the estimated fair value of our common stock and the per share exercise price of the stock option. Based on this method of accounting, our compensation expense under APB No. 25 was zero.

Effective January 1, 2006, the Company adopted the provisions of SFAS No. 123R, *Share-Based Payments*. In March 2005, the Securities and Exchange Commission issued Staff Accounting Bulletin (“SAB”) No. 107

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relating to SFAS No. 123R. The Company has applied the provisions of SAB No. 107 in its adoption of SFAS No. 123R. Under SFAS No. 123R, stock-based awards, including stock options, are recorded at fair value as of the grant date and recognized to expense over the employee's requisite service period (generally the vesting period) which the Company has elected to amortize on a straight-line basis. Because non-cash stock compensation expense is based on awards ultimately expected to vest, the Company reduces stock compensation expense for estimated forfeitures. For the year ended December 31, 2006 and the three months ended March 31, 2007, the Company's estimate of forfeitures is zero. The pro forma disclosures previously permitted under SFAS No. 123 are no longer an alternative to financial statement recognition and the Company no longer applies the minimum value method and instead calculates the fair value of its employee stock options using an estimated volatility rate. The Company adopted the provisions of SFAS No. 123R using the prospective transition method. Under the prospective transition method, beginning January 1, 2006, compensation cost recognized includes: (a) compensation cost for all share-based payments granted prior to, but not yet vested as of December 31, 2005, based on the intrinsic value in accordance with the provisions of APB No. 25, and (b) compensation cost for all share-based payments granted subsequent to December 31, 2005, based on the grant-date fair value estimated in accordance with the provisions of SFAS No. 123R. All awards granted, modified, or settled after the date of adoption are accounted for using the measurement, recognition, and attribution provisions of SFAS No. 123R.

As a result of adopting SFAS No. 123R on January 1, 2006, the net loss for the year ended December 31, 2006 and three months ended March 31, 2006 and 2007 was higher by approximately \$38,857, \$5,109 and \$27,525, respectively, than if the Company had continued to account for stock-based compensation under APB No. 25. As of December 31, 2006 and March 31, 2007, total compensation related to nonvested options not yet recognized in the financial statements was approximately \$377,000 and \$351,000, respectively, and the weighted average period over which it is expected to be recognized is approximately 3.66 and 3.45 years, respectively. The Company recorded no tax benefit related to these options during the year ended December 31, 2006 or the three months ended March 31, 2006 and 2007, since the Company currently maintains a full valuation allowance offsetting its deferred tax assets.

The Company accounts for equity instruments issued to nonemployees in accordance with the provisions of Emerging Issues Task Force ("EITF") No. 96-18, *Accounting for Equity Instruments That Are Issued to Other Than Employees for Acquiring, or in Conjunction with Selling, Goods or Services*, using a fair-value approach. The equity instruments, consisting of stock options and warrants granted to consultants, are valued using the Black-Scholes valuation model. The measurement of stock-based compensation is subject to periodic adjustments as the underlying equity instruments vest and are recognized as an expense over the period in which services are received.

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**2. Marketable Securities**

The Company invests in highly liquid investment grade securities. The following is a summary of the Company's marketable securities at December 31, 2005, 2006 and March 31, 2007 (unaudited):

	<u>December 31, 2005</u>			
	<u>Amortized Cost</u>	<u>Gross Unrealized Gains</u>	<u>Gross Unrealized Losses</u>	<u>Fair Market Value</u>
Corporate bonds	\$ 1,440,635	\$ —	\$ (7,149)	\$ 1,433,486
Euro dollar bonds	1,204,311	—	(2,535)	1,201,776
Taxable auction securities	800,000	—	—	800,000
Federal agency issue	1,500,000	—	(11,521)	1,488,479
Other	3,510	—	—	3,510
Total	<u>\$ 4,948,456</u>	<u>\$ —</u>	<u>\$(21,205)</u>	<u>\$ 4,927,251</u>

	<u>December 31, 2006</u>			
	<u>Amortized Cost</u>	<u>Gross Unrealized Gains</u>	<u>Gross Unrealized Losses</u>	<u>Fair Market Value</u>
Taxable auction securities	<u>\$11,780,000</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$11,780,000</u>

	<u>March 31, 2007</u>			
	<u>Amortized Cost</u>	<u>Gross Unrealized Gains</u>	<u>Gross Unrealized Losses</u>	<u>Fair Market Value</u>
Taxable auction securities	<u>\$ 8,280,000</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 8,280,000</u>

The estimated fair market value amounts have been determined by the Company using available market information. Unrealized gains and losses on marketable securities were reported as a component of accumulated other comprehensive income (loss) in stockholders' equity (deficit).

As of December 31, 2005 and 2006 and March 31, 2007, the contractual maturities of marketable securities were less than one year.

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**3. Property and Equipment**

Property and equipment consists of the following:

	<u>December 31,</u>		<u>March 31,</u>
	<u>2005</u>	<u>2006</u>	<u>2007</u>
			(unaudited)
Manufacturing and lab equipment	\$1,395,251	\$2,893,427	\$3,596,766
Deposits on equipment	85,952	1,003,808	973,403
Software	21,574	186,360	190,030
Leasehold improvements	26,161	566,635	600,489
Furniture and equipment	42,026	152,864	157,857
	1,570,964	4,803,094	5,518,545
Less accumulated depreciation and amortization	(200,686)	(746,004)	(983,555)
	<u>\$1,370,278</u>	<u>\$4,057,090</u>	<u>\$4,534,990</u>

**4. Deferred Offering Costs**

The deferred offering costs as of December 31, 2005 were offset against the proceeds received on the sale of the Series C convertible preferred stock which occurred in February 2006. The deferred offering costs included as of December 31, 2006 will be offset against the proceeds from an anticipated initial public offering of the Company's common stock. Deferred offering costs as of March 31, 2007 also included costs related to the sale of Series D convertible preferred stock which occurred in April, 2007.

**5. Accrued Liabilities**

Accrued liabilities consist of the following:

	<u>December 31,</u>		<u>March 31,</u>
	<u>2005</u>	<u>2006</u>	<u>2007</u>
			(unaudited)
Accrued compensation	\$ 88,623	\$106,044	\$ 55,954
Accrued professional fees	62,000	36,000	36,000
Other	25,000	924	—
	<u>\$175,623</u>	<u>\$142,968</u>	<u>\$ 91,954</u>

**6. Long Term Debt**

In May 2006, the Company entered into an equipment financing arrangement which allowed for advances to the Company for equipment purchased during 2006. These amounts are collateralized by certain of the Company's qualifying manufacturing and lab equipment and \$750,000 which is invested in an interest bearing escrow account and is reflected on the accompanying balance sheet as restricted cash. In the event the balance of the Company's cash and marketable securities becomes equal to or less than the then remaining balance of the loan at any time during the lease term, the bank has the right to exercise a contingent pledge with respect to all remaining cash and marketable securities.

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As of December 31, 2006, \$1,621,898 had been advanced under this arrangement. In January 2007, this amount was refinanced into long-term debt with a fixed interest rate of 9.09% and with a 42-month term. The debt has been classified on the accompanying financial statements in accordance with this term loan.

Payments due for long-term debt as of March 31, 2007 are as follows:

<u>Year ended December 31,</u>	<u>Long-term Debt</u>
2007 (remainder of year)	\$ 310,381
2008	448,035
2009	490,502
2010	307,323
	<u>\$1,556,241</u>

**7. Convertible Preferred Stock and Stockholders' Equity (Deficit)**

***Common Stock***

As of December 31, 2005 and 2006 and March 31, 2007, the Company was authorized to issue 60,000,000 shares of common stock. As of December 31, 2005, the Company had 8,655,595 shares outstanding and as of December 31, 2006 and March 31, 2007 the Company had 8,678,995 shares outstanding.

The Company had reserved shares of common stock for future issuances as follows:

	<u>December 31,</u>		<u>March 31,</u>
	<u>2005</u>	<u>2006</u>	<u>2007</u>
			<u>(unaudited)</u>
Convertible preferred stock			
Shares outstanding	19,000,058	27,400,058	27,400,058
Shares authorized, but unissued	20,999,942	12,599,942	12,599,942
Warrants			
Series A convertible preferred stock	2,100,000	2,100,000	2,100,000
Series B convertible preferred stock	500,000	500,000	500,000
Series C convertible preferred stock	—	1,203,750	1,203,750
2003 Stock Plan			
Options outstanding	3,057,190	3,658,627	3,457,627
Shares available for grant	781,000	156,163	857,163
	<u>46,438,190</u>	<u>47,618,540</u>	<u>48,118,540</u>

***Convertible Preferred Stock***

At December 31, 2005, 2006 and March 31, 2007, the Company was authorized to issue 40,000,000 shares of convertible preferred stock. In November 2003 and January 2004, the Company sold a total of 14,000,058 shares of Series A convertible preferred stock for gross proceeds of \$8,400,000 and net proceeds of \$7,368,751. In November 2004, the Company sold 5,000,000 shares of Series B convertible preferred stock for gross

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proceeds of \$6,000,000 and net proceeds of \$5,357,255. In February 2006, the Company sold 8,400,000 shares of Series C convertible preferred stock for gross proceeds of \$16,800,000 and net proceeds of \$15,165,512. In addition to receiving fees and convertible preferred stock warrants discussed below, the placement agent has the right to receive through February 2009, up to \$2.5 million in the event of a future acquisition of the Company prior to an initial public offering, resulting in a change in control, as defined in the agreement.

At December 31, 2005, convertible preferred stock consisted of the following:

<u>Series</u>	<u>Designated Shares</u>	<u>Shares Issued and Outstanding</u>	<u>Aggregate Liquidation Preference</u>
Series A	16,150,000	14,000,058	\$ 8,400,035
Series B	6,000,000	5,000,000	6,000,000
<b>Total</b>	<b>22,150,000</b>	<b>19,000,058</b>	<b>\$14,400,035</b>

At December 31, 2006 and March 31, 2007, convertible preferred stock consisted of the following:

<u>Series</u>	<u>Designated Shares</u>	<u>Shares Issued and Outstanding</u>	<u>Aggregate Liquidation Preference</u>
Series A	16,150,000	14,000,058	\$ 8,400,035
Series B	6,000,000	5,000,000	6,000,000
Series C	9,700,000	8,400,000	16,800,000
<b>Total</b>	<b>31,850,000</b>	<b>27,400,058</b>	<b>\$31,200,035</b>

In April 2007, the Company issued 4,456,500 shares of Series D convertible preferred stock at \$3.00 per share for net proceeds of approximately \$12,400,000. Dividends, liquidation preferences, conversion and voting rights of Series D convertible preferred stock are consistent with those of Series A, B and C convertible preferred stock. In conjunction with this offering, the placement agent received warrants to purchase 253,290 shares of Series D convertible preferred stock which were granted at an exercise price of \$3.30 per share, and are fully exercisable at the earlier of one year from issuance or the completion of an initial public offering of the Company's common stock, expire after seven years and have an estimated fair value of \$450,000. In connection with the Series D convertible preferred stock offering, the Company paid the placement agent \$758,870 as commission and \$100,000 for expenses.

The rights and preferences of the convertible preferred stock are as follows:

***Dividends***

The convertible preferred stock shall be entitled to receive noncumulative dividends in preference to any dividend on common stock payable only if declared by the Board of Directors. As of December 31, 2005 and 2006 and March 31, 2007, the Board of Directors had not declared any dividends.

***Liquidation Preference***

In the event of any liquidation or winding up of the Company, including in the event of the merger, consolidation and sale of the Company, the holders of preferred stock shall be entitled to receive, in preference to

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the holders of the common stock, a per share amount equal to the original purchase price for such shares, subject to appropriate adjustment, plus all declared but unpaid dividends. After the payment of the liquidation preference to the holders of the preferred stock, the remaining assets shall be distributed ratably to the holders of the common stock.

A sale, merger, reorganization, liquidation, dissolution or winding up of the Company may, in certain circumstances, be deemed to be a liquidation and trigger the liquidation preferences associated with the outstanding shares of convertible preferred stock. Because a change in control could occur and not be solely within the control of the Company, all convertible preferred stock has been deemed to be redeemable and classified outside of permanent equity in the accompanying consolidated balance sheets, as required by EITF Topic D-98, *Classification and Measurement of Redeemable Securities*. However, because the timing of any such redemption is uncertain, the Company will not accrete the carrying value of the convertible preferred stock to its liquidation preference value until it becomes probable that redemption will occur.

***Conversion***

The holders of the convertible preferred stock shall have the right to convert the shares of preferred stock held by such holders, at any time, into shares of common stock. The initial conversion rate shall be 1:1, subject to appropriate adjustments for stock splits, stock dividends, recapitalizations, etc. Upon conversion, any declared but unpaid dividends on the preferred stock will be paid in additional shares of common stock.

The convertible preferred stock shall be automatically converted into common stock, at the then applicable conversion ratio, upon the closing of a public offering of shares of common stock at a per share price not less than the then applicable conversion price (as adjusted for stock splits, stock dividends, recapitalizations, etc.).

***Voting Rights***

The preferred stock will vote together with the common stock, and not as separate classes, except as specifically provided below or as otherwise required by law. Each share of preferred stock shall have a number of votes equal to the number of shares of common stock.

Unless an affirmative vote of 50 percent of the combined outstanding shares of preferred stock, voting separately as a class, is obtained, the Company shall not undertake any of the following: (i) declaration or payment of any dividend or other distribution or payment on the (or the redemption, purchase or other acquisition for value of any) capital stock of the Company or any subsidiary; (ii) any liquidation, dissolution, recapitalization or reorganization of the Company; (iii) transfer or disposition of assets or rights with a value of more than \$1,000,000; and/or (iv) any amendment to the Company's certificate of incorporation that changes or alters any of the preferences, voting powers or other rights and privileges of preferred stock.

***Registration Rights***

The preferred shareholders and warrant holders were granted registration rights that provide these holders the right to request, 180 days after the completion of a qualifying initial public offering, that the Company file a registration statement to register under the Securities Act the common stock that would be issued upon conversion of the preferred shares or exercise of the warrants. Thereupon the Company is obligated to use commercially reasonable efforts to file a timely registration statement. These registration rights are subject to

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certain conditions and limitations, including our right, based on advise of the lead managing underwriter of a future offering, to limit the number of shares included in any such registration under certain circumstances.

***Preferred Stock Warrant Liability***

In connection with the convertible preferred stock offerings referred to above, the placement agent received warrants to purchase convertible preferred stock. These warrants are fully exercisable after one year from issuance and expire after seven years. The exercise price of these warrants is equal to 110% of the offering price of the underlying convertible preferred stock. On the closing of an initial public offering, these warrants will convert into warrants to purchase shares of common stock at the then applicable conversion rate for the related preferred stock (currently 1:1). The grant dates, number of warrants, exercise price and estimated fair value of the warrants are as noted below.

Series of convertible preferred stock underlying warrants	Grant Date	Number of Shares	Exercise Price	Estimated Fair Value		
				December 31,		March 31,
				2005	2006	2007
						(unaudited)
Series A	01/30/2004	2,100,000	\$ 0.66	\$ 1,134,000	\$ 1,470,000	\$ 3,591,000
Series B	11/01/2004	500,000	1.32	270,000	335,000	800,000
Series C	02/24/2006	1,203,750	2.20	—	818,550	1,913,963
		<u>3,803,750</u>		<u>\$ 1,404,000</u>	<u>\$ 2,623,550</u>	<u>\$ 6,304,963</u>

The Company has accounted for these warrants under the provisions of Financial Accounting Standards Board Staff Position (“FSP”) No. 150-5, *Issuer’s Accounting under Statement No. 150 for Freestanding Warrants and Other Similar Instruments on Shares that Are Redeemable*, an interpretation of SFAS No. 150, *Accounting for Certain Financial Instruments with Characteristics of Both Liabilities and Equity*. Pursuant to FSP No. 150-5, freestanding warrants for shares that are either puttable or warrants for shares that are redeemable are classified as liabilities on the balance sheet at fair value. In connection with the grant of the warrants to purchase Series A and Series B convertible preferred stock in 2004 and Series C convertible preferred stock in 2006, the Company recorded the initial fair values of the warrants of \$413,080, \$159,831 and \$928,625, respectively, as a preferred stock warrant liability. At the end of each reporting period, changes in fair value during the period are recorded as a component of other income or expense.

The fair value of the above warrants was determined using the Black-Scholes valuation model using the following assumptions:

	Year ended December 31,			Three months ended March 31,	
	2004	2005	2006	2006	2007
					(unaudited)
Weighted-average risk-free interest rate	3.85%	4.36%	4.70%	4.70%	4.55%
Weighted-average expected life (in years)	6.24	5.24	4.85	4.85	4.60
Expected dividend yield	0%	0%	0%	0%	0%
Weighted-average expected volatility	108%	94%	75%	75%	70%

For the years ended December 31, 2004, 2005 and 2006, and for the three month period ended March 31, 2006 and 2007, the Company recorded \$254,089, \$577,000, \$290,925, \$72,731 and \$3,681,413, respectively, as

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other expense for the increase in fair value of all preferred stock warrants. The Company will continue to adjust the liabilities for changes in fair value until the earlier of the exercise of the warrants to purchase shares of convertible preferred stock or the completion of a liquidation event, including the completion of an initial public offering, at which time the liabilities will be reclassified to stockholders' equity (deficit) when the warrants are converted to common stock warrants.

***Stock Option Plan***

Under the Company's 2003 Stock Option Plan, the Company's Board of Directors has authorized the grant of options to employees and nonemployees for the issuance of up to 4,000,000 shares of the Company's common stock. In March 2007, the Board of Directors reserved an additional 500,000 shares to be issued under the 2003 Stock Option Plan. All options granted have a term of ten years from the date of the grant and generally become fully exercisable within four years of continued employment or service at a rate defined in each option agreement.

A summary of the Company's stock option activity and related information is as follows:

	<b>Options Outstanding</b>		
	<b>Shares Available for Grant</b>	<b>Number of Options</b>	<b>Weighted Average Exercise Price</b>
Balance at inception (December 10, 1996)	—	—	\$ —
Shares authorized	4,000,000	—	—
Options granted	(2,160,000)	2,160,000	0.12
Balance at December 31, 2003	1,840,000	2,160,000	0.12
Granted	(777,250)	777,250	0.37
Exercised	—	(95,210)	0.25
Cancelled	67,500	(67,500)	0.16
Balance at December 31, 2004	1,130,250	2,774,540	0.19
Granted	(370,500)	370,500	0.69
Exercised	—	(66,600)	0.25
Cancelled	21,250	(21,250)	0.27
Balance at December 31, 2005	781,000	3,057,190	0.25
Granted	(750,400)	750,400	1.00
Exercised	—	(23,400)	0.15
Cancelled	125,563	(125,563)	0.49
Balance at December 31, 2006	156,163	3,658,627	0.39
Granted (unaudited)	(65,000)	65,000	1.00
Cancelled (unaudited)	266,000	(266,000)	0.50
Increase in authorized shares	500,000	—	—
Balance at March 31, 2007 (unaudited)	857,163	3,457,627	\$ 0.40

There were options to purchase 1,758,128, 2,390,503 and 2,466,572 shares of common stock that were exercisable at December 31, 2005, 2006 and March 31, 2007 respectively, at a weighted-average exercise price of \$0.14, \$0.18 and \$0.22, respectively.

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Information about outstanding stock options is as follows:

Exercise Price Per Share	December 31, 2006			March 31, 2007 (unaudited)		
	Options Outstanding	Weighted Average Remaining Contractual Life (in years)	Options Exercisable	Options Outstanding	Weighted Average Remaining Contractual Life (in years)	Options Exercisable
\$0.10	955,000	6.72	930,745	955,000	6.47	934,525
\$0.11	800,000	6.72	800,000	800,000	6.47	800,000
\$0.25	597,290	7.21	421,978	472,290	6.91	388,696
\$0.60	488,937	8.19	220,406	388,937	7.96	199,078
\$1.00	817,400	9.64	17,374	841,400	9.44	144,273
\$0.10-\$1.00	<u>3,658,627</u>	7.65	<u>2,390,503</u>	<u>3,457,627</u>	7.42	<u>2,466,572</u>

The weighted-average grant date fair value of the options granted during the years ended December 31, 2004, 2005 and 2006 was \$0.08, \$0.16 and \$0.78 per share, respectively. The weighted-average grant date fair value of the options granted during the three months ended March 31, 2006 and 2007, was \$0.82 and \$0.73, respectively.

**Stock Options under SFAS 123R**

On January 1, 2006, the Company adopted the provisions of SFAS No. 123R, *Share-Based Payment*. SFAS No. 123R establishes accounting for stock-based awards made to employees and directors. Accordingly, stock-based compensation expense is measured at grant date, based on the fair value of the award, and is recognized as expense over the remaining requisite service period. Total employee stock-based compensation of \$38,857, \$5,109 and \$27,525, respectively was recorded during the year ended December 31, 2006 and three months ended March 31, 2006 and 2007.

The fair value of each employee option grant in the year ended December 31, 2006 and the three months ended March 31, 2006 and 2007 was estimated on the date of grant using the Black-Scholes valuation model with the following assumptions.

	Year ended	Three months ended	
	December 31, 2006	March 31, 2006	March 31, 2007
Weighted average risk-free interest rate	4.53%	4.58%	4.67%
Weighted-average expected life (in years)	6.25	6.25	5
Expected dividend yield	0%	0%	0%
Weighted average expected volatility	91%	101%	81%
Weighted-average estimated fair value of employee options	\$ 0.78	\$ 0.82	\$ 0.73

The Company's computation of expected volatility for the year ended December 31, 2006 and the three months ended March 31, 2006 and 2007 is based on an average of the historical volatility of a peer-group of similar companies. The Company's computation of expected term utilizes the simplified method in accordance with SAB No. 107. The risk-free interest rate for periods within the contractual life of the option is based on the U.S.

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Treasury yield curve in effect at the time of grant. The Company recognizes stock-based compensation expense for the fair values of these awards on a straight-line basis over the requisite service period of each of these awards.

As of December 31, 2006, the weighted-average remaining contractual term for outstanding stock options and for exercisable stock options was 7.7 years and 7.0 years, respectively, and the intrinsic value of these options was approximately \$2,435,000 and \$2,098,000, respectively. The aggregate intrinsic value represents the total pre-tax intrinsic value, based on the Company's estimated stock price of \$1.06 per share as of December 31, 2006, which would have been received by the option holders had all option holders exercised their options on December 31, 2006. This amount changes based on the estimated value of the Company's common stock. Total intrinsic value of options exercised for the year ended December 31, 2006 was \$19,800, based on 23,400 shares exercised, an estimated stock price during 2006 of \$1.00 per share, and an average exercise price of \$0.15 per share exercised. During the year ended December 31, 2006, the Company granted 565,400 stock options to employees and directors with an estimated total grant-date fair value of \$0.78 per share.

Cash received from option exercises for the years ended December 31, 2004, 2005 and 2006 was \$23,782, \$16,650 and \$3,600, respectively. The Company recorded no tax benefit related to options exercised during 2004, 2005 and 2006.

***Stock Options Granted to Nonemployees***

The Company granted 70,000, 82,500, and 185,000 options to consultants for services in the years ended December 31, 2004, 2005, and 2006, respectively. No options were granted to consultants in the three months ended March 31, 2007. The exercise price of the consultant stock options ranges from \$0.25 to \$1.00 per share. The following table shows the assumptions used to compute the stock-based compensation expense for stock options granted to nonemployees during the years ended December 31, 2004, 2005 and 2006 and the three months ended March 31, 2006 and 2007, using the Black Scholes valuation model.

	Year ended December 31,			Three months ended March 31,	
	2004	2005	2006	2006	2007
Weighted-average risk-free interest rate	3.83%	3.94%	4.13%	4.00%	4.36%
Weighted-average contractual life (in years)	9.14	8.31	8.21	8.31	8.01
Expected dividend yield	0%	0%	0%	0%	0%
Weighted-average expected volatility	101%	101%	86%	101%	83%

The estimated fair value of options granted to consultants which vested during the years ended December 31, 2004, 2005, and 2006 and the three months ended March 31, 2006 and 2007 was \$18,391, \$44,266, \$92,313, \$22,617 and \$49,402, respectively, and was charged to research and development expense.

**8. Income Taxes**

The Company originally elected to be treated under the Internal Revenue Code as a subchapter S corporation, commensurate with its inception on December 10, 1996. Accordingly, the Company did not pay federal corporate income taxes on its taxable income nor was it allowed a net operating loss carryover or carryback as a deduction. Instead, the stockholders were responsible for individual federal income taxes on their respective shares of the Company's taxable income or loss. The Company's subchapter S corporation status was

**AMEDICA CORPORATION**  
**(A Development Stage Company)**

**NOTES TO FINANCIAL STATEMENTS—(Continued)**

**(Information as of March 31, 2007, for the three months ended March 31, 2006 and 2007, and for the period from December 10, 1996 (inception) to March 31, 2007 is unaudited)**

terminated effective November 5, 2003 due to the capitalization restructuring to include a second class of stock. Deferred income taxes reflect the net tax effects of temporary differences between the carrying amount of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes.

In July 2006, the FASB issued Interpretation No. 48, *Accounting for Uncertainty in Income Taxes*, or FIN 48. FIN 48 is an interpretation of FASB Statement No. 109, *Accounting for Income Taxes*. FIN 48 seeks to reduce the diversity in practice associated with certain aspects of measurement and recognition in accounting for income taxes. In addition, FIN 48 provides guidance on derecognition, classification, interest and penalties, and accounting in interim periods and requires expanded disclosure with respect to the uncertainty in income taxes. The Company became subject to the provisions of FIN 48 as of January 1, 2007. The Company believes that its income tax filing positions and deductions will be sustained on audit and does not anticipate any adjustments that will result in a material change to its financial position. Therefore, no reserves for uncertain income tax positions have been recorded pursuant to FIN 48. In addition, the Company did not record a cumulative effect adjustment related to the adoption of FIN 48.

The Company's policy for recording interest and penalties associated with audits is to record such items as a component of income before taxes. Penalties and interest paid or received are recorded in interest expense or interest income, respectively. During the three months ended March 31, 2007, the Company did not record any interest income, interest expense, or penalties related to the settlement of audits for prior periods. Tax years 2003 through 2006 are subject to examination by the United States Federal tax authorities.

At December 31, 2006, the Company had net operating loss carryforwards for federal and state income tax purposes of approximately \$10,600,000. The federal and state net operating loss carryforwards will expire from 2023 to 2026. Additionally, at December 31, 2006 the Company had federal and state research and development tax credits of \$391,000 which expire from 2023 to 2026.

In accordance with Section 382 of the Internal Revenue Code, a change in ownership of greater than 50% within a three-year period will place an annual limitation on the Company's ability to utilize its existing net operating loss carryforwards. The Company may be subject to these annual limitations and, therefore, unable to fully utilize the net operating loss carryforwards.

Significant components of the Company's deferred tax assets and liabilities approximated the following:

	December 31,	
	2005	2006
Deferred tax assets:		
Net operating loss carryforwards	\$ 1,801,000	\$ 4,043,000
R&D credits	137,000	137,000
Other	147,000	224,000
Total deferred tax assets	2,085,000	4,404,000
Deferred tax liabilities:		
Depreciation	(27,000)	(143,000)
Total deferred tax liabilities	(27,000)	(143,000)
Less valuation allowance	(2,058,000)	(4,261,000)
Net deferred tax assets	\$ —	\$ —

**AMEDICA CORPORATION**  
**(A Development Stage Company)**

**NOTES TO FINANCIAL STATEMENTS—(Continued)**

**(Information as of March 31, 2007, for the three months ended March 31, 2006 and 2007, and for the period from December 10, 1996 (inception) to March 31, 2007 is unaudited)**

The Company has recognized a valuation allowance equal to the net deferred tax assets due to management's assessment that it is not more likely than not that such deferred tax assets will be realized. The tax valuation allowance increased by \$437,000, \$1,618,000 and \$2,203,000 for the years ended December 31, 2004, 2005 and 2006, respectively.

**9. Commitments**

The Company currently leases laboratory, manufacturing and office space and equipment under noncancelable operating leases which sometimes provide for rent holidays and escalating payments. Rent under operating leases is recognized on a straight-line basis beginning with lease commencement through the end of the lease term. For the years ended December 31, 2004, 2005 and 2006, and for the three months ended March 31, 2006 and 2007, rental expense was approximately \$112,000, \$212,000, \$471,000, \$57,000 and \$146,000, respectively. Future minimum lease payments under all noncancelable operating leases at March 31, 2007 are as follows:

Year ending December 31,	
2007 (remainder of year)	\$ 339,875
2008	463,392
2009	400,991
2010	263,154
2011	91,605
Total minimum lease payments	<u>\$1,559,017</u>

The Company has entered into consulting and development agreements with some of its advisors, including some surgeon advisors. The Company has agreed to pay some of the surgeon advisors a portion of the net after-tax profits attributable to the sale of specific spine, hip and knee implant product candidates for which the surgeon advisors provided the Company with consulting and related services related to the conceptualization, development, testing, clearance, approval and/or related matters involving implant product candidates. Because more than one of these surgeon advisors contribute to development efforts, the Company is obligated to pay royalties to as many as five surgeon advisors in connection with some of its product candidates. These agreements shall continue until the later of (a) ten years from the date of the agreements, and (b) the expiration of the patent rights relating to the devices covered by the agreements, when rights have been assigned by the individuals to the Company.

In December 2006, the Company entered into an agreement to license patent rights directed to a manufacturing process for porous ceramic for use in the Company's product candidates that will incorporate its C<sup>SC</sup> technology. At the time this agreement was signed, the Company paid \$50,000. During February 2007, the Company paid an additional \$100,000 upon the transfer of the technology to the Company. The Company is obligated to pay an additional \$100,000 upon FDA clearance of the first product in the United States which utilizes the licensed technology. The Company is also obligated to pay future royalties on net sales of products which utilize this technology.

The Company has executed agreements with certain executive officers of the Company which, upon the occurrence of certain events related to a change of control, call for payments to the executives equal to two to three times annual salary and accelerated vesting of previously granted stock options.

**AMEDICA CORPORATION**  
**(A Development Stage Company)**

**NOTES TO FINANCIAL STATEMENTS—(Continued)**

**(Information as of March 31, 2007, for the three months ended March 31, 2006 and 2007, and for the period from December 10, 1996 (inception) to March 31, 2007 is unaudited)**

**10. Related Party Transactions**

One of the Company's co-founders and a member of its board of directors is also the sole member and president of Joint Enterprises, L.C., a Utah limited liability company. The Company and Joint Enterprises, L.C. previously entered into an Assignment Agreement, dated August 1, 2001, which has been amended as of August 12, 2005. Pursuant to this agreement, the Company acquired rights to the *PreVent Cement Restrictor* in exchange for its agreement to pay a one-time payment of \$25,000 and to pay royalties equal to \$2.50 per unit. Joint Enterprises, L.C. also has the option to elect to receive nonqualified stock options to purchase shares of the Company's common stock in lieu of cash payments, subject to approval by the Company's board of directors. The Company made the \$25,000 payment to this director in September 2004. As of the date hereof, no units of this product have been sold and no royalties for this product have been paid pursuant to this agreement.

The Company completed offerings of its shares of Series A, Series B, Series C and Series D convertible preferred stock through Creation Capital LLC, its placement agent for each of these offerings. The Chief Executive Officer of Creation Capital joined the Company's Board of Directors in December 2006. In connection with the closing of the Series A convertible preferred stock offering, the Company paid its placement agent \$611,700 as commission and \$75,000 for expenses in 2003 and \$182,640 as commission and \$20,875 for expenses in 2004. In connection with the Series B convertible preferred stock offering, the Company paid its placement agent \$480,000 as commission and \$40,000 for expenses in 2004. In connection with the Series C convertible preferred stock offering, the Company paid its placement agent \$1,511,265 as commission and \$75,000 for expenses in 2006. Through February 2009, the placement agent also has the right to receive up to \$2.5 million in the event of a future acquisition of the capital stock of the Company prior to an initial public offering, resulting in a change in control.

**11. 401(k) Plan**

Effective June 1, 2004, the Company adopted a defined contribution retirement plan under Section 401(k) of the Internal Revenue Code. The plan covers substantially all employees. Eligible employees may contribute amounts to the plan, via payroll withholdings, subject to certain limitations. The plan permits, but does not require, additional matching contributions to the plan by the Company on behalf of the participants in the plan. To date, the Company has not made any matching contributions to the plan.



A M E D I C A

**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 issuance and distribution of the securities being registered. All of the amounts shown are estimated except the SEC Registration Fee, The NASDAQ Global Market Listing Fee and the NASD Filing Fee.

SEC Registration Fee	\$ 2,294.83
The NASDAQ Global Market Listing Fee	100,000.00
NASD Filing Fee	7,975.00
Printing and Engraving Fees	*
Legal Fees and Expenses	*
Accounting Fees and Expenses	*
Blue Sky Fees and Expenses	*
Transfer Agent and Registrar Fees	*
Miscellaneous	*
Total	<u>\$ *</u>

\* To be provided by amendment.

**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, ERISA excise taxes or penalties and amounts paid in settlement) reasonably incurred or suffered in connection with legal proceedings. 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.

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Pursuant to Section 102(b)(7) of the Delaware General Corporation Law, Article Tenth 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. In addition, we expect to enter into indemnification agreements with each of our directors and executive officers prior to completion of the offering.

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.**

In the three years preceding the filing of this registration statement, we have sold the following securities that were not registered under the Securities Act.

#### ***(a) Issuances of Capital Stock and Warrants***

In late 2004 through the date hereof, we completed offerings of our Series A, Series B, Series C and Series D convertible preferred stock through Creation Capital LLC, as placement agent. 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 Regulation D promulgated thereunder.

- Between November 5, 2003 and January 28, 2004, we raised \$8.4 million in gross proceeds and sold 14,000,058 shares of our Series A convertible preferred stock at a purchase price of \$0.60 per share to 102 accredited investors. In connection with this financing, we also agreed to grant Creation Capital LLC, as partial compensation for its services, warrants to purchase 2,100,000 shares of our Series A convertible preferred stock at a purchase price of \$0.66 per share. At the request of Creation Capital LLC, we issued such warrants to 20 designees of Creation Capital LLC, each of whom is an accredited investor. These warrants are currently exercisable through the seventh anniversary of the date of issuance of such warrants.
- Between October 25, 2004 and November 9, 2004, we raised \$6.0 million in gross proceeds and sold 5,000,000 shares of our Series B convertible preferred stock at a purchase price of \$1.20 per share to 72 accredited investors. In connection with this financing, we also agreed to grant Creation Capital LLC, as partial compensation for its services, warrants to purchase 500,000 shares of our Series B convertible preferred stock at a purchase price of \$1.32 per share. At the request of Creation Capital LLC, we issued such warrants to 13 designees of Creation Capital LLC, each of whom is an accredited investor. These warrants are currently exercisable through the seventh anniversary of the date of issuance of such warrants.
- On February 24, 2006, we raised \$16.8 million in gross proceeds and sold 8,400,000 shares at \$2.00 per share of our Series C convertible preferred stock to 114 accredited investors. In connection with this financing, we also agreed to grant Creation Capital LLC, as partial compensation for its services, warrants to purchase 1,203,750 shares of Series C convertible preferred stock at a purchase price of \$2.20 per share. At the request of Creation Capital LLC, we issued such warrants to 19 designees of

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Creation Capital LLC, each of whom is an accredited investor. These warrants are currently exercisable through the seventh anniversary of the date of issuance of such warrants.

- On April 17, 2007 and April 27, 2007, we raised \$10.2 million and \$3.2 million in gross proceeds, respectively, and sold 3,404,000 and 1,052,500 shares, respectively, at \$3.00 per share of our Series D convertible preferred stock to 60 accredited investors. In connection with this financing, we also agreed to grant Creation Capital LLC, as partial compensation for its services, warrants to purchase 253,290 shares of Series D convertible preferred stock at a purchase price of \$3.30 per share, of which, at the request of Creation Capital LLC, a warrant to purchase 30,000 shares was issued to its designee, an accredited investor. Upon completion of this offering, these warrants will become exercisable through the seventh anniversary of the date of issuance of such warrants.

### ***(b) Certain Grants and Exercises of Stock Options***

The sale and issuance of the securities described below were deemed to be exempt from registration under the Securities Act in reliance on Rule 701 promulgated under Section 3(b) of the Securities Act, as transactions by an issuer not involving a public offering or transactions pursuant to compensatory benefit plans and contracts relating to compensation as provided under Rule 701.

Pursuant to our 2003 Stock Option Plan and related stock option agreements, we have issued options to purchase an aggregate of 4,123,150 shares of common stock as of March 31, 2007. Of these options:

- options to purchase 480,313 shares of common stock have been canceled or lapsed without being exercised;
- options to purchase 185,210 shares of common stock have been exercised; and
- options to purchase a total of 3,457,627 shares of common stock are currently outstanding, at a weighted average exercise price of \$0.40 per share.

## **Item 16. Exhibits and Financial Statement Schedules.**

### ***(a) Exhibits***

<u>Exhibit Number</u>	<u>Description of Exhibit</u>
1.1*	Form of Underwriting Agreement.
3.1	Amended and Restated Certificate of Incorporation of Amedica Corporation, as amended.
3.2*	Amended and Restated Certificate of Incorporation of Amedica Corporation to be filed upon completion of this offering.
3.3	Amended and Restated By-Laws of Amedica Corporation.
3.4*	Amended and Restated By-Laws of Amedica Corporation to be effective upon completion of this offering.
4.1*	Form of Common Stock Certificate.
4.2	Third Amended and Restated Registration Rights Agreement by and among Amedica Corporation and certain securityholders of Amedica Corporation dated as of May 15, 2007.
4.3	Warrant Agreement by and between Creation Capital LLC and Amedica Corporation dated as of March 1, 2004.
4.4	Warrant Agreement by and between Creation Capital LLC and Amedica Corporation dated as October 25, 2004.
4.5	Warrant Agreement by and between Creation Capital LLC and Amedica Corporation dated as of February 24, 2006.

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<u>Exhibit Number</u>	<u>Description of Exhibit</u>
4.6	Series D Warrant Agreement by and between Creation Capital LLC and Amedica Corporation dated as of April 27, 2007.
5.1*	Opinion of Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C., counsel to Amedica Corporation, with respect to the legality of securities being registered.
10.1	Form of Subscription Agreement for Series C Convertible Preferred Stock.
10.2	Form of Subscription Agreement for Series D Convertible Preferred Stock.
10.3†	Amedica Corporation 2003 Stock Option Plan.
10.4†*	Form of 2003 Incentive Stock Option Agreement.
10.5†*	Form of 2003 Non-Qualified Stock Option Agreement.
10.6†	Employment Offer Letter by and between Amedica Corporation and Eugene B. Jones dated April 2, 2004.
10.7†	Employment Offer Letter by and between Amedica Corporation and Bryan J. McEntire dated May 29, 2004.
10.8†	Employment Offer Letter by and between Amedica Corporation and Robert M. Wolfarth dated November 11, 2004.
10.9†	Employment Offer Letter by and between Amedica Corporation and Cameron G. Rouns dated December 17, 2004.
10.10†	Employment Offer Letter by and between Amedica Corporation and Warionex (“Jose”) Belen dated May 31, 2005.
10.11†	Employment Offer Letter by and between Amedica Corporation and Reyn E. Gallacher dated January 3, 2006.
10.12†	Employment Offer Letter by and between Amedica Corporation and Kenneth W. Ludwig dated May 10, 2006.
10.13†	Severance Agreement by and between Amedica Corporation and Ashok C. Khandkar dated May 23, 2005.
10.14†	Severance Agreement by and between Amedica Corporation and Bryan J. McEntire dated May 23, 2005.
10.15†	Severance Agreement by and between Amedica Corporation and Warionex (“Jose”) Belen dated as of February 14, 2006.
10.16†	Severance Agreement by and between Amedica Corporation and Reyn E. Gallacher dated March 27, 2007.
10.17†	Severance Agreement by and between Amedica Corporation and Kenneth W. Ludwig dated March 27, 2007.
10.18†*	Separation Agreement by and between Amedica Corporation and Eugene B. Jones dated January 5, 2007
10.19	Assignment Agreement by and between Joint Enterprises, L.C. and Amedica Corporation dated August 1, 2001.
10.20	Amendment to Assignment by and between Joint Enterprises, L.C. and Amedica Corporation dated August 12, 2005.
10.21	Lease by and between Paradigm Resources, L.C. and Amedica Corporation dated as of March 22, 2004.
10.22	First Amendment to Lease by and between Paradigm Resources, L.C. and Amedica Corporation dated as of May 11, 2005.

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<u>Exhibit Number</u>	<u>Description of Exhibit</u>
10.23	Second Amendment to Lease by and between Paradigm Resources, L.C. and Amedica Corporation dated as of August 15, 2006.
10.24*■	Letter Agreement between Creation Capital LLC and Amedica Corporation dated November 14, 2005.
10.25*■	Letter Agreement between Creation Capital LLC and Amedica Corporation dated March 26, 2007.
10.26*■	Master Lease Agreement by and between Chase Equipment Leasing, Inc. and Amedica Corporation dated as of April 28, 2006.
10.27*■	Financing Lease by and between Chase Equipment Leasing, Inc. and Amedica Corporation as of January 26, 2007.
10.28	Industrial Building Lease between 560 Arapeen LLC, Seventh Avenue LLC, First Avenue LLC, Alaska Limited Liability Companies and Amedica Corporation dated as of February 20, 2006.
10.29*■	Product Development and License Agreement by and between Amedica Corporation and Dytech Corporation Ltd. dated December 20, 2006.
10.30*■	Development Agreement by and between Amedica Corporation and Jeffrey C. Wang, M.D. dated as of May 8, 2004.
10.31*■	Amendments to Development Agreement by and between Amedica Corporation and Jeffrey C. Wang, M.D. dated June 2, 2006.
10.32*■	Development Agreement by and between Amedica Corporation and James A. Youssef, M.D. dated as of May 8, 2004.
10.33*■	Amendment to Development Agreement by and between Amedica Corporation and James A. Youssef dated May 24, 2006.
10.34*■	Development Agreement by and between Amedica Corporation and Jean-Jacques Abitol, M.D. dated as of February 16, 2005.
10.35*■	Development Agreement by and between Amedica Corporation and Gregg S. Gurwitz, M.D. dated as of February 21, 2005.
10.36*■	Development Agreement by and between Amedica Corporation and Andrew T. Dailey, M.D. dated as of April 19, 2005.
10.37*■	Development Agreement by and between Amedica Corporation and Scott D. Boden, M.D. dated as of July 21, 2005.
10.38*■	Development Agreement by and between Amedica Corporation and Carl Lauryssen, M.D. dated as of August 8, 2005.
10.39*■	Development Agreement by and between Amedica Corporation and Alan S. Hilibrand, M.D. dated as of September 8, 2005.
10.40*■	Development Agreement by and between Amedica Corporation and Rodney Plaster, M.D. dated as of December 12, 2005.
10.41*■	Development Agreement by and between Amedica Corporation and Michael P. Bolognesi, M.D. dated as of January 2, 2006.
10.42*■	Development Agreement by and between Amedica Corporation and Steven T. Lyons, M.D. dated as of February 20, 2006.
10.43*■	Development Agreement by and between Amedica Corporation and Harvinder S. Sandhu, M.D. dated May 31, 2006.
10.44*■	Development Agreement by and between Amedica Corporation and B. Sonny Bal, M.D. dated as of December 29, 2006.

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<u>Exhibit Number</u>	<u>Description of Exhibit</u>
10.45*■	Amended and Restated Consulting Agreement by and between Amedica Corporation and Darrel S. Brodke, M.D. dated as of October 20, 2003.
10.46*■	Amendments to Amended and Restated Consulting Agreement by and between Amedica Corporation and Darrel S. Brodke, M.D. dated as of May 30, 2006.
23.1	Consent of Ernst & Young LLP.
23.2*	Consent of Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C. (see Exhibit 5.1).
24.1	Power of Attorney (see signature page hereto).

\* To be filed by amendment.

■ Portions of this Exhibit have been omitted and filed separately with the SEC.

† Management contract or compensatory plan or arrangement.

### ***(b) Financial Statement Schedules***

Financial Statement Schedules are omitted because the information is included in our financial statements or notes to those financial statements.

### **Item 17. Undertakings**

The undersigned registrant hereby undertakes to provide to the underwriters at the closing specified in the Underwriting Agreement, certificates in such denominations and registered in such names as required by the underwriters to permit prompt delivery to each purchaser.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the registrant pursuant to the provisions described under Item 14 above, or otherwise, the registrant has been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of 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 Securities Act and will be governed by the final adjudication of such issue.

The undersigned registrant hereby undertakes that:

(1) For purposes of determining any liability under the Securities Act, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective.

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

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**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 May 22, 2007.

AMEDICA CORPORATION

By:           /s/ Ashok Khandkar, Ph.D.          

Ashok Khandkar, Ph.D.  
Chief Executive Officer

**POWER OF ATTORNEY**

We the undersigned officers and directors of Amedica Corporation, hereby severally constitute and appoint Ashok Khandkar, Ph.D. and Reyn E. Gallacher, and each of them singly (with full power to each of them to act alone), our true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution in each of them for him and in his name, place and stead, and in any and all capacities, to sign any and all amendments (including post-effective amendments) to this registration statement (or any other registration statement for the same offering that is to be effective upon filing pursuant to Rule 462(b) under the Securities Act of 1933), and to file the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite or necessary to be done in and about the premises, as full to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them or their or his substitute or substitutes may lawfully do or cause to be done by virtue hereof.

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.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>          /s/ Ashok Khandkar, Ph.D.          </u> Ashok Khandkar, Ph.D.	Chief Executive Officer and Director (principal executive officer)	May 22, 2007
<u>          /s/ Warionex Belen          </u> Warionex Belen	President	May 22, 2007
<u>          /s/ Reyn E. Gallacher          </u> Reyn E. Gallacher	Chief Financial Officer and Vice President, Finance (principal financial and accounting officer)	May 22, 2007
<u>          /s/ Max Link, Ph.D.          </u> Max Link, Ph.D.	Chairman of the Board of Directors	May 22, 2007
<u>          /s/ Aaron A. Hofmann, M.D.          </u> Aaron A. Hofmann, M.D.	Director	May 22, 2007
<u>          /s/ Lawrence D. Dorr, M.D.          </u> Lawrence D. Dorr, M.D.	Director	May 22, 2007

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<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Gregg R. Honigblum</u> Gregg R. Honigblum	Director	May 22, 2007
<u>/s/ Rohit Patel</u> Rohit Patel	Director	May 22, 2007
<u>/s/ Bradford S. Goodwin</u> Bradford S. Goodwin	Director	May 22, 2007

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**Exhibit Index**

<b>Number</b>	<b>Description of Exhibit</b>
1.1*	Form of Underwriting Agreement.
3.1	Amended and Restated Certificate of Incorporation of Amedica Corporation, as amended.
3.2*	Amended and Restated Certificate of Incorporation of Amedica Corporation to be filed upon completion of this offering.
3.3	Amended and Restated By-Laws of Amedica Corporation.
3.4*	Amended and Restated By-Laws of Amedica Corporation to be effective upon completion of this offering.
4.1*	Form of Common Stock Certificate.
4.2	Third Amended and Restated Registration Rights Agreement by and among Amedica Corporation and certain securityholders of Amedica Corporation dated as of May 15, 2007.
4.3	Warrant Agreement by and between Creation Capital LLC and Amedica Corporation dated as of March 1, 2004.
4.4	Warrant Agreement by and between Creation Capital LLC and Amedica Corporation dated as October 25, 2004.
4.5	Warrant Agreement by and between Creation Capital LLC and Amedica Corporation dated as of February 24, 2006.
4.6	Series D Warrant Agreement by and between Creation Capital LLC and Amedica Corporation dated as of April 27, 2007.
5.1*	Opinion of Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C., counsel to Amedica Corporation, with respect to the legality of securities being registered.
10.1	Form of Subscription Agreement for Series C Convertible Preferred Stock.
10.2	Form of Subscription Agreement for Series D Convertible Preferred Stock.
10.3†	Amedica Corporation 2003 Stock Option Plan.
10.4†*	Form of 2003 Incentive Stock Option Agreement.
10.5†*	Form of 2003 Non-Qualified Stock Option Agreement.
10.6†	Employment Offer Letter by and between Amedica Corporation and Eugene B. Jones dated April 2, 2004.
10.7†	Employment Offer Letter by and between Amedica Corporation and Bryan J. McEntire dated May 29, 2004.
10.8†	Employment Offer Letter by and between Amedica Corporation and Robert M. Wolfarth dated November 11, 2004.
10.9†	Employment Offer Letter by and between Amedica Corporation and Cameron G. Rouns dated December 17, 2004.
10.10†	Employment Offer Letter by and between Amedica Corporation and Warionex (“Jose”) Belen dated May 31, 2005.
10.11†	Employment Offer Letter by and between Amedica Corporation and Reyn E. Gallacher dated January 3, 2006.
10.12†	Employment Offer Letter by and between Amedica Corporation and Kenneth W. Ludwig dated May 10, 2006.
10.13†	Severance Agreement by and between Amedica Corporation and Ashok C. Khandkar dated May 23, 2005.
10.14†	Severance Agreement by and between Amedica Corporation and Bryan J. McEntire dated May 23, 2005.

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<u>Number</u>	<u>Description of Exhibit</u>
10.15†	Severance Agreement by and between Amedica Corporation and Warionex (“Jose”) Belen dated as of February 14, 2006.
10.16†	Severance Agreement by and between Amedica Corporation and Reyn E. Gallacher dated March 27, 2007.
10.17†	Severance Agreement by and between Amedica Corporation and Kenneth W. Ludwig dated March 27, 2007.
10.18†*	Separation Agreement by and between Amedica Corporation and Eugene B. Jones dated January 5, 2007
10.19*	Assignment Agreement by and between Joint Enterprises, L.C. and Amedica Corporation dated August 1, 2001.
10.20	Amendment to Assignment by and between Joint Enterprises, L.C. and Amedica Corporation dated August 12, 2005.
10.21	Lease by and between Paradigm Resources, L.C. and Amedica Corporation dated as of March 22, 2004.
10.22	First Amendment to Lease by and between Paradigm Resources, L.C. and Amedica Corporation dated as of May 11, 2005.
10.23	Second Amendment to Lease by and between Paradigm Resources, L.C. and Amedica Corporation dated as of August 15, 2006.
10.24*■	Letter Agreement between Creation Capital LLC and Amedica Corporation dated November 14, 2005.
10.25*■	Letter Agreement between Creation Capital LLC and Amedica Corporation dated March 26, 2007.
10.26*■	Master Lease Agreement by and between Chase Equipment Leasing, Inc. and Amedica Corporation dated as of April 28, 2006.
10.27*■	Financing Lease by and between Chase Equipment Leasing, Inc. and Amedica Corporation dated as of January 26, 2007.
10.28	Industrial Building Lease between 560 Arapeen LLC, Seventh Avenue LLC, First Avenue LLC, Alaska Limited Liability Companies and Amedica Corporation dated as of February 20, 2006.
10.29*■	Product Development and License Agreement by and between Amedica Corporation and Dytech Corporation Ltd. dated December 20, 2006.
10.30*■	Development Agreement by and between Amedica Corporation and Jeffrey C. Wang, M.D. dated as of May 8, 2004.
10.31*■	Amendments to Development Agreement by and between Amedica Corporation and Jeffrey C. Wang, M.D. dated June 2, 2006.
10.32*■	Development Agreement by and between Amedica Corporation and James A. Youssef, M.D. dated as of May 8, 2004.
10.33*■	Amendment to Development Agreement by and between Amedica Corporation and James A. Youssef dated May 24, 2006.
10.34*■	Development Agreement by and between Amedica Corporation and Jean-Jacques Abitol, M.D. dated as of February 16, 2005.
10.35*■	Development Agreement by and between Amedica Corporation and Gregg S. Gurwitz, M.D. dated as of February 21, 2005.
10.36*■	Development Agreement by and between Amedica Corporation and Andrew T. Dailey, M.D. dated as of April 19, 2005.
10.37*■	Development Agreement by and between Amedica Corporation and Scott D. Boden, M.D. dated as of July 21, 2005.
10.38*■	Development Agreement by and between Amedica Corporation and Carl Lauryssen, M.D. dated as of August 8, 2005.

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<u>Number</u>	<u>Description of Exhibit</u>
10.39*■	Development Agreement by and between Amedica Corporation and Alan S. Hilibrand, M.D. dated as of September 8, 2005.
10.40*■	Development Agreement by and between Amedica Corporation and Rodney Plaster, M.D. dated as of December 12, 2005.
10.41*■	Development Agreement by and between Amedica Corporation and Michael Bolognesi, M.D. dated as of January 2, 2006.
10.42*■	Development Agreement by and between Amedica Corporation and Steve Lyons, M.D. dated as of February 20, 2006.
10.43*■	Development Agreement by and between Amedica Corporation and Harvinder S. Sandhu, M.D. dated May 31, 2006.
10.44*■	Development Agreement by and between Amedica Corporation and B. Sonny Bal, M.D. dated as of December 29, 2006.
10.45*■	Amended and Restated Consulting Agreement by and between Amedica Corporation and Darrel S. Brodke, M.D. dated as of October 20, 2003.
10.46*■	Amendments to Amended and Restated Consulting Agreement by and between Amedica Corporation and Darrel S. Brodke, M.D. dated as of May 30, 2006.
23.1	Consent of Ernst & Young LLP
23.2*	Consent of Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C. (see Exhibit 5.1).
24.1	Power of Attorney (see signature page hereto).

\* To be filed by amendment.

■ Portions of this Exhibit have been omitted and filed separately with the SEC.

† Management contract or compensatory plan or arrangement.

Delaware  
*The First State*

I, HARRIET SMITH WINDSOR, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE ATTACHED ARE TRUE AND CORRECT COPIES OF ALL DOCUMENTS FILED FROM AND INCLUDING THE RESTATED CERTIFICATE OR A MERGER WITH A RESTATED CERTIFICATE ATTACHED OF "AMEDICA CORPORATION" AS RECEIVED AND FILED IN THIS OFFICE.

THE FOLLOWING DOCUMENTS HAVE BEEN CERTIFIED:

RESTATED CERTIFICATE, FILED THE TWENTY-FIFTH DAY OF OCTOBER, A.D. 2004, AT 6:18 O'CLOCK P.M.

CERTIFICATE OF DESIGNATION, FILED THE TWENTY-FOURTH DAY OF FEBRUARY, A.D. 2006, AT 1:48 O'CLOCK P.M.

CERTIFICATE OF DESIGNATION, FILED THE SIXTEENTH DAY OF APRIL, A.D. 2007, AT 12:06 O'CLOCK P.M.

2692714 8100X  
070561086



Harriet Smith Windsor  
Harriet Smith Windsor, Secretary of State  
AUTHENTICATION: 5673683

DATE: 05-14-07

RESTATED CERTIFICATE OF INCORPORATION

OF

AMEDICA CORPORATION

(Pursuant to Sections 242 and 245 of the  
General Corporation Law of the State of Delaware)

Amedica Corporation, a Delaware corporation, hereby certifies as follows:

1. The name of the corporation is Amedica Corporation (the "Corporation"). The date of filing of the Certificate of Incorporation of the Corporation with the Secretary of State of the State of Delaware was December 10, 1996 under the name Amedica Corp.
2. The Certificate of Incorporation of the Corporation filed on December 10, 1996, as amended, is hereby restated.
3. This Restated Certificate of Incorporation restates and integrates the provisions of the Certificate of Incorporation of said Corporation and has been duly adopted in accordance with the provisions of Section 245 of the General Corporation Law of the State of Delaware.
4. The text of the Certificate of Incorporation is hereby restated to read in full as follows:

**RESTATED CERTIFICATE OF INCORPORATION**

**OF**

***AMEDICA CORPORATION***

*FIRST:* The name of the corporation (hereinafter called the "Corporation") is

**AMEDICA CORPORATION**

*SECOND:* The address, including street, number, city, and county, of the registered office of the Corporation in the State of Delaware is 1209 N. Orange Street, City of Wilmington, Delaware, County of New Castle; and the name of the registered agent of the Corporation in the State of Delaware is The Corporation Trust Company.

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*THIRD.* The nature of the business to be conducted and the purposes of the Corporation are:

To purchase or otherwise acquire, invest in, own, lease, mortgage, pledge, sell, assign and transfer or otherwise dispose of, trade and deal in and with real property and personal property of every kind, class and description (including, without limitation, goods, wares and merchandise of every kind, class and description), to manufacture goods, wares and merchandise of every kind, class and description, both on its own account and for others;

To make and perform agreements and contracts of every kind and description; and

Generally to engage in any lawful act or activity or carry on any business for which corporations may be organized under the Delaware General Corporation Law or any successor statute.

*FOURTH:* The total number of shares of all classes of stock which the Corporation shall have authority to issue is One Hundred Million (100,000,000), consisting of (i) 60,000,000 shares of Common Stock, \$0.01 par value per share (the "Common Stock"), and 40,000,000 shares of Preferred Stock, \$0.01 par value per share (the "Preferred Stock").

The following is a statement of the designations and the powers, privileges and rights, and the qualifications, limitations or restrictions thereof in respect of each class of capital stock of the Corporation.

A. Common Stock

1. General. The voting, dividend and liquidation and other rights of the holders of the Common Stock are expressly made subject to and qualified by the rights of the holders of any series of Preferred Stock.

2. Voting Rights. The holders of record of the Common Stock are entitled to one vote per share on all matters to be voted on by the Corporation's stockholders, subject to any voting rights provided to holders of then outstanding Preferred Stock,

3. Dividends. Dividends may be declared and paid on the Common Stock from funds lawfully available therefor if, as and when determined by the Board of Directors in their sole discretion, subject to provisions of law, any provision of this Certificate of Incorporation, as amended from time to time, and subject to the relative rights and preferences of any shares of Preferred Stock authorized, issued and outstanding hereunder.

4. Liquidation. Upon the dissolution, liquidation or winding up of the Corporation, whether voluntary or involuntary, holders of record of the Common Stock will be entitled to receive pro rata all assets of the Corporation available for distribution to its stockholders, subject, however, to the liquidation rights of the holders of Preferred Stock authorized, issued and outstanding hereunder.

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**B. Undesignated Shares.**

Except as otherwise set forth herein, the Board of Directors is expressly granted the authority to fix by resolution the designations, powers, preferences, rights, qualifications, limitations, restrictions, and the relative, participating, optional or other special rights in respect of each share of Preferred Stock, including the number of shares of any series, which are not fixed by this Certificate of Incorporation, as follows:

(a) The Board of Directors is hereby authorized from time to time to provide by resolution for the issuance of shares of Preferred Stock, not otherwise designated herein, in one or more series not exceeding the aggregate number of shares of Preferred Stock authorized by this Certificate of Incorporation, as amended from time to time, and to determine with respect to each such series the number of shares in such series, designations, powers, preferences, qualifications, limitations, restrictions and the relative, participating, optional or other special rights, if any, pertaining thereto including, without limiting the generality of the foregoing, the voting rights (if any) pertaining to shares of Preferred Stock of any series (which may be one vote per share or a fraction or multiple of a vote per share, and which may be applicable generally or only upon the happening and continuance of stated events or conditions), the rate of dividend (if any) to which holders of Preferred Stock of any series may be entitled (which may be cumulative or noncumulative), the rights (if any) of holders of Preferred Stock of any series in the event of liquidation, dissolution or winding up of the affairs of the Corporation, and the rights (if any) of holders of Preferred Stock of any series to convert or exchange such shares of Preferred Stock of such series for shares of any other class of capital stock or to have such shares redeemed or repurchased by the Corporation (including the determination of the price or prices or the rate or rates applicable to such rights to convert, exchange, redeem or repurchase and the adjustment thereof, the time or times during which the right to convert, exchange, redeem or repurchase shall be applicable and the time or times during which a particular price or rate shall be applicable); and

(b) Before the Corporation shall issue any shares of Preferred Stock of any series, a certificate (each a "Designation Certificate") setting forth a copy of the resolution or resolutions of the Board of Directors, fixing the voting and other powers, designations, preferences, qualifications, limitations, restrictions and the relative, participating, optional or other special rights, if any, pertaining to the shares of Preferred Stock of such series and the number of shares of Preferred Stock of such series authorized by the Board of Directors to be issued shall be executed, acknowledged, filed and recorded to the extent and in the manner prescribed by the laws of the State of Delaware.

**C. Preferred Stock.** Sixteen Million One Hundred Fifty Thousand (16,150,000) shares of authorized and unissued Preferred Stock of the Corporation are hereby designated Series A Convertible Preferred Stock ("Series A Preferred Stock"), and Six Million (6,000,000) shares of authorized and unissued Preferred Stock of the Corporation are hereby designated Series B Convertible Preferred Stock ("Series B Preferred Stock"), each with the following powers, preferences, rights, qualifications, limitations, restrictions, and relative, participating, optional or other special rights.

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1. Liquidation Rights.

(a) Treatment at Liquidation, Dissolution or Winding Up.

(i) In the event of any liquidation, dissolution or winding up of the affairs of the Corporation, whether voluntary or involuntary, the holders of Series A Preferred Stock and Series B Preferred stock shall be entitled to be paid out of the assets of the Corporation available for distribution to holders of the Corporation's capital stock of all classes, pari passu with each other and before payment or distribution of any of such assets to the holders of any other class or series of the Corporation's capital stock designated to be junior to the Series A Preferred Stock and Series B Preferred Stock, an amount equal to the original purchase price per share of Series A Preferred Stock and Series B Preferred Stock, as the case may be (which amount shall be subject to equitable adjustment as applicable whenever there shall occur a stock split, stock dividend, distribution, combination of shares, recapitalization, reclassification or other similar event with respect to Series A Preferred Stock or Series B Preferred Stock and, as so adjusted from time to time, is hereinafter each referred to as the "Base Liquidation Price" and individually the "Series A Base Liquidation Price" and "Series B Base Liquidation Price", respectively), plus all dividends declared but unpaid to and including the date full payment shall be tendered to the holders of Series A Preferred Stock and Series B Preferred Stock with respect to such liquidation, dissolution or winding up.

(ii) Following payment in full to the holders of Series A Preferred Stock and Series B Preferred Stock of all amounts distributable to them under Section 1(a)(i) hereof, the remaining assets of the Corporation shall be distributed on a pro rata basis among the holders of the Common Stock,

(iii) If the assets of the Corporation shall be insufficient to permit the payment in full to the holders of Series A Preferred Stock and Series B Preferred Stock of all amounts distributable to them under Section 1(a)(i) hereof, then the entire assets of the Corporation available for such, distribution shall be distributed ratably among the holders of Series A Preferred Stock and Series B Preferred Stock.

(b) Treatment of Reorganizations, Consolidations, Mergers and Sales of Assets. A Reorganization (as defined in Subsection 2(d)(vi) hereof) shall be regarded as a liquidation, dissolution or winding up of the affairs of the Corporation within the meaning of this Section 1; provided, however, that the holders of at least a majority of the outstanding shares of the Series A Preferred Stock and Series B Preferred Stock, respectively, upon the occurrence of a Reorganization shall have the option to elect the benefits of Subsection 2(d)(vi) hereof for the Series A Preferred Stock and Series B Preferred Stock, respectively, in lieu of receiving payment in liquidation, dissolution or winding up of the Corporation pursuant to this Section 1. The provisions of this Subsection 1(b) shall not apply to any Reorganization involving (1) only a change in the state of incorporation of the Corporation or (2) a merger of the Corporation with or into a wholly owned subsidiary of the Corporation which is incorporated in the United States of America.

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(c) Distributions other than Cash. Whenever the distribution provided for in this Section 1 shall be payable in property other than cash, the value of such distribution shall be the fair market value of such property as determined in good faith by the Board of Directors of the Corporation.

The holders of at least a majority of the outstanding shares of the Series A Preferred Stock and Series B Preferred Stock, respectively, each series voting as a separate class, shall have the right to challenge any determination by the Board of Directors of fair market value pursuant to this Section 1(b), in which case the determination of fair market value shall be made by an independent appraiser selected jointly by the Board of Directors and the challenging parties, the cost of such appraisal to be borne equally by the Corporation and the challenging parties.

2. Conversion. The holders of Series A Preferred Stock and Series B Preferred Stock shall have conversion rights as follows (the "Conversion Rights"):

(a) Right to Convert: Conversion Price. Each share of Series A Preferred Stock and Series B Preferred Stock shall be convertible, without the payment of any additional consideration by the holder thereof and at the option of the holder thereof, at any time after the date of issuance of such share, at the office of the Corporation or any transfer agent for the Series A Preferred Stock or the Series B Preferred Stock, into a number of fully paid and non-assessable shares of Common Stock based on the conversion ratio established by dividing the original purchase price per share for such series of Preferred Stock by the applicable Conversion Price for such series, as defined below (each a "Conversion Ratio"). The initial Conversion Ratio for the Series A Preferred Stock shall be 1:1 (the "Series A Conversion Ratio"). The initial Conversion Ratio for the Series B Preferred Stock shall be 1:1 (the "Series B Conversion Ratio"). The conversion price for purposes of calculating the number of shares of Common Stock deliverable upon conversion without the payment of any additional consideration by a holder of Series A Preferred Stock (the "Series A Conversion Price") shall initially be \$0.60. The conversion price for purposes of calculating the number of shares of Common Stock deliverable upon conversion without the payment of any additional consideration by a holder of Series B Preferred Stock (the "Series B Conversion Price") shall initially be \$1.20. Each of the Series A Conversion Price and Series B Conversion Price is referred to herein as a "Conversion Price". Such initial Conversion Price shall be subject to adjustment, in order to adjust the number of shares of Common Stock into which either Series A Preferred Stock or Series B Preferred Stock is convertible, as hereinafter provided.

(b) Mechanics of Conversion. Before any holder of Series A Preferred Stock or Series B Preferred Stock shall be entitled to convert the same into shares of Common Stock, such holder shall surrender the certificate or certificates therefor, duly endorsed, at the office of the Corporation or of any transfer agent for the Series A Preferred Stock or Series B Preferred Stock, and shall give written notice to the Corporation at such office that such holder elects to convert the same and shall state therein the name of such holder or the name or names of the nominees of such holder in which such holder wishes the certificate or certificates for shares of Common Stock to be issued. No fractional shares of Common Stock shall be issued upon conversion of any shares of Series A Preferred Stock or Series B Preferred Stock. In lieu of any fractional shares of Common Stock to which the holder would otherwise be entitled, the Corporation shall pay cash equal to such fraction multiplied by the then effective and applicable Conversion Price. The Corporation shall, as soon as

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practicable thereafter, issue and deliver at such office to such holder of Series A Preferred Stock or Series B Preferred Stock, or to such holder's nominee or nominees, a certificate or certificates for the number of shares of Common Stock to which such holder shall be entitled as aforesaid, together with cash in lieu of any fraction of a share. Such conversion shall be deemed to have been made immediately prior to the close of business on the date of such surrender of the shares of Series A Preferred Stock or Series B Preferred Stock to be converted, and the person or persons entitled to receive the shares of Common Stock issuable upon conversion shall be treated for all purposes as the record holder or holders of such shares of Common Stock on such date. In the event that at the time of conversion pursuant to this Section 2 there shall be any declared but unpaid cash dividends outstanding with respect to the shares of Series A Preferred Stock or Series B Preferred Stock surrendered for conversion, such unpaid dividends shall be paid in shares of Common Stock at a rate determined by dividing the cash value of the unpaid dividends per share by the then applicable Conversion Price for such series.

(c) Automatic Conversion.

(i) Each share of Series A Preferred Stock and Series B Preferred Stock shall automatically be converted into shares of Common Stock at the then effective and applicable Conversion Ratio upon the closing of the first underwritten public offering pursuant to an effective registration statement under the Securities Act of 1933, as amended, covering the offer and sale of Common Stock for the account of the Corporation to the public at a price per share not less than the then applicable Conversion Price for such stock (which amount shall be subject to equitable adjustment whenever there shall occur a stock split, stock dividend, distribution, combination of shares, recapitalization, reclassification or other similar event with respect to the Common Stock) (a "Qualified Initial Public Offering").

(ii) Upon the occurrence of an event specified in Section 2(c)(i) hereof, all shares of Series A Preferred Stock and Series B Preferred Stock shall be converted automatically without any further action by any holder of such shares and whether or not the certificate or certificates representing such shares are surrendered to the Corporation or the transfer agent for the Series A Preferred Stock or the Series B Preferred Stock; provided, however, that the Corporation shall not be obligated to issue a certificate or certificates evidencing the shares of Common Stock into which such shares of Series A Preferred Stock or Series B Preferred Stock were convertible unless the certificate or certificates representing such shares of Series A Preferred Stock or Series B Preferred Stock being converted are either delivered to the Corporation or the transfer agent of the Series A Preferred Stock or Series B Preferred Stock, or the holder notifies the Corporation or such transfer agent that such certificate or certificates have been lost, stolen, or destroyed and executes and delivers an agreement satisfactory to the Corporation to indemnify the Corporation from any loss incurred by it in connection therewith and, if the Corporation so elects, provides an appropriate indemnity.

(iii) Upon the automatic conversion of Series A Preferred Stock and Series B Preferred Stock, each holder of Series A Preferred Stock and Series B Preferred Stock shall surrender the certificate or certificates representing such holder's shares of Series A

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Preferred Stock or the Series B Preferred Stock at the office of the Corporation or of the transfer agent for the Series A Preferred Stock or Series B Preferred Stock. Thereupon, there shall be issued and delivered to such holder, promptly at such office and in such holder's name as shown on such surrendered certificate or certificates, a certificate or certificates for the number of shares of Common Stock into which the shares of Series A Preferred Stock or Series B Preferred Stock surrendered were convertible on the date on which such automatic conversion occurred. No fractional shares of Common Stock shall be issued upon the automatic conversion of Series A Preferred Stock or Series B Preferred Stock. In lieu of any fractional shares of Common Stock to which the holder would otherwise be entitled, the Corporation shall pay cash equal to such fraction multiplied by the then effective and applicable Conversion Price.

(d) Adjustments to Conversion Price for Diluting Issues.

(i) Special Definitions. For purposes of this Section 2(d), the following definitions shall apply:

(A) "Option" shall mean rights, options or warrants to subscribe for, purchase or otherwise acquire either Common Stock or Convertible Securities,

(B) "Original Issue Date" shall mean (i) the date on which shares of Series A Preferred Stock were first issued (the "Series A Original Issue Date") and (ii) the date on which shares of Series B Preferred Stock were first issued (the "Series B Original Issue Date"), each an "Original Issue Date".

(C) "Convertible Securities" shall mean any evidences of indebtedness, shares or other securities directly or indirectly convertible into or exchangeable for Common Stock, but excluding Options and any shares of Series A Preferred Stock or Series B Preferred Stock

(D) "Additional Shares of Common Stock" shall mean all shares of Common Stock issued, or deemed to be issued pursuant to Section 2(d)(ii), by the Corporation after the applicable Original Issue Date, other than the following (collectively, the "Excluded Shares");

(I) shares of Common Stock issued or issuable as a dividend or distribution on, or upon conversion of shares of Series A Preferred Stock or Series B Preferred Stock; or

(II) options or shares of Common Stock issued or issuable pursuant to the Corporation's 2003 Stock Option Plan.

(ii) Deemed Issuance of Additional Shares of Common Stock.

(A) Options and Convertible Securities. In the event the Corporation at any time or from time to time after the Original Issue Date shall issue

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any Options or Convertible Securities (excluding any Options or Convertible Securities which are Excluded Shares) or shall fix a record date for the determination of holders of any class of securities entitled to receive any such Options or Convertible Securities, then the maximum number of shares (as set forth in the instrument relating thereto without regard to any provisions contained therein for a subsequent adjustment of such number) of Common Stock issuable upon the exercise of such Options or, in the case of Convertible Securities and Options therefor, the conversion or exchange of such Convertible Securities, shall be deemed to be Additional Shares of Common Stock issued as of the time of such issue or, in case such a record date shall have been fixed, as of the close of business on such record date; provided that Additional Shares of Common Stock shall not be deemed to have been issued unless the consideration per share (determined pursuant to Section 2(d)(v) hereof) of such Additional Shares of Common Stock would be less than the Series A Conversion Price or Series B Conversion Price in effect on the date of and immediately prior to such issue, or such record date, as the case may be, and provided further that in any such case in which Additional Shares of Common Stock are deemed to be issued:

- (I) no further adjustment in the Series A Conversion Price or Series B Conversion Price, as the case may be, shall be made upon the subsequent issue of Convertible Securities or shares of Common Stock upon the exercise of such Options or conversion or exchange of such Convertible Securities;
- (II) if such Options or Convertible Securities by their terms provide, with the passage of time or otherwise, for any increase or decrease in the consideration payable to the Corporation, or any increase or decrease in the number of shares of Common Stock issuable upon the exercise, conversion or exchange thereof, the adjusted Series A Conversion Price or Series B Conversion Price, as the case may be, computed upon the original issue thereof (or upon the occurrence of a record date with respect thereto), and any subsequent adjustments based thereon, shall, upon any such increase or decrease becoming effective, be recomputed to reflect such increase or decrease insofar as it affects such Options or the rights of conversion or exchange under such Convertible Securities;
- (III) upon the expiration of any such Options or any rights of conversion or exchange under such Convertible Securities which shall not have been exercised, the adjusted Series A Conversion Price or Series B Conversion Price, as the case

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- may be, computed upon the original issue thereof (or upon the occurrence of a record date with respect thereto), and any subsequent adjustments based thereon, shall, upon such expiration, be recomputed as if:
- (a) in the case of Convertible Securities or Options for Common Stock, the only Additional Shares of Common Stock issued were the shares of Common Stock, if any, actually issued upon the exercise of such Options or the conversion or exchange of such Convertible Securities, and the consideration received therefor was the consideration actually received by the Corporation for the issue of all such Options, whether or not exercised, plus the consideration actually received by the Corporation upon such exercise, or for the issue of all such Convertible Securities which were actually converted or exchanged, plus the additional consideration, if any, actually received by the Corporation upon such conversion or exchange; and
  - (b) in the case of Options for Convertible Securities, only the Convertible Securities, if any, actually issued upon the exercise thereof were issued at the time of issue of such Options, and the consideration received by the Corporation for the Additional Shares of Common Stock deemed to have been then issued was the consideration actually received by the Corporation for the issue of all such Options, whether or not exercised, plus the consideration deemed to have been received by the Corporation (determined pursuant to Section 2(d)(v)) upon the issue of the Convertible Securities with respect to which such Options were actually exercised;
- (IV) no readjustment pursuant to clause (II) or (III) above shall have the effect of increasing the adjusted Series A Conversion Price or Series B Conversion Price, as the case may be, to an amount which exceeds the lower of (a) such Conversion Price on the original adjustment date, or (b) the Conversion Price that would have resulted from any issuance of Additional Shares of Common Stock between the original adjustment date and such readjustment date;
- (V) in the case of any Options which expire by their terms not more than 30 days after the date of issue thereof, no adjustment of the Series A Conversion Price or Series B

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Conversion Price shall be made until the expiration or exercise of all such Options, whereupon such adjustment shall be made in the same manner provided in clause (III) above; and

- (VI) if such record date shall have been fixed and such Options or Convertible Securities are not issued on the date fixed therefor, the adjustment previously made in the Series A Conversion Price or Series B Conversion Price, as the case may be, which became effective on such record date shall be canceled as of the close of business on such record date, and thereafter such Conversion Price shall be adjusted pursuant to this Section 2(d)(ii) as of the actual date of their issuance.

(B) Stock Dividends, Stock Distributions and Subdivisions. In the event the Corporation at any time or from time to time after the Original Issue Date shall declare or pay any dividend or make any other distribution on the Common Stock payable in Common Stock or effect a subdivision of the outstanding shares of Common Stock (by reclassification or otherwise than by payment of a dividend in Common Stock), then and in any such event, Additional Shares of Common Stock shall be deemed to have been issued:

(A) In the case of any such dividend or distribution, immediately after the close of business on the record date for the determination of holders of any class of securities entitled to receive such dividend or distribution, or

(B) In the case of any such subdivision, at the close of business on the date immediately prior to the date upon which the corporate action becomes effective.

If such record date shall have been fixed and no part of such dividend shall have been paid on the date fixed therefor, the adjustment previously made for the Series A Conversion Price or Series B Conversion Price, as the case may be, which became effective on such record date shall be canceled as of the close of business on such record date, and thereafter such Conversion Price shall be adjusted pursuant to this Section 2(d)(ii) as of the time of actual payment of such dividend.

(iii) Adjustment for Dividends, Distributions, Subdivisions, Combinations or Consolidations of Common Stock.

(A) Stock Dividends, Distributions or Subdivisions. In the event the Corporation shall be deemed to have issued Additional Shares of Common Stock pursuant to Section 2(d)(ii) in a stock dividend, stock distribution or subdivision, the Series A Conversion Price and Series B Conversion Price in effect immediately prior to such stock dividend, stock distribution or subdivision shall, concurrently with the effectiveness of such stock dividend, stock distribution or subdivision, be proportionately decreased.

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(B) Combinations or Consolidations. In the event the outstanding shares of Common Stock shall be combined or consolidated, by reclassification or otherwise, into a lesser number of shares of Common Stock, the Series A Conversion Price and Series B Conversion Price in effect immediately prior to such combination or consolidation shall, concurrently with the effectiveness of such combination or consolidation, be proportionately increased.

(iv) Adjustment of Conversion Price Upon Issuance of Additional Shares of Common Stock.

(A) In the event the Corporation at any time after the Original Issue Date shall issue Additional Shares of Common Stock (including, without limitation, Additional Shares of Common Stock deemed to be issued pursuant to Section 2(d)(ii)(A) hereof but excluding Additional Shares of Common Stock deemed to be issued under Section 2(d)(ii)(B) hereof) without consideration or for a consideration per share less than the then applicable Conversion Price in effect on the date of and immediately prior to such issue, then, and in such event, such Conversion Price shall be reduced, concurrently with such issue, in order to increase the number of shares of Common Stock into which the Series A Preferred Stock or Series B Preferred Stock is convertible, to a price (calculated to the nearest cent) determined by multiplying such Conversion Price by a fraction, the numerator of which shall be (I) the number of shares of Common Stock outstanding immediately prior to such issue (including shares of Common Stock underlying any outstanding Options or Convertible Securities) plus (II) the number of shares of Common Stock which the aggregate consideration received or deemed to have been received by the Corporation for the total number of Additional Shares of Common Stock so issued would purchase at such Conversion Price, and the denominator of which shall be (I) the number of shares of Common Stock outstanding immediately prior to such issue (including shares of Common Stock underlying any outstanding Options or Convertible Securities) plus (II) the number of Additional Shares of Common Stock so issued or deemed to be issued.

(B) Notwithstanding anything to the contrary contained herein, the applicable Conversion Price in effect at the time Additional Shares of Common Stock are issued or deemed to be issued shall not be reduced pursuant to Section 2(d)(iv)(A) hereof at such time if the amount of such reduction would be an amount less than \$0.01, but any such amount shall be carried forward and reduction with respect thereto made at the time of and together with any subsequent reduction which, together with such amount and any other amount or amounts so carried forward, shall aggregate \$0.01 or more.

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(v) Determination of Consideration. For purposes of this Section 2(d), the consideration received by the Corporation for the issue of any Additional Shares of Common Stock shall be computed as follows:

(A) Cash and Property. Such consideration shall:

(I) Insofar as it consists of cash, be computed at the aggregate amounts of cash received by the Corporation excluding amounts paid or payable for accrued interest or accrued dividends;

(II) Insofar as it consists of property other than cash, be computed at the fair market value thereof at the time of such issue, as determined in good faith by the Board of Directors; and

(III) In the event that Additional Shares of Common Stock are issued together with other shares or securities or other assets of the Corporation for consideration which covers both, be the proportion of such consideration so received, computed as provided in clauses (I) and (II) above, as determined in good faith by the Board of Directors.

(B) Options and Convertible Securities. The consideration per share received by the Corporation for Additional Shares of Common Stock deemed to have been issued pursuant to Section 2(d)(ii)(A), relating to Options and Convertible Securities, shall be determined by dividing (I) the total amount, if any, received or receivable by the Corporation as consideration for the issue of such Options or Convertible Securities, plus the minimum aggregate amount of additional consideration (as set forth in the instruments relating thereto, without regard to any provision contained therein for a subsequent adjustment of such consideration) payable to the Corporation upon the exercise of such Options or the conversion or exchange of such Convertible Securities, or in the case of Options for Convertible Securities, the exercise of such Options for Convertible Securities and the conversion or exchange of such Convertible Securities, by (II) the maximum number of shares of Common Stock (as set forth in the instruments relating thereto, without regard to any provision contained therein for a subsequent adjustment of such number) issuable upon the exercise of such Options or the conversion or exchange of such Convertible Securities.

(vi) Capital Reorganization. Merger or Sale of Assets. If at any time or from time to time there shall be a capital reorganization of the Common Stock (other than a subdivision, combination, recapitalization, reclassification or exchange of shares provided for elsewhere in this Section 2) or a consolidation or merger of the Corporation, or a sale of all or substantially all of the assets of the Corporation, other than a merger, consolidation or sale of all or substantially all of the assets of the Corporation in a transaction in which the shareholders of the Corporation immediately prior to the transaction possess more than 50% of the voting securities of the surviving entity (or

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parent, if any) immediately after the transaction (a “Reorganization”), then, as a part of and as a condition to such Reorganization, provision shall be made so that the holders of shares of the Series A Preferred Stock and Series B Preferred Stock shall thereafter be entitled to receive upon conversion of the shares of the Series A Preferred Stock and Series B Preferred Stock the same kind and amount of stock or other securities or property (including cash) of the Corporation, or of the successor corporation resulting from such Reorganization, as such holders would have been entitled to receive if they had converted their shares of the Series A Preferred Stock or the Series B Preferred Stock immediately prior to the effective time of such Reorganization. In any such case, appropriate adjustment shall be made in the application of the provisions of this Section 2 to the end that the provisions of this Section 2 (including adjustment of the Conversion Price then in effect and the number of shares of Common Stock or other securities issuable upon conversion of the shares of the Series A Preferred Stock or the Series B Preferred Stock) shall be applicable after such Reorganization in as nearly equivalent a manner as may be reasonably practicable.

The Corporation shall furnish holders of shares of Series B Preferred at least fifteen (15) days’ prior written notice of each Reorganization, which notice shall set forth in detail all material terms of the Reorganization. In the case of a Reorganization to which both this Subsection 2(d)(vi) and Subsection 1(b) hereof apply, the holders of Series A Preferred Stock and Series B Preferred Stock shall have the option to elect, by the consent of at least a majority of each of the then outstanding Series A Preferred Stock and Series B Preferred Stock, treatment under this Subsection 2(d)(vi), notice of which election shall be given in writing to the Corporation not less than five (5) business days prior to the effective date of such Reorganization, in which case Subsection 2(d)(vi) shall apply to all outstanding shares of Series A Preferred Stock and Series B Preferred Stock upon the effectiveness of the Reorganization. If no such election is timely made, the provisions of Subsection 1(b) and not this Subsection 2(d)(vi) shall apply.

The provisions of this Subsection 2(d)(vi) shall not apply to any reorganization, merger or consolidation involving (1) only a change in the state of incorporation of the Corporation or (2) a merger of the Corporation with or into a wholly owned subsidiary of the Corporation which is incorporated in the United States of America.

(e) No Impairment. The Corporation shall not, by amendment of its Certificate of Incorporation or through any reorganization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms to be observed or performed hereunder by the Corporation but shall at all times in good faith assist in the carrying out of all the provisions of this Section 2 and in the taking of all such action as may be necessary or appropriate in order to protect the conversion rights of the holders of Series A Preferred Stock and Series B Preferred Stock against impairment.

(f) Certificate as to Adjustments. Upon the occurrence of each adjustment or readjustment of the Conversion Price or Conversion Ratio pursuant to this Section 2, the Corporation at its expense shall promptly compute such adjustment or readjustment in accordance with the terms hereof and furnish to each affected holder of Series A Preferred Stock and/or Series B Preferred Stock, as applicable, a certificate setting forth such adjustment or readjustment and showing in detail the facts upon which such adjustment or readjustment is based. The Corporation shall, upon the written request at any time of any affected holder of Series A Preferred Stock and/or

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Series B Preferred Stock, furnish to such holder a like certificate setting forth (i) such adjustments and readjustments, (ii) the Conversion Price or Conversion Ratio at the time in effect, and (iii) the number of shares of Common Stock and the amount, if any, of other property which at the time would be received upon conversion of each share of Series A Preferred Stock and/or Series B Preferred Stock.

(g) Common Stock Reserved. The Corporation shall reserve and keep available out of its authorized but unissued Common Stock such number of shares of Common Stock as shall from time to time be sufficient to effect the conversion of all outstanding shares of Series A Preferred Stock and Series B Preferred Stock.

(h) Certain Taxes. The Corporation shall pay any issue or transfer taxes payable in connection with the conversion of any shares of Series A Preferred Stock and/or Series B Preferred Stock; provided, however, that the Corporation shall not be required to pay any tax which may be payable in respect of any transfer to a name other than that of the holder of such Series A Preferred Stock or Series B Preferred Stock.

(i) Closing of Books. The Corporation shall at no time close its transfer books against the transfer of any Series A Preferred Stock and/or Series B Preferred Stock, or of any shares of Common Stock issued or issuable upon the conversion of any shares of Series A Preferred Stock and/or Series B Preferred Stock in any manner which interferes with the timely conversion or transfer of such Series A Preferred Stock and/or Series B Preferred Stock.

### 3. Voting Rights.

(a) Except as otherwise required by law or this Certificate of Incorporation, the holders of Series A Preferred Stock, the holders of Series B Preferred Stock and the holders of Common Stock shall be entitled to notice of any stockholders' meeting and to vote as a single class upon any matter submitted to the stockholders for a vote as set forth in Section 3(b); provided that the holders of the Series A Preferred Stock and Series B Preferred Stock shall each vote as a separate class with respect to any matter or proposed action as to which applicable law or this Certificate of Incorporation require the vote, consent, or approval of the holders of the Series A Preferred Stock or the holders of the Series B Preferred Stock.

(b)

(i) Holders of Common Stock shall have one vote per share of Common Stock held by them; and

(ii) Holders of Series A Preferred Stock and Series B Preferred Stock shall have that number of votes per share of Series A Preferred Stock or Series B Preferred Stock as is equal to the number of shares of Common Stock into which each such share of Series A Preferred Stock or Series B Preferred Stock held by such holder could be converted on the date for determination of stockholders entitled to vote at the meeting.

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(c) Unless there is an affirmative vote of at least 50% of the outstanding shares of each of the Series A Preferred Stock and the Series B Preferred Stock, each such series voting separately as a class, the Corporation shall not undertake any of the following:

- (i) any declaration or payment of any dividend or other distribution or payment on the (or the redemption, purchase or other acquisition for value of any) capital stock of the Corporation (other than the Series A Preferred Stock and the Series B Preferred Stock) or any of its subsidiaries;
- (ii) any liquidation, dissolution, recapitalization or reorganization of the Corporation;
- (iii) any transfer or disposition of assets or rights with a value of more than \$1,000,000; or
- (iv) any amendment of the Corporation's Certificate of Incorporation that would adversely change or alter any of the preferences, powers, rights or privileges of the Series A Preferred Stock or the Series B Preferred Stock.

#### 4. Dividends.

(a) If the Board of Directors shall declare a dividend on the capital stock of the Corporation, the holders of Series A Preferred Stock and Series B Preferred Stock shall be entitled to receive such dividends in preference to any dividend on the Common Stock or any other class or series of capital stock ranking junior to the Series A Preferred Stock and Series B Preferred Stock. No dividends or distributions shall be declared and paid on the Common Stock or any such junior stock unless and until all dividends declared on the Series A Preferred Stock and Series B Preferred Stock shall have been paid in full.

(b) If, upon the approval of the holders of Series A Preferred Stock and Series B Preferred Stock as required by Section 3 (c)(i) hereof, the Board of Directors of the Corporation shall declare a dividend payable upon the then outstanding shares of the Common Stock (other than a dividend payable entirely in shares of the Common Stock of the Corporation), then the Board of Directors shall declare at the same time a dividend upon the then outstanding shares of the Series A Preferred Stock and Series B Preferred Stock, payable at the same time as the dividend paid on the Common Stock, in an amount equal to the amount of dividends per share of Series A Preferred Stock or Series B Preferred Stock as would have been payable on the largest number of whole shares of Common Stock which each share of Series A Preferred Stock or Series B Preferred Stock held by each holder thereof would have received if such Series A Preferred Stock or Series B Preferred Stock had been converted into Common Stock pursuant to the provisions of Section 2 hereof as of the record date for the determination of holders of Common Stock entitled to receive such dividends; and

(c) If, upon the approval of the holders of Series A Preferred Stock and Series B Preferred Stock as required by Section 3(c)(i) hereof, the Board of Directors of the Corporation shall

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declare a dividend payable upon any class or series of capital stock of the Corporation other than Common Stock, the Board of Directors shall declare at the same time a dividend upon the then outstanding shares of Series A Preferred Stock and Series B Preferred Stock, payable at the same time as such dividend on such other class or series of capital stock in an amount equal to (i) in the case of any series or class convertible into Common Stock, that dividend per share of Series A Preferred Stock or Series B Preferred Stock as would equal the dividend payable on such other class or series determined as if all such shares of such class or series had been converted to Common Stock and all shares of Series A Preferred Stock or Series B Preferred Stock have been converted to Common Stock on the record date for the determination of holders entitled to receive such dividend or (ii) if such class or series of capital stock is not convertible into Common Stock, at a rate per share of Series A Preferred Stock or Series B Preferred Stock determined by dividing the amount of the dividend payable on each share of such class or series of capital stock by the original issuance price of such class or series of capital stock and multiplying such fraction by the applicable Base Liquidation Price for the Series A Preferred Stock and Series B Preferred Stock, respectively, then in effect.

5. Covenants.

The Corporation shall not undertake any amendment of the Corporation's Certificate of Incorporation if such amendment would alter or change the powers, preferences or special rights of the Series A Preferred Stock or Series B Preferred Stock so as to affect them adversely; provided that the designation and issuance of any additional classes or series of Preferred Stock expressly shall not be deemed to adversely affect the powers, preferences or special rights of the Series A Preferred Stock or Series B Preferred Stock. The holders of at least a majority of the number of shares of the Series A Preferred Stock or Series B Preferred Stock, respectively, outstanding may, by affirmative vote or consent, agree to a change or alteration by the Corporation in the powers, preferences and special rights of the Series A Preferred Stock or Series B Preferred Stock, respectively, or may waive the application thereof in any particular instance.

6. No Reissuance. No share or shares of Series A Preferred Stock or Series B Preferred Stock acquired by the Corporation by reason of redemption, purchase, conversion or otherwise shall be reissued, and all such shares shall be canceled, retired and eliminated from the shares which the corporation shall be authorized to issue.

7. Residual Rights. All rights accruing to the outstanding shares of the Corporation not expressly provided for in the terms of the Series A Preferred Stock or Series B Preferred Stock shall be vested in the Common Stock.

*FIFTH*: The Corporation is to have perpetual existence.

*SIXTH*: For the management of the business and for the conduct of the affairs of the Corporation, and in further definition and not in limitation of the powers of the Corporation and of its directors and of its stockholders or any class thereof, as the case may be, conferred by the State of Delaware, it is further provided that:

A. The management of the business and the conduct of the affairs of the Corporation shall be vested in its Board of Directors. The number of directors which shall constitute the whole Board of Directors shall be fixed by, or in the manner provided in, the By-Laws. The phrase "whole Board" and the phrase "total number of directors" shall be deemed to have the same meaning, to wit, the total number of directors which the Corporation would have if there were no vacancies. No election of directors need be by written ballot.

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B. After the original or other By-Laws of the Corporation have been adopted, amended or repealed, as the case may be, in accordance with the provisions of Section 109 of the General Corporation Law of the State of Delaware, and, after the Corporation has received any payment for any of its stock, the power to adopt, amend, or repeal the By-Laws of the Corporation may be exercised by the Board of Directors of the Corporation.

C. The books of the Corporation may be kept at such place within or without the State of Delaware as the By-Laws of the Corporation may provide or as may be designated from time to time by the Board of Directors of the Corporation.

SEVENTH: The Corporation shall, to the fullest extent permitted by Section 145 of the General Corporation Law of the State of Delaware, as the same may be amended and supplemented from time to time, indemnify and advance expenses to, (i) its directors and officers, and (ii) any person who at the request of the Corporation is or was serving as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, from and against any and all of the expenses, liabilities, or other matters referred to in or covered by said section as amended or supplemented (or any successor), provided, however, that except with respect to proceedings to enforce rights to indemnification, the By-Laws of the Corporation may provide that the Corporation shall indemnify any director, officer or such person in connection with a proceeding (or part thereof) initiated by such director, officer or such person only if such proceeding (or part thereof) was authorized by the Board of Directors of the Corporation. The Corporation, by action of its Board of Directors, may provide indemnification or advance expenses to employees and agents of the Corporation or other persons only on such terms and conditions and to the extent determined by the Board of Directors in its sole and absolute discretion. The indemnification provided for herein shall not be deemed exclusive of any other rights to which those indemnified may be entitled under any By-Law, agreement, vote of stockholders or disinterested directors or otherwise, both as to action in their official capacity and as to action in another capacity while holding such office, and shall continue as to a person who has ceased to be a director, officer, employee, or agent and shall inure to the benefit of the heirs, executors and administrators of such a person.

EIGHTH: No director of this Corporation shall be personally liable to the Corporation or its stockholders for monetary damages for breach of fiduciary duty as a director except to the extent that exemption from liability or limitation thereof is not permitted under the General Corporation Law of the State of Delaware as in effect at the time such liability or limitation thereof is determined. No amendment, modification or repeal of this Article shall apply to or have any effect on the liability or alleged liability of any director of the Corporation for or with respect to any acts or omissions of such director occurring prior to such amendment, modification or repeal. If the General Corporation Law of the State of Delaware is amended

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after approval by the stockholders of this Article to authorize corporate action further eliminating or limiting the personal liability of directors, then the liability of a director of the Corporation shall be eliminated or limited to the fullest extent permitted by the General Corporation Law of the State of Delaware, as so amended.

*NINTH:* Whenever a compromise or arrangement is proposed between this Corporation and its creditors or any class of them and/or between this Corporation and its stockholders or any class of them, any court of equitable jurisdiction within the State of Delaware may, on the application in a summary way of this Corporation or of any creditor or stockholder thereof or on the application of any receiver or receivers appointed for this Corporation under the provisions of Section 291 of Title 8 of the Delaware Code or on the application of trustees in dissolution or of any receiver or receivers appointed for this Corporation under the provisions of Section 279 of Title 8 of the Delaware Code, order a meeting of the creditors or class of creditors, and/or of the stockholders or class of stockholders of this Corporation, as the case may be, to be summoned in such manner as the said court directs. If a majority in number representing three-fourths (3/4) in value of the creditors or class of creditors, and/or of the stockholders or class of stockholders of this Corporation, as the case may be, agree to any compromise or arrangement and to any reorganization of this Corporation as consequence of such compromise or arrangement, the said compromise or arrangement and the said reorganization shall, if sanctioned by the court to which the said application has been made, be binding on all the creditors or class of creditors, and/or on all the stockholders or class of stockholders, of this Corporation, as the case may be, and also on this Corporation.

*TENTH:* From time to time any of the provisions of this Certificate of Incorporation may be amended, altered or repealed, and other provisions authorized by the laws of the State of Delaware at the time in force may be added or inserted in the manner and at the time prescribed by said laws, and all rights at any time conferred upon the stockholders of the Corporation by this Certificate of Incorporation are granted subject to the provisions of this Article.

IN WITNESS WHEREOF, the Corporation has caused this Restated Certificate of Incorporation, which restates, integrates and amends the provisions of the Certificate of Incorporation of the Corporation to be signed this 25<sup>th</sup> day of October, 2004.

/s/ Ashok Khandkar

Ashok Khandkar  
President

**CERTIFICATE OF DESIGNATION, PREFERENCES,  
AND RIGHTS OF  
SERIES C CONVERTIBLE PREFERRED STOCK  
OF  
AMEDICA CORPORATION**

Amedica Corporation, a Delaware corporation (the "Corporation"), does hereby certify that, pursuant to the authority conferred on the Board of Directors of the Corporation by the Certificate of Incorporation of the Corporation, as amended, and pursuant to the provisions of Section 151 of Title 8, Chapter 1 of the Delaware Code, the Board of Directors, by written consent of its members dated February 8, 2006, adopted a resolution providing for the designation, powers, preferences and relative, participating, optional or other rights, and qualifications, limitations or restrictions thereof, of 9,700,000 shares of the Corporation's Preferred Stock, \$0.01 par value per share, which resolution is as follows:

RESOLVED: That pursuant to the authority granted to and vested in the Board of Directors of the Corporation in accordance with the provisions of the Certificate of Incorporation, as amended, of the Corporation, the Board hereby designates a series of Preferred Stock of the Corporation, par value \$0.01 per share (the "Preferred Stock"), consisting of 9,700,000 shares of the authorized unissued Preferred Stock, as Series C Convertible Preferred Stock, and hereby fixes such designation and number of shares, and the powers, preferences and relative, participating, optional or other rights, and the qualifications, limitations and restrictions thereof as set forth below, and that the officers of the Corporation, and each acting singly, are hereby authorized, empowered and directed to file with the Secretary of State of the State of Delaware a Certificate of Designation, Preferences and Rights of the Series C Convertible Preferred Stock, as such officer or officers shall deem necessary or advisable to carry out the purposes of this Resolution.

Series C Convertible Preferred Stock. The preferences, privileges and restrictions granted to or imposed upon the Corporation's Series C Convertible Preferred Stock, \$0.01 par value per share (the "Series C Preferred Stock"), or the holders thereof, are as follows:

1. Liquidation Rights.

(a) Treatment at Liquidation, Dissolution or Winding Up.

(i) In the event of any liquidation, dissolution or winding up of the affairs of the Corporation, whether voluntary or involuntary, the holders of Series C Preferred Stock shall be entitled to be paid out of the assets of the Corporation available for distribution to holders of the Corporation's capital stock of all classes, pari passu with the holders of the

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Corporation's Series A Convertible Preferred Stock, \$0.01 par value per share (the "Series A Preferred Stock") and Series B Convertible Preferred Stock, \$0.01 par value per share the "Series B Preferred Stock") and before payment or distribution of any of such assets to the holders of any other class or series of the Corporation's capital stock designated to be junior to the Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock, an amount equal to the original purchase price per share of Series C Preferred Stock (which amount shall be subject to equitable adjustment whenever there shall occur a stock split, stock dividend, distribution, combination of shares, recapitalization, reclassification or other similar event with respect to Series C Preferred Stock and, as so adjusted from time to time, is hereinafter referred to as the "Base Liquidation Price") plus all dividends declared but unpaid to and including the date full payment shall be tendered to the holders of Series C Preferred Stock with respect to such liquidation, dissolution or winding up.

(ii) Following payment in full to the holders of Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock of all amounts distributable to them under Section 1(a)(i) hereof, the remaining assets of the Corporation shall be distributed on a pro rata basis among the holders of the Common Stock.

(iii) If the assets of the Corporation shall be insufficient to permit the payment in full to the holders of Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock of all amounts distributable to them under Section 1(a)(i) hereof, then the entire assets of the Corporation available for such distribution shall be distributed ratably among the holders of Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock.

(b) Treatment of Reorganizations, Consolidations, Mergers and Sales of Assets. A Reorganization (as defined in Subsection 2(d)(vi) hereof) shall be regarded as a liquidation, dissolution or winding up of the affairs of the Corporation within the meaning of this Section 1; provided, however, that the holders of at least a majority of the outstanding shares of the Series C Preferred Stock upon the occurrence of a Reorganization shall have the option to elect the benefits of Subsection 2(d)(vi) hereof for the Series C Preferred Stock in lieu of receiving payment in liquidation, dissolution or winding up of the Corporation pursuant to this Section 1. The provisions of this Subsection 1(b) shall not apply to any Reorganization involving (1) only a change in the state of incorporation of the Corporation or (2) a merger of the Corporation with or into a wholly-owned subsidiary of the Corporation which is incorporated in the United States of America.

(c) Distributions other than Cash. Whenever the distribution provided for in this Section 1 shall be payable in property other than cash, the value of such distribution shall be the fair market value of such property as determined in good faith by the Board of Directors of the Corporation.

The holders of at least a majority of the outstanding shares of the Series C Preferred Stock, voting as a class, shall have the right to challenge any determination by the Board of Directors of fair market value pursuant to this Section 1(c), in which case the determination of fair market value shall be made by an independent appraiser selected jointly by the Board of Directors and the challenging parties, the cost of such appraisal to be borne equally by the Corporation and the challenging parties.

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2. Conversion. The holders of Series C Preferred Stock shall have conversion rights as follows (the “Conversion Rights”):

(a) Right to Convert: Conversion Price. Each share of Series C Preferred Stock shall be convertible, without the payment of any additional consideration by the holder thereof and at the option of the holder thereof, at any time after the date of issuance of such share, at the office of the Corporation or any transfer agent for the Series C Preferred Stock into a number of fully paid and non-assessable shares of Common Stock based on the conversion ratio established as is determined by dividing the original purchase price per share for such series of the Series C Preferred Stock of \$2.00 by the applicable Conversion Price for such series, as defined below (the “Conversion Ratio”). The initial Conversion Ratio shall be 1:1. The Conversion Price for purposes of calculating the number of shares of Common Stock deliverable upon conversion without the payment of any additional consideration by a holder of Series C Preferred Stock (the “Conversion Price”) shall initially be \$2.00. Such initial Conversion Price shall be subject to adjustment, in order to adjust the number of shares of Common Stock into which Series C Preferred Stock is convertible, as hereinafter provided.

(b) Mechanics of Conversion. Before any holder of Series C Preferred Stock shall be entitled to convert the same into shares of Common Stock, such holder shall surrender the certificate or certificates therefor, duly endorsed, at the office of the Corporation or of any transfer agent for the Series C Preferred Stock, and shall give written notice to the Corporation at such office that such holder elects to convert the same and shall state therein the name of such holder or the name or names of the nominees of such holder in which such holder wishes the certificate or certificates for shares of Common Stock to be issued. No fractional shares of Common Stock shall be issued upon conversion of any shares of Series C Preferred Stock. In lieu of any fractional shares of Common Stock to which the holder would otherwise be entitled, the Corporation shall pay cash equal to such fraction multiplied by the then effective Conversion Price. The Corporation shall, as soon as practicable thereafter, issue and deliver at such office to such holder of Series C Preferred Stock, or to such holder’s nominee or nominees, a certificate or certificates for the number of shares of Common Stock to which such holder shall be entitled as aforesaid, together with cash in lieu of any fraction of a share. Such conversion shall be deemed to have been made immediately prior to the close of business on the date of such surrender of the shares of Series C Preferred Stock to be converted, and the person or persons entitled to receive the shares of Common Stock issuable upon conversion shall be treated for all purposes as the record holder or holders of such shares of Common Stock on such date. In the event that at the time of conversion pursuant to this Section 2 there shall be any declared but unpaid cash dividends outstanding with respect to the shares of Series C Preferred Stock surrendered for conversion, such unpaid dividends shall be paid in shares of Common Stock at a rate determined by dividing the cash value of the unpaid dividends per share by the then applicable Conversion Price.

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(c) Automatic Conversion.

(i) Each share of Series C Preferred Stock shall automatically be converted into shares of Common Stock at the then effective Conversion Ratio upon the closing of the first underwritten public offering pursuant to an effective registration statement under the Securities Act of 1933, as amended, covering the offer and sale of Common Stock for the account of the Corporation to the public at a price per share not less than the then applicable Conversion Price (which amount shall be subject to equitable adjustment whenever there shall occur a stock split, stock dividend, distribution, combination of shares, recapitalization, reclassification or other similar event with respect to the Common Stock) (a “Qualified Initial Public Offering”).

(ii) Upon the occurrence of a Qualified Initial Public Offering hereof, all shares of Series C Preferred Stock shall be converted automatically without any further action by any holder of such shares and whether or not the certificate or certificates representing such shares are surrendered to the Corporation or the transfer agent for the Series C Preferred Stock; provided, however, that the Corporation shall not be obligated to issue a certificate or certificates evidencing the shares of Common Stock into which such shares of Series C Preferred Stock were convertible unless the certificate or certificates representing such shares of Series C Preferred Stock being converted are either delivered to the Corporation or the transfer agent of the Series C Preferred Stock, or the holder notifies the Corporation or such transfer agent that such certificate or certificates have been lost, stolen, or destroyed and executes and delivers an agreement satisfactory to the Corporation to indemnify the Corporation from any loss incurred by it in connection therewith and, if the Corporation so elects, provides an appropriate indemnity.

(iii) Upon the automatic conversion of Series C Preferred Stock, each holder of Series C Preferred Stock shall surrender the certificate or certificates representing such holder’s shares of Series C Preferred Stock at the office of the Corporation or of the transfer agent for the Series C Preferred Stock. Thereupon, there shall be issued and delivered to such holder, promptly at such office and in such holder’s name as shown on such surrendered certificate or certificates, a certificate or certificates for the number of shares of Common Stock into which the shares of Series C Preferred Stock surrendered were convertible on the date on which such automatic conversion occurred. No fractional shares of Common Stock shall be issued upon the automatic conversion of Series C Preferred Stock. In lieu of any fractional shares of Common Stock to which the holder would otherwise be entitled, the Corporation shall pay cash equal to such fraction multiplied by the then effective Conversion Price.

(d) Adjustments to Conversion Price for Diluting Issues.

(i) Special Definitions. For purposes of this Section 2(d), the following definitions shall apply:

(A) “Option” shall mean rights, options or warrants to subscribe for, purchase or otherwise acquire either Common Stock or Convertible Securities.

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(B) "Original Issue Date" shall mean the date on which shares of Series C Preferred Stock were first issued.

(C) "Convertible Securities" shall mean any evidences of indebtedness, shares or other securities directly or indirectly convertible into or exchangeable for Common Stock, but excluding Options and any shares of Series C Preferred Stock.

(D) "Additional Shares of Common Stock" shall mean all shares of Common Stock issued, or deemed to be issued pursuant to Section 2(d)(ii), by the Corporation after the Original Issue Date, other than the following (collectively, the "Excluded Shares"):

- (I) shares of Common Stock issued or issuable as a dividend or distribution on, or upon conversion of, shares of Series A Preferred Stock, Series B Preferred Stock or Series C Preferred Stock; or
- (II) Options or shares of Common Stock issued or issuable pursuant to the Corporation's 2003 Stock Option Plan.

(ii) Deemed Issuance of Additional Shares of Common Stock.

(A) Options and Convertible Securities. In the event the Corporation at any time or from time to time after the Original Issue Date shall issue any Options or Convertible Securities (excluding any Options or Convertible Securities which are Excluded Shares) or shall fix a record date for the determination of holders of any class of securities entitled to receive any such Options or Convertible Securities, then the maximum number of shares (as set forth in the instrument relating thereto without regard to any provisions contained therein for a subsequent adjustment of such number) of Common Stock issuable upon the exercise of such Options or, in the case of Convertible Securities and Options therefor, the conversion or exchange of such Convertible Securities, shall be deemed to be Additional Shares of Common Stock issued as of the time of such issue or, in case such a record date shall have been fixed, as of the close of business on such record date; provided that Additional Shares of Common Stock shall not be deemed to have been issued unless the consideration per share (determined pursuant to Section 2(d)(v) hereof) of such Additional Shares of Common Stock would be less than the Conversion Price in effect on the date of and immediately prior to such issue, or such record date, as the case may be, and provided further that in any such case in which Additional Shares of Common Stock are deemed to be issued:

- (I) no further adjustment in the Conversion Price shall be made upon the subsequent issue of Convertible Securities or shares of Common Stock upon the exercise of such Options or conversion or exchange of such Convertible Securities;

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- (II) If such Options or Convertible Securities by their terms provide, with the passage of time or otherwise, for any increase or decrease in the consideration payable to the Corporation, or any increase or decrease in the number of shares of Common Stock issuable upon the exercise, conversion or exchange thereof, the Conversion Price computed upon the original issue thereof (or upon the occurrence of a record date with respect thereto), and any subsequent adjustments based thereon, shall, upon any such increase or decrease becoming effective, be recomputed to reflect such increase or decrease insofar as it affects such Options or the rights of conversion or exchange under such Convertible Securities;
- (III) upon the expiration of any such Options or any rights of conversion or exchange under such Convertible Securities which shall not have been exercised, the Conversion Price computed upon the original issue thereof (or upon the occurrence of a record date with respect thereto), and any subsequent adjustments based thereon, shall, upon such expiration, be recomputed as if:
- (a) in the case of Convertible Securities or Options for Common Stock, the only Additional Shares of Common Stock issued were the shares of Common Stock, if any, actually issued upon the exercise of such Options or the conversion or exchange of such Convertible Securities, and the consideration received therefor was the consideration actually received by the Corporation for the issue of all such Options, whether or not exercised, plus the consideration actually received by the Corporation upon such exercise, or for the issue of all such Convertible Securities which were actually converted or exchanged, plus the additional consideration, if any, actually received by the Corporation upon such conversion or exchange; and

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- (b) in the case of Options for Convertible Securities, only the Convertible Securities, if any, actually issued upon the exercise thereof were issued at the time of issue of such Options, and the consideration received by the Corporation for the Additional Shares of Common Stock deemed to have been then issued was the consideration actually received by the Corporation for the issue of all such Options, whether or not exercised, plus the consideration deemed to have been received by the Corporation (determined pursuant to Section 2(d)(v)) upon the issue of the Convertible Securities with respect to which such Options were actually exercised;
- (IV) no readjustment pursuant to clause (II) or (III) above shall have the effect of increasing the Conversion Price to an amount which exceeds the lower of (a) the Conversion Price on the original adjustment date, or (b) the Conversion Price that would have resulted from any issuance of Additional Shares of Common Stock between the original adjustment date and such readjustment date;
- (V) in the case of any Options which expire by their terms not more than 30 days after the date of issue thereof, no adjustment of the Conversion Price shall be made until the expiration or exercise of all such Options, whereupon such adjustment shall be made in the same manner provided in clause (III) above; and
- (VI) if such record date shall have been fixed and such Options or Convertible Securities are not issued on the date fixed therefor, the adjustment previously made in the Conversion Price which became effective on such record date shall be canceled as of the close of business on such record date, and thereafter the Conversion Price shall be adjusted pursuant to this Section 2(d)(ii) as of the actual date of their issuance.

(B) Stock Dividends, Stock Distributions and Subdivisions. In the event the Corporation at any time or from time to time after the Original Issue Date shall declare or pay any dividend or make any other distribution on the Common Stock payable in Common Stock or effect a subdivision of the outstanding shares of Common Stock (by reclassification or otherwise than by payment of a dividend in Common Stock), then and in any such event, Additional Shares of Common Stock shall be deemed to have been issued:

- (I) In the case of any such dividend or distribution, immediately after the close of business on the record date for the determination of holders of any class of securities entitled to receive such dividend or distribution, or

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- (II) In the case of any such subdivision, at the close of business on the date immediately prior to the date upon which the corporate action becomes effective.

If such record date shall have been fixed and no part of such dividend shall have been paid on the date fixed therefor, the adjustment previously made for the Conversion Price which became effective on such record date shall be canceled as of the close of business on such record date, and thereafter the Conversion Price shall be adjusted pursuant to this Section 2(d)(ii) as of the time of actual payment of such dividend.

(iii) Adjustment for Dividends, Distributions, Subdivisions, Combinations or Consolidations of Common Stock.

(A) Stock Dividends, Distributions or Subdivisions. In the event the Corporation shall be deemed to have issued Additional Shares of Common Stock pursuant to Section 2(d)(ii)(B) in a stock dividend, stock distribution or subdivision, the Conversion Price in effect immediately prior to such stock dividend, stock distribution or subdivision shall, concurrently with the effectiveness of such stock dividend, stock distribution or subdivision, be proportionately decreased.

(B) Combinations or Consolidations. In the event the outstanding shares of Common Stock shall be combined or consolidated, by reclassification or otherwise, into a lesser number of shares of Common Stock, the Conversion Price in effect immediately prior to such combination or consolidation shall, concurrently with the effectiveness of such combination or consolidation, be proportionately increased.

(iv) Adjustment of Conversion Price Upon Issuance of Additional Shares of Common Stock.

(A) In the event the Corporation at any time after the Original Issue Date shall issue Additional Shares of Common Stock (including, without limitation, Additional Shares of Common Stock deemed to be issued pursuant to Section 2(d)(ii)(A) hereof but excluding Additional Shares of Common Stock deemed to be issued under Section 2(d)(ii)(B) hereof) without consideration or for a consideration per share less than the then applicable Conversion Price in effect on the date of and immediately prior to such issue, then, and in such event, such Conversion Price shall be reduced, concurrently with such issue, in order to increase the number of shares of Common Stock into which the Series C Preferred Stock is convertible, to a price

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(calculated to the nearest cent) determined by multiplying such Conversion Price by a fraction, the numerator of which shall be (I) the number of shares of Common Stock outstanding immediately prior to such issue (including shares of Common Stock underlying any outstanding Options or Convertible Securities) plus (II) the number of shares of Common Stock which the aggregate consideration received or deemed to have been received by the Corporation for the total number of Additional Shares of Common Stock so issued would purchase at such Conversion Price, and the denominator of which shall be (I) the number of shares of Common Stock outstanding immediately prior to such issue (including shares of Common Stock underlying any outstanding Options or Convertible Securities) plus (II) the number of Additional Shares of Common Stock so issued or deemed to be issued.

(B) Notwithstanding anything to the contrary contained herein, the applicable Conversion Price in effect at the time Additional Shares of Common Stock are issued or deemed to be issued shall not be reduced pursuant to Section 2(d)(iv)(A) hereof at such time if the amount of such reduction would be an amount less than \$0.01, but any such amount shall be carried forward and reduction with respect thereto made at the time of and together with any subsequent reduction which, together with such amount and any other amount or amounts so carried forward, shall aggregate \$0.01 or more.

(v) Determination of Consideration. For purposes of this Section 2(d), the consideration received by the Corporation for the issue of any Additional Shares of Common Stock shall be computed as follows:

(A) Cash and Property. Such consideration shall:

(I) Insofar as it consists of cash, be computed at the aggregate amounts of cash received by the Corporation excluding amounts paid or payable for accrued interest or accrued dividends;

(II) Insofar as it consists of property other than cash, be computed at the fair market value thereof at the time of such issue, as determined in good faith by the Board of Directors; and

(III) In the event that Additional Shares of Common Stock are issued together with other shares or securities or other assets of the Corporation for consideration which covers both, be the proportion of such consideration so received, computed as provided in clauses (I) and (II) above, as determined in good faith by the Board of Directors.

(B) Options and Convertible Securities. The consideration per share received by the Corporation for Additional Shares of Common Stock deemed to have been issued pursuant to Section 2(d)(ii)(A), relating to Options and Convertible Securities, shall be determined by dividing (I) the total amount, if any, received or receivable by the Corporation as

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consideration for the issue of such Options or Convertible Securities, plus the minimum aggregate amount of additional consideration (as set forth in the instruments relating thereto, without regard to any provision contained therein for a subsequent adjustment of such consideration) payable to the Corporation upon the exercise of such Options or the conversion or exchange of such Convertible Securities, or in the case of Options for Convertible Securities, the exercise of such Options for Convertible Securities and the conversion or exchange of such Convertible Securities, by (II) the maximum number of shares of Common Stock (as set forth in the instruments relating thereto, without regard to any provision contained therein for a subsequent adjustment of such number) issuable upon the exercise of such Options or the conversion or exchange of such Convertible Securities.

(vi) Capital Reorganization, Merger or Sale of Assets. If at any time or from time to time there shall be a capital reorganization of the Common Stock (other than a subdivision, combination, recapitalization, reclassification or exchange of shares provided for elsewhere in this Section 2) or a consolidation or merger of the Corporation, or a sale of all or substantially all of the assets of the Corporation, other than a merger, consolidation or sale of all or substantially all of the assets of the Corporation in a transaction in which the shareholders of the Corporation immediately prior to the transaction possess more than 50% of the voting securities of the surviving entity (or parent, if any) immediately after the transaction (a "Reorganization"), then, as a part of and as a condition to such Reorganization, provision shall be made so that the holders of shares of the Series C Preferred Stock shall thereafter be entitled to receive upon conversion of the shares of the Series C Preferred Stock the same kind and amount of stock or other securities or property (including cash) of the Corporation, or of the successor corporation resulting from such Reorganization, as such holders would have been entitled to receive if they had converted their shares of the Series C Preferred Stock immediately prior to the effective time of such Reorganization. In any such case, appropriate adjustment shall be made in the application of the provisions of this Section 2 to the end that the provisions of this Section 2 (including adjustment of the Conversion Price then in effect and the number of shares of Common Stock or other securities issuable upon conversion of the shares of the Series C Preferred Stock) shall be applicable after such Reorganization in as nearly equivalent a manner as may be reasonably practicable.

The Corporation shall furnish holders of shares of Series C Preferred Stock at least fifteen (15) days' prior written notice of each Reorganization, which notice shall set forth in detail all material terms of the Reorganization. In the case of a Reorganization to which both this Subsection 2(d)(vi) and Subsection 1(b) hereof apply, the holders of Series C Preferred Stock shall have the option to elect, by the consent of at least a majority of the then outstanding Series C Preferred Stock, treatment under this Subsection 2(d)(vi), notice of which election shall be given in writing to the Corporation not less than five (5) business days prior to the effective date of such Reorganization, in which case Subsection 2(d)(vi) shall apply to all outstanding shares of Series C Preferred Stock upon the effectiveness of the Reorganization. If no such election is timely made, the provisions of Subsection 1(b) and not this Subsection 2(d)(vi) shall apply.

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The provisions of this Subsection 2(d)(vi) shall not apply to any reorganization, merger or consolidation involving (1) only a change in the state of incorporation of the Corporation or (2) a merger of the Corporation with or into a wholly owned subsidiary of the Corporation which is incorporated in the United States of America.

(e) No Impairment. The Corporation shall not, by amendment of its Certificate of Incorporation or through any reorganization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms to be observed or performed hereunder by the Corporation but shall at all times in good faith assist in the carrying out of all the provisions of this Section 2 and in the taking of all such action as may be necessary or appropriate in order to protect the conversion rights of the holders of Series C Preferred Stock against impairment.

(f) Certificate as to Adjustments. Upon the occurrence of each adjustment or readjustment of the Conversion Price or Conversion Ratio pursuant to this Section 2, the Corporation at its expense shall promptly compute such adjustment or readjustment in accordance with the terms hereof and furnish to each affected holder of Series C Preferred Stock, a certificate setting forth such adjustment or readjustment and showing in detail the facts upon which such adjustment or readjustment is based. The Corporation shall, upon the written request at any time of any affected holder of Series C Preferred Stock, furnish to such holder a like certificate setting forth (i) such adjustments and readjustments, (ii) the Conversion Price or Conversion Ratio at the time in effect, and (iii) the number of shares of Common Stock and the amount, if any, of other property which at the time would be received upon conversion of each share of Series C Preferred Stock.

(g) Common Stock Reserved. The Corporation shall reserve and keep available out of its authorized but unissued Common Stock such number of shares of Common Stock as shall from time to time be sufficient to effect the conversion of all outstanding shares of Series C Preferred Stock.

(h) Certain Taxes. The Corporation shall pay any issue or transfer taxes payable in connection with the conversion of any shares of Series C Preferred Stock; provided, however, that the Corporation shall not be required to pay any tax which may be payable in respect of any transfer to a name other than that of the holder of such Series C Preferred Stock.

(i) Closing of Books. The Corporation shall at no time close its transfer books against the transfer of any Series C Preferred Stock, or of any shares of Common Stock issued or issuable upon the conversion of any shares of Series C Preferred Stock in any manner which interferes with the timely conversion or transfer of such Series C Preferred Stock.

### 3. Voting Rights.

(a) Except as otherwise required by law or this Certificate of Designation, the holders of Series A Preferred Stock, the holders of Series B Preferred Stock, the holders of Series C Preferred Stock and the holders of Common Stock shall be entitled to notice of any stockholders' meeting and to vote as a single class upon any matter submitted to the stockholders for a vote as set forth in Section 3(b); provided that the holders of the Series C Preferred Stock shall vote as a separate class with respect to any matter or proposed action as to which applicable law or this Certificate of Designation require the vote, consent, or approval of the holders of the Series C Preferred Stock.

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(b)

(i) Holders of Common Stock shall have one vote per share of Common Stock held by them; and

(ii) Holders of Series C Preferred Stock shall have that number of votes per share of Series C Preferred Stock as is equal to the number of shares of Common Stock into which each such share of Series C Preferred Stock held by such holder could be converted on the date for determination of stockholders entitled to vote at the meeting.

(c) Unless there is an affirmative vote of at least 50% of the outstanding shares of Series C Preferred Stock, voting separately as a class, the Corporation shall not undertake any of the following:

- (i) any declaration or payment of any dividend or other distribution or payment on the (or the redemption, purchase or other acquisition for value of any) capital stock of the Corporation (other than the Series C Preferred Stock) or any of its subsidiaries;
- (ii) any liquidation, dissolution, recapitalization or reorganization of the Corporation;
- (iii) any transfer or disposition of assets or rights with a value of more than \$1,000,000; or
- (iv) any amendment of the Corporation's Certificate of Incorporation that would adversely change or alter any of the preferences, powers, rights or privileges of the Series C Preferred Stock.

#### 4. Dividends.

(a) If the Board of Directors shall declare a dividend on the capital stock of the Corporation, the holders of Series C Preferred Stock shall be entitled to receive such dividends pari passu with the holders of Series A Preferred Stock and the Series B Preferred Stock and in preference to any dividend on the Common Stock or any other class or series of capital stock ranking junior to the Series C Preferred Stock. No dividends or distributions shall be declared and paid on the Common Stock or any such junior stock unless and until all dividends declared on the Series C Preferred Stock shall have been paid in full.

(b) If, upon the approval of the holders of Series C Preferred Stock as required by Section 3(c)(i) hereof, the Board of Directors of the Corporation shall declare a dividend payable upon the then outstanding shares of the Common Stock (other than a dividend payable entirely in shares of the Common Stock of the Corporation), then the Board of Directors shall declare at the

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same time a dividend upon the then outstanding shares of the Series C Preferred Stock, payable at the same time as the dividend paid on the Common Stock, in an amount equal to the amount of dividends per share of Series C Preferred Stock as would have been payable on the largest number of whole shares of Common Stock which each share of Series C Preferred Stock held by each holder thereof would have received if such Series C Preferred Stock had been converted into Common Stock pursuant to the provisions of Section 2 hereof as of the record date for the determination of holders of Common Stock entitled to receive such dividends; and

(c) If, upon the approval of the holders of Series C Preferred Stock as required by Section 3(c)(i) hereof, the Board of Directors of the Corporation shall declare a dividend payable upon any class or series of capital stock of the Corporation other than Common Stock, the Board of Directors shall declare at the same time a dividend upon the then outstanding shares of Series C Preferred Stock, payable at the same time as such dividend on such other class or series of capital stock in an amount equal to (i) in the case of any series or class convertible into Common Stock, that dividend per share of Series C Preferred Stock as would equal the dividend payable on such other class or series determined as if all such shares of such class or series had been converted to Common Stock and all shares of Series C Preferred Stock have been converted to Common Stock on the record date for the determination of holders entitled to receive such dividend or (ii) if such class or series of capital stock is not convertible into Common Stock, at a rate per share of Series C Preferred Stock determined by dividing the amount of the dividend payable on each share of such class or series of capital stock by the original issuance price of such class or series of capital stock and multiplying such fraction by the Base Liquidation Price then in effect.

5. Covenants.

The Corporation shall not undertake any amendment of this Certificate of Designation or the Corporation's Certificate of Incorporation if such amendment would alter or change the powers, preferences or special rights of the Series C Preferred Stock so as to affect them adversely; provided that the designation and issuance of any additional classes or series of Preferred Stock expressly shall not be deemed to adversely affect the powers, preferences or special rights of the Series C Preferred Stock. The holders of at least a majority of the number of shares of Series C Preferred Stock outstanding may, by affirmative vote or consent, agree to a change or alteration by the Corporation in the powers, preferences and special rights of the Series B Preferred Stock, or may waive the application thereof in any particular instance.

6. No Reissuance of Series C Preferred Stock. No share or shares of Series C Preferred Stock acquired by the Corporation by reason of redemption, purchase, conversion or otherwise shall be reissued, and all such shares shall be canceled, retired and eliminated from the shares which the corporation shall be authorized to issue.

7. Residual Rights. All rights accruing to the outstanding shares of the Corporation not expressly provided for in the terms of the Series C Preferred Stock shall be vested in the Common Stock.

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IN WITNESS WHEREOF, the Corporation has caused this Certificate of Designation to be signed by its duly authorized officer this 24th day of February, 2006.

AMEDICA CORPORATION

By: /s/ Ashok Khandkar

Name: Ashok Khandkar

Title: Chief Executive Officer

**CERTIFICATE OF DESIGNATION, PREFERENCES,  
AND RIGHTS OF  
SERIES D CONVERTIBLE PREFERRED STOCK  
OF  
AMEDICA CORPORATION**

Amedica Corporation, a Delaware corporation (the "**Corporation**"), does hereby certify that, pursuant to the authority conferred on the Board of Directors of the Corporation by the Restated Certificate of Incorporation of the Corporation, as amended, and pursuant to the provisions of Section 151 of Title 8, Chapter 1 of the Delaware Code, the Board of Directors, by written consent of its members dated April 13, 2007, adopted a resolution providing for the designation, powers, preferences and relative, participating, optional or other rights, and qualifications, limitations or restrictions thereof, of 5,600,000 shares of the Corporation's Preferred Stock, \$0.01 par value per share, which resolution is as follows:

RESOLVED: That pursuant to the authority granted to and vested in the Board of Directors of the Corporation in accordance with the provisions of the Restated Certificate of Incorporation, as amended, of the Corporation, the Board hereby designates a series of Preferred Stock of the Corporation, par value \$0.01 per share (the "**Preferred Stock**"), consisting of 5,600,000 shares of the authorized unissued Preferred Stock, as Series D Convertible Preferred Stock, and hereby fixes such designation and number of shares, and the powers, preferences and relative, participating, optional or other rights, and the qualifications, limitations and restrictions thereof as set forth below, and that the officers of the Corporation, and each acting singly, are hereby authorized, empowered and directed to file with the Secretary of State of the State of Delaware a Certificate of Designation, Preferences and Rights of the Series D Convertible Preferred Stock, as such officer or officers shall deem necessary or advisable to carry out the purposes of this Resolution.

Series D Convertible Preferred Stock. The preferences, privileges and restrictions granted to or imposed upon the Corporation's Series D Convertible Preferred Stock, \$0.01 par value per share (the "**Series D Preferred Stock**"), or the holders thereof, are as follows:

1. Liquidation Rights.

(a) Treatment at Liquidation, Dissolution or Winding Up.

(i) In the event of any liquidation, dissolution or winding up of the affairs of the Corporation, whether voluntary or involuntary, the holders of Series D Preferred Stock shall be entitled to be paid out of the assets of the Corporation available for distribution to holders of the Corporation's capital stock of all classes, pari passu with the holders of the

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Corporation's Series A Convertible Preferred Stock, \$0.01 par value per share (the "**Series A Preferred Stock**"), Series B Convertible Preferred Stock, \$0.01 par value per share (the "**Series B Preferred Stock**") and Series C Convertible Preferred Stock, \$0.01 par value per share (the "**Series C Preferred Stock**") and before payment or distribution of any of such assets to the holders of any other class or series of the Corporation's capital stock designated to be junior to the Series A Preferred Stock, Series B Preferred Stock, Series C Preferred Stock and Series D Preferred Stock, an amount equal to the original purchase price per share of Series D Preferred Stock (which amount shall be subject to equitable adjustment whenever there shall occur a stock split, stock dividend, distribution, combination of shares, recapitalization, reclassification or other similar event with respect to Series D Preferred Stock and, as so adjusted from time to time, is hereinafter referred to as the "**Base Liquidation Price**") plus all dividends declared but unpaid to and including the date full payment shall be tendered to the holders of Series D Preferred Stock with respect to such liquidation, dissolution or winding up.

(ii) Following payment in full to the holders of Series A Preferred Stock, Series B Preferred Stock, Series C Preferred Stock and Series D Preferred Stock of all amounts distributable to them under Section 1(a)(i) hereof, the remaining assets of the Corporation shall be distributed on a pro rata basis among the holders of the Common Stock.

(iii) If the assets of the Corporation shall be insufficient to permit the payment in full to the holders of Series A Preferred Stock, Series B Preferred Stock, Series C Preferred Stock and Series D Preferred Stock of all amounts distributable to them under Section 1(a)(i) hereof, then the entire assets of the Corporation available for such distribution shall be distributed ratably among the holders of Series A Preferred Stock, Series B Preferred Stock, Series C Preferred Stock and Series D Preferred Stock.

(b) Treatment of Reorganizations, Consolidations, Mergers and Sales of Assets. A Reorganization (as defined in Subsection 2(d)(vi) hereof) shall be regarded as a liquidation, dissolution or winding up of the affairs of the Corporation within the meaning of this Section 1; provided, however, that the holders of at least a majority of the outstanding shares of the Series D Preferred Stock upon the occurrence of a Reorganization shall have the option to elect the benefits of Subsection 2(d)(vi) hereof for the Series D Preferred Stock in lieu of receiving payment in liquidation, dissolution or winding up of the Corporation pursuant to this Section 1. The provisions of this Subsection 1(b) shall not apply to any Reorganization involving (1) only a change in the state of incorporation of the Corporation or (2) a merger of the Corporation with or into a wholly-owned subsidiary of the Corporation which is incorporated in the United States of America.

(c) Distributions other than Cash. Whenever the distribution provided for in this Section 1 shall be payable in property other than cash, the value of such distribution shall be the fair market value of such property as determined in good faith by the Board of Directors of the Corporation.

The holders of at least a majority of the outstanding shares of the Series D Preferred Stock, voting as a class, shall have the right to challenge any determination by the Board of Directors of

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fair market value pursuant to this Section 1(c), in which case the determination of fair market value shall be made by an independent appraiser selected jointly by the Board of Directors and the challenging parties, the cost of such appraisal to be borne equally by the Corporation and the challenging parties.

2. Conversion. The holders of Series D Preferred Stock shall have conversion rights as follows (the “**Conversion Rights**”):

(a) Right to Convert; Conversion Price. Each share of Series D Preferred Stock shall be convertible, without the payment of any additional consideration by the holder thereof and at the option of the holder thereof, at any time after the date of issuance of such share, at the office of the Corporation or any transfer agent for the Series D Preferred Stock into a number of fully paid and non-assessable shares of Common Stock based on the conversion ratio established as is determined by dividing the original purchase price per share for such series of the Series D Preferred Stock of \$3.00 by the applicable Conversion Price for such series, as defined below (the “**Conversion Ratio**”). The initial Conversion Ratio shall be 1:1. The Conversion Price for purposes of calculating the number of shares of Common Stock deliverable upon conversion without the payment of any additional consideration by a holder of Series D Preferred Stock (the “**Conversion Price**”) shall initially be \$3.00. Such initial Conversion Price shall be subject to adjustment, in order to adjust the number of shares of Common Stock into which Series D Preferred Stock is convertible, as hereinafter provided.

(b) Mechanics of Conversion. Before any holder of Series D Preferred Stock shall be entitled to convert the same into shares of Common Stock, such holder shall surrender the certificate or certificates therefor, duly endorsed, at the office of the Corporation or of any transfer agent for the Series D Preferred Stock, and shall give written notice to the Corporation at such office that such holder elects to convert the same and shall state therein the name of such holder or the name or names of the nominees of such holder in which such holder wishes the certificate or certificates for shares of Common Stock to be issued. No fractional shares of Common Stock shall be issued upon conversion of any shares of Series D Preferred Stock. In lieu of any fractional shares of Common Stock to which the holder would otherwise be entitled, the Corporation shall pay cash equal to such fraction multiplied by the then effective Conversion Price. The Corporation shall, as soon as practicable thereafter, issue and deliver at such office to such holder of Series D Preferred Stock, or to such holder’s nominee or nominees, a certificate or certificates for the number of shares of Common Stock to which such holder shall be entitled as aforesaid, together with cash in lieu of any fraction of a share. Such conversion shall be deemed to have been made immediately prior to the close of business on the date of such surrender of the shares of Series D Preferred Stock to be converted, and the person or persons entitled to receive the shares of Common Stock issuable upon conversion shall be treated for all purposes as the record holder or holders of such shares of Common Stock on such date. In the event that at the time of conversion pursuant to this Section 2 there shall be any declared but unpaid cash dividends outstanding with respect to the shares of Series D Preferred Stock surrendered for conversion, such unpaid dividends shall be paid in shares of Common Stock at a rate determined by dividing the cash value of the unpaid dividends per share by the then applicable Conversion Price.

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(c) Automatic Conversion.

(i) Each share of Series D Preferred Stock shall automatically be converted into shares of Common Stock at the then effective Conversion Ratio upon the closing of the first underwritten public offering pursuant to an effective registration statement under the Securities Act of 1933, as amended, covering the offer and sale of Common Stock for the account of the Corporation to the public at a price per share not less than the then applicable Conversion Price (which amount shall be subject to equitable adjustment whenever there shall occur a stock split, stock dividend, distribution, combination of shares, recapitalization, reclassification or other similar event with respect to the Common Stock) (a "**Qualified Initial Public Offering**").

(ii) Upon the occurrence of a Qualified Initial Public Offering hereof, all shares of Series D Preferred Stock shall be converted automatically without any further action by any holder of such shares and whether or not the certificate or certificates representing such shares are surrendered to the Corporation or the transfer agent for the Series D Preferred Stock; provided, however, that the Corporation shall not be obligated to issue a certificate or certificates evidencing the shares of Common Stock into which such shares of Series D Preferred Stock were convertible unless the certificate or certificates representing such shares of Series D Preferred Stock being converted are either delivered to the Corporation or the transfer agent of the Series D Preferred Stock, or the holder notifies the Corporation or such transfer agent that such certificate or certificates have been lost, stolen, or destroyed and executes and delivers an agreement satisfactory to the Corporation to indemnify the Corporation from any loss incurred by it in connection therewith and, if the Corporation so elects, provides an appropriate indemnity.

(iii) Upon the automatic conversion of Series D Preferred Stock, each holder of Series D Preferred Stock shall surrender the certificate or certificates representing such holder's shares of Series D Preferred Stock at the office of the Corporation or of the transfer agent for the Series D Preferred Stock. Thereupon, there shall be issued and delivered to such holder, promptly at such office and in such holder's name as shown on such surrendered certificate or certificates, a certificate or certificates for the number of shares of Common Stock into which the shares of Series D Preferred Stock surrendered were convertible on the date on which such automatic conversion occurred. No fractional shares of Common Stock shall be issued upon the automatic conversion of Series D Preferred Stock. In lieu of any fractional shares of Common Stock to which the holder would otherwise be entitled, the Corporation shall pay cash equal to such fraction multiplied by the then effective Conversion Price.

(d) Adjustments to Conversion Price for Diluting Issues.

(i) Special Definitions. For purposes of this Section 2(d), the following definitions shall apply:

(A) "**Option**" shall mean rights, options or warrants to subscribe for, purchase or otherwise acquire either Common Stock or Convertible Securities.

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(B) **“Original Issue Date”** shall mean the date on which shares of Series C Preferred Stock were first issued.

(C) **“Convertible Securities”** shall mean any evidences of indebtedness, shares or other securities directly or indirectly convertible into or exchangeable for Common Stock, but excluding Options and any shares of Series D Preferred Stock.

(D) **“Additional Shares of Common Stock”** shall mean all shares of Common Stock issued, or deemed to be issued pursuant to Section 2(d)(ii), by the Corporation after the Original Issue Date, other than the following (collectively, the **“Excluded Shares”**):

- (I) shares of Common Stock issued or issuable as a dividend or distribution on, or upon conversion of, shares of Series A Preferred Stock, Series B Preferred Stock, Series C Preferred Stock or Series D Preferred Stock; or
- (II) Options or shares of Common Stock issued or issuable pursuant to the Corporation’s 2003 Stock Option Plan or pursuant to any stock option or other equity compensation plan of the Corporation approved by its Board of Directors.

(ii) Deemed Issuance of Additional Shares of Common Stock.

(A) Options and Convertible Securities. In the event the Corporation at any time or from time to time after the Original Issue Date shall issue any Options or Convertible Securities (excluding any Options or Convertible Securities which are Excluded Shares) or shall fix a record date for the determination of holders of any class of securities entitled to receive any such Options or Convertible Securities, then the maximum number of shares (as set forth in the instrument relating thereto without regard to any provisions contained therein for a subsequent adjustment of such number) of Common Stock issuable upon the exercise of such Options or, in the case of Convertible Securities and Options therefor, the conversion or exchange of such Convertible Securities, shall be deemed to be Additional Shares of Common Stock issued as of the time of such issue or, in case such a record date shall have been fixed, as of the close of business on such record date; provided that Additional Shares of Common Stock shall not be deemed to have been issued unless the consideration per share (determined pursuant to Section 2(d)(v) hereof) of such Additional Shares of Common Stock would be less than the Conversion Price in effect on the date of and immediately prior to such issue, or such record date, as the case may be, and provided further that in any such case in which Additional Shares of Common Stock are deemed to be issued:

- (I) no further adjustment in the Conversion Price shall be made upon the subsequent issue of Convertible Securities or shares of Common Stock upon the exercise of such Options or conversion or exchange of such Convertible Securities;

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- (II) if such Options or Convertible Securities by their terms provide, with the passage of time or otherwise, for any increase or decrease in the consideration payable to the Corporation, or any increase or decrease in the number of shares of Common Stock issuable upon the exercise, conversion or exchange thereof, the Conversion Price computed upon the original issue thereof (or upon the occurrence of a record date with respect thereto), and any subsequent adjustments based thereon, shall, upon any such increase or decrease becoming effective, be recomputed to reflect such increase or decrease insofar as it affects such Options or the rights of conversion or exchange under such Convertible Securities;
  - (III) upon the expiration of any such Options or any rights of conversion or exchange under such Convertible Securities which shall not have been exercised, the Conversion Price computed upon the original issue thereof (or upon the occurrence of a record date with respect thereto), and any subsequent adjustments based thereon, shall, upon such expiration, be recomputed as if:
    - (a) in the case of Convertible Securities or Options for Common Stock, the only Additional Shares of Common Stock issued were the shares of Common Stock, if any, actually issued upon the exercise of such Options or the conversion or exchange of such Convertible Securities, and the consideration received therefor was the consideration actually received by the Corporation for the issue of all such Options, whether or not exercised, plus the consideration actually received by the Corporation upon such exercise, or for the issue of all such Convertible Securities which were actually converted or exchanged, plus the additional consideration, if any, actually received by the Corporation upon such conversion or exchange; and

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- (b) in the case of Options for Convertible Securities, only the Convertible Securities, if any, actually issued upon the exercise thereof were issued at the time of issue of such Options, and the consideration received by the Corporation for the Additional Shares of Common Stock deemed to have been then issued was the consideration actually received by the Corporation for the issue of all such Options, whether or not exercised, plus the consideration deemed to have been received by the Corporation (determined pursuant to Section 2(d)(v)) upon the issue of the Convertible Securities with respect to which such Options were actually exercised;
  - (IV) no readjustment pursuant to clause (II) or (III) above shall have the effect of increasing the Conversion Price to an amount which exceeds the lower of (a) the Conversion Price on the original adjustment date, or (b) the Conversion Price that would have resulted from any issuance of Additional Shares of Common Stock between the original adjustment date and such readjustment date;
  - (V) in the case of any Options which expire by their terms not more than 30 days after the date of issue thereof, no adjustment of the Conversion Price shall be made until the expiration or exercise of all such Options, whereupon such adjustment shall be made in the same manner provided in clause (III) above; and
  - (VI) if such record date shall have been fixed and such Options or Convertible Securities are not issued on the date fixed therefor, the adjustment previously made in the Conversion Price which became effective on such record date shall be canceled as of the close of business on such record date, and thereafter the Conversion Price shall be adjusted pursuant to this Section 2(d)(ii) as of the actual date of their issuance.

(B) Stock Dividends, Stock Distributions and Subdivisions. In the event the Corporation at any time or from time to time after the Original Issue Date shall declare or pay any dividend or make any other distribution on the Common Stock payable in Common Stock or effect a subdivision of the outstanding shares of Common Stock (by reclassification or otherwise than by payment of a dividend in Common Stock), then and in any such event, Additional Shares of Common Stock shall be deemed to have been issued:

- (I) In the case of any such dividend or distribution, immediately after the close of business on the record date for the determination of holders of any class of securities entitled to receive such dividend or distribution, or

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- (II) In the case of any such subdivision, at the close of business on the date immediately prior to the date upon which the corporate action becomes effective.

If such record date shall have been fixed and no part of such dividend shall have been paid on the date fixed therefor, the adjustment previously made for the Conversion Price which became effective on such record date shall be canceled as of the close of business on such record date, and thereafter the Conversion Price shall be adjusted pursuant to this Section 2(d)(ii) as of the time of actual payment of such dividend.

(iii) Adjustment for Dividends, Distributions, Subdivisions, Combinations or Consolidations of Common Stock.

(A) Stock Dividends, Distributions or Subdivisions. In the event the Corporation shall be deemed to have issued Additional Shares of Common Stock pursuant to Section 2(d)(ii)(B) in a stock dividend, stock distribution or subdivision, the Conversion Price in effect immediately prior to such stock dividend, stock distribution or subdivision shall, concurrently with the effectiveness of such stock dividend, stock distribution or subdivision, be proportionately decreased.

(B) Combinations or Consolidations. In the event the outstanding shares of Common Stock shall be combined or consolidated, by reclassification or otherwise, into a lesser number of shares of Common Stock, the Conversion Price in effect immediately prior to such combination or consolidation shall, concurrently with the effectiveness of such combination or consolidation, be proportionately increased.

(iv) Adjustment of Conversion Price Upon Issuance of Additional Shares of Common Stock.

(A) In the event the Corporation at any time after the Original Issue Date shall issue Additional Shares of Common Stock (including, without limitation, Additional Shares of Common Stock deemed to be issued pursuant to Section 2(d)(ii)(A) hereof but excluding Additional Shares of Common Stock deemed to be issued under Section 2(d)(ii)(B) hereof) without consideration or for a consideration per share less than the then applicable Conversion Price in effect on the date of and immediately prior to such issue, then, and in such event, such Conversion Price shall be reduced, concurrently with such issue, in order to increase the number of shares of Common Stock into which the Series D Preferred Stock is convertible, to a price (calculated to the nearest cent) determined by multiplying such Conversion Price by a fraction, the numerator of which shall be (I) the number of shares of Common Stock outstanding immediately prior to such issue (including shares of Common Stock underlying any outstanding Options or Convertible Securities) plus (II) the

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number of shares of Common Stock which the aggregate consideration received or deemed to have been received by the Corporation for the total number of Additional Shares of Common Stock so issued would purchase at such Conversion Price, and the denominator of which shall be (I) the number of shares of Common Stock outstanding immediately prior to such issue (including shares of Common Stock underlying any outstanding Options or Convertible Securities) plus (II) the number of Additional Shares of Common Stock so issued or deemed to be issued.

(B) Notwithstanding anything to the contrary contained herein, the applicable Conversion Price in effect at the time Additional Shares of Common Stock are issued or deemed to be issued shall not be reduced pursuant to Section 2(d)(iv)(A) hereof at such time if the amount of such reduction would be an amount less than \$0.01, but any such amount shall be carried forward and reduction with respect thereto made at the time of and together with any subsequent reduction which, together with such amount and any other amount or amounts so carried forward, shall aggregate \$0.01 or more.

(v) Determination of Consideration. For purposes of this Section 2(d), the consideration received by the Corporation for the issue of any Additional Shares of Common Stock shall be computed as follows:

(A) Cash and Property. Such consideration shall:

(I) Insofar as it consists of cash, be computed at the aggregate amounts of cash received by the Corporation excluding amounts paid or payable for accrued interest or accrued dividends;

(II) Insofar as it consists of property other than cash, be computed at the fair market value thereof at the time of such issue, as determined in good faith by the Board of Directors; and

(III) In the event that Additional Shares of Common Stock are issued together with other shares or securities or other assets of the Corporation for consideration which covers both, be the proportion of such consideration so received, computed as provided in clauses (I) and (II) above, as determined in good faith by the Board of Directors.

(B) Options and Convertible Securities. The consideration per share received by the Corporation for Additional Shares of Common Stock deemed to have been issued pursuant to Section 2(d)(ii)(A), relating to Options and Convertible Securities, shall be determined by dividing (I) the total amount, if any, received or receivable by the Corporation as consideration for the issue of such Options or Convertible Securities, plus the minimum aggregate amount of additional consideration (as set forth in the instruments relating thereto, without regard to any provision contained therein for a subsequent adjustment of such consideration) payable to the

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Corporation upon the exercise of such Options or the conversion or exchange of such Convertible Securities, or in the case of Options for Convertible Securities, the exercise of such Options for Convertible Securities and the conversion or exchange of such Convertible Securities, by (II) the maximum number of shares of Common Stock (as set forth in the instruments relating thereto, without regard to any provision contained therein for a subsequent adjustment of such number) issuable upon the exercise of such Options or the conversion or exchange of such Convertible Securities.

(vi) Capital Reorganization, Merger or Sale of Assets. If at any time or from time to time there shall be a capital reorganization of the Common Stock (other than a subdivision, combination, recapitalization, reclassification or exchange of shares provided for elsewhere in this Section 2) or a consolidation or merger of the Corporation, or a sale of all or substantially all of the assets of the Corporation, other than a merger, consolidation or sale of all or substantially all of the assets of the Corporation in a transaction in which the shareholders of the Corporation immediately prior to the transaction possess more than 50% of the voting securities of the surviving entity (or parent, if any) immediately after the transaction (a "Reorganization"), then, as a part of and as a condition to such Reorganization, provision shall be made so that the holders of shares of the Series D Preferred Stock shall thereafter be entitled to receive upon conversion of the shares of the Series D Preferred Stock the same kind and amount of stock or other securities or property (including cash) of the Corporation, or of the successor corporation resulting from such Reorganization, as such holders would have been entitled to receive if they had converted their shares of the Series D Preferred Stock immediately prior to the effective time of such Reorganization. In any such case, appropriate adjustment shall be made in the application of the provisions of this Section 2 to the end that the provisions of this Section 2 (including adjustment of the Conversion Price then in effect and the number of shares of Common Stock or other securities issuable upon conversion of the shares of the Series D Preferred Stock) shall be applicable after such Reorganization in as nearly equivalent a manner as may be reasonably practicable.

The Corporation shall furnish holders of shares of Series D Preferred Stock at least fifteen (15) days' prior written notice of each Reorganization, which notice shall set forth in detail all material terms of the Reorganization. In the case of a Reorganization to which both this Subsection 2(d)(vi) and Subsection 1(b) hereof apply, the holders of Series D Preferred Stock shall have the option to elect, by the consent of at least a majority of the then outstanding Series D Preferred Stock, treatment under this Subsection 2(d)(vi), notice of which election shall be given in writing to the Corporation not less than five (5) business days prior to the effective date of such Reorganization, in which case Subsection 2(d)(vi) shall apply to all outstanding shares of Series D Preferred Stock upon the effectiveness of the Reorganization. If no such election is timely made, the provisions of Subsection 1(b) and not this Subsection 2(d)(vi) shall apply.

The provisions of this Subsection 2(d)(vi) shall not apply to any reorganization, merger or consolidation involving (1) only a change in the state of incorporation of the Corporation or (2) a merger of the Corporation with or into a wholly owned subsidiary of the Corporation which is incorporated in the United States of America.

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(e) No Impairment. The Corporation shall not, by amendment of its Restated Certificate of Incorporation, as amended, or through any reorganization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms to be observed or performed hereunder by the Corporation but shall at all times in good faith assist in the carrying out of all the provisions of this Section 2 and in the taking of all such action as may be necessary or appropriate in order to protect the conversion rights of the holders of Series D Preferred Stock against impairment.

(f) Certificate as to Adjustments. Upon the occurrence of each adjustment or readjustment of the Conversion Price or Conversion Ratio pursuant to this Section 2, the Corporation at its expense shall promptly compute such adjustment or readjustment in accordance with the terms hereof and furnish to each affected holder of Series D Preferred Stock, a certificate setting forth such adjustment or readjustment and showing in detail the facts upon which such adjustment or readjustment is based. The Corporation shall, upon the written request at any time of any affected holder of Series D Preferred Stock, furnish to such holder a like certificate setting forth (i) such adjustments and readjustments, (ii) the Conversion Price or Conversion Ratio at the time in effect, and (iii) the number of shares of Common Stock and the amount, if any, of other property which at the time would be received upon conversion of each share of Series D Preferred Stock.

(g) Common Stock Reserved. The Corporation shall reserve and keep available out of its authorized but unissued Common Stock such number of shares of Common Stock as shall from time to time be sufficient to effect the conversion of all outstanding shares of Series D Preferred Stock.

(h) Certain Taxes. The Corporation shall pay any issue or transfer taxes payable in connection with the conversion of any shares of Series D Preferred Stock; provided, however, that the Corporation shall not be required to pay any tax which may be payable in respect of any transfer to a name other than that of the holder of such Series D Preferred Stock.

(i) Closing of Books. The Corporation shall at no time close its transfer books against the transfer of any Series D Preferred Stock, or of any shares of Common Stock issued or issuable upon the conversion of any shares of Series D Preferred Stock in any manner which interferes with the timely conversion or transfer of such Series D Preferred Stock.

### 3. Voting Rights.

(a) Except as otherwise required by law or this Certificate of Designation, the holders of Series A Preferred Stock, the holders of Series B Preferred Stock, the holders of Series C Preferred Stock, the holders of Series D Preferred Stock and the holders of Common Stock shall be entitled to notice of any stockholders' meeting and to vote as a single class upon any matter submitted to the stockholders for a vote as set forth in Section 3(b); provided that the holders of the Series D Preferred Stock shall vote as a separate class with respect to any matter or proposed action as to which applicable law or this Certificate of Designation require the vote, consent, or approval of the holders of the Series D Preferred Stock.

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(b) (i) Holders of Common Stock shall have one vote per share of Common Stock held by them; and

(ii) Holders of Series D Preferred Stock shall have that number of votes per share of Series D Preferred Stock as is equal to the number of shares of Common Stock into which each such share of Series D Preferred Stock held by such holder could be converted on the date for determination of stockholders entitled to vote at the meeting,

(c) Unless there is an affirmative vote of at least a majority of the then outstanding shares of Series D Preferred Stock, voting separately as a class, the Corporation shall not undertake any of the following:

- (i) any declaration or payment of any dividend or other distribution or payment on the (or the redemption, purchase or other acquisition for value of any) capital stock of the Corporation (other than the Series D Preferred Stock) or any of its subsidiaries;
- (ii) any liquidation, dissolution, recapitalization or reorganization of the Corporation;
- (iii) any transfer or disposition of assets or rights with a value of more than \$1,000,000; or
- (iv) any amendment of the Corporation's Restated Certificate of Incorporation, as amended, that would adversely change or alter any of the preferences, powers, rights or privileges of the Series D Preferred Stock.

#### 4. Dividends.

(a) If the Board of Directors shall declare a dividend on the capital stock of the Corporation, the holders of Series D Preferred Stock shall be entitled to receive such dividends pari passu with the holders of Series A Preferred Stock, the Series B Preferred Stock and the Series C Preferred Stock and in preference to any dividend on the Common Stock or any other class or series of capital stock ranking junior to the Series D Preferred Stock. No dividends or distributions shall be declared and paid on the Common Stock or any such junior stock unless and until all dividends declared on the Series D Preferred Stock shall have been paid in full.

(b) If, upon the approval of the holders of Series D Preferred Stock as required by Section 3(c)(i) hereof, the Board of Directors of the Corporation shall declare a dividend payable upon the then outstanding shares of the Common Stock (other than a dividend payable entirely in shares of the Common Stock of the Corporation), then the Board of Directors shall declare at the same time a dividend upon the then outstanding shares of the Series D Preferred Stock, payable at the same time as the dividend paid on the Common Stock, in an amount equal to the amount of dividends per share of Series D Preferred Stock as would have been payable on the largest number of whole shares of Common Stock which each share of Series D Preferred Stock held by each holder thereof would have received if such Series D Preferred Stock had been converted into Common Stock pursuant to the provisions of Section 2 hereof as of the record date for the determination of holders of Common Stock entitled to receive such dividends; and

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(c) If, upon the approval of the holders of Series D Preferred Stock as required by Section 3(c)(i) hereof, the Board of Directors of the Corporation shall declare a dividend payable upon any class or series of capital stock of the Corporation other than Common Stock, the Board of Directors shall declare at the same time a dividend upon the then outstanding shares of Series D Preferred Stock, payable at the same time as such dividend on such other class or series of capital stock in an amount equal to (i) in the case of any series or class convertible into Common Stock, that dividend per share of Series D Preferred Stock as would equal the dividend payable on such other class or series determined as if all such shares of such class or series had been converted to Common Stock and all shares of Series D Preferred Stock have been converted to Common Stock on the record date for the determination of holders entitled to receive such dividend or (ii) if such class or series of capital stock is not convertible into Common Stock, at a rate per share of Series D Preferred Stock determined by dividing the amount of the dividend payable on each share of such class or series of capital stock by the original issuance price of such class or series of capital stock and multiplying such fraction by the Base Liquidation Price then in effect.

5. Covenants.

The Corporation shall not undertake any amendment of this Certificate of Designation or the Corporation's Restated Certificate of Incorporation, as amended, if such amendment would alter or change the powers, preferences or special rights of the holders of the shares of Series D Preferred Stock so as to affect them adversely: provided that the designation and issuance of any additional classes or series of Preferred Stock expressly shall not be deemed to adversely affect the powers, preferences or special rights of the holders of shares of Series D Preferred Stock. The holders of at least a majority of the number of shares of Series D Preferred Stock outstanding may, by affirmative vote or consent, agree to a change or alteration by the Corporation in the powers, preferences and special rights of the Series D Preferred Stock, or may waive the application thereof in any particular instance.

6. No Reissuance of Series C Preferred Stock. No share or shares of Series D Preferred Stock acquired by the Corporation by reason of redemption, purchase, conversion or otherwise shall be reissued, and all such shares shall be canceled, retired and eliminated from the shares which the corporation shall be authorized to issue.

7. Residual Rights. All rights accruing to the outstanding shares of the Corporation not expressly provided for in the terms of the Series D Preferred Stock shall be vested in the Common Stock.

***[REMAINDER INTENTIONALLY BLANK, SIGNATURE PAGE TO FOLLOW]***

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IN WITNESS WHEREOF, the Corporation has caused this Certificate of Designation to be signed by its duly authorized officer this 16th day of April, 2007.

AMEDICA CORPORATION

By: /s/ Ashok Khandkar

Name: Ashok Khandkar

Title: Chief Executive Officer

**AMEDICA CORPORATION**  
**AMENDED AND RESTATED**  
**BY-LAWS**

**ARTICLE I - STOCKHOLDERS**

*Section 1. Annual Meeting.*

An annual meeting of the stockholders, for the election of directors to succeed those whose terms expire and for the transaction of such other business as may properly come before the meeting, shall be held at ten o'clock a.m. or such other time as is determined by the Board of Directors, on such date (other than a Saturday, Sunday or legal holiday) as is determined by the Board of Directors, which date shall be within thirteen (13) months subsequent to the later of the date of incorporation or the last annual meeting of stockholders, and at such place as the Board of Directors shall each year fix.

*Section 2. Special Meetings.*

Subject to the rights of the holders of any class or series of preferred stock of the Corporation, special meetings of stockholders of the Corporation may be called only by the Board of Directors pursuant to a resolution adopted by a majority of the total number of directors authorized. Special meetings of the stockholders may be held at such place within or without the State of Delaware as may be stated in such resolution.

*Section 3. Notice of Meetings.*

Written notice of the place, date, and time of all meetings of the stockholders shall be given, not less than ten (10) nor more than sixty (60) days before the date on which the meeting is to be held, to each stockholder entitled to vote at such meeting, except as otherwise provided herein or required by law (meaning, here and hereinafter, as required from time to time by the Delaware General Corporation Law or the Certificate of Incorporation of the Corporation).

When a meeting is adjourned to another place, date or time, written notice need not be given of the adjourned meeting if the place, date and time thereof are announced at the meeting at which the adjournment is taken; provided, however, that if the date of any adjourned meeting is more than thirty (30) days after the date for which the meeting was originally noticed, or if a new record date is fixed for the adjourned meeting, written notice of the place, date, and time of the adjourned meeting shall be given in conformity herewith. At any adjourned meeting, any business may be transacted which might have been transacted at the original meeting.

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*Section 4. Quorum.*

At any meeting of the stockholders, the holders of a majority of all of the shares of the stock entitled to vote at the meeting, present in person or by proxy, shall constitute a quorum for all purposes, unless or except to the extent that the presence of a larger number may be required by law. Where a separate vote by a class or classes is required, a majority of the shares of such class or classes present in person or represented by proxy shall constitute a quorum entitled to take action with respect to that vote on that matter.

If a quorum shall fail to attend any meeting, the chairman of the meeting or the holders of a majority of the shares of stock entitled to vote who are present, in person or by proxy, may adjourn the meeting to another place, date, or time.

*Section 5. Organization.*

The Chairman of the Board of Directors or, in his or her absence, such person as the Board of Directors may have designated or, in his or her absence, the chief executive officer of the Corporation or, in his or her absence, such person as may be chosen by the holders of a majority of the shares entitled to vote who are present, in person or by proxy, shall call to order any meeting of the stockholders and act as chairman of the meeting. In the absence of the Secretary of the Corporation, the secretary of the meeting shall be such person as the chairman of the meeting appoints.

*Section 6. Conduct of Business.*

The Chairman of the Board of Directors or his or her designee or, if neither the Chairman of the Board nor his or her designee is present at the meeting, then a person appointed by a majority of the Board of Directors, shall preside at, and act as chairman of, any meeting of the stockholders. The chairman of any meeting of stockholders shall determine the order of business and the procedures at the meeting, including such regulation of the manner of voting and the conduct of discussion as he or she deems to be appropriate.

*Section 7. Proxies and Voting.*

At any meeting of the stockholders, every stockholder entitled to vote may vote in person or by proxy authorized by an instrument in writing filed in accordance with the procedure established for the meeting.

Each stockholder shall have one (1) vote for every share of stock entitled to vote which is registered in his or her name on the record date for the meeting, except as otherwise provided herein or required by law.

All voting, including on the election of directors but excepting where otherwise required by law, may be by a voice vote; provided, however, that upon demand therefor by a stockholder entitled to vote or his or her proxy, a vote by ballot shall be taken.

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Except as otherwise provided in the terms of any class or series of preferred stock of the Corporation, all elections shall be determined by a plurality of the votes cast, and except as otherwise required by law, all other matters shall be determined by a majority of the votes cast.

*Section 8. Action Without Meeting.*

Any action required to be taken at any annual or special meeting of stockholders, or any action which may be taken at any annual or special meeting of such stockholders, may be taken without a meeting, without prior notice and without a vote, if a consent or consents in writing, setting forth the action so taken, shall be (1) signed and dated by the holders of outstanding stock having not less than the minimum number of votes that would be necessary to authorize or take such action at a meeting at which all shares entitled to vote thereon were present and voted and (2) delivered to the Corporation within sixty (60) days of the earliest dated consent by delivery to its registered office in the State of Delaware (in which case delivery shall be by hand or by certified or registered mail, return receipt requested), its principal place of business or an officer or agent of the Corporation having custody of the book in which proceedings of meetings of stockholders are recorded. Prompt notice of the taking of the corporate action without a meeting by less than unanimous written consent shall be given to those stockholders who have not consented in writing.

*Section 9. Stock List.*

A complete list of stockholders entitled to vote at any meeting of stockholders, arranged in alphabetical order for each class of stock and showing the address of each such stockholder and the number of shares registered in his or her name, shall be open to the examination of any such stockholder, for any purpose germane to the meeting, during ordinary business hours for a period of at least ten (10) days prior to the meeting, either at a place within the city where the meeting is to be held, which place shall be specified in the notice of the meeting, or if not so specified, at the place where the meeting is to be held.

The stock list shall also be kept at the place of the meeting during the whole time thereof and shall be open to the examination of any such stockholder who is present. Such list shall presumptively determine the identity of the stockholders entitled to vote at the meeting and the number of shares held by each of them.

*ARTICLE II - BOARD OF DIRECTORS*

*Section 1. Number, Election, Tenure and Qualification.*

Except as otherwise specified in the Certificate of Incorporation of the Corporation, the number of directors which shall constitute the whole board shall be determined by resolution of the Board of Directors or by the stockholders at the annual meeting or at any special meeting of stockholders. The directors shall be elected at the annual meeting or at any special meeting of the stockholders, except as provided in Section 2 of this Article, and each director elected shall hold office until his or her successor is elected and qualified, unless sooner displaced. Directors need not be stockholders.

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*Section 2. Vacancies and Newly Created Directorships.*

Subject to the rights of the holders of any class or series of preferred stock of the Corporation to elect directors, newly created directorships resulting from any increase in the authorized number of directors or any vacancies in the Board of Directors resulting from death, resignation, retirement, disqualification, removal from office or other cause may be filled only by a majority vote of the directors then in office, though less than a quorum, or the sole remaining director. No decrease in the number of authorized directors constituting the Board of Directors shall shorten the term of any incumbent director.

*Section 3. Resignation and Removal.*

Any director may resign at any time upon written notice to the Corporation at its principal place of business or to the chief executive officer or secretary. Such resignation shall be effective upon receipt unless it is specified to be effective at some other time or upon the happening of some other event. Any director or the entire Board of Directors may be removed, with or without cause, by the holders of a majority of the shares then entitled to vote at an election of directors, unless otherwise specified by law or the Certificate of Incorporation.

*Section 4. Regular Meetings.*

Regular meetings of the Board of Directors shall be held at such place or places, on such date or dates, and at such time or times as shall have been established by the Board of Directors and publicized among all directors. A written notice of each regular meeting shall not be required.

*Section 5. Special Meetings.*

Special meetings of the Board of Directors may be called by the Chairman of the Board of Directors, if any, the President, the Treasurer, the Secretary or one or more of the directors then in office and shall be held at such place, on such date, and at such time as they or he or she shall fix. Notice of the place, date, and time of each such special meeting shall be given each director by whom it is not waived by mailing written notice not less than three (3) days before the meeting or orally, by telegraph, telex, cable or telecopy given not less than twenty-four (24) hours before the meeting. Unless otherwise indicated in the notice thereof, any and all business may be transacted at a special meeting.

*Section 6. Quorum.*

At any meeting of the Board of Directors, a majority of the total number of members of the Board of Directors shall constitute a quorum for all purposes. If a quorum shall fail to attend any meeting, a majority of those present may adjourn the meeting to another place, date, or time, without further notice or waiver thereof.

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*Section 7. Action by Consent.*

Unless otherwise restricted by the Certificate of Incorporation or these By-Laws, any action required or permitted to be taken at any meeting of the Board of Directors or of any committee thereof may be taken without a meeting, if all members of the Board or committee, as the case may be, consent thereto in writing, and the writing or writings are filed with the minutes of proceedings of the Board or committee.

*Section 8. Participation in Meetings By Conference Telephone.*

Members of the Board of Directors, or of any committee thereof, may participate in a meeting of such Board or committee by means of conference telephone or similar communications equipment by means of which all persons participating in the meeting can hear each other and such participation shall constitute presence in person at such meeting.

*Section 9. Conduct of Business.*

At any meeting of the Board of Directors, business shall be transacted in such order and manner as the Board may from time to time determine, and all matters shall be determined by the vote of a majority of the directors present, except as otherwise provided herein or required by law.

*Section 10. Powers.*

The Board of Directors may, except as otherwise required by law, exercise all such powers and do all such acts and things as may be exercised or done by the Corporation, including, without limiting the generality of the foregoing, the unqualified power:

- (1) To declare dividends from time to time in accordance with law;
- (2) To purchase or otherwise acquire any property, rights or privileges on such terms as it shall determine;
- (3) To authorize the creation, making and issuance, in such form as it may determine, of written obligations of every kind, negotiable or non-negotiable, secured or unsecured, to borrow funds and guarantee obligations, and to do all things necessary in connection therewith;
- (4) To remove any officer of the Corporation with or without cause, and from time to time to devolve the powers and duties of any officer upon any other person for the time being;

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- (5) To confer upon any officer of the Corporation the power to appoint, remove and suspend subordinate officers, employees and agents;
  - (6) To adopt from time to time such stock, option, stock purchase, bonus or other compensation plans for directors, officers, employees and agents of the Corporation and its subsidiaries as it may determine;
  - (7) To adopt from time to time such insurance, retirement, and other benefit plans for directors, officers, employees and agents of the Corporation and its subsidiaries as it may determine; and,
  - (8) To adopt from time to time regulations, not inconsistent with these By-Laws, for the management of the Corporation's business and affairs.

*Section 11. Compensation of Directors.*

Directors, as such, may receive, pursuant to a resolution of the Board of Directors, fixed fees and other compensation for their services as directors, including, without limitation, their services as members of committees of the Board of Directors.

*ARTICLE III - COMMITTEES*

*Section 1. Committees of the Board of Directors.*

The Board of Directors, by a vote of a majority of the Board of Directors, may from time to time designate committees of the Board, with such lawfully delegable powers and duties as it thereby confers, to serve at the pleasure of the Board and shall, for those committees and any others provided for herein, elect a director or directors to serve as the member or members, designating, if it desires, other directors as alternate members who may replace any absent or disqualified member at any meeting of the committee. Any such committee, to the extent provided in the resolution of the Board of Directors, shall have and may exercise all the powers and authority of the Board of Directors in the management of the business and affairs of the Corporation, and may authorize the seal of the Corporation to be affixed to all papers which may require it; but no such committee shall have the power or authority in reference to amending the Certificate of Incorporation, adopting an agreement of merger or consolidation, recommending to the stockholders the sale, lease or exchange of all or substantially all of the Corporation's property and assets, recommending to the stockholders a dissolution of the Corporation or a revocation of a dissolution, or amending the By-Laws of the Corporation. Any committee so designated may exercise the power and authority of the Board of Directors to declare a dividend, to authorize the issuance of stock or to adopt a certificate of ownership and merger pursuant to Section 253 of the Delaware General Corporation Law if the resolution which designates the committee or a supplemental resolution of the Board of Directors shall so provide. In the absence or disqualification of any member of any committee and any alternate member in his or her place, the member or members of the committee present at the meeting and not disqualified from voting, whether or not he or she or they constitute a quorum, may by unanimous vote appoint another member of the Board of Directors to act at the meeting in the place of the absent or disqualified member.

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*Section 2. Conduct of Business.*

Each committee may determine the procedural rules for meeting and conducting its business and shall act in accordance therewith, except as otherwise provided herein or required bylaw. Adequate provision shall be made for notice to members of all meetings; one-third(1/3) of the members shall constitute a quorum; and all matters shall be determined by a majority vote of the members present. Action may be taken by any committee without a meeting if all members thereof consent thereto in writing, and the writing or writings are filed with the minutes of the proceedings of such committee.

*ARTICLE IV - OFFICERS*

*Section 1. Enumeration.*

The officers of the Corporation shall be the President, the Treasurer, the Secretary and such other officers as the Board of Directors or the Chairman of the Board may determine, including, but not limited to, the Chairman of the Board of Directors, one or more Vice Presidents, Assistant Treasurers and Assistant Secretaries.

*Section 2. Election.*

The Chairman of the Board, if any, the President, the Treasurer and the Secretary shall be elected annually by the Board of Directors at their first meeting following the annual meeting of the stockholders. The Board of Directors or such officer of the Corporation as it may designate, if any, may, from time to time, elect or appoint such other officers as it or he or she may determine, including, but not limited to, one or more Vice Presidents, Assistant Treasurers and Assistant Secretaries.

*Section 3. Qualification.*

No officer need be a stockholder. The Chairman of the Board, if any, and any Vice Chairman appointed to act in the absence of the Chairman, if any, shall be elected by and from the Board of Directors, but no other officer need be a director. Two or more offices may be held by any one person. If required by vote of the Board of Directors, an officer shall give bond to the Corporation for the faithful performance of his or her duties, in such form and amount and with such sureties as the Board of Directors may determine. The premiums for such bonds shall be paid by the Corporation.

*Section 4. Tenure and Removal.*

Each officer elected or appointed by the Board of Directors shall hold office until the first meeting of the Board of Directors following the next annual meeting of the stockholders and

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until his or her successor is elected or appointed and qualified, or until he or she dies, resigns, is removed or becomes disqualified, unless a shorter term is specified in the vote electing or appointing said officer. Each officer appointed by an officer designated by the Board of Directors to elect or appoint such officer, if any, shall hold office until his or her successor is elected or appointed and qualified, or until he or she dies, resigns, is removed or becomes disqualified, unless a shorter term is specified by any agreement or other instrument appointing such officer. Any officer may resign by giving written notice of his or her resignation to the Chairman of the Board, if any, the President, or the Secretary, or to the Board of Directors at a meeting of the Board, and such resignation shall become effective at the time specified therein. Any officer may be removed from office with or without cause by vote of a majority of the directors. Any officer appointed by an officer designated by the Board of Directors to elect or appoint such officer, if any, may be removed with or without cause by such officer.

*Section 5. Chairman of the Board.*

The Chairman of the Board, if any, shall preside at all meetings of the Board of Directors and stockholders at which he or she is present and shall have such authority and perform such duties as may be prescribed by these By-Laws or from time to time be determined by the Board of Directors.

*Section 6. President.*

The President shall, subject to the control and direction of the Board of Directors, have and perform such powers and duties as may be prescribed by these By-Laws or from time to time be determined by the Board of Directors.

*Section 7. Vice Presidents.*

The Vice Presidents, if any, in the order of their election, or in such other order as the Board of Directors may determine, shall have and perform the powers and duties of the President (or such of the powers and duties as the Board of Directors may determine) whenever the President is absent or unable to act. The Vice Presidents, if any, shall also have such other powers and duties as may from time to time be determined by the Board of Directors.

*Section 8. Treasurer and Assistant Treasurers.*

The Treasurer shall, subject to the control and direction of the Board of Directors, have and perform such powers and duties as may be prescribed in these By-Laws or be determined from time to time by the Board of Directors. All property of the Corporation in the custody of the Treasurer shall be subject at all times to the inspection and control of the Board of Directors. Unless otherwise voted by the Board of Directors, each Assistant Treasurer, if any, shall have and perform the powers and duties of the Treasurer whenever the Treasurer is absent or unable to act, and may at any time exercise such of the powers of the Treasurer, and such other powers and duties, as may from time to time be determined by the Board of Directors.

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*Section 9. Secretary and Assistant Secretaries.*

The Board of Directors shall appoint a Secretary and, in his or her absence, an Assistant Secretary. The Secretary or, in his or her absence, any Assistant Secretary, shall attend all meetings of the directors and shall record all votes of the Board of Directors and minutes of the proceedings at such meetings. The Secretary or, in his or her absence, any Assistant Secretary, shall notify the directors of their meetings, and shall have and perform such other powers and duties as may from time to time be determined by the Board of Directors. If the Secretary or an Assistant Secretary is elected but is absent from any meeting of directors, a temporary secretary may be appointed by the directors at the meeting.

*Section 10. Bond.*

If required by the Board of Directors, any officer shall give the Corporation a bond in such sum and with such surety or sureties and upon such terms and conditions as shall be satisfactory to the Board of Directors, including without limitation a bond for the faithful performance of the duties of his office and for the restoration to the Corporation of all books, papers, vouchers, money and other property of whatever kind in his or her possession or under his control and belonging to the Corporation.

*Section 11. Action with Respect to Securities of Other Corporations.*

Unless otherwise directed by the Board of Directors, the President, the Treasurer or any officer of the Corporation authorized by the President shall have power to vote and otherwise act on behalf of the Corporation, in person or by proxy, at any meeting of stockholders of or with respect to any action of stockholders of any other corporation in which this Corporation may hold securities and otherwise to exercise any and all rights and powers which this Corporation may possess by reason of its ownership of securities in such other corporation.

*ARTICLE V- STOCK*

*Section 1. Certificates of Stock*

Each stockholder shall be entitled to a certificate signed by, or in the name of the Corporation by the Chairman of the Board of Directors, or the President or a Vice President, and by the Treasurer or an Assistant Treasurer, or the Secretary or an Assistant Secretary, certifying the number of shares owned by him or her. Any or all of the signatures on the certificate may be by facsimile.

*Section 2. Transfers of Stock*

Transfers of stock shall be made only upon the transfer books of the Corporation kept at an office of the Corporation or by transfer agents designated to transfer shares of the stock of the Corporation. Except where a certificate is issued in accordance with Section 4 of this Article of these By-Laws, an outstanding certificate for the number of shares involved shall be surrendered for cancellation before a new certificate is issued therefor.

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*Section 3. Record Date.*

In order that the Corporation may determine the stockholders entitled to notice of or to vote at any meeting of stockholders, or to receive payment of any dividend or other distribution or allotment of any rights or to exercise any rights in respect of any change, conversion or exchange of stock or for the purpose of any other lawful action, the Board of Directors may fix a record date, which record date shall not precede the date on which the resolution fixing the record date is adopted and which record date shall not be more than sixty (60) nor less than ten (10) days before the date of any meeting of stockholders, nor more than sixty (60) days prior to the time for such other action as hereinbefore described; provided, however, that if no record date is fixed by the Board of Directors, the record date for determining stockholders entitled to notice of or to vote at a meeting of stockholders shall be at the close of business on the day next preceding the day on which notice is given or, if notice is waived, at the close of business on the day next preceding the day on which the meeting is held, and, for determining stockholders entitled to receive payment of any dividend or other distribution or allotment of rights or to exercise any rights of change, conversion or exchange of stock or for any other purpose, the record date shall be at the close of business on the day on which the Board of Directors adopts a resolution relating thereto.

A determination of stockholders of record entitled to notice of or to vote at a meeting of stockholders shall apply to any adjournment of the meeting; provided, however, that the Board of Directors may fix a new record date for the adjourned meeting.

*Section 4. Lost, Stolen or Destroyed Certificates.*

In the event of the loss, theft or destruction of any certificate of stock, another may be issued in its place pursuant to such regulations as the Board of Directors may establish concerning proof of such loss, theft or destruction and concerning the giving of a satisfactory bond or bonds of indemnity.

*Section 5. Regulations.*

The issue, transfer, conversion and registration of certificates of stock shall be governed by such other regulations as the Board of Directors may establish.

*Section 6. Interpretation.*

The Board of Directors shall have the power to interpret all of the terms and provisions of these By-Laws, which interpretation shall be conclusive.

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*ARTICLE VI - NOTICES*

*Section 1. Notices.*

Except as otherwise specifically provided herein or required by law, all notices required to be given to any stockholder, director, officer, employee or agent shall be in writing and may in every instance be effectively given by hand delivery to the recipient thereof, by depositing such notice in the mail, postage paid, or by sending such notice by courier service, prepaid telegram or mailgram, or telecopy, cable, or telex. Any such notice shall be addressed to such stockholder, director, officer, employee or agent at his or her last known address as the same appears on the books of the Corporation. The time when such notice is received, if hand delivered, or dispatched, if delivered through the mail or by courier, telegram, mailgram, telecopy, cable, or telex shall be the time of the giving of the notice.

*Section 2. Waiver of Notice.*

A written waiver of any notice, signed by a stockholder, director, officer, employee or agent, whether before or after the time of the event for which notice is to be given, shall be deemed equivalent to the notice required to be given to such stockholder, director, officer, employee or agent. Neither the business nor the purpose of any meeting need be specified in such a waiver. Attendance of a director or stockholder at a meeting without protesting prior thereto or at its commencement the lack of notice shall also constitute a waiver of notice by such director or stockholder.

*ARTICLE VII - - INDEMNIFICATION*

*Section 1. Actions other than by or in the Right of the Corporation.*

The Corporation shall indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of the Corporation) by reason of the fact that he or she is or was a director, officer, employee or agent of the Corporation, or is or was serving at the request of the Corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by him or her in connection with such action, suit or proceeding if he or she acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the best interests of the Corporation, and, with respect to any criminal action or proceedings, had no reasonable cause to believe his or her conduct was unlawful. The termination of any action, suit or proceeding by judgment, order, settlement, conviction, or upon a plea of nolo contendere or its equivalent, shall not, of itself, create a presumption that the person did not act in good faith and in a manner which he or she reasonably believed to be in or not opposed to the best interests of the Corporation, and, with respect to any criminal action or proceeding, had reasonable cause to believe that his or her conduct was unlawful.

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*Section 2. Actions by or in the Right of the Corporation.*

The Corporation shall indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action or suit by or in the right of the Corporation to procure a judgment in its favor by reason of the fact that he or she is or was a director, officer, employee or agent of the Corporation, or is or was serving at the request of the Corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust, or other enterprise against expenses (including attorneys' fees) actually and reasonably incurred by him or her in connection with the defense or settlement of such action or suit if he acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the best interests of the Corporation and except that no indemnification shall be made in respect of any claim, issue or matter as to which such person shall have been adjudged to be liable to the Corporation unless and only to the extent that the Court of Chancery of the State of Delaware or the court in which such action or suit was brought shall determine upon application that, despite the adjudication of liability but in view of all the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses which the Court of Chancery of the State of Delaware or such other court shall deem proper.

*Section 3. Success on the Merits.*

To the extent that any person described in Section 1 or Section 2 of this Article has been successful on the merits or otherwise in defense of any action, suit or proceeding referred to in said Sections, or in defense of any claim, issue or matter therein, he or she shall be indemnified against expenses (including attorneys' fees) actually and reasonably incurred by him or her in connection therewith.

*Section 4. Specific Authorization.*

Any indemnification under Section 1 or Section 2 of this Article (unless ordered by a court) shall be made by the Corporation only as authorized in the specific case upon a determination that indemnification of any person described in said Sections is proper in the circumstances because he or she has met the applicable standard of conduct set forth in said Sections. Such determination shall be made (1) by the Board of Directors by a majority vote of a quorum consisting of directors who were not parties to such action, suit or proceeding, or (2) if such a quorum is not obtainable, or, even if obtainable, a quorum of disinterested directors so directs, by independent legal counsel in a written opinion, or (3) by the stockholders of the Corporation.

*Section 5. Advance Payment.*

Expenses incurred in defending any civil, criminal, administrative, or investigative action, suit or proceeding may be paid by the Corporation in advance of the final disposition of such action, suit or proceeding upon receipt of an undertaking by or on behalf of any person described in said Section to repay such amount if it shall ultimately be determined that he or she is not entitled to indemnification by the Corporation as authorized in this Article.

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*Section 6. Non-Exclusivity.*

The indemnification and advancement of expenses provided by, or granted pursuant to, the other Sections of this Article shall not be deemed exclusive of any other rights to which those provided indemnification or advancement of expenses may be entitled under any bylaw, agreement, vote of stockholders or disinterested directors or otherwise, both as to action in such person's official capacity and as to action in another capacity while holding such office.

*Section 7. Insurance.*

The Board of Directors may authorize, by a vote of the majority of the full board, the Corporation to purchase and maintain insurance on behalf of any person who is or was a director, officer, employee or agent of the Corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against any liability asserted against him or her and incurred by him or her in any such capacity, or arising out of his or her status as such, whether or not the corporation would have the power to indemnify him or her against such liability under the provisions of this Article.

*Section 8. Continuation of Indemnification and Advancement of Expenses.*

The indemnification and advancement of expenses provided by, or granted pursuant to, this Article shall continue as to a person who has ceased to be a director, officer, employee or agent and shall inure to the benefit of the heirs, executors and administrators of such a person.

*Section 9. Severability.*

If any word, clause or provision of this Article or any award made hereunder shall for any reason be determined to be invalid, the provisions hereof shall not otherwise be affected thereby but shall remain in full force and effect.

*Section 10. Intent of Article.*

The intent of this Article is to provide for indemnification and advancement of expenses to the fullest extent permitted by Section 145 of the General Corporation Law of Delaware. To the extent that such Section or any successor section may be amended or supplemented from time to time, this Article shall be amended automatically and construed so as to permit indemnification and advancement of expenses to the fullest extent from time to time permitted by law.

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*ARTICLE VIII - CERTAIN TRANSACTIONS*

*Section 1. Transactions with Interested Parties.*

No contract or transaction between the Corporation and one or more of its directors or officers, or between the Corporation and any other corporation, partnership, association, or other organization in which one or more of its directors or officers are directors or officers, or have a financial interest, shall be void or voidable solely for this reason, or solely because the director or officer is present at or participates in the meeting of the Board or committee thereof which authorizes the contract or transaction or solely because the votes of such director or officer are counted for such purpose, if:

(a) The material facts as to his or her relationship or interest and as to the contract or transaction are disclosed or are known to the Board of Directors or the committee, and the Board or committee in good faith authorizes the contract or transaction by the affirmative votes of a majority of the disinterested directors, even though the disinterested directors be less than a quorum; or

(b) The material facts as to his or her relationship or interest and as to the contract or transaction are disclosed or are known to the stockholders entitled to vote thereon, and the contract or transaction is specifically approved in good faith by vote of the stockholders; or

(c) The contract or transaction is fair as to the Corporation as of the time it is authorized, approved or ratified, by the Board of Directors, a committee thereof, or the stockholders.

*Section 2. Quorum.*

Common or interested directors may be counted in determining the presence of a quorum at a meeting of the Board of Directors or of a committee which authorizes the contract or transaction.

*ARTICLE IX- MISCELLANEOUS*

*Section 1. Facsimile Signatures.*

In addition to the provisions for use of facsimile signatures elsewhere specifically authorized in these By-Laws, facsimile signatures of any officer or officers of the Corporation may be used whenever and as authorized by the Board of Directors or a committee thereof.

*Section 2. Corporate Seal.*

The Board of Directors may provide a suitable seal, containing the name of the Corporation, which seal shall be in the charge of the Secretary. If and when so directed by the Board of Directors or a committee thereof, duplicates of the seal may be kept and used by the Treasurer or by an Assistant Secretary or Assistant Treasurer.

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*Section 3. Reliance upon Books, Reports and Records.*

Each director, each member of any committee designated by the Board of Directors, and each officer of the Corporation shall, in the performance of his or her duties, be fully protected in relying in good faith upon the books of account or other records of the Corporation and upon such information, opinions, reports or statements presented to the Corporation by any of its officers or employees, or committees of the Board of Directors so designated, or by any other person as to matters which such director or committee member reasonably believes are within such other person's professional or expert competence and who has been selected with reasonable care by or on behalf of the Corporation.

*Section 4. Fiscal Year.*

Except as otherwise determined by the Board of Directors from time to time, the fiscal year of the Corporation shall end on the last day of December of each year.

*Section 5. Time Periods.*

In applying any provision of these By-Laws which requires that an act be done or not be done a specified number of days prior to an event or that an act be done during a period of a specified number of days prior to an event, calendar days shall be used, the day of the doing of the act shall be excluded, and the day of the event shall be included.

*ARTICLE X-AMENDMENTS*

These By-Laws may be amended, added to, rescinded or repealed by the stockholders or by the Board of Directors, when such power is conferred upon the Board of Directors by the Certificate of Incorporation, at any meeting of the stockholders or of the Board of Directors, provided notice of the proposed change was given in the notice of the meeting or, in the case of a meeting of the Board of Directors, in a notice given not less than two (2) days prior to the meeting.

**THIRD AMENDED AND RESTATED  
REGISTRATION RIGHTS AGREEMENT**

**THIS THIRD AMENDED AND RESTATED REGISTRATION RIGHTS AGREEMENT** (this “*Agreement*”) is dated as of May 15, 2007, and is made by and among Amedica Corporation, a Delaware corporation (the “*Company*”), the holders of certain securities of the Company who acquired such securities prior to the date hereof and whose names are set forth on Schedule A to be attached hereto (collectively, the “*Prior Investors*”).

**RECITALS**

WHEREAS, certain of the Prior Investors acquired shares of one or more of the Company’s Series A Convertible Preferred Stock, par value \$0.01 per share (“*Series A Preferred Stock*”), Series B Convertible Preferred Stock, par value \$0.01 per share (“*Series B Preferred Stock*”), Series C Convertible Preferred Stock, par value \$0.01 per share (“*Series C Preferred Stock*”), and/or Series D Convertible Preferred Stock, par value \$0.01 per share (“*Series D Preferred Stock*”), either originally issued pursuant to one or more respective subscription agreements entered into between the Company and each such Prior Investor in connection with the Company’s offerings of shares of Series A Preferred Stock, Series B Preferred Stock, Series C Preferred Stock and Series D Preferred Stock, or as a result of becoming a transferee of a Prior Investor; and

WHEREAS, certain of the Prior Investors received warrants (collectively, the “*Warrants*”) exercisable for shares of Series A Preferred Stock, Series B Preferred Stock, Series C Preferred Stock or Series D Preferred Stock (and exercisable for shares of Common Stock, as defined below, after an IPO, as defined below), either originally issued pursuant to one or more Warrant Agreements between the Company and such Prior Investors, or as a result of becoming transferees of Prior Investors who received such Warrants in connection with the Company’s offerings of shares of Series A Preferred Stock, Series B Preferred Stock, Series C Preferred Stock and/or Series D Preferred Stock; and

WHEREAS, the Prior Investors have registration rights pursuant to that certain Second Amended and Restated Registration Rights Agreement dated as of April 17, 2007 (the “*Prior Registration Rights Agreement*”), by and among the Company and the Prior Investors, or as permitted assignees of such registration rights pursuant to the terms of the Prior Registration Rights Agreement; and

WHEREAS, Section 17 of the Prior Registration Rights Agreement provides that it may be amended with the written consent of the Company and Investor Securityholders (as defined in the Prior Registration Rights Agreement) holding a majority of the then outstanding Registrable Securities (as defined in the Prior Registration Rights Agreement), and that any such amendment shall be binding on all parties to the Prior Registration Rights Agreement regardless of whether any such party has consented thereto; and

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WHEREAS, the Company and Investor Securityholders holding a majority of the Registrable Securities outstanding as of the date hereof have resolved to amend and restate the Prior Registration Rights Agreement, and the Company and such Investor Securityholders have executed and delivered this Agreement;

NOW, THEREFORE, in consideration of the foregoing and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Company and Investor Securityholders holding a majority of the Registrable Securities outstanding as of the date hereof, intending to be legally bound, hereby agree to amend and restate the Prior Registration Rights Agreement as follows:

1. **Definitions.** Capitalized terms used herein and not otherwise defined in the Agreement shall have the following meanings:

“**Affiliate**” means, with respect to any specified Person, any other Person who or which, directly or indirectly, controls, is controlled by, or is under common control with such specified Person, including without limitation any partner, officer, director, manager or employee of such Person.

“**Commission**” means the United States Securities and Exchange Commission.

“**Common Stock**” means the common stock, \$0.01 par value per share, of the Company.

“**Exchange Act**” means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder, as the same shall be in effect from time to time.

“**Investors**” means, collectively, (a) the Prior Investors, and (b) each other holder of the Company’s securities who executed and delivered, prior to the date of this Agreement and with the prior consent of the Company, the Prior Registration Rights Agreement, to the extent, in each case, that any such person continues to hold Registrable Securities.

“**Investor Securityholders**” means, collectively, (a) the Investors, and (b) any Person to whom an Investor hereafter transfers registration rights in accordance with the terms of this Agreement.

“**IPO**” means the Company’s first underwritten public offering of its Common Stock under the Securities Act.

“**managing underwriter**” shall have the meaning assigned to such term in Section 2(d) hereof.

“**Person**” means a natural person or any legal entity including, but not limited to, an unincorporated association, corporation, general partnership, joint venture, limited partnership, limited liability company, trust, or other entity.

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**“Preferred Stock”** means, collectively, Series A Preferred Stock, Series B Preferred Stock, Series C Preferred Stock, and Series D Preferred Stock.

**“Register,” “registered,”** and **“registration”** refer to a registration effected by preparing and filing with the Commission a registration statement in compliance with the Securities Act, and the declaration or ordering of effectiveness of such registration statement by the Commission.

**“Registrable Securities”** means, collectively, (a) shares of Common Stock issued or issuable upon conversion of shares of Preferred Stock, and (b) shares of Common Stock issued or issuable upon exercise of any of the Warrants following the completion of an IPO, and (c) shares of Common Stock issued or issuable as (or issuable upon the conversion or exercise of any warrant, right, or other security that is issued as) a stock dividend in connection with a stock split, combination of shares, recapitalization, merger, consolidation or other reorganization or otherwise with respect to Registrable Securities. Registrable Securities shall cease to be Registrable Securities upon the earlier to occur of the following: (i) a registration statement with respect to the sale of such securities shall have become effective under the Securities Act and such securities shall have been disposed of in accordance with such registration statement; (ii) the owner of such securities is able to sell all of such securities in a three-month period pursuant to Rule 144 under the Securities Act (without giving effect to Rule 144(k) thereunder); (iii) such securities shall become eligible for sale pursuant to Rule 144(k) under the Securities Act; or (iv) such securities shall have been otherwise transferred pursuant to the Securities Act or an available exemption therefrom, new certificates therefor not bearing a legend restricting further transfer shall have been delivered by the Company, and subsequent disposition of such securities shall not require the registration or qualification of such securities under the Securities Act or any similar state law then in effect.

**“Registration Expenses”** means all expenses (other than Selling Expenses) incident to the Company’s performance of or compliance with this Agreement and the completion of transactions relating thereto, including, without limitation, all registration and filing fees, all fees and expenses of complying with securities or blue sky laws, all printing expenses, the fees and disbursements of the Company’s independent public accountants, including the expenses of any special audits, reviews, compilations or other reports or information required by or incident to such performance and compliance, the reasonable fees or expenses of counsel for the Company, and the reasonable fees and expenses of one special counsel to represent the Investor Securityholders, as a group, on whose behalf Registrable Securities are being registered.

**“Requesting Securityholders”** shall have the meaning assigned to such term in Section 2(a) hereof.

**“Rule 144” and “Rule 144(k)”** mean, respectively, Rule 144 and Rule 144(k) promulgated by the Commission under the Securities Act or similar or successor rules.

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“**Securities Act**” means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder, as the same shall be in effect from time to time.

“**Selling Expenses**” means all underwriting discounts, selling commissions, and stock transfer taxes applicable to the sale of Registrable Securities, and fees and disbursements of counsel for any individual Investor Securityholder, all of which shall be borne by the Investor Securityholder on whose behalf such Registrable Securities are being registered.

“**Shelf Registration Notice**” shall have the meaning assigned to such term in Section 3(a)(i) hereof.

“**Shelf Registration Statement**” shall have the meaning assigned to such term in Section 3(a) hereof.

2. **Demand Registration.** (a) Following the date that is 180 days after the completion of an IPO, upon the written request of Investor Securityholders holding a majority of the Registrable Securities then held by all Investor Securityholders (the “**Requesting Securityholders**”), requesting that the Company effect the registration of all or a portion of the Registrable Securities then held by the Requesting Securityholders, the Company will thereupon use commercially reasonable efforts to file, as promptly as reasonably practicable, a registration statement with the Commission and thereafter will use commercially reasonable efforts to effect the registration of the Registrable Securities which the Company has been so requested to register by such Requesting Securityholders, *provided, however*, that:

(i) when the Company is not eligible to use a Shelf Registration Statement, such Requesting Securityholders’ request for registration relate to Registrable Securities that have an aggregate anticipated price to the public of at least \$10,000,000 (before Selling Expenses), and

(ii) when the Company is eligible to use a Shelf Registration Statement, such Requesting Securityholders’ request for registration relate to Registrable Securities that have an aggregate anticipated price to the public of at least \$5,000,000 (before Selling Expenses).

Following receipt of such notice from the Requesting Securityholders, the Company shall, within ten (10) days following the date such request is received by the Company, notify, pursuant to Section 4 hereof, all Investor Securityholders from whom requests for registration were not initially received, and such holders shall be entitled, provided that a holder notifies the Company within 20 days of the date notice is given by the Company, to request that the Company include in the registration all or a portion of their Registrable Securities. Each registration requested pursuant to this Section 2(a) shall be (i) effected by the filing of a registration statement with the Commission on Form S-1 or a Shelf Registration Statement, and (ii) filed pursuant to Rule 415 under the Securities Act (or an equivalent rule then in effect) if so requested by the Requesting Securityholders, or the Company otherwise deems it appropriate.

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(b) Notwithstanding the foregoing, the Company shall not be obligated to effect, or take any action to effect, any registration pursuant to Section 2(a) under the following circumstances:

(i) if the Company shall have previously effected a registration, notice of which shall have been given to all Investor Securityholders holding Registrable Securities pursuant to Section 4 hereof, and all Investor Securityholders wishing to do so were permitted to register all Registrable Securities they requested to register, then the Company shall not be required to effect a registration pursuant to Section 2(a) until a period of 180 days shall have elapsed from the effective date of the most recent such previous registration; or

(ii) after the Company shall have effected four (4) registrations requested by Investor Securityholders pursuant to Section 2(a) hereof; or

(iii) if the Company shall have previously effected two (2) registrations requested by Investor Securityholders pursuant to Section 2(a) hereof during the 12-month period immediately preceding the Company's receipt or a request for registration pursuant to Section 2(a).

(c) The Company will pay all Registration Expenses in connection with each registration of Registrable Securities effected by the Company pursuant to Section 2(a) hereof.

(d) If the registration so requested by the Requesting Securityholders involves an offering of the securities so being registered to be distributed (on a firm commitment basis) by or through one or more underwriters of recognized standing under underwriting terms appropriate for such a transaction, and the lead managing underwriter (the "*managing underwriter*") of such underwritten offering informs the Company that, in its opinion, marketing factors make it advisable to reduce the number of Registrable Securities to be included in the distribution under this Section 2, then the Company will notify the Requesting Securityholders and the other requesting Investor Securityholders of the same, and then will include in the registration not more than the maximum number of shares that the managing underwriter deems advisable, any such reduction in the number of Registrable Securities shall be made first among the Investor Securityholders other than the Requesting Securityholders and then, if further reductions are required, among the Requesting Securityholders, in each case in proportion to their respective holdings of Registrable Securities; provided that if such reductions result in the Requesting Securityholders being able to sell less than 50% of the Registrable Securities that were the subject of the requested registration, upon such reduction the holders of Registrable Securities shall be granted an additional right to demand registration of such securities under this Section.

(e) Notwithstanding the foregoing obligations, if the Company notifies the Investor Securityholders requesting a registration pursuant to Section 2(a) that, in the good faith judgment of the Company, it would be materially detrimental to the Company for such registration statement to either become effective or remain effective for as long as such registration statement otherwise would be required to remain effective, or both, then the Company shall have the right to defer taking action with respect to such filing for a period of not

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more than 90 days after the initial request of the Requesting Securityholders is received by the Company; provided, however, that the Company may not invoke this right more than once in any twelve (12) month period.

(f) If requested by the underwriters for any underwritten offering of Registrable Securities pursuant to a registration requested under Section 2(a), the Company and all Investor Securityholders proposing to distribute their Registrable Securities through such underwriting will enter into an underwriting agreement with such underwriters in form and substance reasonably satisfactory to the Company, such agreement to contain such representations and warranties by the Company and such Investor Securityholders and such other terms and provisions as are customarily contained in underwriting agreements with respect to secondary distributions, including, without limitation, customary indemnification and contribution provisions. If any Investor Securityholder who has requested inclusion of Registrable Securities pursuant to Section 2(a) disapproves of the terms of the underwriting agreement or the underwriting, such holder may elect to withdraw therefrom by notifying the Company and the managing underwriter. The Registrable Securities so withdrawn shall also be withdrawn from registration.

(g) If, at any time after requesting registration pursuant to Section 2(a) and prior to the effective date of the registration statement filed in connection with such registration request, Requesting Securityholders holding a majority of the Registrable Securities to be registered shall determine for any reason not to register such Registrable Securities, such Requesting Securityholders may, at their election, give written notice of such determination to the Company. The Company shall then be relieved of its obligations to register any Registrable Securities in connection with such Requesting Securityholders' registration request, and the Requesting Securityholders shall forfeit their right to one demand registration statement pursuant to this Section 2 (but the Company shall not be relieved of its obligation to pay the Registration Expenses in connection therewith as provided in Section 2(c) hereof).

(h) In connection with the first request for registration pursuant to Section 2(a), the Company may, within 10 days after its receipt of such request, give the Requesting Securityholders notice that it is the good faith intention of the Company to register securities for sale for its own account. Thereafter, the provisions of Section 4 shall govern, and the Requesting Securityholders' registration request under Section 2(a) shall be deemed rescinded. The Requesting Securityholders shall again be entitled to request such registration under Section 2(a), but not sooner than the earlier of (i) 180 days after the effective date of the Company's registration of securities for its own account, and (ii) the Company's determination (of which the Company shall promptly notify the holders of Registrable Securities) not to proceed with its registration of securities.

3. Shelf Registration. (a) During any time that the Company is eligible to file a registration statement on Form S-3 (such form, and any successor or similar short-form registration statement, herein referred to as a "***Shelf Registration Statement***"), subject to the limitations herein, the Investor Securityholders holding a majority of the Registrable Securities held by all Investor Securityholders may request, in writing, that the Company file a Shelf

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Registration Statement with respect to the Registrable Securities held by Investor Securityholders who make such request of the Company, specifying in each case the number of Registrable Securities to be included in the Shelf Registration Statement. If the Company receives such a request, then the Company shall:

(i) within ten (10) days following the date such request is received by the Company, give notice of the proposed registration (a “**Shelf Registration Notice**”) to all Investor Securityholders (other than those initiating the request under this Section 3); and

(ii) as soon as practicable, use commercially reasonable efforts to file such Shelf Registration Statement with the Commission and have such Shelf Registration Statement declared effective by the Commission covering the Registrable Securities specified in the request, together with such Registrable Securities of any other Investor Securityholder joining in such request as are specified in a request received by the Company within twenty (20) days after the Shelf Registration Notice is given; and

(iii) use commercially reasonable efforts to cause the registration statement or statements filed pursuant to this Section 3 to remain effective until the earlier of (A) the date on which all Registrable Securities shall have been sold or (B) the date on which all Registrable Securities cease to be Registrable Securities hereunder.

(b) Notwithstanding the foregoing, the Company shall not be obligated to effect, or take any action to effect, any registration pursuant to this Section 3 under the following circumstances:

(i) if Form S-3 is not then available or becomes unavailable for such offering by the Investor Securityholders; or

(ii) if the Investor Securityholders who request that the Company file a Shelf Registration Statement with the Commission, together with Investor Securityholders requesting to participate in response to the Shelf Registration Notice, propose to sell Registrable Securities having an aggregate anticipated price to the public of less than \$10,000,000 (before Selling Expenses); or

(iii) if the Company notifies the Investor Securityholders requesting registration pursuant to this Section 3 that, in the good faith judgment of the Company, it would be materially detrimental to the Company for such Shelf Registration Statement to either become effective or remain effective for as long as such Shelf Registration Statement otherwise would be required to remain effective, or both, in which case the Company shall have the right to defer taking action with respect to such filing for a period of not more than 90 days after the request of the initiating Investor Securityholders is received by the Company; provided, however, that the Company shall not invoke this right more than once in any twelve (12) month period; or

(iv) if the Company has, within the twelve (12) month period preceding the date of such request, already filed two (2) Shelf Registration Statements for the Investor Securityholders pursuant to this Section 3; or

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(v) during the period ending one hundred eighty (180) days after the effective date of a registration made under Section 2 hereof or a registration described in Section 2(b)(i) hereof.

(c) The Company will pay all Registration Expenses in connection with each registration of Registrable Securities effected by the Company pursuant to this Section 3.

(d) The provisions of Sections 2(d) and 2(f) hereof shall apply to underwritten public offerings pursuant to a Shelf Registration Statement.

4. Piggy-Back Registrations. (a) If, at any time commencing 180 days following the completion of an IPO, the Company proposes to register any of its shares of Common Stock, whether or not for sale for its own account, in connection with the public offering of such securities solely for cash, on a form and in a manner which would permit registration of Registrable Securities for sale to the public under the Securities Act, the Company will give prompt written notice each such time to all holders of Registrable Securities of its intention to do so, describing such securities and specifying the form and manner and the other relevant facts involved in such proposed registration. Upon the written request of any such holder to register any or all of such holder's Registrable Securities received by the Company within 20 days after such notice is given by the Company (which request shall specify the Registrable Securities intended to be disposed of by such holder), the Company will use commercially reasonable efforts to effect the registration under the Securities Act of all Registrable Securities which the Company has been so requested to register by the holders of Registrable Securities, to the extent required to permit the disposition of the Registrable Securities so to be registered, provided, however, that:

(b) Notwithstanding any other provision of this Section 4, if the managing underwriter of any registered underwritten public offering initiated by the Company informs the Company that, in its opinion, marketing factors make it advisable to reduce the number of shares of Common Stock proposed to be registered by Persons other than the Company, then the Company may exclude from such registration and underwriting all or a portion of the Registrable Securities which would otherwise be registered and underwritten pursuant to this Section 4. The Company shall so advise all holders of securities requesting registration of any limitations on the number of shares to be underwritten and the number of shares of Common Stock that may be included in the registration; provided that the reduction of shares included in the registration and underwriting shall be allocated in the following manner:

first, the securities (other than Registrable Securities) of the Company held by officers and directors of the Company shall be excluded from such registration and underwriting to the extent required by such limitation, and if a limitation on the number of shares is still required, then

next, the securities held by any holder of Common Stock not having any contractual, incidental registration rights shall be excluded from such registration and underwriting to the extent required by such limitation, and if a limitation on the number of shares is still required, then

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next, the securities (other than Registrable Securities) of the Company held by Persons who have registration rights under any agreement with the Company (other than this Agreement) shall be excluded from such registration and underwriting to the extent required by such limitation, and, if a limitation on the number of shares is still required, then

next, the number of shares that may be included in the registration and underwriting shall be allocated pro rata among all holders of Registrable Securities in proportion, as nearly as practicable, to the respective amounts of Registrable Securities requested by them to be included in such registration and underwriting, and the Company shall be obligated to include in such registration statement only such limited portion (which may be none) of the Registrable Securities as the managing underwriter determines in good faith is advisable.

(c) If, at any time after giving such written notice of its intention to register any of its securities and prior to the effective date of the registration statement filed in connection with such registration, the Company shall determine for any reason and in its sole discretion to withdraw any registration referred to in this Section 4, the Company may, at its election, give written notice of such determination to each holder of Registrable Securities who has requested Registrable Securities to be included, and thereupon the Company shall be relieved of its obligation to register any Registrable Securities in connection with such registration (but not from its obligation to pay the Registration Expenses in connection therewith as provided in Section 4(e) below), without prejudice however to the rights of the Investor Securityholders to request that such registration be effected as a registration under Section 2(a) hereof;

(d) the Company shall not be obligated to effect any registration of Registrable Securities under this Section 4:

(i) incidental to the registration of any of its securities in connection with (A) dividend reinvestment plans or stock option or other employee benefit plans, or (B) business combination transactions or any other similar transaction, the purpose of which is not to raise capital, or

(ii) pursuant to a so-called “unallocated or “universal” shelf registration statement.

(e) The Company will pay all Registration Expenses in connection with each registration of Registrable Securities requested pursuant to this Section 4.

5. Registration Procedures. (a) If and whenever the Company is required to effect the registration of any Registrable Securities as provided in Sections 2, 3 or 4 hereof, the Company will use commercially reasonable efforts to expeditiously:

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(i) prepare and promptly file with the Commission (in any event within 60 days after a request for registration has been received by the Company) a registration statement with respect to such Registrable Securities and use commercially reasonable efforts to cause such registration statement to become effective;

(ii) prepare and file with the Commission such amendments and supplements to such registration statement and the prospectus used in connection therewith as may be necessary to keep such registration statement effective and to comply with the provisions of the Securities Act with respect to the disposition of all Registrable Securities and other securities covered by such registration statement until the earliest of such time as all of such Registrable Securities and other securities have been disposed of in accordance with the intended methods of disposition by the seller or sellers thereof set forth in such registration statement, or the expiration of six months after such registration statement becomes effective, or such time as all the Registrable Securities registered pursuant to such registration statement cease to be Registrable Securities;

(iii) furnish to each seller of such Registrable Securities, without charge, such number of conformed copies of such registration statement and of each such amendment and supplement thereto, such number of copies of the prospectus included in such registration statement (including each preliminary prospectus and any summary prospectus), in conformity with the requirements of the Securities Act, such documents incorporated by reference in such registration statement or prospectus, and such other documents, as such seller may reasonably request;

(iv) register or qualify all Registrable Securities and other securities covered by such registration statement under the securities or "blue sky" laws of such jurisdictions as the sellers (or in an underwritten offering, the managing underwriter) shall reasonably request, and do any and all other acts and things which may be necessary or advisable under the securities or "blue sky" laws to enable such sellers to consummate the disposition in such jurisdictions of their Registrable Securities covered by such registration statement, except that the Company shall not for any such purpose be required to qualify generally to do business as a foreign corporation in any jurisdiction wherein it is not so qualified, or to subject itself to taxation in any such jurisdiction, or to consent to general service of process in any such jurisdiction;

(v) furnish to each seller of Registrable Securities by means of such registration a signed counterpart, addressed to such seller, of (A) a copy of an opinion of counsel for the Company, dated the effective date of such registration statement (or, if such registration includes an underwritten public offering, dated the date of the closing under the underwriting agreement and (B) a copy of a "comfort" letter dated the effective date of such registration statement (and, if such registration statement includes an underwritten public offering, dated the date of the closing under the underwriting agreement) signed by the independent public accountants who have certified the Company's financial statements included in such registration statement, covering substantially the same matters with respect to such registration statement (and the prospectus included therein) and, in the case of such accountants' letter, with respect to events subsequent to the date of such financial statements, as are customarily covered in opinions of issuer's counsel and in accountants' letters for registrations of the type involved;

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(vi) notify each seller of Registrable Securities covered by such registration statement, at any time when a prospectus relating thereto is required to be delivered under the Securities Act, of the happening of any event as a result of which the prospectus included in such registration statement, as then in effect, includes an untrue statement of a material fact or omits to state any material fact required to be stated therein or necessary to make the statements therein not misleading in the light of the circumstances then existing, and at the request of any such seller prepare and furnish to such seller a reasonable number of copies of a supplement to or an amendment of such prospectus as may be necessary so that, as thereafter delivered to the purchasers of such Registrable Securities or other securities, such prospectus shall not include an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading in the light of the circumstances then existing;

(vii) otherwise use commercially reasonable efforts to comply with all applicable rules and regulations of the Commission, and make available to its securities holders, as soon as reasonably practicable, an earnings statement covering the period of at least 12 months, but not more than 18 months, beginning with the first month of the first fiscal quarter after the effective date of such registration statement, which earnings statement shall satisfy the provisions of Section 11(a) of the Securities Act and the rules and regulations of the Commission thereunder, including Rule 158; and

(viii) use commercially reasonable efforts to list such securities on each securities exchange on which the equity securities of the Company are then listed, if such securities are not already so listed and if such listing is then permitted under the rules of such exchange, and, if necessary, provide a transfer agent and registrar for such Registrable Securities not later than the effective date of such registration statement.

It shall be a condition to the Company's obligations to effect the registration of Registrable Securities under Section 2, 3 and 4 hereof that each holder of Registrable Securities as to which registration is being effected furnish to the Company such information regarding such holder and the distribution of such securities as the Company may from time to time reasonably request in connection with the filing of the relevant registration statement and in connection with maintaining its effectiveness.

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(b) If the Company at any time proposes to register any of its securities under the Securities Act (other than pursuant to a request made under Section 2 hereof), whether or not for sale for its own account, and such securities are to be distributed by or through one or more underwriters, the Company will make reasonable efforts, if requested by any holder of Registrable Securities who requests registration of Registrable Securities in connection therewith pursuant to Section 4 hereof, to arrange for such underwriters to include such Registrable Securities among those securities to be distributed by or through such underwriters, subject to the terms and conditions of this Agreement.

(c) Whenever a registration requested pursuant to Section 2 is for an underwritten offering, the Company shall have the right to select the managing underwriter to administer the offering. If the Company at any time proposes to register any of its securities under the Securities Act for sale for its own account and such securities are to be distributed by or through one or more underwriters, the managing underwriter shall be selected by the Company.

6. Preparation; Reasonable Investigation. In connection with the preparation and filing of each registration statement registering Registrable Securities under the Securities Act, the Company will give one representative selected by the holders of Registrable Securities on whose behalf such Registrable Securities are to be so registered and their underwriters, if any, and their counsel, the opportunity, upon reasonable request, to review and comment upon such registration statement, each prospectus included therein or filed with the Commission, and each amendment thereof or supplement thereto, and will give each of such representative, underwriters and counsel, such reasonable access to its books and records and such opportunities to discuss the business of the Company with its officers, counsel and the independent public accountants who have certified its financial statements as they shall reasonably request.

7. Indemnification; Contribution. (a) In the event of any registration of any securities of the Company under the Securities Act, the Company will, and hereby does, indemnify and hold harmless in the case of any registration statement filed pursuant to Section 2, 3 or 4 hereof, the holder of any Registrable Securities covered by such registration statement, its directors and officers, each officer and director of each underwriter, each other person who participates as an underwriter in the offering or sale of such securities and each other person, if any, who controls such holder or any such underwriter within the meaning of the Securities Act against any losses, claims, damages, liabilities and expenses, joint or several, to which such holder or any such director or officer or participating or controlling person may become subject under the Securities Act or otherwise, insofar as such losses, claims, damages, liabilities or expenses (or actions or proceedings or investigations in respect thereof) arise out of or are based upon (x) any untrue statement or alleged untrue statement of any material fact contained in any registration statement under which such securities were registered under the Securities Act, any preliminary prospectus (unless, with respect to the indemnification of the officers and directors of each underwriter and each other person participating as an underwriter, any such statement is corrected in a subsequent prospectus and the underwriters are given the opportunity to circulate the corrected prospectus to all persons receiving the preliminary prospectus), final prospectus or summary prospectus included therein, or any amendment or supplement thereto, or any

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document incorporated by reference therein, or (y) any omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading, or (z) any violation by the Company of any securities laws in connection with such registration, and the Company will reimburse such holder and each such director, officer, participating person and controlling person for any legal or any other expenses reasonably incurred by them in connection with investigating or defending any such loss, claim, liability, action or proceeding; provided, however, that the Company shall not be liable to any seller, director, officer, participating person or controlling person in any such case to the extent that any such loss, claim, damage, liability (or action or proceeding in respect thereof) or expense arises out of or is based upon an untrue statement or alleged untrue statement or omission or alleged omission made in such registration statement, any such preliminary prospectus, final prospectus, summary prospectus, amendment or supplement in reliance upon and in conformity with written information furnished to the Company in an instrument prepared by or under the direction of such seller, director, officer, participating person or controlling person for use in the preparation of such documents, which information was specifically stated to be for use in the registration statement, prospectus, offering circular or other document. Such indemnity shall remain in full force and effect regardless of any investigation made by or on behalf of such seller or any such director, officer, participating person or controlling person and shall survive the transfer of such securities by such seller. The Company shall agree to provide for contribution relating to such indemnity as shall be reasonably requested by any seller of Registrable Securities or the underwriters.

(b) The Company may require, as a condition to including any Registrable Securities in any registration statement filed pursuant to Section 2(a), that the Company shall have received an undertaking satisfactory to it from the prospective sellers of such securities and their underwriters, to indemnify and hold harmless (in the same manner and to the same extent as set forth in subdivision (a) of this Section 7) the Company, each director of the Company, each officer of the Company who shall sign such registration statement and each other person, if any, who controls the Company within the meaning of the Securities Act, with respect to any statement in or omission from such registration statement, any preliminary prospectus, final prospectus or summary prospectus included therein, or any amendment or supplement thereto, but only if such statement or omission was made in reliance upon and in conformity with written information furnished to the Company through an instrument prepared by or under the direction of such sellers or their underwriters specifically stating that it is for use in the preparation of such registration statement, preliminary prospectus, final prospectus, summary prospectus, amendment or supplement, and provided that (i) the obligation to provide indemnification pursuant to this Section 7(b) shall be several, and not joint and several, among such sellers and (ii) the liability of each seller hereunder shall be limited to the proportion of any such loss, claim, damage, liability or expense which is equal to the proportion that the public offering price of the shares sold by such seller under such registration statement bears to the total public offering price of all securities sold thereunder, but not in any event to exceed the net proceeds received by such seller from the sale of Registrable Securities covered by such registration statement. Such indemnity shall remain in full force and effect regardless of any investigation made by or on behalf of the Company or any such director, officer or controlling person and shall survive the transfer of such securities by such sellers.

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(c) Promptly after receipt by an indemnified party of notice of the commencement of any action or proceeding involving a claim referred to in the preceding subdivisions of this Section 7, such indemnified party will, if a claim in respect thereof is to be made against an indemnifying party, give written notice to the latter of the commencement of such action; provided, however, that the failure of any indemnified party to give notice as provided herein shall not relieve the indemnifying party of its obligations under the preceding subdivisions of this Section 7 except to the extent that the indemnifying party is materially prejudiced as a result of such failure to give notice. In case any such action is brought against an indemnified party, the indemnifying party shall be entitled to participate in and to assume the defense thereof, jointly with any other indemnifying party similarly notified, to the extent that it may wish, with counsel reasonably satisfactory to such indemnified party. After notice from the indemnifying party to such indemnified party of its election so to assume the defense thereof, the indemnifying party shall not be liable to such indemnified party for any legal or other expenses subsequently incurred by the indemnified party in connection with the defense thereof unless (i) the indemnifying party shall have failed to retain counsel for the defense of such claim(s) as aforesaid, (ii) the indemnifying party and the indemnified party shall have mutually agreed to the retention of separate counsel for the indemnified party, or (iii) the indemnified party shall have reasonably concluded that there may be legal defenses available to it which are different from or additional to those available to the indemnifying party (in which case the indemnifying party shall not have the right to direct the defense of such action on behalf of the indemnified party); provided, however, in no event shall the indemnifying party be liable for the reasonable expenses of more than one counsel for all indemnified parties. No indemnifying party will consent to entry of any judgment or enter into any settlement which does not include as an unconditional term thereof the giving by the claimant or plaintiff to such indemnified party of a release from all liability in respect to such claim or litigation. The indemnifying party shall not be liable for any settlement of any proceeding effected without the written consent of such indemnifying party, such consent not to be unreasonably withheld or delayed, but if settled with such consent or if there be a final judgment for the plaintiff, the indemnifying party agrees to indemnify each indemnified party from and against any loss or liability by reason of such settlement or judgment.

(d) Indemnification similar to that specified in this Section 7 (with appropriate modifications) shall be given by the Company and each seller of Registrable Securities with respect to any required registration or other qualification of such Registrable Securities under any federal or state law or regulation.

8. Rule 144 Reporting. With a view to making available the benefits of certain rules and regulations of the Commission which may at any time permit the sale of the Registrable Securities to the public without registration (but in no way reducing the rights of the holders of such Registrable Securities) at all times after 90 days after any registration statement covering a public offering of securities of the Company under the Securities Act shall have become effective, or at all times after the equity securities of the Company shall initially be registered pursuant to the requirements of Section 12 of the Exchange Act, the Company agrees at its cost and expense to use its best efforts to:

(a) make and keep public information available, as those terms are understood within Rule 144 under the Securities Act;

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(b) file with the Commission in a timely manner all reports and other documents required of the Company under the Securities Act and the Exchange Act;

(c) furnish to each holder of Registrable Securities, promptly upon request, a written statement by the Company as to its compliance with the reporting requirements of such Rule 144 and of the Securities Act and the Exchange Act, a copy of the most recent annual and/or quarterly report of the Company, and such other reports and documents so filed by the Company with the Commission as such holder may reasonably request in availing itself of any rule or regulation of the Commission allowing such holder to sell any Registrable Security without registration; and

(d) furnish to each holder of Registrable Securities which is a “qualified institutional buyer” within the meaning of Rule 144A under the Securities Act, promptly upon written request from such holder, such information as may be required under Rule 144A for delivery to any prospective purchaser of any Registrable Securities in order to permit such holder to avail itself of the benefits of the exemptions under the Securities Act afforded by such Rule.

9. Transfer of Registration Rights. The registration rights held by any Investor Securityholder who or which is a party to this Agreement as of the date hereof may be transferred to any Person who acquires at least 50% of the Registrable Securities (such percentage to be determined assuming conversion of all shares of Preferred Stock and exercise of all Warrants) held by the transferring Investor Securityholder as of the date of this Agreement; provided, however, that such 50% limitation shall not apply to transfers pursuant to domestic relations orders, for estate planning purposes, or to Affiliates of the transferor; and, further, provided, that the Company shall be provided with written notice thereof, and each transferee of registration rights hereunder shall execute and deliver a counterpart of this Agreement and become a party hereto.

10. Governing Law. **THIS AGREEMENT SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF DELAWARE, WITHOUT GIVING REGARD TO THE CONFLICT OF LAWS PRINCIPLES THEREOF.**

11. Notices. All notices and requests furnished pursuant to this Agreement shall be in writing, shall be made by hand-delivery, first-class mail (registered or certified, return receipt requested), confirmed facsimile or overnight air courier guaranteeing next business day delivery, and shall be sent, if to a party to this Agreement other than the Company, to such party’s address then on file with the Company, and if to the Company, to:

Amedica Corporation  
615 Arapeen Drive  
Suite 302  
Salt Lake City, Utah 84108  
Attention: Chief Executive Officer

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Except as otherwise provided in this Agreement, the date of each such notice and request shall be deemed to be, and the date on which each such notice and request shall be deemed received shall be: (a) at the time delivered, if personally delivered or mailed; (b) when receipt is acknowledged, if sent by facsimile; and (c) the next business day after timely delivery to the courier, if sent by overnight air courier guaranteeing next business day delivery.

12. Entire Agreement; Integration. This Agreement (including its schedules) supersedes all prior agreements between or among the Company and any of the other parties hereto (including, without limitation, the Prior Registration Rights Agreement), and constitutes the full and entire agreement of the parties with respect to the registration rights of the Investor Securityholders, and all such prior agreements, whether written or oral, are terminated and shall be of no further force or effect, and all rights thereunder are hereby waived.

13. Injunctive Relief. Each of the parties hereto acknowledges that in the event of a breach by any of them of any material provision of this Agreement, the aggrieved party may be without an adequate remedy at law. Each of the parties therefore agrees that in the event of such a breach hereof the aggrieved party may elect to institute and prosecute proceedings in any court of competent jurisdiction to enforce specific performance or to enjoin the continuing breach hereof. By seeking or obtaining any such relief, the aggrieved party shall not be precluded from seeking or obtaining any other relief to which it may be entitled.

14. Section Headings. Section headings are for convenience of reference only and shall not affect the meaning of any provision of this Agreement.

15. Counterparts. This Agreement may be executed in any number of counterparts, each of which shall be an original, and all of which shall together constitute one and the same instrument. All signatures need not be on the same counterpart.

16. Severability. If any provision of this Agreement shall be invalid or unenforceable, such invalidity or unenforceability shall not affect the validity and enforceability of the remaining provisions of this Agreement, unless the result thereof would be unreasonable, in which case the parties hereto shall negotiate in good faith as to appropriate amendments hereto.

17. Amendments and Waivers. This Agreement may be terminated, or any term or provision hereof may be amended, and the observance of any provision of this Agreement may be waived (either generally or in a particular instance, and either retroactively or prospectively) only with the written consent of the Company and Investor Securityholders holding a majority of the Registrable Securities then outstanding (such majority to be determined assuming conversion of all shares of Preferred Stock then convertible into Registrable Securities and exercise of all Warrants then exercisable for Registrable Securities then held by the Investor Securityholders). Any amendment, termination, or waiver effected in accordance with this Section 17 shall be binding on all parties hereto, regardless of whether any such party has

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consented thereto. No waivers of or exceptions to any term, condition, or provision of this Agreement, in any one or more instances, shall be deemed to be or construed as a further or continuing waiver of any such term, condition, or provision.

18. Filing. A copy of this Agreement and of all amendments thereto shall be filed at the principal executive office of the Company with the Secretary of the Company.

19. Termination. Unless sooner terminated pursuant to amendment adopted in accordance with Section 17 hereof, this Agreement (other than Section 7 hereof) shall terminate in its entirety on such date as there shall be no Registrable Securities outstanding.

20. No Third Party Beneficiaries. Nothing herein expressed or implied is intended to confer upon any person, other than the parties hereto or their respective permitted transferees of registration rights, any rights, remedies, obligations or liabilities under or by reason of this Agreement.

21. Aggregation of Registrable Securities. All shares of Registrable Securities held or acquired by Affiliates shall be aggregated together for the purpose of determining the availability of any rights under this Agreement.

22. Confidentiality. Each Investor Securityholder agrees that such Investor Securityholder will keep confidential and will not disclose, divulge, or use for any purpose (other than to monitor its investment in the Company) any confidential information obtained from the Company pursuant to the terms of this Agreement (including notice of the Company's intention to file a registration statement), unless such confidential information (a) is known or becomes known to the public in general (other than as a result of a breach of this Section 22 by such Investor Securityholder), or (b) is or has been made known or disclosed to the Investor Securityholder by a third party without a breach of any obligation of confidentiality such third party may have to the Company; provided, however, that an Investor Securityholder may disclose confidential information (i) to its attorneys, accountants, consultants, and other professionals to the extent necessary to obtain their services in connection with monitoring its investment in the Company; (ii) to any prospective permitted transferee of registration rights from such Investor Securityholder, if such prospective purchaser agrees to be bound by the provisions of this Section 22; (iii) to any Affiliate, partner, member, stockholder, or wholly owned subsidiary of such Investor Securityholder in the ordinary course of business, provided that such Investor Securityholder informs such Person that such information is confidential and directs such Person to maintain the confidentiality of such information; or (iv) as may otherwise be required by law, provided that the Investor Securityholder promptly notifies the Company of such disclosure and takes reasonable steps to minimize the extent of any such required disclosure.

***[REMAINDER INTENTIONALLY BLANK, SIGNATURES FOLLOW]***

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**IN WITNESS WHEREOF**, this Third Amended and Restated Registration Rights Agreement has been duly executed by the parties hereto, effective as of the date first written above.

AMEDICA CORPORATION

By: /s/ Ashok C. Khandkar

Name: Ashok C. Khandkar

Title: Chief Executive Officer

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**INVESTOR:**

Print/Type Name of Investor

Securityholder of Record: \_\_\_\_\_  
\_\_\_\_\_

*(print name of individual or entity)*

By: \_\_\_\_\_  
\_\_\_\_\_

*(signature)*

Name: \_\_\_\_\_  
\_\_\_\_\_

Title: \_\_\_\_\_  
\_\_\_\_\_

PRIOR INVESTORS

## WARRANT AGREEMENT

THIS WARRANT AGREEMENT, dated as of March 1, 2004 (the "Warrant Agreement"), is by and between CREATION CAPITAL LLC, a Delaware limited liability company ("Creation Capital"), and AMEDICA CORPORATION, a Delaware corporation (the "Company").

WHEREAS, pursuant to the letter dated July 1, 2003, as amended, Creation Capital was engaged by the Company as the exclusive placement agent to the Company in the United States in connection with the private placement of up to \$8.4 million of the Company's Series A Convertible Preferred Stock (the "Stock"); and

WHEREAS, the July 1, 2003 letter provides that upon each closing of the sale of Stock, Creation Capital shall receive warrants to purchase a number of shares of Stock equal to fifteen percent (15%) of the total number of shares of Stock sold at such closing; and

WHEREAS, the July 1, 2003 letter further provides that the warrants shall be issued pursuant to a definitive warrant agreement mutually agreed to by the Company and Creation Capital.

NOW THEREFORE, in consideration of the premises and the mutual agreements hereinafter set forth and for the purposes of defining terms and provisions of the Warrants and the certificates representing the Warrants and the respective rights and obligations thereunder of the Company, Creation Capital and the holders of certificates representing the Warrants, the parties hereto agree as follows:

*Section 1. Form of Warrant.* The Company shall grant to Creation Capital (Creation Capital and/or its assigns are collectively referred to herein as the "Holder") warrant(s) (the "Warrant"), in the form of Exhibit A hereto to purchase shares of Stock at a purchase price of \$0.66 per share (the "Exercise Price") all as more fully set forth herein. The Warrant shall be executed on behalf of the Company by the Chief Executive Officer or any other authorized officer of the Company, and dated as of the date of issuance of the Warrant.

*Section 2. Exercise Period of Warrant.* The Warrant shall be exercisable at any time commencing on the first anniversary of the date of issuance of the Warrant and shall terminate at 5:00 p.m., New York City Time, on the seventh anniversary of the date of issuance of the Warrant (the "Warrant Termination Date"); provided, however, that in the event of (a) the closing of the issuance and sale of shares of the common stock, \$.01 par value per share (the "Common Stock"), of the Company in the Company's first underwritten public offering ("IPO") pursuant to an effective registration statement under the Securities Act of 1933, as amended (the "Securities Act") or (b) a Change of Control, the Warrant shall, on the date of such event, become immediately exercisable.

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A “Change of Control” shall mean any acquisition of capital stock of the Company, directly or indirectly, any merger, tender offer, recapitalization or asset sale pursuant to which the Company’s stockholders immediately prior to such transaction hold less than 50% of the voting securities of the surviving corporation immediately after such transaction or the majority of the assets of the Company are transferred or sold, except that any internal re-structuring or re-organization of the Company that does not change the effective ultimate ownership of the Company shall not be deemed a Change of Control.

*Section 3. Term of Warrant Agreement.* Except as otherwise expressly provided herein, this Warrant Agreement shall become void and all rights hereunder and all rights in respect thereof under the Warrant shall cease as of the Warrant Termination Date except to the extent that the Warrant is exercised prior to such date.

*Section 4. Number of Shares.* The Warrant shall be exercisable for up to the number of shares of Stock as shall be indicated on the Warrant, subject to adjustment as provided herein (the “Warrant Shares”).

*Section 5. Adjustment Provisions.* The Exercise Price and the number of shares of Stock underlying the Warrant shall be subject to adjustment from time to time as hereinafter set forth:

(a) *Stock Dividends – Stock Splits.* If after the date hereof, the number of outstanding shares of Stock is increased by a stock dividend payable in shares of Stock or by a sub-division or a stock split of shares of Stock or other similar event as described in the Certificate of Designation, Preferences and Rights of the Stock, then, on the effective date thereof, the number of shares of Stock issuable on exercise of the Warrant shall be increased in proportion to such increase in outstanding shares.

(b) *Aggregation of Shares.* If after the date hereof, the number of outstanding shares of Stock is decreased by a consolidation, combination, reverse stock split or reclassification of shares of Stock or other similar event, then, on the effective date thereof, the number of shares of Stock issuable on exercise of the Warrant shall be decreased in proportion to such decrease in outstanding shares.

(c) *Adjustments in Exercise Price.* Whenever the number of the shares of Stock issuable upon the exercise of the Warrant is adjusted, as provided in Sections 5(a) and (b), the Exercise Price shall be adjusted (to the nearest cent) by multiplying such Exercise Price immediately prior to such adjustment by a fraction (x) the numerator of which shall be the number of the shares of Stock purchasable upon the exercise of the Warrant immediately prior to such adjustment and (y) the denominator of which shall be the number of the shares of Stock so purchasable immediately thereafter.

(d) *When De Minimis Adjustment May Be Deferred.* No adjustment in the Exercise Price need be made unless the adjustment would require an increase or decrease of at least 1% in the Exercise Price. Any adjustments that are not made shall be carried forward and taken into account in any subsequent adjustment. All calculations under this Section 5 shall be made to the nearest 1/100<sup>th</sup> of a share.

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(e) *Notice.* Whenever there shall be an adjustment as provided in this Section 5, the Company shall promptly cause written notice thereof to be sent to the Holder in accordance with Section 13 hereof, which notice shall be accompanied by an officer's certificate setting forth the number of Warrant Shares purchasable upon the exercise of this Warrant and the Exercise Price after such adjustment and setting forth a brief statement of the facts requiring such adjustment and the computation thereof. Additionally, in case at any time the Company shall propose:

(i) to pay any dividend or make any distribution on shares of Stock in shares of Stock or make any other distribution to all holders of Stock; or

(ii) to issue any rights, warrants or other securities to all holders of Stock entitling them to purchase any additional shares of Stock or any other rights, warrants or other securities; or

(iii) to effect any reclassification or change of outstanding shares of Stock, or any consolidation, merger or sale; or

(iv) to effect any liquidation, dissolution or winding-up of the Company;

then, and in any one or more of such cases, the Company shall give written notice thereof to the Holder in accordance with Section 13 hereof, which notice shall be sent at least fifteen (15) days prior to (i) the date as of which the holders of record of shares of Stock to be entitled to receive any such dividend, distribution, rights, warrants, other securities are to be determined or (ii) the date on which any such reclassification, change of outstanding shares of Stock, consolidation, merger, sale, liquidation, dissolution or winding-up is expected to become effective, and the date as of which it is expected that holders of record of shares of Stock shall be entitled to exchange their shares for securities or other property, if any, deliverable upon such reclassification, change of outstanding shares, consolidation, merger, sale, liquidation, dissolution or winding-up.

*Section 6. Representations, Warranties and Covenants of the Company.* The Company hereby represents, warrants and covenants to Holder as follows:

(a) The Company is a corporation duly organized, validly existing and in good standing under the laws of the State of Delaware and is in good standing as a foreign corporation in each jurisdiction in which the nature of its business makes such qualification necessary and where the failure to so qualify would have a material adverse effect on its business or operations. The Company has all requisite corporate power and authority to carry out its business as presently conducted and as proposed to be conducted and to enter into and discharge its obligations under this Warrant Agreement and the Warrant.

(b) The execution and delivery of this Warrant Agreement and the Warrant by the Company and its performance and compliance with the terms of this Warrant Agreement and the Warrant have been duly authorized by all necessary corporate action on the part of the Company.

(c) The consummation of the transactions contemplated by this Warrant Agreement and the Warrant will not (i) conflict with, result in any breach of any of the terms and

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provisions of, or constitute (with or without notice or lapse of time or both) a default under, the certificate of incorporation or bylaws of the Company, or any material contract, agreement, indenture, loan agreement, receivables purchase agreement, mortgage, deed of trust, or other agreement or instrument to which the Company is a party or by which it or any of its properties is bound, (ii) result in the creation or imposition of any lien, adverse claim or other encumbrance upon any of the properties of the Company pursuant to the terms of any such material contract, agreement, indenture, loan agreement, receivables purchase agreement, mortgage, deed of trust, or other agreement or instrument, or (iii) violate any law or order, rule or regulation applicable to the Company of any court or of any federal or state regulatory body, administrative agency, or other governmental instrumentality having jurisdiction over the Company or any of its properties.

(d) The Warrant Agreement and the Warrant each constitutes a legal, valid and binding obligation of the Company and is enforceable against the Company in accordance with the terms hereof and thereof, except as enforcement may be limited by applicable bankruptcy, insolvency, reorganization, moratorium or other similar laws affecting creditors' rights generally and by general principles of equity (whether considered in a proceeding or action in equity or at law).

(e) The Company shall at all times keep a sufficient number of authorized but unissued shares of Stock reserved for issuance upon the exercise of the Warrant. The Warrant Shares, when issued, delivered and paid for in accordance with the terms of this Warrant Agreement and the Warrant, will be duly and validly issued, fully paid and non-assessable and will not have been issued in violation of the pre-emptive or contractual rights of any person or entity.

(f) The Company shall deliver to each Holder of ten percent (10%) or more of the aggregate Warrant Shares such information and reports relating to the Company as the Company is required to provide to other holders of the Stock. The rights of such Holders under this Section 6(f) shall terminate upon the closing of the IPO.

(g) Upon receipt of evidence reasonably satisfactory to the Company of the loss, theft, destruction or mutilation of the Warrant or any certificate representing Warrant Shares, and, in the case of any such loss, theft or destruction, upon delivery of indemnity (which may include a bond) reasonably satisfactory to the Company, or, in the case of any such mutilation, upon surrender and cancellation of the Warrant or any certificate representing Warrant Shares, as the case may be, the Company will issue a new Warrant or certificates representing Warrant Shares, as the case may be, of like tenor representing an equivalent interest or right, in lieu of such lost, stolen, destroyed or mutilated Warrant or certificates representing Warrant Shares, as the case may be. The applicant for such replacement Warrant shall comply with such other reasonable requests as the Company may reasonably prescribe.

*Section 7. Representations, Warranties and Covenants of Holder.* Holder hereby represents, warrants and covenants to the Company as follows:

(a) Holder is acquiring the Warrant, and upon exercise of the Warrant will acquire the Warrant Shares, for its own account with no intention of distributing or reselling the

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Warrant or Warrant Shares in any transaction that would be a violation of the securities laws of the United States or any state, without prejudice to the Holder's rights at all times to sell or otherwise dispose of all or part of such Warrant under a registration under the Securities Act or an exemption available thereto. Holder is aware that neither the Warrant nor the Warrant Shares are registered under the Securities Act or any state or other jurisdiction's securities laws, and that Holder must hold the Warrant and the Warrant Shares indefinitely unless subsequently registered or an exemption from registration is available. Holder understands and agrees that the Warrant will bear the restrictive legend set forth on the Warrant and that the Warrant Shares will bear the legend set forth in Section 12 of this Warrant Agreement. Holder represents and warrants that it is an "accredited investor" as that term is defined in Rule 501 of Regulation D promulgated under the Securities Act.

*Section 8. Shelf Registration.*

(a) As promptly as practicable following the eligibility of the Company or its successor to file a Registration Statement on Form S-3 (or any successor or similar short-form registration statement, a "Shelf Registration Statement"), subject to the limitations herein, the Holder may request, in writing, that the Company file a Shelf Registration Statement with respect to the shares of Common Stock issuable upon conversion of the Warrant Shares (the "Registrable Securities"). In such a notice, the Holder shall advise the Company of the number of Registrable Securities to be included in the Shelf Registration Statement. The Company shall use its best efforts to have such Shelf Registration Statement declared effective by the U.S. Securities and Exchange Commission ("SEC") as promptly as practicable thereafter. The Company shall use its best efforts to keep any such Shelf Registration Statement continuously effective for the period of at least twenty-four months beginning on the date on which such Shelf Registration Statement is declared effective. The Holder shall provide such information as may be reasonably requested by the Company in connection with the filing of the Shelf Registration Statement or in order to maintain its effectiveness.

(b) Notwithstanding the foregoing, the Company shall not be obligated to file any Shelf Registration Statement pursuant to this Section 8 unless the Registrable Securities to be sold have an anticipated aggregate offering price of at least \$1,000,000 (before underwriter's discounts and commissions). In addition, the Company shall not be obligated to effect any Shelf Registration Statement pursuant to this Section 8 if, in the good faith determination of the Board of Directors, the filing of such registration statement would be detrimental to the Company or its stockholders due to pending material corporate developments or similar material events that have not yet been publicly disclosed and as to which the Company believes that public disclosure would be prejudicial to the Company and may delay such Shelf Registration Statement for a period not in excess of ninety (90) days from such determination. The Company shall be obligated to effect no more than two Shelf Registration Statements during any one calendar year.

(c) The Company shall pay all expenses incurred in connection with a registration pursuant to this Section, including, without limitation, all registration, qualification, printing and accounting fees, all fees and disbursements of counsel for the Company, and all reasonable fees and disbursements of one counsel for the Holders as a group. The Company shall pay all registration fees and other expenses applicable to the Registrable Securities included in the Shelf Registration Statement, provided, that the Holder will be responsible for all underwriting discounts and commissions allocable to the securities sold by such holder.

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*Section 9. Piggyback Registration.*

(a) If the Company proposes to register any of its equity securities, either for its own account or for the account of any Person, but not including a registration relating to (i) employee stock option or purchase plans, or (ii) a transaction pursuant to Rule 145 under the Securities Act (a "Piggyback Registration"), the Company will:

(i) promptly give written notice thereof to the Holder; and

(ii) use its best efforts to include in such Piggyback Registration and in any underwriting involved therein up to all of the Registrable Securities which the Holder requests in writing to be so included within thirty days after receipt of such written notice from the Company.

The Company shall pay, and shall reimburse the Holder for paying, any expenses incurred in connection with a Piggyback Registration requested pursuant to this Section, including, without limitation, all registration, qualification, printing and accounting fees, all fees and disbursements of counsel for the Company, and all reasonable fees and disbursements of one counsel for the Holders as a group; provided, that the Holder will be responsible for all underwriting discounts and commissions allocable to the securities sold by such holder.

(b) If the registration of which the Company gives notice is for a public offering involving an underwriting, the Company shall so advise the Holder as a part of the written notice given pursuant to this Section, and the right of the Holder to include Registrable Securities in such registration shall be conditioned upon the Holder participation in such underwriting and the entry of the Holder into an underwriting agreement in customary form with the underwriter or underwriters selected for such underwriting by the Company.

(c) If the underwriter of the registered public offering referred to in this Section shall advise the Company in writing that marketing factors require a limitation of the amount of securities to be underwritten, securities shall be included in such offering in the following priority: *first*, securities to be registered by the Company and/or securities requested to be included pursuant to the exercise of demand registration rights granted by the Company in such priority and proportions as may be agreed among such parties; *second*, the securities requested to be included in such registration by the Holder pursuant to this Section, the investors who purchased Stock in the offering, and other parties requesting Piggyback Registration rights of the type provided in this Section and having the same priority, *pro rata* based upon the number of securities requested to be included by such parties; *third*, the securities requested to be included in such registration by principals of the Company pursuant to the exercise of Piggyback Registration rights of the type provided in this Section, *pro rata* on the basis of the number of such securities requested to be included by such principal; and *fourth*, other securities for the account of Persons, including the Holder, allocated among such Persons in accordance with the priorities then existing among the Company and such Persons. Any securities excluded pursuant to the provisions of this Section shall be withdrawn from and shall not be included in such Piggyback Registration.

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(d) Notwithstanding the foregoing, the Company shall not be obligated to effect any Piggyback Registration pursuant to this Section 9 if, in the good faith determination of the Board of Directors, the filing of such registration statement would be detrimental to the Company or its stockholders due to pending material corporate developments or similar material events that have not yet been publicly disclosed and as to which the Company believes that public disclosure would be prejudicial to the Company and may delay such Piggyback Registration Statement for a period not in excess of ninety (90) days from such determination

*Section 10. Registration Procedures.*

(a) In the case of a registration to be effected by the Company pursuant to this Warrant Agreement in which the Holder is participating, the Company will keep the Holder advised in writing as to the initiation of such registration and as to the completion thereof. In connection with such offering, the Company shall promptly:

(1) prepare and file with the SEC a registration statement with respect to the Registrable Securities and its best efforts to cause such registration statement to become effective for a period of at least 60 days or until the distribution described in the registration statement relating thereto has been completed, whichever shall first occur;

(2) in connection with the preparation and filing of a registration statement, give the Holder, its underwriters, if any, and its counsel, the opportunity (over a reasonable period of time) to review and comment upon any such registration statement, each prospectus included therein or filed with the SEC, and each amendment thereof or supplement thereto, and give each of them access to financial and other records, pertinent corporate documents and properties of the Company and an opportunity to discuss the business of the Company with its officers, its counsel and the independent public accountants who have certified its financial statements as shall be necessary, in the opinion of the Holder and the underwriters' respective counsel, to conduct a reasonable due diligence investigation within the requirements of the Securities Act;

(3) furnish to the Holder and to the underwriters, if any, of the securities being registered such number of copies of the registration statement, preliminary prospectus, final prospectus and other documents incident thereto as such underwriters and the Holder from time to time may request;

(4) prepare and file with the SEC such amendments and supplements to such registration statement and the prospectus used in connection with such registration statement as may be necessary to comply with the provisions of the Securities Act with respect to the disposition of all securities covered by such registration statement;

(5) register or qualify the Registrable Securities covered by such registration statement under such other securities or Blue Sky laws of such jurisdictions as shall be requested by the Holder for the distribution of the Registrable Securities covered by the registration statement to be sold by the Company;

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(6) enter into an underwriting agreement in customary form and substance satisfactory to the Holder and the managing underwriter or underwriters of the public offering of such securities, if the offering is to be underwritten, in whole or in part;

(7) notify the Holder at any time when a prospectus relating thereto covered by such registration statement is required to be delivered under the Securities Act of the happening of any event as a result of which the prospectus included in such registration statement, as then in effect, includes an untrue statement of a material fact or omits to state a material fact required to be stated therein or necessary to make the statements therein not misleading in the light of the circumstances then existing;

(8) cause all such Registrable Securities to be listed on a national securities exchange or on Nasdaq;

(9) unless any Registrable Securities shall be in book-entry form, cooperate with the Holder to facilitate the timely preparation and delivery of certificates representing Registrable Securities to be sold pursuant to any registration statement free of any restrictive legend and in such permitted denominations and registered in such names as the Holder may request in connection with the sale of Registrable Securities pursuant to such registration statement; and

(10) otherwise use its commercially reasonable efforts to comply with all applicable rules and regulations of the SEC, and make available to the Holder, as soon as reasonably practicable, an earnings statement covering the period of at least 12 months, but not more than 18 months, beginning with the first full calendar month after the effective date of such registration statement, which earnings statement shall satisfy the provisions of the Securities Act.

(b) Indemnification.

(1) Indemnification by the Company. The Company will indemnify each Holder requesting or joining in a registration and each underwriter of the securities so registered, the officers, directors and partners of each such person and each person who controls any thereof (within the meaning of the Securities Act) against any and all claims, losses, damages and liabilities (or actions in respect thereof) arising out of or based on any untrue statement (or alleged untrue statement) of any material fact contained in any prospectus, offering circular or other document incident to any registration, qualification or compliance (or in any related registration statement, notification or the like) or any omission (or alleged omission) to state therein any material fact required to be stated therein or necessary to make the statements therein not misleading, or any violation by the Company of any rule or regulation promulgated under the Securities Act applicable to the Company and relating to any action or inaction required of the Company in connection with any such registration, qualification or compliance, and the Company will reimburse each such Holder, underwriter, officer, director, partner and controlling person for any legal and any other expenses reasonably incurred in connection with investigating or defending any such claim, loss, damage, liability or action; provided, however, that the Company will not be liable in any such case to the extent that any such claim, loss, damage or

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liability arises out of or is based on any untrue statement or omission based upon written information furnished to the Company in an instrument duly executed by such Holder, underwriter, officer, director, partner or controlling person and stated to be specifically for use in such prospectus or registration statement.

(2) Indemnification by Each Holder. Each Holder requesting or joining in a registration, will indemnify, severally and not jointly, each underwriter of the securities so registered, the Company and its officers who sign the registration statement and directors and each person, if any, who controls any thereof (within the meaning of the Securities Act) and their respective successors and assigns against any and all claims, losses, damages and liabilities (or actions in respect thereof) arising out of or based on any untrue statement (or alleged untrue statement) of any material fact contained in any prospectus, offering circular or other document incident to any registration, qualification or compliance (or in any related registration statement, notification or the like) or any omission (or alleged omission) to state therein any material fact required to be stated therein or necessary to make the statements therein not misleading, and such Holder will reimburse each underwriter, the Company and each other person indemnified pursuant to this paragraph for any legal and any other expenses reasonably incurred in connection with investigating or defending any such claim, loss, damage, liability or action; provided, however, that this paragraph shall apply only if (and only to the extent that) such statement or omission was made in reliance upon written information furnished to such underwriter or the Company in an instrument duly executed by such Holder and stated to be specifically for use in such prospectus, offering circular or other document (or related registration statement, notification or the like) or any amendment or supplement thereto; and, provided further, that each Holder's liability hereunder with respect to any particular registration shall be limited to an amount equal to the net proceeds received by such Holder from the Registrable Securities sold by such Holder in such registration.

(3) Indemnification Proceedings. Each party entitled to indemnification pursuant to this Section 10(b) (the "Indemnified Party") shall give notice to the party required to provide indemnification pursuant to this Section 10(b) (the "Indemnifying Party") promptly after such Indemnified Party acquires actual knowledge of any claim as to which indemnity may be sought, and shall permit the Indemnifying Party (at its expense) to assume the defense of any claim or any litigation resulting therefrom; provided that counsel for the Indemnifying Party, who shall conduct the defense of such claim or litigation, shall be reasonably acceptable to the Indemnified Party, and the Indemnified Party may participate in such defense at such party's expense; and provided, further, that the failure by any Indemnified Party to give notice as provided in this paragraph shall not relieve the Indemnifying Party of its obligations under this Section 10(b) except to the extent that the failure results in a failure of actual notice to the Indemnifying Party and such Indemnifying Party is damaged solely as a result of the failure to give notice. No Indemnifying Party, in the defense of any such claim or litigation, shall, except with the consent of each Indemnified Party, consent to entry of any judgment or enter into any settlement which does not include as an unconditional term thereof the giving by the claimant or plaintiff to such Indemnified Party of a release from all liability in respect to such claim or litigation and no Indemnified Party shall consent to entry of any judgment or settle such claim or litigation without the prior written consent of the Indemnifying Party so long as the Indemnifying Party has acknowledged in writing its obligation to indemnify and is in compliance with all of its obligations hereunder to indemnify the Indemnified Party for all amounts in connection with

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such claim or litigation and which consent shall not be unreasonably withheld. If the defendants in any action subject to this Section 10(b) include both the Indemnified Party and the Indemnifying Party and the Indemnified Party shall have reasonably concluded that there may be reasonable defenses available to it which are different from or additional to those available to the Indemnifying Party or if the interests of the Indemnified Party reasonably may be deemed to conflict with the interests of the Indemnifying Party, the Indemnified Party shall have the right to select a separate counsel and to assume such legal defenses and otherwise to participate in the defense of such action, with the expenses and fees of such separate counsel and other expenses related to such participation to be reimbursed by the Indemnifying Party as incurred.

(c) Contribution in Lieu of Indemnification. If the indemnification provided for in Section 10(b) hereof is unavailable to a party that would have been an Indemnified Party under any such section in respect of any losses, claims, damages or liabilities (or actions in respect thereof) referred to therein, then each party that would have been an Indemnifying Party thereunder shall, in lieu of indemnifying such Indemnified Party, contribute to the amount paid or payable by such Indemnified Party as a result of such losses, claims, damages or liabilities (or actions in respect thereof) in such proportion as is appropriate to reflect the relative fault of the Indemnifying Party on the one hand and such Indemnified Party on the other in connection with the statements or omissions which resulted in such losses, claims, damages or liabilities (or actions in respect thereof). The relative fault shall be determined by reference to, among other things, whether the untrue or alleged untrue statement of a material fact or the omission or alleged omission to state a material fact relates to information supplied by the Indemnifying Party or such Indemnified Party and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such statement or omission. The Company and each Holder of Registrable Securities agree that it would not be just and equitable if contribution pursuant to this Section 10(c) were determined by pro-rata allocation or by any other method of allocation which does not take account of the equitable considerations referred to above in this Section 10(c). The amount paid or payable by an Indemnified Party as a result of the losses, claims, damages or liabilities (or actions in respect thereof) referred to above in this Section 10(c) shall include any legal or other expenses reasonably incurred by such Indemnified Party in connection with investigating or defending any such action or claim. Notwithstanding any provision of this Section 10(c) to the contrary, (a) no person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) shall be entitled to contribution from any person who was not guilty of such fraudulent misrepresentation and (b) each Holder's liability hereunder with respect to any particular registration shall be limited to an amount equal to the net proceeds received by such Holder from the Registrable Securities sold by such Holder in such registration.

*Section 11. Effect of Registration Rights of Heirs, Assigns, Beneficiaries, Successors and Transferees.* The heirs, assigns, beneficiaries and successor of the Holder shall be entitled to all of the registration rights set forth in Sections 8 through 10 of this Warrant Agreement; *provided, however,* that such Person or Persons will be able to exercise such rights of the Holder only if it or they have at least 5% of the equity interest in the Company.

*Section 12. Transfers and Exchanges.* Subject to the terms of Section 15 hereof, the Company shall from time to time register the transfer of the Warrant in a Warrant register to

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be maintained by the Company upon surrender thereof accompanied by a written instrument or instruments of transfer in the form of assignment attached hereto or as otherwise may be satisfactory to the Company, duly executed by the Holder thereof or by the duly appointed legal representative thereof or by a duly authorized attorney. Upon any such transfer, the surrendered Warrant shall be canceled and disposed of by the Company and a new Warrant shall be issued to the transferee(s). The Holder agrees that prior to any proposed transfer of the Warrant or of the Warrant Shares, if such transfer is not made pursuant to an effective registration statement under the Securities Act and any applicable state securities laws, the Holder shall deliver to the Company:

(a) an investment covenant substantially similar to Section 7(a) and otherwise reasonably satisfactory to the Company signed by the proposed transferee;

(b) an agreement by such transferee to the impression of the restrictive investment legend set forth below on the Warrant or the Warrant Shares;

(c) an agreement by such transferee that the Company may place a notation in the stock books of the Company or a “stop transfer order” with any transfer agent or registrar with respect to the Warrant Shares;

(d) an agreement by such transferee to be bound by the provisions of this Section 12 relating to the transfer of such Warrant or Warrant Shares; and

(e) an opinion of counsel, reasonably satisfactory in form and substance to the Company, that the transfer is exempt from registration requirements under the Securities Act and any applicable state securities laws.

The Holder agrees that each Warrant and each certificate representing Warrant Shares will bear the following legend:

**THE SECURITIES EVIDENCED OR CONSTITUTED HEREBY HAVE BEEN ACQUIRED FOR INVESTMENT AND HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED. SUCH SECURITIES MAY NOT BE SOLD, TRANSFERRED, PLEDGED OR HYPOTHECATED UNLESS THE REGISTRATION PROVISIONS OF SAID ACT AND ANY APPLICABLE STATE SECURITIES LAWS HAVE BEEN COMPLIED WITH OR UNLESS THE COMPANY HAS RECEIVED AN OPINION OF COUNSEL REASONABLY SATISFACTORY TO THE COMPANY THAT SUCH REGISTRATION IS NOT REQUIRED.**

*Section 13. Notices.* All demands, notices and communications relating to this Warrant Agreement or any Warrant shall be in writing and (i) sent by registered or certified mail, postage prepaid, return receipt requested, (ii) hand delivered, (iii) sent by express mail or other reasonable overnight delivery service, or (iv) sent by telecopy, as follows:

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If to the Company:

Amedica Corporation  
2116 South Lakeline Drive  
Salt Lake City, Utah 84109  
Attention: Ashok Khandkar,  
Chief Executive Officer  
Telephone: (801) 535-4355  
Telecopy: (801) 584-2533

with a copy to:

Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C.  
One Financial Center  
Boston, MA 02111  
Attention: Jonathan L. Kravetz, Esq.  
Telephone: (617) 542-6000  
Telecopy: (617) 542-2241

If to Holder:

Creation Capital LLC  
630 Fifth Avenue – Rockefeller Center, Suite 2000  
New York, New York 10111  
Attention: Gregg R. Honigblum,  
Chief Executive Officer  
Telephone: (212) 332-1623  
Telecopy: (212) 218-3761

with a copy to:

Winston & Strawn  
200 Park Avenue  
New York, New York 10166  
Attention: Nick Krylov, Esq.  
Telephone: (212) 294-6617  
Telecopy: (212) 294-4700

Any such demand, notice or communication hereunder shall be deemed to have been duly given when received by the other party or parties at the address shown above or on the next succeeding business day if the date of receipt is not a business day, or such other address as may hereafter be furnished to the other party or parties by like notice and shall be deemed to have been received on the date delivered to or received at the premises of the addresses.

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*Section 14. Counterparts.* For the purpose of facilitating the execution of this Warrant Agreement and for other purposes, this Warrant Agreement may be executed simultaneously in any number of counterparts, each of which shall be deemed to be an original, and all of which together shall constitute and be one and the same instrument; and such counterparts may be delivered via facsimile to the numbers designated in or pursuant to Section 13.

*Section 15. Assignability.* Subject to the provisions set forth in Section 12, the Holder may assign the rights and interests under this Warrant Agreement to any person without the Company's consent; provided, however, that in the event such assignee (other than an assignee which is a Holder Affiliate (as such term is defined below)) is reasonably deemed by the Company to compete with the Company in its traditional business activities (a "competitor"), the Company shall not be required to furnish to such assignee information and reports relating to the Company pursuant to Section 6(f) of this Agreement and, upon notice given by the Company to Holder that such assignee is deemed a "competitor," Holder shall not furnish to such assignee any information or reports relating to the Company, without the Company's prior written consent; and provided, further, however, that no such assignment shall be made to the extent such transfer would subject the Company to the reporting requirements of the Securities Exchange Act of 1934, as amended. The Holder shall promptly cause written notice of any such transfer to be sent to the Company in accordance with Section 13 hereof at least fourteen (14) days prior to such transfer. Notwithstanding the foregoing or any other provision to the contrary, the Warrant and the Warrant Shares will be "restricted securities" as defined in Rule 144 under the Securities Act, and thus will not be transferable except in compliance with applicable federal and state securities laws and regulations. "Holder Affiliate" shall mean any person that directly, or indirectly through one or more intermediaries, controls, or is controlled by, or is under common control with, such Holder.

*Section 16. Governing Law; Jurisdiction; Waiver of Jury Trial.*

(a) *Governing Law.* This Warrant Agreement shall be governed by, and construed in accordance with, the laws of the State of Delaware, without regard to conflict of law principles.

(b) *Jurisdiction.* Each of the Company and the Holder hereby irrevocably submits to the jurisdiction of any New York State or Federal court sitting in New York City in any action or proceeding arising out of or relating to this Warrant Agreement or the Warrant, and each of the Company and the Holder hereby irrevocably agrees that all claims in respect of such action or proceeding may be heard and determined in such New York State court or in such Federal court. Each of the Company and the Holder hereby irrevocably waives, to the fullest extent permitted under applicable law, the defense of an inconvenient forum to the maintenance of such action or proceeding. Each of the Company and the Holder irrevocably consents, to the fullest extent permitted under applicable law, to the service of any summons and complaint and any other process by the mailing of copies of such process to them at their respective address specified in Section 13. Each of the Company and the Holder hereby agrees, to the fullest extent permitted under applicable law, that a final judgment in any such action or proceeding shall be conclusive and may be enforced in other jurisdictions by suit on the judgment or in any other manner provided by law.

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(c) *Waiver of Jury Trial.* **TO THE FULLEST EXTENT PERMITTED UNDER APPLICABLE LAW, EACH OF THE COMPANY AND THE HOLDER HEREBY IRREVOCABLY WAIVES ALL RIGHT TO A TRIAL BY JURY IN ANY ACTION, PROCEEDING OR COUNTERCLAIM ARISING OUT OF OR RELATING TO THIS WARRANT AGREEMENT OR ANY WARRANT ISSUED HEREUNDER.**

*Section 17. Amendments.* This Warrant Agreement may be amended from time to time by written instrument signed by the Company and the Holders of a majority of the Warrant Shares issued or issuable upon exercise of the Warrant and no waiver of any of the terms hereof shall be effective unless it is in writing and signed by the Holders of a majority of the Warrant Shares issued or issuable upon exercise of the Warrant or the Company, as the case may be. Any amendment or waiver pursuant to this Section 17 shall be binding on all Holders of the Warrant Shares and may be given retroactive, prospective or concurrent effect, depending upon the language in such amendment or waiver.

*Section 18. No Waiver.* No failure on the part of the Holder or the Company to exercise, and no delay in exercising, any right hereunder shall operate as a waiver thereof; nor shall any single or partial exercise of any right hereunder preclude any other or further exercise thereof or the exercise of any other right. The remedies herein provided are cumulative and not exclusive of any remedies provided by law.

*Section 19. Termination.* This Warrant Agreement shall terminate on the Warrant Termination Date. Notwithstanding the foregoing, this Warrant Agreement will terminate on any earlier date if the Warrant has been exercised in full.

[SIGNATURES ON FOLLOWING PAGE]

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IN WITNESS WHEREOF, the parties hereto have caused this warrant Agreement to be duly executed by their respective officers on the day and year first above written.

AMEDICA CORPORATION

By: /s/ Ashok Khandkar

Name: Ashok Khandkar

Title: Chief Executive Officer

CREATION CAPITAL LLC

By: /s/ Gregg R. Honigblum

Name: Gregg R. Honigblum

Title: Chief Executive Officer

**Form of Warrant**

THE SECURITIES EVIDENCED OR CONSTITUTED HEREBY HAVE BEEN ACQUIRED FOR INVESTMENT AND HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED. SUCH SECURITIES MAY NOT BE SOLD, TRANSFERRED, PLEDGED OR HYPOTHECATED UNLESS THE REGISTRATION PROVISIONS OF SAID ACT AND ANY APPLICABLE STATE SECURITIES LAWS HAVE BEEN COMPLIED WITH OR UNLESS THE COMPANY HAS RECEIVED AN OPINION OF COUNSEL REASONABLY SATISFACTORY TO THE COMPANY THAT SUCH REGISTRATION IS NOT REQUIRED.

Exercisable on or before  
the Warrant Termination Date  
(as defined below)

**WARRANT TO PURCHASE SERIES A CONVERTIBLE PREFERRED STOCK**

To Subscribe for and Purchase Series A Convertible Preferred Stock

of

**AMEDICA CORPORATION**

**WARRANT NO.** \_\_\_\_\_

This certifies that, for value received, Creation Capital LLC, a Delaware limited liability company (“Creation Capital”), or its assigns (Creation Capital and/or its assigns are collectively referred to herein as the “Holder”), is entitled to subscribe for and purchase from Amedica Corporation, a Delaware corporation (the “Company”), at any time commencing on the first anniversary of the date hereof and shall terminate at 5:00 p.m., New York City Time, on the seventh anniversary of the date hereof (the “Warrant Termination Date”), \_\_\_\_\_ shares (the “Warrant Shares”) of the Company’s Series A Convertible Preferred Stock, par value \$.01 per share (the “Series A Preferred Stock”), subject to adjustment as provided in that certain Warrant Agreement, dated as of March 1, 2004, by and between the Company and Creation Capital (the “Warrant Agreement”), at an exercise price of \$0.66 per share, as such exercise price may be adjusted from time to time under the Warrant Agreement. No Warrant may be exercised after the Warrant Termination Date.

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In the event of (a) the closing of the issuance and sale of shares of common stock, \$.01 par value per share (the “Common Stock”), of the Company in the Company’s first underwritten public offering (“IPO”) pursuant to an effective registration statement under the Securities Act of 1933, as amended (the “Securities Act”) or (b) a Change of Control, the Warrant shall, on the date of such event, become immediately exercisable.

A “Change of Control” shall mean any acquisition of capital stock of the Company, directly or indirectly, any merger, tender offer, recapitalization or asset sale pursuant to which the Company’s stockholders immediately prior to such transaction hold less than 50% of the voting securities of the surviving corporation immediately after such transaction or the majority of the assets of the Company are transferred or sold, except that any internal re-structuring or re-organization of the Company that does not change the effective ultimate ownership of the Company shall not be deemed a Change of Control.

This Series A Preferred Stock Purchase Warrant and all Series A Preferred Stock Purchase Warrants issued in substitution or exchange therefor are herein individually called a “Warrant” and collectively called “Warrants.”

This Warrant is issued pursuant to and, subject to the terms and conditions of, the Warrant Agreement, which Warrant Agreement is incorporated by reference in and made a part of this instrument. Capitalized terms not otherwise defined herein shall have the meanings given them in the Warrant Agreement. Any conflict between the terms of this Warrant and the Warrant Agreement shall be resolved in favor of the terms of the Warrant Agreement.

This Warrant is further subject to the following provisions, terms and conditions:

1. (a) In order to exercise this Warrant, in whole or in part, the Holder shall deliver to the Company, at the office the Company designated for such purpose in Section 13 of the Warrant Agreement, (i) the form of election to purchase set forth herein properly completed and signed, (ii) payment of the Warrant Price pursuant to Section 1(b), and (iii) this Warrant. Upon receipt of the items referred to in clauses (i), (ii) and (iii) above, the Company shall, as promptly as practicable, and in any event within ten (10) days thereafter, execute or cause to be executed and deliver or cause to be delivered to the Holder a certificate or certificates, in such name or names as the Holder may designate, representing the aggregate number of full shares of Series A Preferred Stock issuable upon such exercise, together with cash in lieu of any fraction of a share, as hereinafter provided in Section 4. If this Warrant shall have been exercised in part, the Company shall, at the time of delivery of the certificate or certificates representing Warrant Shares, deliver to the Holder a new Warrant evidencing the rights of the Holder to purchase the unpurchased shares of Series A Preferred Stock called for by this Warrant, which new Warrant shall in all other respects be identical with this Warrant.

(b) Payment to the Company of the purchase price for the Warrant Shares so purchased (the “Warrant Price”) may be made, at the option of the Holder, by payment of the Warrant Price in cash or by wire transfer or cashier’s check drawn on a United States bank.

(c) Net Exercise. In the event of any exercise of this Warrant in connection with a mandatory conversion of the Series A Preferred Stock into shares of the Company’s

Common Stock pursuant to Section 2(c) of the Certificate of Designation, Preferences and Rights of the Series A Convertible Preferred Stock, in lieu of exercising this Warrant pursuant to Section 1(b), the Holder may elect to receive, without the payment by the Holder of any additional consideration, shares of Series A Preferred Stock equal to the value of this Warrant (or the portion thereof being canceled) by surrender of this Warrant at the principal office of the Company together with notice of such election, in which event the Company shall issue to the holder hereof a number of shares of Series A Preferred Stock computed using the following formula:

$$X = \frac{Y \times (A-B)}{A}$$

- Where: X = The number of shares of Series A Preferred Stock to be issued to the Holder pursuant to this net exercise;
- Y = The number of shares of Series A Preferred Stock in respect of which the net issue election is made;
- A = The fair market value of one share of the Series A Preferred Stock at the time the net issue election is made;
- B = The Exercise Price (as adjusted to the date of the net issuance).

For purposes of this Section 1(c), the fair market value of one share of Series A Preferred Stock (or Common Stock, to the extent all such Series A Preferred Stock has been converted into the Company's Common Stock) as of a particular date shall be determined as follows: (i) if traded on a securities exchange or through the Nasdaq National Market, the value shall be deemed to be the average of the closing prices of the securities on such exchange over the thirty (30) day period ending three (3) days prior to the net exercise election; (ii) if traded over-the-counter, the value shall be deemed to be the average of the closing bid or sale prices (whichever is applicable) over the thirty (30) day period ending three (3) days prior to the net exercise; and (iii) if there is no active public market, the value shall be the fair market value thereof, as determined in good faith by the Board of Directors of the Company; provided, however, that, if the Warrant is being exercised upon the closing of the IPO, the value will be the initial "Price to Public" of one share of such Series A Preferred Stock (or Common Stock issuable upon conversion of such Series A Preferred Stock) specified in the final prospectus with respect to such offering (net of applicable underwriting commissions).

2. Notwithstanding the foregoing, however, the Company shall not be required to deliver any certificate for shares of stock upon exercise of this Warrant except in accordance with the provisions, and subject to the limitations of, Section 4 hereof and the restrictive legend on the first page hereof.

3. The Company covenants and agrees that the Warrant Shares will, upon issuance, delivery and receipt of consideration therefor, be duly authorized and issued, fully paid and nonassessable and free from all taxes, liens and charges with respect to the issue thereof. The Company further covenants and agrees that during the period within which the rights

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represented by this Warrant may be exercised, the Company will at all times have authorized, and reserved for the purpose of issue or transfer upon exercise of the subscription rights evidenced by this Warrant, a sufficient number of shares of Warrant Shares to provide for the exercise of the rights represented by this Warrant. The Company will take all such action as may be necessary to assure that the Warrant Shares may be so issued without violation of any applicable law or regulation or of any pre-emptive or contractual rights of any person or entity.

4. No fractional shares of Series A Preferred Stock shall be issued upon the exercise of this Warrant, but, instead of any fraction of a share which would otherwise be issuable, the Company shall pay a cash adjustment in respect of such fraction in an amount equal to the same fraction of the fair market value per share of Series A Preferred Stock as of the close of business on the date of the notice required by Section 1 above.

5. This Warrant, unless and until exercised, shall not entitle the Holder to any voting rights or other rights as a stockholder of the Company.

6. Subject to the provisions of Section 12 and Section 15 of the Warrant Agreement, this Warrant and all rights hereunder are assignable.

[SIGNATURE PAGE FOLLOWS]

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IN WITNESS WHEREOF, the Company has caused this Warrant to be signed by its duly authorized officer and this Warrant to be dated as of March 1, 2004.

AMEDICA CORPORATION

By: \_\_\_\_\_

Its: \_\_\_\_\_

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Form of Election to Purchase  
(To Be Executed Upon Exercise Of Warrant)

The undersigned hereby irrevocably elects to exercise the right, represented by this Warrant, to receive \_\_\_\_\_ shares of Series A Preferred Stock and herewith tenders payment for such shares to the order of CREATION CAPITAL LLC in the amount of \$0.66 per share, as adjusted pursuant to the terms of that certain Warrant Agreement, in accordance with the terms hereof and the terms of the Warrant Agreement. The undersigned requests that a certificate for such shares be registered in the name of \_\_\_\_\_ whose address is \_\_\_\_\_ and that such shares be delivered to \_\_\_\_\_ whose address is \_\_\_\_\_. If said number of shares is less than all of the shares of Series A Preferred Stock purchasable hereunder, the undersigned requests that a new Warrant representing the remaining balance of such shares be registered in the name of \_\_\_\_\_ whose address is \_\_\_\_\_ and that such shares be delivered to \_\_\_\_\_ whose address is \_\_\_\_\_.

Signature: \_\_\_\_\_

Date: \_\_\_\_\_



## WARRANT AGREEMENT

THIS WARRANT AGREEMENT, dated as of October 25, 2004 (the "Warrant Agreement"), is by and between CREATION CAPITAL LLC, a Delaware limited liability company ("Creation Capital"), and AMEDICA CORPORATION, a Delaware corporation (the "Company").

WHEREAS, pursuant to the letter dated August 10, 2004, as amended on September 23, 2004 (the "Engagement Letter"), Creation Capital was engaged by the Company as the exclusive placement agent to the Company in the United States in connection with the private placement of up to \$5.0 million of the Company's Series B Convertible Preferred Stock (the "Stock"); and

WHEREAS, the Engagement Letter provides that upon each closing of the sale of Stock, Creation Capital shall receive warrants to purchase a number of shares of Stock equal to ten percent (10%) of the total number of shares of Stock sold at such closing; and

WHEREAS, the Engagement Letter further provides that the warrants shall be issued pursuant to a definitive warrant agreement mutually agreed to by the Company and Creation Capital.

NOW THEREFORE, in consideration of the premises and the mutual agreements hereinafter set forth and for the purposes of defining terms and provisions of the Warrants and the certificates representing the Warrants and the respective rights and obligations thereunder of the Company, Creation Capital and the holders of certificates representing the Warrants, the parties hereto agree as follows:

*Section 1. Form of Warrant.* The Company shall grant to Creation Capital (Creation Capital and/or its assigns are collectively referred to herein as the "Holder") warrant(s) (the "Warrant"), in the form of Exhibit A hereto to purchase shares of Stock at a purchase price of \$1.32 per share (the "Exercise Price") all as more fully set forth herein. The Warrant shall be executed on behalf of the Company by the Chief Executive Officer or any other authorized officer of the Company, and dated as of the date of issuance of the Warrant.

*Section 2. Exercise Period of Warrant.* The Warrant shall be exercisable at any time commencing on the first anniversary of the date of issuance of the Warrant and shall terminate at 5:00 p.m., New York City Time, on the seventh anniversary of the date of issuance of the Warrant (the "Warrant Termination Date"); provided, however, that in the event of (a) the closing of the issuance and sale of shares of the common stock, \$.01 par value per share (the "Common Stock"), of the Company in the Company's first underwritten public offering ("IPO") pursuant to an effective registration statement under the Securities Act of 1933, as amended (the "Securities Act") or (b) a Change of Control, the Warrant shall, on the date of such event, become immediately exercisable.

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A “Change of Control” shall mean any acquisition of capital stock of the Company, directly or indirectly, any merger, tender offer, recapitalization or asset sale pursuant to which the Company’s stockholders immediately prior to such transaction hold less than 50% of the voting securities of the surviving corporation immediately after such transaction or the majority of the assets of the Company are transferred or sold, except that any internal re-structuring or re-organization of the Company that does not change the effective ultimate ownership of the Company shall not be deemed a Change of Control.

*Section 3. Term of Warrant Agreement.* Except as otherwise expressly provided herein, this Warrant Agreement shall become void and all rights hereunder and all rights in respect thereof under the Warrant shall cease as of the Warrant Termination Date except to the extent that the Warrant is exercised prior to such date.

*Section 4. Number of Shares.* The Warrant shall be exercisable for up to the number of shares of Stock as shall be indicated on the Warrant, subject to adjustment as provided herein (the “Warrant Shares”).

*Section 5. Adjustment Provisions.* The Exercise Price and the number of shares of Stock underlying the Warrant shall be subject to adjustment from time to time as hereinafter set forth:

(a) *Stock Dividends – Stock Splits.* If after the date hereof, the number of outstanding shares of Stock is increased by a stock dividend payable in shares of Stock or by a sub-division or a stock split of shares of Stock or other similar event as described in the Certificate of Designation, Preferences and Rights of the Stock, then, on the effective date thereof, the number of shares of Stock issuable on exercise of the Warrant shall be increased in proportion to such increase in outstanding shares.

(b) *Aggregation of Shares.* If after the date hereof, the number of outstanding shares of Stock is decreased by a consolidation, combination, reverse stock split or reclassification of shares of Stock or other similar event, then, on the effective date thereof, the number of shares of Stock issuable on exercise of the Warrant shall be decreased in proportion to such decrease in outstanding shares.

(c) *Adjustments in Exercise Price.* Whenever the number of the shares of Stock issuable upon the exercise of the Warrant is adjusted, as provided in Sections 5(a) and (b), the Exercise Price shall be adjusted (to the nearest cent) by multiplying such Exercise Price immediately prior to such adjustment by a fraction (x) the numerator of which shall be the number of the shares of Stock purchasable upon the exercise of the Warrant immediately prior to such adjustment and (y) the denominator of which shall be the number of the shares of Stock so purchasable immediately thereafter.

(d) *When De Minimis Adjustment May Be Deferred.* No adjustment in the Exercise Price need be made unless the adjustment would require an increase or decrease of at least 1% in the Exercise Price. Any adjustments that are not made shall be carried forward and taken into account in any subsequent adjustment. All calculations under this Section 5 shall be made to the nearest 1/100<sup>th</sup> of a share.

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(e) *Notice.* Whenever there shall be an adjustment as provided in this Section 5, the Company shall promptly cause written notice thereof to be sent to the Holder in accordance with Section 13 hereof, which notice shall be accompanied by an officer's certificate setting forth the number of Warrant Shares purchasable upon the exercise of this Warrant and the Exercise Price after such adjustment and setting forth a brief statement of the facts requiring such adjustment and the computation thereof. Additionally, in case at any time the Company shall propose:

(i) to pay any dividend or make any distribution on shares of Stock in shares of Stock or make any other distribution to all holders of Stock; or

(ii) to issue any rights, warrants or other securities to all holders of Stock entitling them to purchase any additional shares of Stock or any other rights, warrants or other securities; or

(iii) to effect any reclassification or change of outstanding shares of Stock, or any consolidation, merger or sale; or

(iv) to effect any liquidation, dissolution or winding-up of the Company;

then, and in any one or more of such cases, the Company shall give written notice thereof to the Holder in accordance with Section 13 hereof, which notice shall be sent at least fifteen (15) days prior to (i) the date as of which the holders of record of shares of Stock to be entitled to receive any such dividend, distribution, rights, warrants, other securities are to be determined or (ii) the date on which any such reclassification, change of outstanding shares of Stock, consolidation, merger, sale, liquidation, dissolution or winding-up is expected to become effective, and the date as of which it is expected that holders of record of shares of Stock shall be entitled to exchange their shares for securities or other property, if any, deliverable upon such reclassification, change of outstanding shares, consolidation, merger, sale, liquidation, dissolution or winding-up.

*Section 6. Representations, Warranties and Covenants of the Company.* The Company hereby represents, warrants and covenants to Holder as follows:

(a) The Company is a corporation duly organized, validly existing and in good standing under the laws of the State of Delaware and is in good standing as a foreign corporation in each jurisdiction in which the nature of its business makes such qualification necessary and where the failure to so qualify would have a material adverse effect on its business or operations. The Company has all requisite corporate power and authority to carry out its business as presently conducted and as proposed to be conducted and to enter into and discharge its obligations under this Warrant Agreement and the Warrant.

(b) The execution and delivery of this Warrant Agreement and the Warrant by the Company and its performance and compliance with the terms of this Warrant Agreement and the Warrant have been duly authorized by all necessary corporate action on the part of the Company.

(c) The consummation of the transactions contemplated by this Warrant Agreement and the Warrant will not (i) conflict with, result in any breach of any of the terms and

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provisions of, or constitute (with or without notice or lapse of time or both) a default under, the certificate of incorporation or bylaws of the Company, or any material contract, agreement, indenture, loan agreement, receivables purchase agreement, mortgage, deed of trust, or other agreement or instrument to which the Company is a party or by which it or any of its properties is bound, (ii) result in the creation or imposition of any lien, adverse claim or other encumbrance upon any of the properties of the Company pursuant to the terms of any such material contract, agreement, indenture, loan agreement, receivables purchase agreement, mortgage, deed of trust, or other agreement or instrument, or (iii) violate any law or order, rule or regulation applicable to the Company of any court or of any federal or state regulatory body, administrative agency, or other governmental instrumentality having jurisdiction over the Company or any of its properties.

(d) The Warrant Agreement and the Warrant each constitutes a legal, valid and binding obligation of the Company and is enforceable against the Company in accordance with the terms hereof and thereof, except as enforcement may be limited by applicable bankruptcy, insolvency, reorganization, moratorium or other similar laws affecting creditors' rights generally and by general principles of equity (whether considered in a proceeding or action in equity or at law).

(e) The Company shall at all times keep a sufficient number of authorized but unissued shares of Stock reserved for issuance upon the exercise of the Warrant. The Warrant Shares, when issued, delivered and paid for in accordance with the terms of this Warrant Agreement and the Warrant, will be duly and validly issued, fully paid and non-assessable and will not have been issued in violation of the pre-emptive or contractual rights of any person or entity.

(f) The Company shall deliver to each Holder of ten percent (10%) or more of the aggregate Warrant Shares such information and reports relating to the Company as the Company is required to provide to other holders of the Stock. The rights of such Holders under this Section 6(f) shall terminate upon the closing of the IPO.

(g) Upon receipt of evidence reasonably satisfactory to the Company of the loss, theft, destruction or mutilation of the Warrant or any certificate representing Warrant Shares, and, in the case of any such loss, theft or destruction, upon delivery of indemnity (which may include a bond) reasonably satisfactory to the Company, or, in the case of any such mutilation, upon surrender and cancellation of the Warrant or any certificate representing Warrant Shares, as the case may be, the Company will issue a new Warrant or certificates representing Warrant Shares, as the case may be, of like tenor representing an equivalent interest or right, in lieu of such lost, stolen, destroyed or mutilated Warrant or certificates representing Warrant Shares, as the case may be. The applicant for such replacement Warrant shall comply with such other reasonable requests as the Company may reasonably prescribe.

*Section 7. Representations, Warranties and Covenants of Holder.* Holder hereby represents, warrants and covenants to the Company as follows:

(a) Holder is acquiring the Warrant, and upon exercise of the Warrant will acquire the Warrant Shares, for its own account with no intention of distributing or reselling the

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Warrant or Warrant Shares in any transaction that would be a violation of the securities laws of the United States or any state, without prejudice to the Holder's rights at all times to sell or otherwise dispose of all or part of such Warrant under a registration under the Securities Act or an exemption available thereto. Holder is aware that neither the Warrant nor the Warrant Shares are registered under the Securities Act or any state or other jurisdiction's securities laws, and that Holder must hold the Warrant and the Warrant Shares indefinitely unless subsequently registered or an exemption from registration is available. Holder understands and agrees that the Warrant will bear the restrictive legend set forth on the Warrant and that the Warrant Shares will bear the legend set forth in Section 12 of this Warrant Agreement. Holder represents and warrants that it is an "accredited investor" as that term is defined in Rule 501 of Regulation D promulgated under the Securities Act.

*Section 8. Shelf Registration.*

(a) As promptly as practicable following the eligibility of the Company or its successor to file a Registration Statement on Form S-3 (or any successor or similar short-form registration statement, a "Shelf Registration Statement"), subject to the limitations herein, the Holder may request, in writing, that the Company file a Shelf Registration Statement with respect to the shares of Common Stock issuable upon conversion of the Warrant Shares (the "Registrable Securities"). In such a notice, the Holder shall advise the Company of the number of Registrable Securities to be included in the Shelf Registration Statement. The Company shall use its best efforts to have such Shelf Registration Statement declared effective by the U.S. Securities and Exchange Commission ("SEC") as promptly as practicable thereafter. The Company shall use its best efforts to keep any such Shelf Registration Statement continuously effective for the period of at least twenty-four months beginning on the date on which such Shelf Registration Statement is declared effective. The Holder shall provide such information as may be reasonably requested by the Company in connection with the filing of the Shelf Registration Statement or in order to maintain its effectiveness.

(b) Notwithstanding the foregoing, the Company shall not be obligated to file any Shelf Registration Statement pursuant to this Section 8 unless the Registrable Securities to be sold have an anticipated aggregate offering price of at least \$10,000,000 (before underwriter's discounts and commissions). In addition, the Company shall not be obligated to effect any Shelf Registration Statement pursuant to this Section 8 if, in the good faith determination of the Board of Directors, the filing of such registration statement would be detrimental to the Company or its stockholders due to pending material corporate developments or similar material events that have not yet been publicly disclosed and as to which the Company believes that public disclosure would be prejudicial to the Company and may delay such Shelf Registration Statement for a period not in excess of ninety (90) days from such determination. The Company shall be obligated to effect no more than two Shelf Registration Statements during any one calendar year.

(c) The Company shall pay all expenses incurred in connection with a registration pursuant to this Section, including, without limitation, all registration, qualification, printing and accounting fees, all fees and disbursements of counsel for the Company, and all reasonable fees and disbursements of one counsel for the Holders as a group. The Company shall pay all registration fees and other expenses applicable to the Registrable Securities included in the Shelf Registration Statement, provided, that the Holder will be responsible for all underwriting discounts and commissions allocable to the securities sold by such holder.

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Section 9. Piggyback Registration.

(a) If the Company proposes to register any of its equity securities, either for its own account or for the account of any Person, but not including a registration relating to (i) employee stock option or purchase plans, or (ii) a transaction pursuant to Rule 145 under the Securities Act (a "Piggyback Registration"), the Company will:

(i) promptly give written notice thereof to the Holder; and

(ii) use its best efforts to include in such Piggyback Registration and in any underwriting involved therein up to all of the Registrable Securities which the Holder requests in writing to be so included within thirty days after receipt of such written notice from the Company.

The Company shall pay, and shall reimburse the Holder for paying, any expenses incurred in connection with a Piggyback Registration requested pursuant to this Section, including, without limitation, all registration, qualification, printing and accounting fees, all fees and disbursements of counsel for the Company, and all reasonable fees and disbursements of one counsel for the Holders as a group; provided, that the Holder will be responsible for all underwriting discounts and commissions allocable to the securities sold by such holder.

(b) If the registration of which the Company gives notice is for a public offering involving an underwriting, the Company shall so advise the Holder as a part of the written notice given pursuant to this Section, and the right of the Holder to include Registrable Securities in such registration shall be conditioned upon the Holder participation in such underwriting and the entry of the Holder into an underwriting agreement in customary form with the underwriter or underwriters selected for such underwriting by the Company.

(c) If the underwriter of the registered public offering referred to in this Section shall advise the Company in writing that marketing factors require a limitation of the amount of securities to be underwritten, securities shall be included in such offering in the following priority: *first*, securities to be registered by the Company and/or securities requested to be included pursuant to the exercise of demand registration rights granted by the Company in such priority and proportions as may be agreed among such parties; *second*, the securities requested to be included in such registration by the Holder pursuant to this Section, the investors who purchased Stock in the offering, and other parties requesting Piggyback Registration rights of the type provided in this Section and having the same priority, *pro rata* based upon the number of securities requested to be included by such parties; *third*, the securities requested to be included in such registration by principals of the Company pursuant to the exercise of Piggyback Registration rights of the type provided in this Section, *pro rata* on the basis of the number of such securities requested to be included by such principal; and *fourth*, other securities for the account of Persons, including the Holder, allocated among such Persons in accordance with the priorities then existing among the Company and such Persons. Any securities excluded pursuant to the provisions of this Section shall be withdrawn from and shall not be included in such Piggyback Registration.

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(d) Notwithstanding the foregoing, the Company shall not be obligated to effect any Piggyback Registration pursuant to this Section 9 if, in the good faith determination of the Board of Directors, the filing of such registration statement would be detrimental to the Company or its stockholders due to pending material corporate developments or similar material events that have not yet been publicly disclosed and as to which the Company believes that public disclosure would be prejudicial to the Company and may delay such Piggyback Registration Statement for a period not in excess of ninety (90) days from such determination

*Section 10. Registration Procedures.*

(a) In the case of a registration to be effected by the Company pursuant to this Warrant Agreement in which the Holder is participating, the Company will keep the Holder advised in writing as to the initiation of such registration and as to the completion thereof. In connection with such offering, the Company shall promptly:

(1) prepare and file with the SEC a registration statement with respect to the Registrable Securities and its best efforts to cause such registration statement to become effective for a period of at least 60 days or until the distribution described in the registration statement relating thereto has been completed, whichever shall first occur;

(2) in connection with the preparation and filing of a registration statement, give the Holder, its underwriters, if any, and its counsel, the opportunity (over a reasonable period of time) to review and comment upon any such registration statement, each prospectus included therein or filed with the SEC, and each amendment thereof or supplement thereto, and give each of them access to financial and other records, pertinent corporate documents and properties of the Company and an opportunity to discuss the business of the Company with its officers, its counsel and the independent public accountants who have certified its financial statements as shall be necessary, in the opinion of the Holder and the underwriters' respective counsel, to conduct a reasonable due diligence investigation within the requirements of the Securities Act;

(3) furnish to the Holder and to the underwriters, if any, of the securities being registered such number of copies of the registration statement, preliminary prospectus, final prospectus and other documents incident thereto as such underwriters and the Holder from time to time may request;

(4) prepare and file with the SEC such amendments and supplements to such registration statement and the prospectus used in connection with such registration statement as may be necessary to comply with the provisions of the Securities Act with respect to the disposition of all securities covered by such registration statement;

(5) register or qualify the Registrable Securities covered by such registration statement under such other securities or Blue Sky laws of such jurisdictions as shall be requested by the Holder for the distribution of the Registrable Securities covered by the registration statement to be sold by the Company;

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(6) enter into an underwriting agreement in customary form and substance satisfactory to the Holder and the managing underwriter or underwriters of the public offering of such securities, if the offering is to be underwritten, in whole or in part;

(7) notify the Holder at any time when a prospectus relating thereto covered by such registration statement is required to be delivered under the Securities Act of the happening of any event as a result of which the prospectus included in such registration statement, as then in effect, includes an untrue statement of a material fact or omits to state a material fact required to be stated therein or necessary to make the statements therein not misleading in the light of the circumstances then existing;

(8) cause all such Registrable Securities to be listed on a national securities exchange or on Nasdaq;

(9) unless any Registrable Securities shall be in book-entry form, cooperate with the Holder to facilitate the timely preparation and delivery of certificates representing Registrable Securities to be sold pursuant to any registration statement free of any restrictive legend and in such permitted denominations and registered in such names as the Holder may request in connection with the sale of Registrable Securities pursuant to such registration statement; and

(10) otherwise use its commercially reasonable efforts to comply with all applicable rules and regulations of the SEC, and make available to the Holder, as soon as reasonably practicable, an earnings statement covering the period of at least 12 months, but not more than 18 months, beginning with the first full calendar month after the effective date of such registration statement, which earnings statement shall satisfy the provisions of the Securities Act.

(b) Indemnification.

(1) Indemnification by the Company. The Company will indemnify each Holder requesting or joining in a registration and each underwriter of the securities so registered, the officers, directors and partners of each such person and each person who controls any thereof (within the meaning of the Securities Act) against any and all claims, losses, damages and liabilities (or actions in respect thereof) arising out of or based on any untrue statement (or alleged untrue statement) of any material fact contained in any prospectus, offering circular or other document incident to any registration, qualification or compliance (or in any related registration statement, notification or the like) or any omission (or alleged omission) to state therein any material fact required to be stated therein or necessary to make the statements therein not misleading, or any violation by the Company of any rule or regulation promulgated under the Securities Act applicable to the Company and relating to any action or inaction required of the Company in connection with any such registration, qualification or compliance, and the Company will reimburse each such Holder, underwriter, officer, director, partner and controlling person for any legal and any other expenses reasonably incurred in connection with investigating or defending any such claim, loss, damage, liability or action; provided, however, that the Company will not be liable in any such case to the extent that any such claim, loss, damage or

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liability arises out of or is based on any untrue statement or omission based upon written information furnished to the Company in an instrument duly executed by such Holder, underwriter, officer, director, partner or controlling person and stated to be specifically for use in such prospectus or registration statement.

(2) Indemnification by Each Holder. Each Holder requesting or joining in a registration, will indemnify, severally and not jointly, each underwriter of the securities so registered, the Company and its officers who sign the registration statement and directors and each person, if any, who controls any thereof (within the meaning of the Securities Act) and their respective successors and assigns against any and all claims, losses, damages and liabilities (or actions in respect thereof) arising out of or based on any untrue statement (or alleged untrue statement) of any material fact contained in any prospectus, offering circular or other document incident to any registration, qualification or compliance (or in any related registration statement, notification or the like) or any omission (or alleged omission) to state therein any material fact required to be stated therein or necessary to make the statements therein not misleading, and such Holder will reimburse each underwriter, the Company and each other person indemnified pursuant to this paragraph for any legal and any other expenses reasonably incurred in connection with investigating or defending any such claim, loss, damage, liability or action; provided, however, that this paragraph shall apply only if (and only to the extent that) such statement or omission was made in reliance upon written information furnished to such underwriter or the Company in an instrument duly executed by such Holder and stated to be specifically for use in such prospectus, offering circular or other document (or related registration statement, notification or the like) or any amendment or supplement thereto; and, provided further, that each Holder's liability hereunder with respect to any particular registration shall be limited to an amount equal to the net proceeds received by such Holder from the Registrable Securities sold by such Holder in such registration.

(3) Indemnification Proceedings. Each party entitled to indemnification pursuant to this Section 10(b) (the "Indemnified Party") shall give notice to the party required to provide indemnification pursuant to this Section 10(b) (the "Indemnifying Party") promptly after such Indemnified Party acquires actual knowledge of any claim as to which indemnity may be sought, and shall permit the Indemnifying Party (at its expense) to assume the defense of any claim or any litigation resulting therefrom; provided that counsel for the Indemnifying Party, who shall conduct the defense of such claim or litigation, shall be reasonably acceptable to the Indemnified Party, and the Indemnified Party may participate in such defense at such party's expense; and provided, further, that the failure by any Indemnified Party to give notice as provided in this paragraph shall not relieve the Indemnifying Party of its obligations under this Section 10(b) except to the extent that the failure results in a failure of actual notice to the Indemnifying Party and such Indemnifying Party is damaged solely as a result of the failure to give notice. No Indemnifying Party, in the defense of any such claim or litigation, shall, except with the consent of each Indemnified Party, consent to entry of any judgment or enter into any settlement which does not include as an unconditional term thereof the giving by the claimant or plaintiff to such Indemnified Party of a release from all liability in respect to such claim or litigation and no Indemnified Party shall consent to entry of any judgment or settle such claim or litigation without the prior written consent of the Indemnifying Party so long as the Indemnifying Party has acknowledged in writing its obligation to indemnify and is in compliance with all of its obligations hereunder to indemnify the Indemnified Party for all amounts in connection with

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such claim or litigation and which consent shall not be unreasonably withheld. If the defendants in any action subject to this Section 10(b) include both the Indemnified Party and the Indemnifying Party and the Indemnified Party shall have reasonably concluded that there may be reasonable defenses available to it which are different from or additional to those available to the Indemnifying Party or if the interests of the Indemnified Party reasonably may be deemed to conflict with the interests of the Indemnifying Party, the Indemnified Party shall have the right to select a separate counsel and to assume such legal defenses and otherwise to participate in the defense of such action, with the expenses and fees of such separate counsel and other expenses related to such participation to be reimbursed by the Indemnifying Party as incurred.

(c) Contribution in Lieu of Indemnification. If the indemnification provided for in Section 10(b) hereof is unavailable to a party that would have been an Indemnified Party under any such section in respect of any losses, claims, damages or liabilities (or actions in respect thereof) referred to therein, then each party that would have been an Indemnifying Party thereunder shall, in lieu of indemnifying such Indemnified Party, contribute to the amount paid or payable by such Indemnified Party as a result of such losses, claims, damages or liabilities (or actions in respect thereof) in such proportion as is appropriate to reflect the relative fault of the Indemnifying Party on the one hand and such Indemnified Party on the other in connection with the statements or omissions which resulted in such losses, claims, damages or liabilities (or actions in respect thereof). The relative fault shall be determined by reference to, among other things, whether the untrue or alleged untrue statement of a material fact or the omission or alleged omission to state a material fact relates to information supplied by the Indemnifying Party or such Indemnified Party and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such statement or omission. The Company and each Holder of Registrable Securities agree that it would not be just and equitable if contribution pursuant to this Section 10(c) were determined by pro-rata allocation or by any other method of allocation which does not take account of the equitable considerations referred to above in this Section 10(c). The amount paid or payable by an Indemnified Party as a result of the losses, claims, damages or liabilities (or actions in respect thereof) referred to above in this Section 10(c) shall include any legal or other expenses reasonably incurred by such Indemnified Party in connection with investigating or defending any such action or claim. Notwithstanding any provision of this Section 10(c) to the contrary, (a) no person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) shall be entitled to contribution from any person who was not guilty of such fraudulent misrepresentation and (b) each Holder's liability hereunder with respect to any particular registration shall be limited to an amount equal to the net proceeds received by such Holder from the Registrable Securities sold by such Holder in such registration.

*Section 11. Effect of Registration Rights of Heirs, Assigns, Beneficiaries, Successors and Transferees.* The heirs, assigns, beneficiaries and successor of the Holder shall be entitled to all of the registration rights set forth in Sections 8 through 10 of this Warrant Agreement; *provided, however,* that such Person or Persons will be able to exercise such rights of the Holder only if it or they have at least 5% of the equity interest in the Company.

*Section 12. Transfers and Exchanges.* Subject to the terms of Section 15 hereof, the Company shall from time to time register the transfer of the Warrant in a Warrant register to

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be maintained by the Company upon surrender thereof accompanied by a written instrument or instruments of transfer in the form of assignment attached hereto or as otherwise may be satisfactory to the Company, duly executed by the Holder thereof or by the duly appointed legal representative thereof or by a duly authorized attorney. Upon any such transfer, the surrendered Warrant shall be canceled and disposed of by the Company and a new Warrant shall be issued to the transferee(s). The Holder agrees that prior to any proposed transfer of the Warrant or of the Warrant Shares, if such transfer is not made pursuant to an effective registration statement under the Securities Act and any applicable state securities laws, the Holder shall deliver to the Company:

(a) an investment covenant substantially similar to Section 7(a) and otherwise reasonably satisfactory to the Company signed by the proposed transferee;

(b) an agreement by such transferee to the impression of the restrictive investment legend set forth below on the Warrant or the Warrant Shares;

(c) an agreement by such transferee that the Company may place a notation in the stock books of the Company or a “stop transfer order” with any transfer agent or registrar with respect to the Warrant Shares;

(d) an agreement by such transferee to be bound by the provisions of this Section 12 relating to the transfer of such Warrant or Warrant Shares; and

(e) an opinion of counsel, reasonably satisfactory in form and substance to the Company, that the transfer is exempt from registration requirements under the Securities Act and any applicable state securities laws.

The Holder agrees that each Warrant and each certificate representing Warrant Shares will bear the following legend:

**THE SECURITIES EVIDENCED OR CONSTITUTED HEREBY HAVE BEEN ACQUIRED FOR INVESTMENT AND HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED. SUCH SECURITIES MAY NOT BE SOLD, TRANSFERRED, PLEDGED OR HYPOTHECATED UNLESS THE REGISTRATION PROVISIONS OF SAID ACT AND ANY APPLICABLE STATE SECURITIES LAWS HAVE BEEN COMPLIED WITH OR UNLESS THE COMPANY HAS RECEIVED AN OPINION OF COUNSEL REASONABLY SATISFACTORY TO THE COMPANY THAT SUCH REGISTRATION IS NOT REQUIRED.**

*Section 13. Notices.* All demands, notices and communications relating to this Warrant Agreement or any Warrant shall be in writing and (i) sent by registered or certified mail, postage prepaid, return receipt requested, (ii) hand delivered, (iii) sent by express mail or other reasonable overnight delivery service, or (iv) sent by telecopy, as follows:

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If to the Company:

Amedica Corporation  
2116 South Lakeline Drive  
Salt Lake City, Utah 84109  
Attention: Ashok Khandkar,  
Chief Executive Officer  
Telephone: (801) 535-4355  
Telecopy: (801) 584-2533

with a copy to:

Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C.  
One Financial Center  
Boston, MA 02111  
Attention: Jonathan L. Kravetz, Esq.  
Telephone: (617) 542-6000  
Telecopy: (617) 542-2241

If to Holder:

Creation Capital LLC  
630 Fifth Avenue – Rockefeller Center, Suite 2000  
New York, New York 10111  
Attention: Gregg R. Honigblum,  
Chief Executive Officer  
Telephone: (212) 332-1623  
Telecopy: (212) 218-3761

with a copy to:

Winston & Strawn  
200 Park Avenue  
New York, New York 10166  
Attention: Nick Krylov, Esq.  
Telephone: (212) 294-6617  
Telecopy: (212) 294-4700

Any such demand, notice or communication hereunder shall be deemed to have been duly given when received by the other party or parties at the address shown above or on the next succeeding business day if the date of receipt is not a business day, or such other address as may hereafter be furnished to the other party or parties by like notice and shall be deemed to have been received on the date delivered to or received at the premises of the addresses.

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*Section 14. Counterparts.* For the purpose of facilitating the execution of this Warrant Agreement and for other purposes, this Warrant Agreement may be executed simultaneously in any number of counterparts, each of which shall be deemed to be an original, and all of which together shall constitute and be one and the same instrument; and such counterparts may be delivered via facsimile to the numbers designated in or pursuant to Section 13.

*Section 15. Assignability.* Subject to the provisions set forth in Section 12, the Holder may assign the rights and interests under this Warrant Agreement to any person without the Company's consent; provided, however, that in the event such assignee (other than an assignee which is a Holder Affiliate (as such term is defined below)) is reasonably deemed by the Company to compete with the Company in its traditional business activities (a "competitor"), the Company shall not be required to furnish to such assignee information and reports relating to the Company pursuant to Section 6(f) of this Agreement and, upon notice given by the Company to Holder that such assignee is deemed a "competitor," Holder shall not furnish to such assignee any information or reports relating to the Company, without the Company's prior written consent; and provided, further, however, that no such assignment shall be made to the extent such transfer would subject the Company to the reporting requirements of the Securities Exchange Act of 1934, as amended. The Holder shall promptly cause written notice of any such transfer to be sent to the Company in accordance with Section 13 hereof at least fourteen (14) days prior to such transfer. Notwithstanding the foregoing or any other provision to the contrary, the Warrant and the Warrant Shares will be "restricted securities" as defined in Rule 144 under the Securities Act, and thus will not be transferable except in compliance with applicable federal and state securities laws and regulations. "Holder Affiliate" shall mean any person that directly, or indirectly through one or more intermediaries, controls, or is controlled by, or is under common control with, such Holder.

*Section 16. Governing Law; Jurisdiction; Waiver of Jury Trial.*

(a) *Governing Law.* This Warrant Agreement shall be governed by, and construed in accordance with, the laws of the State of Delaware, without regard to conflict of law principles.

(b) *Jurisdiction.* Each of the Company and the Holder hereby irrevocably submits to the jurisdiction of any New York State or Federal court sitting in New York City in any action or proceeding arising out of or relating to this Warrant Agreement or the Warrant, and each of the Company and the Holder hereby irrevocably agrees that all claims in respect of such action or proceeding may be heard and determined in such New York State court or in such Federal court. Each of the Company and the Holder hereby irrevocably waives, to the fullest extent permitted under applicable law, the defense of an inconvenient forum to the maintenance of such action or proceeding. Each of the Company and the Holder irrevocably consents, to the fullest extent permitted under applicable law, to the service of any summons and complaint and any other process by the mailing of copies of such process to them at their respective address specified in Section 13. Each of the Company and the Holder hereby agrees, to the fullest extent permitted under applicable law, that a final judgment in any such action or proceeding shall be conclusive and may be enforced in other jurisdictions by suit on the judgment or in any other manner provided by law.

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(c) *Waiver of Jury Trial.* **TO THE FULLEST EXTENT PERMITTED UNDER APPLICABLE LAW, EACH OF THE COMPANY AND THE HOLDER HEREBY IRREVOCABLY WAIVES ALL RIGHT TO A TRIAL BY JURY IN ANY ACTION, PROCEEDING OR COUNTERCLAIM ARISING OUT OF OR RELATING TO THIS WARRANT AGREEMENT OR ANY WARRANT ISSUED HEREUNDER.**

*Section 17. Amendments.* This Warrant Agreement may be amended from time to time by written instrument signed by the Company and the Holders of a majority of the Warrant Shares issued or issuable upon exercise of the Warrant and no waiver of any of the terms hereof shall be effective unless it is in writing and signed by the Holders of a majority of the Warrant Shares issued or issuable upon exercise of the Warrant or the Company, as the case may be. Any amendment or waiver pursuant to this Section 17 shall be binding on all Holders of the Warrant Shares and may be given retroactive, prospective or concurrent effect, depending upon the language in such amendment or waiver.

*Section 18. No Waiver.* No failure on the part of the Holder or the Company to exercise, and no delay in exercising, any right hereunder shall operate as a waiver thereof; nor shall any single or partial exercise of any right hereunder preclude any other or further exercise thereof or the exercise of any other right. The remedies herein provided are cumulative and not exclusive of any remedies provided by law.

*Section 19. Termination.* This Warrant Agreement shall terminate on the Warrant Termination Date. Notwithstanding the foregoing, this Warrant Agreement will terminate on any earlier date if the Warrant has been exercised in full.

[SIGNATURES ON FOLLOWING PAGE]

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IN WITNESS WHEREOF, the parties hereto have caused this Warrant Agreement to be duly executed by their respective officers on the day and year first above written.

AMEDICA CORPORATION

By: /s/ Ashok Khandkar  
Name: Ashok Khandkar  
Title: Chief Executive Officer

CREATION CAPITAL LLC

By: /s/ Gregg R. Honigblum  
Name: Gregg R. Honigblum  
Title: Chief Executive Officer

Form of Warrant

THE SECURITIES EVIDENCED OR CONSTITUTED HEREBY HAVE BEEN ACQUIRED FOR INVESTMENT AND HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED. SUCH SECURITIES MAY NOT BE SOLD, TRANSFERRED, PLEDGED OR HYPOTHECATED UNLESS THE REGISTRATION PROVISIONS OF SAID ACT AND ANY APPLICABLE STATE SECURITIES LAWS HAVE BEEN COMPLIED WITH OR UNLESS THE COMPANY HAS RECEIVED AN OPINION OF COUNSEL REASONABLY SATISFACTORY TO THE COMPANY THAT SUCH REGISTRATION IS NOT REQUIRED.

Exercisable on or before  
the Warrant Termination Date  
(as defined below)

**WARRANT TO PURCHASE SERIES B CONVERTIBLE PREFERRED STOCK**

To Subscribe for and Purchase Series B Convertible Preferred Stock

of

**AMEDICA CORPORATION**

**WARRANT NO.** \_\_\_\_\_

This certifies that, for value received, Creation Capital LLC, a Delaware limited liability company (“Creation Capital”), or its assigns (Creation Capital and/or its assigns are collectively referred to herein as the “Holder”), is entitled to subscribe for and purchase from Amedica Corporation, a Delaware corporation (the “Company”), at any time commencing on the first anniversary of the date hereof and shall terminate at 5:00 p.m., New York City Time, on the seventh anniversary of the date hereof (the “Warrant Termination Date”), \_\_\_\_\_ shares (the “Warrant Shares”) of the Company’s Series B Convertible Preferred Stock, par value \$.01 per share (the “Series B Preferred Stock”), subject to adjustment as provided in that certain Warrant Agreement, dated as of March 1, 2004, by and between the Company and Creation Capital (the “Warrant Agreement”), at an exercise price of \$1.32 per share, as such exercise price may be adjusted from time to time under the Warrant Agreement. No Warrant may be exercised after the Warrant Termination Date.

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In the event of (a) the closing of the issuance and sale of shares of common stock, \$.01 par value per share (the “Common Stock”), of the Company in the Company’s first underwritten public offering (“IPO”) pursuant to an effective registration statement under the Securities Act of 1933, as amended (the “Securities Act”) or (b) a Change of Control, the Warrant shall, on the date of such event, become immediately exercisable.

A “Change of Control” shall mean any acquisition of capital stock of the Company, directly or indirectly, any merger, tender offer, recapitalization or asset sale pursuant to which the Company’s stockholders immediately prior to such transaction hold less than 50% of the voting securities of the surviving corporation immediately after such transaction or the majority of the assets of the Company are transferred or sold, except that any internal re-structuring or re-organization of the Company that does not change the effective ultimate ownership of the Company shall not be deemed a Change of Control.

This Series B Preferred Stock Purchase Warrant and all Series B Preferred Stock Purchase Warrants issued in substitution or exchange therefor are herein individually called a “Warrant” and collectively called “Warrants.”

This Warrant is issued pursuant to and, subject to the terms and conditions of, the Warrant Agreement, which Warrant Agreement is incorporated by reference in and made a part of this instrument. Capitalized terms not otherwise defined herein shall have the meanings given them in the Warrant Agreement. Any conflict between the terms of this Warrant and the Warrant Agreement shall be resolved in favor of the terms of the Warrant Agreement.

This Warrant is further subject to the following provisions, terms and conditions:

1. (a) In order to exercise this Warrant, in whole or in part, the Holder shall deliver to the Company, at the office the Company designated for such purpose in Section 13 of the Warrant Agreement, (i) the form of election to purchase set forth herein properly completed and signed, (ii) payment of the Warrant Price pursuant to Section 1(b), and (iii) this Warrant. Upon receipt of the items referred to in clauses (i), (ii) and (iii) above, the Company shall, as promptly as practicable, and in any event within ten (10) days thereafter, execute or cause to be executed and deliver or cause to be delivered to the Holder a certificate or certificates, in such name or names as the Holder may designate, representing the aggregate number of full shares of Series B Preferred Stock issuable upon such exercise, together with cash in lieu of any fraction of a share, as hereinafter provided in Section 4. If this Warrant shall have been exercised in part, the Company shall, at the time of delivery of the certificate or certificates representing Warrant Shares, deliver to the Holder a new Warrant evidencing the rights of the Holder to purchase the unpurchased shares of Series B Preferred Stock called for by this Warrant, which new Warrant shall in all other respects be identical with this Warrant.

(b) Payment to the Company of the purchase price for the Warrant Shares so purchased (the “Warrant Price”) may be made, at the option of the Holder, by payment of the Warrant Price in cash or by wire transfer or cashier’s check drawn on a United States bank.

(c) Net Exercise. In the event of any exercise of this Warrant in connection with a mandatory conversion of the Series B Preferred Stock into shares of the Company’s

Common Stock pursuant to Article IV, Section C(2)(c) of the Certificate of Incorporation, in lieu of exercising this Warrant pursuant to Section 1(b), the Holder may elect to receive, without the payment by the Holder of any additional consideration, shares of Series B Preferred Stock equal to the value of this Warrant (or the portion thereof being canceled) by surrender of this Warrant at the principal office of the Company together with notice of such election, in which event the Company shall issue to the holder hereof a number of shares of Series B Preferred Stock computed using the following formula:

$$X = \frac{Y \times (A-B)}{A}$$

- Where: X = The number of shares of Series B Preferred Stock to be issued to the Holder pursuant to this net exercise;
- Y = The number of shares of Series B Preferred Stock in respect of which the net issue election is made;
- A = The fair market value of one share of the Series B Preferred Stock at the time the net issue election is made;
- B = The Exercise Price (as adjusted to the date of the net issuance).

For purposes of this Section 1(c), the fair market value of one share of Series B Preferred Stock (or Common Stock, to the extent all such Series B Preferred Stock has been converted into the Company's Common Stock) as of a particular date shall be determined as follows: (i) if traded on a securities exchange or through the Nasdaq National Market, the value shall be deemed to be the average of the closing prices of the securities on such exchange over the thirty (30) day period ending three (3) days prior to the net exercise election; (ii) if traded over-the-counter, the value shall be deemed to be the average of the closing bid or sale prices (whichever is applicable) over the thirty (30) day period ending three (3) days prior to the net exercise; and (iii) if there is no active public market, the value shall be the fair market value thereof, as determined in good faith by the Board of Directors of the Company; provided, however, that, if the Warrant is being exercised upon the closing of the IPO, the value will be the initial "Price to Public" of one share of such Series B Preferred Stock (or Common Stock issuable upon conversion of such Series B Preferred Stock) specified in the final prospectus with respect to such offering (net of applicable underwriting commissions).

2. Notwithstanding the foregoing, however, the Company shall not be required to deliver any certificate for shares of stock upon exercise of this Warrant except in accordance with the provisions, and subject to the limitations of, Section 4 hereof and the restrictive legend on the first page hereof.

3. The Company covenants and agrees that the Warrant Shares will, upon issuance, delivery and receipt of consideration therefor, be duly authorized and issued, fully paid and nonassessable and free from all taxes, liens and charges with respect to the issue thereof. The Company further covenants and agrees that during the period within which the rights represented by this Warrant may be exercised, the Company will at all times have authorized,

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and reserved for the purpose of issue or transfer upon exercise of the subscription rights evidenced by this Warrant, a sufficient number of shares of Warrant Shares to provide for the exercise of the rights represented by this Warrant. The Company will take all such action as may be necessary to assure that the Warrant Shares may be so issued without violation of any applicable law or regulation or of any preemptive or contractual rights of any person or entity.

4. No fractional shares of Series B Preferred Stock shall be issued upon the exercise of this Warrant, but, instead of any fraction of a share which would otherwise be issuable, the Company shall pay a cash adjustment in respect of such fraction in an amount equal to the same fraction of the fair market value per share of Series B Preferred Stock as of the close of business on the date of the notice required by Section 1 above.

5. This Warrant, unless and until exercised, shall not entitle the Holder to any voting rights or other rights as a stockholder of the Company.

6. Subject to the provisions of Section 12 and Section 15 of the Warrant Agreement, this Warrant and all rights hereunder are assignable.

[SIGNATURE PAGE FOLLOWS]

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IN WITNESS WHEREOF, the Company has caused this Warrant to be signed by its duly authorized officer and this Warrant to be dated as of \_\_\_\_\_, 2004.

AMEDICA CORPORATION

By: \_\_\_\_\_  
Its: \_\_\_\_\_

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Form of Election to Purchase  
(To Be Executed Upon Exercise Of Warrant)

The undersigned hereby irrevocably elects to exercise the right, represented by this Warrant, to receive \_\_\_\_\_ shares of Series B Preferred Stock and herewith tenders payment for such shares to the order of CREATION CAPITAL LLC in the amount of \$1.32 per share, as adjusted pursuant to the terms of that certain Warrant Agreement, in accordance with the terms hereof and the terms of the Warrant Agreement. The undersigned requests that a certificate for such shares be registered in the name of \_\_\_\_\_ whose address is \_\_\_\_\_ and that such shares be delivered to \_\_\_\_\_ whose address is \_\_\_\_\_. If said number of shares is less than all of the shares of Series B Preferred Stock purchasable hereunder, the undersigned requests that a new Warrant representing the remaining balance of such shares be registered in the name of \_\_\_\_\_ whose address is \_\_\_\_\_ and that such shares be delivered to \_\_\_\_\_ whose address is \_\_\_\_\_.

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

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Form of Assignment

(To be executed upon assignment of Warrant)

FOR VALUE RECEIVED, \_\_\_\_\_, hereby sells, assigns and transfers unto \_\_\_\_\_ that certain warrant (the "Warrant") dated as of \_\_\_\_\_, 2004, to purchase shares of Series B Preferred Stock of Amedica Corporation (the "Company"), together with all right, title and interest therein, and does hereby irrevocably constitute and appoint \_\_\_\_\_ attorney, to transfer the Warrant on the books of the Company, with full power of substitution in the premises.

Date: \_\_\_\_\_

[                    ]

By: \_\_\_\_\_  
Name:  
Title:

NOTE: The above signature should correspond exactly with the name on the face of this Warrant.

## WARRANT AGREEMENT

THIS WARRANT AGREEMENT, dated of February 24, 2006 (the "Warrant Agreement"), is by and between CREATION CAPITAL LLC, a Delaware limited liability company ("Creation Capital"), and AMEDICA CORPORATION, a Delaware corporation (the "Company").

WHEREAS, pursuant to the letter dated November 14, 2005 (the "Engagement Letter"), Creation Capital was engaged by the Company as the exclusive placement agent to the Company in the United States in connection with the private placement of up to \$14.0 million, subject to an over-allotment of up to \$2,800,000, of the Company's Series C Convertible Preferred Stock (the "Stock"); and

WHEREAS, the Engagement Letter provides that upon each closing of the sale of Stock, Creation Capital shall receive warrants to purchase a number of shares of Stock equal to fifteen percent (15%) of the total number of shares of Stock sold at such closing; and

WHEREAS, the Engagement Letter further provides that the warrants shall be issued pursuant to a definitive warrant agreement mutually agreed to by the Company and Creation Capital.

NOW THEREFORE, in consideration of the premises and the mutual agreements hereinafter set forth and for the purposes of defining terms and provisions of the Warrants and the certificates representing the Warrants and the respective rights and obligations thereunder of the Company, Creation Capital and the holders of certificates representing the Warrants, the parties hereto agree as follows:

*Section 1. Form of Warrant.* The Company shall grant to Creation Capital (Creation Capital and/or its assigns are collectively referred to herein as the "Holder") warrant(s) (the "Warrant"), in the form of Exhibit A hereto to purchase shares of Stock at a purchase price of \$2.20 per share (the "Exercise Price") all as more fully set forth herein. The Warrant shall be executed on behalf of the Company by the Chief Executive Officer or any other authorized officer of the Company, and dated as of the date of issuance of the Warrant.

*Section 2. Exercise Period of Warrant.* The Warrant shall be exercisable at any time commencing on the first anniversary of the date of issuance of the Warrant and shall terminate at 5:00 p.m., New York City Time, on the seventh anniversary of the date of issuance of the Warrant (the "Warrant Termination Date"); provided, however, that in the event of (a) the closing of the issuance and sale of shares of the common stock, \$.01 par value per share (the "Common Stock"), of the Company in the Company's first underwritten public offering ("IPO") pursuant to an effective registration statement under the Securities Act of 1933, as amended (the "Securities Act") or (b) a Change of Control, the Warrant shall, on the date of such event, become immediately exercisable.

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A “Change of Control” shall mean any acquisition of capital stock of the Company, directly or indirectly, any merger, tender offer, recapitalization or asset sale pursuant to which the Company’s stockholders immediately prior to such transaction hold less than 50% of the voting securities of the surviving corporation immediately after such transaction or the majority of the assets of the Company are transferred or sold, except that any internal re-structuring or re-organization of the Company that does not change the effective ultimate ownership of the Company shall not be deemed a Change of Control.

*Section 3. Term of Warrant Agreement.* Except as otherwise expressly provided herein, this Warrant Agreement shall become void and all rights hereunder and all rights in respect thereof under the Warrant shall cease as of the Warrant Termination Date except to the extent that the Warrant is exercised prior to such date.

*Section 4. Number of Shares.* The Warrant shall be exercisable for up to the number of shares of Stock as shall be indicated on the Warrant, subject to adjustment as provided herein (the “Warrant Shares”).

*Section 5. Adjustment Provisions.* The Exercise Price and the number of shares of Stock underlying the Warrant shall be subject to adjustment from time to time as hereinafter set forth:

(a) *Stock Dividends – Stock Splits.* If after the date hereof, the number of outstanding shares of Stock is increased by a stock dividend payable in shares of Stock or by a sub-division or a stock split of shares of Stock or other similar event as described in the Certificate of Designation, Preferences and Rights of the Stock, then, on the effective date thereof, the number of shares of Stock issuable on exercise of the Warrant shall be increased in proportion to such increase in outstanding shares.

(b) *Aggregation of Shares.* If after the date hereof, the number of outstanding shares of Stock is decreased by a consolidation, combination, reverse stock split or reclassification of shares of Stock or other similar event, then, on the effective date thereof, the number of shares of Stock issuable on exercise of the Warrant shall be decreased in proportion to such decrease in outstanding shares.

(c) *Adjustments in Exercise Price.* Whenever the number of the shares of Stock issuable upon the exercise of the Warrant is adjusted, as provided in Sections 5(a) and (b), the Exercise Price shall be adjusted (to the nearest cent) by multiplying such Exercise Price immediately prior to such adjustment by a fraction (x) the numerator of which shall be the number of the shares of Stock purchasable upon the exercise of the Warrant immediately prior to such adjustment and (y) the denominator of which shall be the number of the shares of Stock so purchasable immediately thereafter.

(d) *When De Minimis Adjustment May Be Deferred.* No adjustment in the Exercise Price need be made unless the adjustment would require an increase or decrease of at least 1% in the Exercise Price. Any adjustments that are not made shall be carried forward and taken into account in any subsequent adjustment. All calculations under this Section 5 shall be made to the nearest 1/100<sup>th</sup> of a share.

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(e) *Notice.* Whenever there shall be an adjustment as provided in this Section 5, the Company shall promptly cause written notice thereof to be sent to the Holder in accordance with Section 13 hereof, which notice shall be accompanied by an officer's certificate setting forth the number of Warrant Shares purchasable upon the exercise of this Warrant and the Exercise Price after such adjustment and setting forth a brief statement of the facts requiring such adjustment and the computation thereof. Additionally, in case at any time the Company shall propose:

(i) to pay any dividend or make any distribution on shares of Stock in shares of Stock or make any other distribution to all holders of Stock; or

(ii) to issue any rights, warrants or other securities to all holders of Stock entitling them to purchase any additional shares of Stock or any other rights, warrants or other securities; or

(iii) to effect any reclassification or change of outstanding shares of Stock, or any consolidation, merger or sale; or

(iv) to effect any liquidation, dissolution or winding-up of the Company;

then, and in any one or more of such cases, the Company shall give written notice thereof to the Holder in accordance with Section 13 hereof, which notice shall be sent at least fifteen (15) days prior to (i) the date as of which the holders of record of shares of Stock to be entitled to receive any such dividend, distribution, rights, warrants, other securities are to be determined or (ii) the date on which any such reclassification, change of outstanding shares of Stock, consolidation, merger, sale, liquidation, dissolution or winding-up is expected to become effective, and the date as of which it is expected that holders of record of shares of Stock shall be entitled to exchange their shares for securities or other property, if any, deliverable upon such reclassification, change of outstanding shares, consolidation, merger, sale, liquidation, dissolution or winding-up.

*Section 6. Representations, Warranties and Covenants of the Company.* The Company hereby represents, warrants and covenants to Holder as follows:

(a) The Company is a corporation duly organized, validly existing and in good standing under the laws of the State of Delaware and is in good standing as a foreign corporation in each jurisdiction in which the nature of its business makes such qualification necessary and where the failure to so qualify would have a material adverse effect on its business or operations. The Company has all requisite corporate power and authority to carry out its business as presently conducted and as proposed to be conducted and to enter into and discharge its obligations under this Warrant Agreement and the Warrant.

(b) The execution and delivery of this Warrant Agreement and the Warrant by the Company and its performance and compliance with the terms of this Warrant Agreement and the Warrant have been duly authorized by all necessary corporate action on the part of the Company.

(c) The consummation of the transactions contemplated by this Warrant Agreement and the Warrant will not (i) conflict with, result in any breach of any of the terms and

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provisions of, or constitute (with or without notice or lapse of time or both) a default under, the certificate of incorporation or bylaws of the Company, or any material contract, agreement, indenture, loan agreement, receivables purchase agreement, mortgage, deed of trust, or other agreement or instrument to which the Company is a party or by which it or any of its properties is bound, (ii) result in the creation or imposition of any lien, adverse claim or other encumbrance upon any of the properties of the Company pursuant to the terms of any such material contract, agreement, indenture, loan agreement, receivables purchase agreement, mortgage, deed of trust, or other agreement or instrument, or (iii) violate any law or order, rule or regulation applicable to the Company of any court or of any federal or state regulatory body, administrative agency, or other governmental instrumentality having jurisdiction over the Company or any of its properties.

(d) The Warrant Agreement and the Warrant each constitutes a legal, valid and binding obligation of the Company and is enforceable against the Company in accordance with the terms hereof and thereof, except as enforcement may be limited by applicable bankruptcy, insolvency, reorganization, moratorium or other similar laws affecting creditors' rights generally and by general principles of equity (whether considered in a proceeding or action in equity or at law).

(e) The Company shall at all times keep a sufficient number of authorized but unissued shares of Stock reserved for issuance upon the exercise of the Warrant. The Warrant Shares, when issued, delivered and paid for in accordance with the terms of this Warrant Agreement and the Warrant, will be duly and validly issued, fully paid and non-assessable and will not have been issued in violation of the pre-emptive or contractual rights of any person or entity.

(f) The Company shall deliver to each Holder of ten percent (10%) or more of the aggregate Warrant Shares such information and reports relating to the Company as the Company is required to provide to other holders of the Stock. The rights of such Holders under this Section 6(f) shall terminate upon the closing of the IPO.

(g) Upon receipt of evidence reasonably satisfactory to the Company of the loss, theft, destruction or mutilation of the Warrant or any certificate representing Warrant Shares, and, in the case of any such loss, theft or destruction, upon delivery of indemnity (which may include a bond) reasonably satisfactory to the Company, or, in the case of any such mutilation, upon surrender and cancellation of the Warrant or any certificate representing Warrant Shares, as the case may be, the Company will issue a new Warrant or certificates representing Warrant Shares, as the case may be, of like tenor representing an equivalent interest or right, in lieu of such lost, stolen, destroyed or mutilated Warrant or certificates representing Warrant Shares, as the case may be. The applicant for such replacement Warrant shall comply with such other reasonable requests as the Company may reasonably prescribe.

*Section 7. Representations, Warranties and Covenants of Holder.* Holder hereby represents, warrants and covenants to the Company as follows:

(a) Holder is acquiring the Warrant, and upon exercise of the Warrant will acquire the Warrant Shares, for its own account with no intention of distributing or reselling the

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Warrant or Warrant Shares in any transaction that would be a violation of the securities laws of the United States or any state, without prejudice to the Holder's rights at all times to sell or otherwise dispose of all or part of such Warrant under a registration under the Securities Act or an exemption available thereto. Holder is aware that neither the Warrant nor the Warrant Shares are registered under the Securities Act or any state or other jurisdiction's securities laws, and that Holder must hold the Warrant and the Warrant Shares indefinitely unless subsequently registered or an exemption from registration is available. Holder understands and agrees that the Warrant will bear the restrictive legend set forth on the Warrant and that the Warrant Shares will bear the legend set forth in Section 12 of this Warrant Agreement. Holder represents and warrants that it is an "accredited investor" as that term is defined in Rule 501 of Regulation D promulgated under the Securities Act.

*Section 8. Shelf Registration.*

(a) As promptly as practicable following the eligibility of the Company or its successor to file a Registration Statement on Form S-3 (or any successor or similar short-form registration statement, a "Shelf Registration Statement"), subject to the limitations herein, the Holder may request, in writing, that the Company file a Shelf Registration Statement with respect to the shares of Common Stock issuable upon conversion of the Warrant Shares (the "Registrable Securities"). In such a notice, the Holder shall advise the Company of the number of Registrable Securities to be included in the Shelf Registration Statement. The Company shall use its best efforts to have such Shelf Registration Statement declared effective by the U.S. Securities and Exchange Commission ("SEC") as promptly as practicable thereafter. The Company shall use its best efforts to keep any such Shelf Registration Statement continuously effective for the period of at least twenty-four months beginning on the date on which such Shelf Registration Statement is declared effective. The Holder shall provide such information as may be reasonably requested by the Company in connection with the filing of the Shelf Registration Statement or in order to maintain its effectiveness.

(b) Notwithstanding the foregoing, the Company shall not be obligated to file any Shelf Registration Statement pursuant to this Section 8 unless the Registrable Securities to be sold have an anticipated aggregate offering price of at least \$10,000,000 (before underwriter's discounts and commissions). In addition, the Company shall not be obligated to effect any Shelf Registration Statement pursuant to this Section 8 if, in the good faith determination of the Board of Directors, the filing of such registration statement would be detrimental to the Company or its stockholders due to pending material corporate developments or similar material events that have not yet been publicly disclosed and as to which the Company believes that public disclosure would be prejudicial to the Company and may delay such Shelf Registration Statement for a period not in excess of ninety (90) days from such determination. The Company shall be obligated to effect no more than two Shelf Registration Statements during any one calendar year.

(c) The Company shall pay all expenses incurred in connection with a registration pursuant to this Section, including, without limitation, all registration, qualification, printing and accounting fees, all fees and disbursements of counsel for the Company, and all reasonable fees and disbursements of one counsel for the Holders as a group. The Company shall pay all registration fees and other expenses applicable to the Registrable Securities included in the Shelf Registration Statement, provided, that the Holder will be responsible for all underwriting discounts and commissions allocable to the securities sold by such holder.

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*Section 9. Piggyback Registration.*

(a) If the Company proposes to register any of its equity securities, either for its own account or for the account of any Person, but not including a registration relating to (i) employee stock option or purchase plans, or (ii) a transaction pursuant to Rule 145 under the Securities Act (a "Piggyback Registration"), the Company will:

(i) promptly give written notice thereof to the Holder; and

(ii) use its best efforts to include in such Piggyback Registration and in any underwriting involved therein up to all of the Registrable Securities which the Holder requests in writing to be so included within thirty days after receipt of such written notice from the Company.

The Company shall pay, and shall reimburse the Holder for paying, any expenses incurred in connection with a Piggyback Registration requested pursuant to this Section, including, without limitation, all registration, qualification, printing and accounting fees, all fees and disbursements of counsel for the Company, and all reasonable fees and disbursements of one counsel for the Holders as a group; provided, that the Holder will be responsible for all underwriting discounts and commissions allocable to the securities sold by such holder.

(b) If the registration of which the Company gives notice is for a public offering involving an underwriting, the Company shall so advise the Holder as a part of the written notice given pursuant to this Section, and the right of the Holder to include Registrable Securities in such registration shall be conditioned upon the Holder participation in such underwriting and the entry of the Holder into an underwriting agreement in customary form with the underwriter or underwriters selected for such underwriting by the Company.

(c) If the underwriter of the registered public offering referred to in this Section shall advise the Company in writing that marketing factors require a limitation of the amount of securities to be underwritten, securities shall be included in such offering in the following priority: *first*, securities to be registered by the Company and/or securities requested to be included pursuant to the exercise of demand registration rights granted by the Company in such priority and proportions as may be agreed among such parties; *second*, the securities requested to be included in such registration by the Holder pursuant to this Section, the investors who purchased Stock in the offering, and other parties requesting Piggyback Registration rights of the type provided in this Section and having the same priority, *pro rata* based upon the number of securities requested to be included by such parties; *third*, the securities requested to be included in such registration by principals of the Company pursuant to the exercise of Piggyback Registration rights of the type provided in this Section, *pro rata* on the basis of the number of such securities requested to be included by such principal; and *fourth*, other securities for the account of Persons, including the Holder, allocated among such Persons in accordance with the priorities then existing among the Company and such Persons. Any securities excluded pursuant to the provisions of this Section shall be withdrawn from and shall not be included in such Piggyback Registration.

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(d) Notwithstanding the foregoing, the Company shall not be obligated to effect any Piggyback Registration pursuant to this Section 9 if, in the good faith determination of the Board of Directors, the filing of such registration statement would be detrimental to the Company or its stockholders due to pending material corporate developments or similar material events that have not yet been publicly disclosed and as to which the Company believes that public disclosure would be prejudicial to the Company and may delay such Piggyback Registration Statement for a period not in excess of ninety (90) days from such determination

*Section 10. Registration Procedures.*

(a) In the case of a registration to be effected by the Company pursuant to this Warrant Agreement in which the Holder is participating, the Company will keep the Holder advised in writing as to the initiation of such registration and as to the completion thereof. In connection with such offering, the Company shall promptly:

(1) prepare and file with the SEC a registration statement with respect to the Registrable Securities and its best efforts to cause such registration statement to become effective for a period of at least 60 days or until the distribution described in the registration statement relating thereto has been completed, whichever shall first occur;

(2) in connection with the preparation and filing of a registration statement, give the Holder, its underwriters, if any, and its counsel, the opportunity (over a reasonable period of time) to review and comment upon any such registration statement, each prospectus included therein or filed with the SEC, and each amendment thereof or supplement thereto, and give each of them access to financial and other records, pertinent corporate documents and properties of the Company and an opportunity to discuss the business of the Company with its officers, its counsel and the independent public accountants who have certified its financial statements as shall be necessary, in the opinion of the Holder and the underwriters' respective counsel, to conduct a reasonable due diligence investigation within the requirements of the Securities Act;

(3) furnish to the Holder and to the underwriters, if any, of the securities being registered such number of copies of the registration statement, preliminary prospectus, final prospectus and other documents incident thereto as such underwriters and the Holder from time to time may request;

(4) prepare and file with the SEC such amendments and supplements to such registration statement and the prospectus used in connection with such registration statement as may be necessary to comply with the provisions of the Securities Act with respect to the disposition of all securities covered by such registration statement;

(5) register or qualify the Registrable Securities covered by such registration statement under such other securities or Blue Sky laws of such jurisdictions as shall be requested by the Holder for the distribution of the Registrable Securities covered by the registration statement to be sold by the Company;

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(6) enter into an underwriting agreement in customary form and substance satisfactory to the Holder and the managing underwriter or underwriters of the public offering of such securities, if the offering is to be underwritten, in whole or in part;

(7) notify the Holder at any time when a prospectus relating thereto covered by such registration statement is required to be delivered under the Securities Act of the happening of any event as a result of which the prospectus included in such registration statement, as then in effect, includes an untrue statement of a material fact or omits to state a material fact required to be stated therein or necessary to make the statements therein not misleading in the light of the circumstances then existing;

(8) cause all such Registrable Securities to be listed on a national securities exchange or on Nasdaq;

(9) unless any Registrable Securities shall be in book-entry form, cooperate with the Holder to facilitate the timely preparation and delivery of certificates representing Registrable Securities to be sold pursuant to any registration statement free of any restrictive legend and in such permitted denominations and registered in such names as the Holder may request in connection with the sale of Registrable Securities pursuant to such registration statement; and

(10) otherwise use its commercially reasonable efforts to comply with all applicable rules and regulations of the SEC, and make available to the Holder, as soon as reasonably practicable, an earnings statement covering the period of at least 12 months, but not more than 18 months, beginning with the first full calendar month after the effective date of such registration statement, which earnings statement shall satisfy the provisions of the Securities Act.

(b) Indemnification.

(1) Indemnification by the Company. The Company will indemnify each Holder requesting or joining in a registration and each underwriter of the securities so registered, the officers, directors and partners of each such person and each person who controls any thereof (within the meaning of the Securities Act) against any and all claims, losses, damages and liabilities (or actions in respect thereof) arising out of or based on any untrue statement (or alleged untrue statement) of any material fact contained in any prospectus, offering circular or other document incident to any registration, qualification or compliance (or in any related registration statement, notification or the like) or any omission (or alleged omission) to state therein any material fact required to be stated therein or necessary to make the statements therein not misleading, or any violation by the Company of any rule or regulation promulgated under the Securities Act applicable to the Company and relating to any action or inaction required of the Company in connection with any such registration, qualification or compliance, and the Company will reimburse each such Holder, underwriter, officer, director, partner and controlling person for any legal and any other expenses reasonably incurred in connection with investigating or defending any such claim, loss, damage, liability or action; provided, however, that the Company will not be liable in any such case to the extent that any such claim, loss, damage or

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liability arises out of or is based on any untrue statement or omission based upon written information furnished to the Company in an instrument duly executed by such Holder, underwriter, officer, director, partner or controlling person and stated to be specifically for use in such prospectus or registration statement.

(2) Indemnification by Each Holder. Each Holder requesting or joining in a registration, will indemnify, severally and not jointly, each underwriter of the securities so registered, the Company and its officers who sign the registration statement and directors and each person, if any, who controls any thereof (within the meaning of the Securities Act) and their respective successors and assigns against any and all claims, losses, damages and liabilities (or actions in respect thereof) arising out of or based on any untrue statement (or alleged untrue statement) of any material fact contained in any prospectus, offering circular or other document incident to any registration, qualification or compliance (or in any related registration statement, notification or the like) or any omission (or alleged omission) to state therein any material fact required to be stated therein or necessary to make the statements therein not misleading, and such Holder will reimburse each underwriter, the Company and each other person indemnified pursuant to this paragraph for any legal and any other expenses reasonably incurred in connection with investigating or defending any such claim, loss, damage, liability or action; provided, however, that this paragraph shall apply only if (and only to the extent that) such statement or omission was made in reliance upon written information furnished to such underwriter or the Company in an instrument duly executed by such Holder and stated to be specifically for use in such prospectus, offering circular or other document (or related registration statement, notification or the like) or any amendment or supplement thereto; and, provided further, that each Holder's liability hereunder with respect to any particular registration shall be limited to an amount equal to the net proceeds received by such Holder from the Registrable Securities sold by such Holder in such registration.

(3) Indemnification Proceedings. Each party entitled to indemnification pursuant to this Section 10(b) (the "Indemnified Party") shall give notice to the party required to provide indemnification pursuant to this Section 10(b) (the "Indemnifying Party") promptly after such Indemnified Party acquires actual knowledge of any claim as to which indemnity may be sought, and shall permit the Indemnifying Party (at its expense) to assume the defense of any claim or any litigation resulting therefrom; provided that counsel for the Indemnifying Party, who shall conduct the defense of such claim or litigation, shall be reasonably acceptable to the Indemnified Party, and the Indemnified Party may participate in such defense at such party's expense; and provided, further, that the failure by any Indemnified Party to give notice as provided in this paragraph shall not relieve the Indemnifying Party of its obligations under this Section 10(b) except to the extent that the failure results in a failure of actual notice to the Indemnifying Party and such Indemnifying Party is damaged solely as a result of the failure to give notice. No Indemnifying Party, in the defense of any such claim or litigation, shall, except with the consent of each Indemnified Party, consent to entry of any judgment or enter into any settlement which does not include as an unconditional term thereof the giving by the claimant or plaintiff to such Indemnified Party of a release from all liability in respect to such claim or litigation and no Indemnified Party shall consent to entry of any judgment or settle such claim or litigation without the prior written consent of the Indemnifying Party so long as the Indemnifying Party has acknowledged in writing its obligation to indemnify and is in compliance with all of its obligations hereunder to indemnify the Indemnified Party for all amounts in connection with

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such claim or litigation and which consent shall not be unreasonably withheld. If the defendants in any action subject to this Section 10(b) include both the Indemnified Party and the Indemnifying Party and the Indemnified Party shall have reasonably concluded that there may be reasonable defenses available to it which are different from or additional to those available to the Indemnifying Party or if the interests of the Indemnified Party reasonably may be deemed to conflict with the interests of the Indemnifying Party, the Indemnified Party shall have the right to select a separate counsel and to assume such legal defenses and otherwise to participate in the defense of such action, with the expenses and fees of such separate counsel and other expenses related to such participation to be reimbursed by the Indemnifying Party as incurred.

(c) Contribution in Lieu of Indemnification. If the indemnification provided for in Section 10(b) hereof is unavailable to a party that would have been an Indemnified Party under any such section in respect of any losses, claims, damages or liabilities (or actions in respect thereof) referred to therein, then each party that would have been an Indemnifying Party thereunder shall, in lieu of indemnifying such Indemnified Party, contribute to the amount paid or payable by such Indemnified Party as a result of such losses, claims, damages or liabilities (or actions in respect thereof) in such proportion as is appropriate to reflect the relative fault of the Indemnifying Party on the one hand and such Indemnified Party on the other in connection with the statements or omissions which resulted in such losses, claims, damages or liabilities (or actions in respect thereof). The relative fault shall be determined by reference to, among other things, whether the untrue or alleged untrue statement of a material fact or the omission or alleged omission to state a material fact relates to information supplied by the Indemnifying Party or such Indemnified Party and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such statement or omission. The Company and each Holder of Registrable Securities agree that it would not be just and equitable if contribution pursuant to this Section 10(c) were determined by pro-rata allocation or by any other method of allocation which does not take account of the equitable considerations referred to above in this Section 10(c). The amount paid or payable by an Indemnified Party as a result of the losses, claims, damages or liabilities (or actions in respect thereof) referred to above in this Section 10(c) shall include any legal or other expenses reasonably incurred by such Indemnified Party in connection with investigating or defending any such action or claim. Notwithstanding any provision of this Section 10(c) to the contrary, (a) no person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) shall be entitled to contribution from any person who was not guilty of such fraudulent misrepresentation and (b) each Holder's liability hereunder with respect to any particular registration shall be limited to an amount equal to the net proceeds received by such Holder from the Registrable Securities sold by such Holder in such registration.

*Section 11. Effect of Registration Rights of Heirs, Assigns, Beneficiaries, Successors and Transferees.* The heirs, assigns, beneficiaries and successor of the Holder shall be entitled to all of the registration rights set forth in Sections 8 through 10 of this Warrant Agreement; *provided, however,* that such Person or Persons will be able to exercise such rights of the Holder only if it or they have at least 5% of the equity interest in the Company.

*Section 12. Transfers and Exchanges.* Subject to the terms of Section 15 hereof, the Company shall from time to time register the transfer of the Warrant in a Warrant register to

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be maintained by the Company upon surrender thereof accompanied by a written instrument or instruments of transfer in the form of assignment attached hereto or as otherwise may be satisfactory to the Company, duly executed by the Holder thereof or by the duly appointed legal representative thereof or by a duly authorized attorney. Upon any such transfer, the surrendered Warrant shall be canceled and disposed of by the Company and a new Warrant shall be issued to the transferee(s). The Holder agrees that prior to any proposed transfer of the Warrant or of the Warrant Shares, if such transfer is not made pursuant to an effective registration statement under the Securities Act and any applicable state securities laws, the Holder shall deliver to the Company:

(a) an investment covenant substantially similar to Section 7(a) and otherwise reasonably satisfactory to the Company signed by the proposed transferee;

(b) an agreement by such transferee to the impression of the restrictive investment legend set forth below on the Warrant or the Warrant Shares;

(c) an agreement by such transferee that the Company may place a notation in the stock books of the Company or a “stop transfer order” with any transfer agent or registrar with respect to the Warrant Shares;

(d) an agreement by such transferee to be bound by the provisions of this Section 12 relating to the transfer of such Warrant or Warrant Shares; and

(e) an opinion of counsel, reasonably satisfactory in form and substance to the Company, that the transfer is exempt from registration requirements under the Securities Act and any applicable state securities laws.

The Holder agrees that each Warrant and each certificate representing Warrant Shares will bear the following legend:

**THE SECURITIES EVIDENCED OR CONSTITUTED HEREBY HAVE BEEN ACQUIRED FOR INVESTMENT AND HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED. SUCH SECURITIES MAY NOT BE SOLD, TRANSFERRED, PLEDGED OR HYPOTHECATED UNLESS THE REGISTRATION PROVISIONS OF SAID ACT AND ANY APPLICABLE STATE SECURITIES LAWS HAVE BEEN COMPLIED WITH OR UNLESS THE COMPANY HAS RECEIVED AN OPINION OF COUNSEL REASONABLY SATISFACTORY TO THE COMPANY THAT SUCH REGISTRATION IS NOT REQUIRED.**

*Section 13. Notices.* All demands, notices and communications relating to this Warrant Agreement or any Warrant shall be in writing and (i) sent by registered or certified mail, postage prepaid, return receipt requested, (ii) hand delivered, (iii) sent by express mail or other reasonable overnight delivery service, or (iv) sent by telecopy, as follows:

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If to the Company:

Amedica Corporation  
2116 South Lakeline Drive  
Salt Lake City, UT 84109  
Attention: Ashok Khandkar,  
Chief Executive Officer  
Telephone: (801) 535-4355  
Telecopy: (801) 584-2533

with a copy to:

Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C.  
One Financial Center  
Boston, MA 02111  
Attention: Jonathan L. Kravetz, Esq.  
Telephone: (617) 542-6000  
Telecopy: (617) 542-2241

If to Holder:

Creation Capital LLC  
100 Congress Avenue, Suite 2000  
Austin, TX 78701  
Attention: Gregg R. Honigblum,  
Chief Executive Officer  
Telephone: (512) 370-4900  
Telecopy: (512) 473-4903

with a copy to:

Winston & Strawn LLP  
200 Park Avenue  
New York, NY 10166  
Attention: Nick Krylov, Esq.  
Telephone: (212) 294-6617  
Telecopy: (212) 294-4700

Any such demand, notice or communication hereunder shall be deemed to have been duly given when received by the other party or parties at the address shown above or on the next succeeding business day if the date of receipt is not a business day, or such other address as may hereafter be furnished to the other party or parties by like notice and shall be deemed to have been received on the date delivered to or received at the premises of the addresses.

*Section 14. Counterparts.* For the purpose of facilitating the execution of this Warrant Agreement and for other purposes, this Warrant Agreement may be executed

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simultaneously in any number of counterparts, each of which shall be deemed to be an original, and all of which together shall constitute and be one and the same instrument; and such counterparts may be delivered via facsimile to the numbers designated in or pursuant to Section 13.

*Section 15. Assignability.* Subject to the provisions set forth in Section 12, the Holder may assign the rights and interests under this Warrant Agreement to any person without the Company's consent; provided, however, that in the event such assignee (other than an assignee which is a Holder Affiliate (as such term is defined below)) is reasonably deemed by the Company to compete with the Company in its traditional business activities (a "competitor"), the Company shall not be required to furnish to such assignee information and reports relating to the Company pursuant to Section 6(f) of this Agreement and, upon notice given by the Company to Holder that such assignee is deemed a "competitor," Holder shall not furnish to such assignee any information or reports relating to the Company, without the Company's prior written consent; and provided, further, however, that no such assignment shall be made to the extent such transfer would subject the Company to the reporting requirements of the Securities Exchange Act of 1934, as amended. The Holder shall promptly cause written notice of any such transfer to be sent to the Company in accordance with Section 13 hereof at least fourteen (14) days prior to such transfer. Notwithstanding the foregoing or any other provision to the contrary, the Warrant and the Warrant Shares will be "restricted securities" as defined in Rule 144 under the Securities Act, and thus will not be transferable except in compliance with applicable federal and state securities laws and regulations. "Holder Affiliate" shall mean any person that directly, or indirectly through one or more intermediaries, controls, or is controlled by, or is under common control with, such Holder.

*Section 16. Governing Law; Jurisdiction; Waiver of Jury Trial.*

(a) *Governing Law.* This Warrant Agreement shall be governed by, and construed in accordance with, the laws of the State of Delaware, without regard to conflict of law principles.

(b) *Jurisdiction.* Each of the Company and the Holder hereby irrevocably submits to the jurisdiction of any New York State or Federal court sitting in New York City in any action or proceeding arising out of or relating to this Warrant Agreement or the Warrant, and each of the Company and the Holder hereby irrevocably agrees that all claims in respect of such action or proceeding may be heard and determined in such New York State court or in such Federal court. Each of the Company and the Holder hereby irrevocably waives, to the fullest extent permitted under applicable law, the defense of an inconvenient forum to the maintenance of such action or proceeding. Each of the Company and the Holder irrevocably consents, to the fullest extent permitted under applicable law, to the service of any summons and complaint and any other process by the mailing of copies of such process to them at their respective address specified in Section 13. Each of the Company and the Holder hereby agrees, to the fullest extent permitted under applicable law, that a final judgment in any such action or proceeding shall be conclusive and may be enforced in other jurisdictions by suit on the judgment or in any other manner provided by law.

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(c) *Waiver of Jury Trial.* **TO THE FULLEST EXTENT PERMITTED UNDER APPLICABLE LAW, EACH OF THE COMPANY AND THE HOLDER HEREBY IRREVOCABLY WAIVES ALL RIGHT TO A TRIAL BY JURY IN ANY ACTION, PROCEEDING OR COUNTERCLAIM ARISING OUT OF OR RELATING TO THIS WARRANT AGREEMENT OR ANY WARRANT ISSUED HEREUNDER.**

*Section 17. Amendments.* This Warrant Agreement may be amended from time to time by written instrument signed by the Company and the Holders of a majority of the Warrant Shares issued or issuable upon exercise of the Warrant and no waiver of any of the terms hereof shall be effective unless it is in writing and signed by the Holders of a majority of the Warrant Shares issued or issuable upon exercise of the Warrant or the Company, as the case may be. Any amendment or waiver pursuant to this Section 17 shall be binding on all Holders of the Warrant Shares and may be given retroactive, prospective or concurrent effect, depending upon the language in such amendment or waiver.

*Section 18. No Waiver.* No failure on the part of the Holder or the Company to exercise, and no delay in exercising, any right hereunder shall operate as a waiver thereof; nor shall any single or partial exercise of any right hereunder preclude any other or further exercise thereof or the exercise of any other right. The remedies herein provided are cumulative and not exclusive of any remedies provided by law.

*Section 19. Termination.* This Warrant Agreement shall terminate on the Warrant Termination Date. Notwithstanding the foregoing, this Warrant Agreement will terminate on any earlier date if the Warrant has been exercised in full.

[SIGNATURES ON FOLLOWING PAGE]

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IN WITNESS WHEREOF, the parties hereto have caused this Warrant Agreement to be duly executed by their respective officers on the day and year first above written.

AMEDICA CORPORATION

By: /s/ Ashok Khandkar  
Name: Ashok Khandkar  
Title: Chief Executive Officer

CREATION CAPITAL LLC

By: /s/ Gregg R. Honigblum  
Name: Gregg R. Honigblum  
Title: Chief Executive Officer

**Form of Warrant**

**THE SECURITIES EVIDENCED OR CONSTITUTED HEREBY HAVE BEEN ACQUIRED FOR INVESTMENT AND HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED. SUCH SECURITIES MAY NOT BE SOLD, TRANSFERRED, PLEDGED OR HYPOTHECATED UNLESS THE REGISTRATION PROVISIONS OF SAID ACT AND ANY APPLICABLE STATE SECURITIES LAWS HAVE BEEN COMPLIED WITH OR UNLESS THE COMPANY HAS RECEIVED AN OPINION OF COUNSEL REASONABLY SATISFACTORY TO THE COMPANY THAT SUCH REGISTRATION IS NOT REQUIRED.**

**Exercisable on or before  
the Warrant Termination Date  
(as defined below)**

**WARRANT TO PURCHASE SERIES C CONVERTIBLE PREFERRED STOCK**

To Subscribe for and Purchase Series C Convertible Preferred Stock

of

**AMEDICA CORPORATION**

**WARRANT NO. \_\_\_\_\_**

This certifies that, for value received, Creation Capital LLC, a Delaware limited liability company (“Creation Capital”), or its assigns (Creation Capital and/or its assigns are collectively referred to herein as the “Holder”), is entitled to subscribe for and purchase from Amedica Corporation, a Delaware corporation (the “Company”), at any time commencing on the first anniversary of the date hereof and shall terminate at 5:00 p.m., New York City Time, on the seventh anniversary of the date hereof (the “Warrant Termination Date”), \_\_\_\_\_ shares (the “Warrant Shares”) of the Company’s Series C Convertible Preferred Stock, par value \$.01 per share (the “Series C Preferred Stock”), subject to adjustment as provided in that certain Warrant Agreement, dated as of February \_\_, 2006, by and between the Company and Creation Capital (the “Warrant Agreement”), at an exercise price of \$2.20 per share, as such exercise price may be adjusted from time to time under the Warrant Agreement. No Warrant may be exercised after the Warrant Termination Date.

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In the event of (a) the closing of the issuance and sale of shares of common stock, \$.01 par value per share (the “Common Stock”), of the Company in the Company’s first underwritten public offering (“IPO”) pursuant to an effective registration statement under the Securities Act of 1933, as amended (the “Securities Act”) or (b) a Change of Control, the Warrant shall, on the date of such event, become immediately exercisable.

A “Change of Control” shall mean any acquisition of capital stock of the Company, directly or indirectly, any merger, tender offer, recapitalization or asset sale pursuant to which the Company’s stockholders immediately prior to such transaction hold less than 50% of the voting securities of the surviving corporation immediately after such transaction or the majority of the assets of the Company are transferred or sold, except that any internal re-structuring or re-organization of the Company that does not change the effective ultimate ownership of the Company shall not be deemed a Change of Control.

This Series C Preferred Stock Purchase Warrant and all Series C Preferred Stock Purchase Warrants issued in substitution or exchange therefor are herein individually called a “Warrant” and collectively called “Warrants.”

This Warrant is issued pursuant to and, subject to the terms and conditions of, the Warrant Agreement, which Warrant Agreement is incorporated by reference in and made a part of this instrument. Capitalized terms not otherwise defined herein shall have the meanings given them in the Warrant Agreement. Any conflict between the terms of this Warrant and the Warrant Agreement shall be resolved in favor of the terms of the Warrant Agreement.

This Warrant is further subject to the following provisions, terms and conditions:

1. (a) In order to exercise this Warrant, in whole or in part, the Holder shall deliver to the Company, at the office the Company designated for such purpose in Section 13 of the Warrant Agreement, (i) the form of election to purchase set forth herein properly completed and signed, (ii) payment of the Warrant Price pursuant to Section 1(b), and (iii) this Warrant. Upon receipt of the items referred to in clauses (i), (ii) and (iii) above, the Company shall, as promptly as practicable, and in any event within ten (10) days thereafter, execute or cause to be executed and deliver or cause to be delivered to the Holder a certificate or certificates, in such name or names as the Holder may designate, representing the aggregate number of full shares of Series C Preferred Stock issuable upon such exercise, together with cash in lieu of any fraction of a share, as hereinafter provided in Section 4. If this Warrant shall have been exercised in part, the Company shall, at the time of delivery of the certificate or certificates representing Warrant Shares, deliver to the Holder a new Warrant evidencing the rights of the Holder to purchase the unpurchased shares of Series C Preferred Stock called for by this Warrant, which new Warrant shall in all other respects be identical with this Warrant.

(b) Payment to the Company of the purchase price for the Warrant Shares so purchased (the “Warrant Price”) may be made, at the option of the Holder, by payment of the Warrant Price in cash or by wire transfer or cashier’s check drawn on a United States bank.

(c) Net Exercise. In the event of any exercise of this Warrant in connection with a mandatory conversion of the Series C Preferred Stock into shares of the Company’s

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Common Stock pursuant to Article IV, Section C(2)(c) of the Certificate of Incorporation, in lieu of exercising this Warrant pursuant to Section 1(b), the Holder may elect to receive, without the payment by the Holder of any additional consideration, shares of Series C Preferred Stock equal to the value of this Warrant (or the portion thereof being canceled) by surrender of this Warrant at the principal office of the Company together with notice of such election, in which event the Company shall issue to the holder hereof a number of shares of Series C Preferred Stock computed using the following formula:

$$X = \frac{Y \times (A-B)}{A}$$

- Where:
- X = The number of shares of Series C Preferred Stock to be issued to the Holder pursuant to this net exercise;
  - Y = The number of shares of Series C Preferred Stock in respect of which the net issue election is made;
  - A = The fair market value of one share of the Series C Preferred Stock at the time the net issue election is made;
  - B = The Exercise Price (as adjusted to the date of the net issuance).

For purposes of this Section 1(c), the fair market value of one share of Series C Preferred Stock (or Common Stock, to the extent all such Series C Preferred Stock has been converted into the Company's Common Stock) as of a particular date shall be determined as follows: (i) if traded on a securities exchange or through the Nasdaq National Market, the value shall be deemed to be the average of the closing prices of the securities on such exchange over the thirty (30) day period ending three (3) days prior to the net exercise election; (ii) if traded over-the-counter, the value shall be deemed to be the average of the closing bid or sale prices (whichever is applicable) over the thirty (30) day period ending three (3) days prior to the net exercise; and (iii) if there is no active public market, the value shall be the fair market value thereof, as determined in good faith by the Board of Directors of the Company; provided, however, that, if the Warrant is being exercised upon the closing of the IPO, the value will be the initial "Price to Public" of one share of such Series C Preferred Stock (or Common Stock issuable upon conversion of such Series C Preferred Stock) specified in the final prospectus with respect to such offering (net of applicable underwriting commissions).

2. Notwithstanding the foregoing, however, the Company shall not be required to deliver any certificate for shares of stock upon exercise of this Warrant except in accordance with the provisions, and subject to the limitations of, Section 4 hereof and the restrictive legend on the first page hereof.

3. The Company covenants and agrees that the Warrant Shares will, upon issuance, delivery and receipt of consideration therefor, be duly authorized and issued, fully paid and nonassessable and free from all taxes, liens and charges with respect to the issue thereof. The Company further covenants and agrees that during the period within which the rights represented by this Warrant may be exercised, the Company will at all times have authorized,

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and reserved for the purpose of issue or transfer upon exercise of the subscription rights evidenced by this Warrant, a sufficient number of shares of Warrant Shares to provide for the exercise of the rights represented by this Warrant. The Company will take all such action as may be necessary to assure that the Warrant Shares may be so issued without violation of any applicable law or regulation or of any preemptive or contractual rights of any person or entity.

4. No fractional shares of Series C Preferred Stock shall be issued upon the exercise of this Warrant, but, instead of any fraction of a share which would otherwise be issuable, the Company shall pay a cash adjustment in respect of such fraction in an amount equal to the same fraction of the fair market value per share of Series C Preferred Stock as of the close of business on the date of the notice required by Section 1 above.

5. This Warrant, unless and until exercised, shall not entitle the Holder to any voting rights or other rights as a stockholder of the Company.

6. Subject to the provisions of Section 12 and Section 15 of the Warrant Agreement, this Warrant and all rights hereunder are assignable.

[SIGNATURE PAGE FOLLOWS]

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IN WITNESS WHEREOF, the Company has caused this Warrant to be signed by its duly authorized officer and this Warrant to be dated as of \_\_\_\_\_, 2006.

AMEDICA CORPORATION

By: \_\_\_\_\_

Its: \_\_\_\_\_

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Form of Election to Purchase  
(To Be Executed Upon Exercise Of Warrant)

The undersigned hereby irrevocably elects to exercise the right, represented by this Warrant, to receive \_\_\_\_\_ shares of Series C Preferred Stock and herewith tenders payment for such shares to the order of CREATION CAPITAL LLC in the amount of \$2.20 per share, as adjusted pursuant to the terms of that certain Warrant Agreement, in accordance with the terms hereof and the terms of the Warrant Agreement. The undersigned requests that a certificate for such shares be registered in the name of \_\_\_\_\_ whose address is \_\_\_\_\_ and that such shares be delivered to \_\_\_\_\_ whose address is \_\_\_\_\_. If said number of shares is less than all of the shares of Series C Preferred Stock purchasable hereunder, the undersigned requests that a new Warrant representing the remaining balance of such shares be registered in the name of \_\_\_\_\_ whose address is \_\_\_\_\_ and that such shares be delivered to \_\_\_\_\_ whose address is \_\_\_\_\_.

Signature: \_\_\_\_\_

Date: \_\_\_\_\_



**SERIES D  
WARRANT AGREEMENT**

THIS SERIES D WARRANT AGREEMENT (this "*Warrant Agreement*") dated of April 27, 2007, is made by and between CREATION CAPITAL LLC, a Delaware limited liability company ("*Creation Capital*"), and AMEDICA CORPORATION, a Delaware corporation (the "*Company*").

WHEREAS, pursuant to the letter dated March 26, 2007 (the "*Engagement Letter*"), Creation Capital was engaged by the Company as the exclusive placement agent to the Company in the United States in connection with the private placement of up to \$13,500,000, subject to an over-allotment of up to \$1,500,000, of shares of the Company's Series D Convertible Preferred Stock (the "*Stock*"); and

WHEREAS, the Engagement Letter provides that upon each closing of the sale of Stock, Creation Capital shall receive warrants to purchase a number of shares of Stock equal to six percent (6%) of the total number of shares of Stock sold at such closing; and

WHEREAS, the Engagement Letter further provides that the warrants shall be issued pursuant to a definitive warrant agreement mutually agreed to by the Company and Creation Capital.

NOW, THEREFORE, in consideration of the premises and the mutual agreements hereinafter set forth and for the purposes of defining terms and provisions of the Warrants and the certificates representing the Warrants and the respective rights and obligations thereunder of the Company, Creation Capital and the holders of certificates representing the Warrants, the Company and Creation Capital hereby agree as follows:

*Section 1. Form of Warrant.* The Company shall grant to Creation Capital (Creation Capital and/or its assigns are collectively referred to herein as the "*Holder*") warrant(s) (the "*Warrant*"), in the form of Exhibit A hereto, to purchase shares of Stock at a purchase price of \$3.30 per share (the "*Exercise Price*") all as more fully set forth herein. The Warrant shall be executed on behalf of the Company by its Chief Executive Officer or any other authorized officer of the Company, and dated as of the date of issuance of the Warrant.

*Section 2. Exercise Period of Warrant.* The Warrant shall be exercisable at any time commencing on the first anniversary of the date of issuance of the Warrant and shall terminate at 5:00 p.m., New York City Time, on the seventh anniversary of the date of issuance of the Warrant (the "*Warrant Termination Date*"); provided, however, that in the event of (a) the closing of the issuance and sale of shares of the common stock, \$0.01 par value per share (the "*Common Stock*"), of the Company in the Company's first underwritten public offering ("*IPO*") pursuant to an effective registration statement under the Securities Act of 1933, as amended (the "*Securities Act*") or (b) a Change of Control (as defined below), the Warrant shall, on the date of such event, become immediately exercisable.

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A “**Change of Control**” shall mean any acquisition of capital stock of the Company, directly or indirectly, any merger, tender offer, recapitalization or asset sale pursuant to which the Company’s stockholders immediately prior to such transaction hold less than 50% of the voting securities of the surviving corporation immediately after such transaction or the majority of the assets of the Company are transferred or sold, except that any internal re-structuring or re-organization of the Company that does not change the effective ultimate ownership of the Company shall not be deemed a Change of Control.

*Section 3. Term of Warrant Agreement.* Except as otherwise expressly provided herein, this Warrant Agreement shall become void and all rights hereunder and all rights in respect thereof under the Warrant shall cease as of the Warrant Termination Date except to the extent that the Warrant is exercised prior to such date.

*Section 4. Number of Shares.* The Warrant shall be exercisable for up to the number of shares of Stock as shall be indicated on the Warrant, subject to adjustment as provided herein (the “**Warrant Shares**”).

*Section 5. Adjustment Provisions.* The Exercise Price and the number of shares of Stock underlying the Warrant shall be subject to adjustment from time to time as hereinafter set forth:

(a) *Stock Dividends – Stock Splits.* If after the date hereof, the number of outstanding shares of Stock is increased by a stock dividend payable in shares of Stock or by a sub-division or a stock split of shares of Stock or other similar event as described in the Certificate of Designation, Preferences and Rights of the Stock (the “**Certificate of Designation**”), then, on the effective date thereof, the number of shares of Stock issuable on exercise of the Warrant shall be increased in proportion to such increase in outstanding shares.

(b) *Aggregation of Shares.* If after the date hereof, the number of outstanding shares of Stock is decreased by a consolidation, combination, reverse stock split or reclassification of shares of Stock or other similar event, then, on the effective date thereof, the number of shares of Stock issuable on exercise of the Warrant shall be decreased in proportion to such decrease in outstanding shares.

(c) *Adjustments in Exercise Price.* Whenever the number of the shares of Stock issuable upon the exercise of the Warrant is adjusted, as provided in Sections 5(a) and (b), the Exercise Price shall be adjusted (to the nearest cent) by multiplying such Exercise Price immediately prior to such adjustment by a fraction (x) the numerator of which shall be the number of the shares of Stock purchasable upon the exercise of the Warrant immediately prior to such adjustment and (y) the denominator of which shall be the number of the shares of Stock so purchasable immediately thereafter.

(d) *When De Minimis Adjustment May Be Deferred.* No adjustment in the Exercise Price need be made unless the adjustment would require an increase or decrease of at least 1% in the Exercise Price. Any adjustments that are not made shall be carried forward and taken into account in any subsequent adjustment. All calculations under this Section 5 shall be made to the nearest 1/100<sup>th</sup> of a share.

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(e) *Notice.* Whenever there shall be an adjustment as provided in this Section 5, the Company shall promptly cause written notice thereof to be sent to the Holder in accordance with Section 11 hereof, which notice shall be accompanied by an officer's certificate setting forth the number of Warrant Shares purchasable upon the exercise of this Warrant and the Exercise Price after such adjustment and setting forth a brief statement of the facts requiring such adjustment and the computation thereof. Additionally, in case at any time the Company shall propose:

(i) to pay any dividend or make any distribution on shares of Stock in shares of Stock or make any other distribution to all holders of Stock; or

(ii) to issue any rights, warrants or other securities to all holders of Stock entitling them to purchase any additional shares of Stock or any other rights, warrants or other securities; or

(iii) to effect any reclassification or change of outstanding shares of Stock, or any consolidation, merger or sale; or

(iv) to effect any liquidation, dissolution or winding-up of the Company;

then, and in any one or more of such cases, the Company shall give written notice thereof to the Holder in accordance with Section 11 hereof, which notice shall be sent at least fifteen (15) days prior to (i) the date as of which the holders of record of shares of Stock to be entitled to receive any such dividend, distribution, rights, warrants, other securities are to be determined or (ii) the date on which any such reclassification, change of outstanding shares of Stock, consolidation, merger, sale, liquidation, dissolution or winding-up is expected to become effective, and the date as of which it is expected that holders of record of shares of Stock shall be entitled to exchange their shares for securities or other property, if any, deliverable upon such reclassification, change of outstanding shares, consolidation, merger, sale, liquidation, dissolution or winding-up.

*Section 6. Representations, Warranties and Covenants of the Company.* The Company hereby represents, warrants and covenants to Holder as follows:

(a) The Company is a corporation duly organized, validly existing and in good standing under the laws of the State of Delaware and is in good standing as a foreign corporation in each jurisdiction in which the nature of its business makes such qualification necessary and where the failure to so qualify would have a material adverse effect on its business or operations. The Company has all requisite corporate power and authority to carry out its business as presently conducted and as proposed to be conducted and to enter into and discharge its obligations under this Warrant Agreement and the Warrant.

(b) The execution and delivery of this Warrant Agreement and the Warrant by the Company and its performance and compliance with the terms of this Warrant Agreement and the Warrant have been duly authorized by all necessary corporate action on the part of the Company.

(c) The consummation of the transactions contemplated by this Warrant Agreement and the Warrant will not (i) conflict with, result in any breach of any of the terms and provisions of, or constitute (with or without notice or lapse of time or both) a default under, the

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certificate of incorporation or bylaws of the Company, or any material contract, agreement, indenture, loan agreement, receivables purchase agreement, mortgage, deed of trust, or other agreement or instrument to which the Company is a party or by which it or any of its properties is bound, (ii) result in the creation or imposition of any lien, adverse claim or other encumbrance upon any of the properties of the Company pursuant to the terms of any such material contract, agreement, indenture, loan agreement, receivables purchase agreement, mortgage, deed of trust, or other agreement or instrument, or (iii) violate any law or order, rule or regulation applicable to the Company of any court or of any federal or state regulatory body, administrative agency, or other governmental instrumentality having jurisdiction over the Company or any of its properties.

(d) This Warrant Agreement and the Warrant each constitutes a legal, valid and binding obligation of the Company and each is enforceable against the Company in accordance with the terms hereof and thereof, except as enforcement may be limited by applicable bankruptcy, insolvency, reorganization, moratorium or other similar laws affecting creditors' rights generally and by general principles of equity (whether considered in a proceeding or action in equity or at law).

(e) The Company shall at all times keep a sufficient number of authorized but unissued shares of Stock reserved for issuance upon the exercise of the Warrant. The Warrant Shares, when issued, delivered and paid for in accordance with the terms of this Warrant Agreement and the Warrant, will be duly and validly issued, fully paid and non-assessable and will not have been issued in violation of the pre-emptive or contractual rights of any person or entity.

(f) The Company shall deliver to each Holder of ten percent (10%) or more of the aggregate Warrant Shares such information and reports relating to the Company as the Company is required to provide to other holders of the Stock. The rights of such Holders under this Section 6(f) shall terminate upon the closing of the IPO.

(g) Upon receipt of evidence reasonably satisfactory to the Company of the loss, theft, destruction or mutilation of the Warrant or any certificate representing Warrant Shares, and, in the case of any such loss, theft or destruction, upon delivery of indemnity (which may include a bond) reasonably satisfactory to the Company, or, in the case of any such mutilation, upon surrender and cancellation of the Warrant or any certificate representing Warrant Shares, as the case may be, the Company will issue a new Warrant or certificates representing Warrant Shares, as the case may be, of like tenor representing an equivalent interest or right, in lieu of such lost, stolen, destroyed or mutilated Warrant or certificates representing Warrant Shares, as the case may be. The applicant for such replacement Warrant shall comply with such other reasonable requests as the Company may reasonably prescribe.

*Section 7. Representations, Warranties and Covenants of Holder.* Holder hereby represents, warrants and covenants to the Company as follows:

(a) Holder is acquiring the Warrant, and upon exercise of the Warrant will acquire the Warrant Shares, for its own account with no intention of distributing or reselling the Warrant or Warrant Shares in any transaction that would be a violation of the securities laws of the United States or any state, without prejudice to the Holder's rights at all times to sell or otherwise dispose of all or part of such Warrant under a registration under the Securities Act or

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an exemption available thereto. Holder is aware that neither the Warrant nor the Warrant Shares are registered under the Securities Act or any state or other jurisdiction's securities laws, and that Holder must hold the Warrant and the Warrant Shares indefinitely unless subsequently registered or an exemption from registration is available. Holder understands and agrees that the Warrant will bear the restrictive legend set forth on the Warrant and that the Warrant Shares will bear the legend set forth in Section 10 of this Warrant Agreement. Holder represents and warrants that it is an "accredited investor" as that term is defined in Rule 501 of Regulation D promulgated under the Securities Act.

*Section 8. Registration Rights.* The Holder shall be entitled to become a party to that certain Second Amended and Restated Registration Rights Agreement dated as of April 17, 2007, among the Company, prior holders of certain securities of the Company, and purchasers of shares of Stock (the "**Registration Rights Agreement**"). Upon executing and delivering to the Company a counterpart of the Registration Rights Agreement, and subject to the terms and conditions set forth therein and Section 9 hereof, the Holder have the registration rights set forth in the Registration Rights Agreement with respect to the shares of Common Stock issuable upon conversion of the Warrant Shares to the extent that such shares are Registrable Securities (as such term is defined in the Registration Rights Agreement).

*Section 9. Effect of Registration Rights of Heirs, Assigns, Beneficiaries, Successors and Transferees.* The heirs, assigns, beneficiaries and successor of the Holder shall be entitled to the registration rights set forth in Registration Rights Agreement, as amended; *provided, however,* that such Person or Persons will be able to exercise such rights of the Holder only if it or they have at least 5% of the equity interest in the Company.

*Section 10. Transfers and Exchanges.* Subject to the terms of Section 13 hereof, the Company shall from time to time register the transfer of the Warrant in a Warrant register to be maintained by the Company upon surrender thereof accompanied by a written instrument or instruments of transfer in the form of assignment attached hereto or as otherwise may be satisfactory to the Company, duly executed by the Holder thereof or by the duly appointed legal representative thereof or by a duly authorized attorney. Upon any such transfer, the surrendered Warrant shall be canceled and disposed of by the Company and a new Warrant shall be issued to the transferee(s). The Holder agrees that prior to any proposed transfer of the Warrant or of the Warrant Shares, if such transfer is not made pursuant to an effective registration statement under the Securities Act and any applicable state securities laws, the Holder shall deliver to the Company:

- (a) an investment covenant substantially similar to Section 7(a) hereof and otherwise reasonably satisfactory to the Company signed by the proposed transferee;
- (b) an agreement by such transferee to the impression of the restrictive investment legend set forth below on the Warrant or the Warrant Shares;
- (c) an agreement by such transferee that the Company may place a notation in the stock books of the Company or a "stop transfer order" with any transfer agent or registrar with respect to the Warrant Shares;
- (d) an agreement by such transferee to be bound by the provisions of this Section 10 relating to the transfer of such Warrant or Warrant Shares; and

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(e) an opinion of counsel, reasonably satisfactory in form and substance to the Company, that the transfer is exempt from registration requirements under the Securities Act and any applicable state securities laws.

The Holder agrees that each Warrant and each certificate representing Warrant Shares will bear the following legend:

**THE SECURITIES EVIDENCED OR CONSTITUTED HEREBY HAVE BEEN ACQUIRED FOR INVESTMENT AND HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED. SUCH SECURITIES MAY NOT BE SOLD, TRANSFERRED, PLEDGED OR HYPOTHECATED UNLESS THE REGISTRATION PROVISIONS OF SAID ACT AND ANY APPLICABLE STATE SECURITIES LAWS HAVE BEEN COMPLIED WITH OR UNLESS THE COMPANY HAS RECEIVED AN OPINION OF COUNSEL REASONABLY SATISFACTORY TO THE COMPANY THAT SUCH REGISTRATION IS NOT REQUIRED.**

*Section 11. Notices.* All demands, notices and communications relating to this Warrant Agreement or any Warrant shall be in writing and (i) sent by registered or certified mail, postage prepaid, return receipt requested, (ii) hand delivered, (iii) sent by express mail or other reasonable overnight delivery service, or (iv) sent by telecopy, as follows:

If to the Company:

Amedica Corporation  
615 Arapeen Drive, Suite 302  
Salt Lake City, UT 84108  
Attention: Ashok Khandkar,  
Chief Executive Officer  
Telephone: (801) 535-4355  
Telecopy: (801) 584-2533

with a copy to:

Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C.  
One Financial Center  
Boston, MA 02111  
Attention: Jonathan L. Kravetz, Esq.  
Telephone: (617) 542-6000  
Telecopy: (617) 542-2241

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If to Holder:

Creation Capital LLC  
100 Congress Avenue, Suite 2000  
Austin, TX 78701  
Attention: Gregg R. Honigblum,  
Chief Executive Officer  
Telephone: (512) 370-4900  
Telecopy: (512) 473-4903

with a copy to:

Winston & Strawn LLP  
200 Park Avenue  
New York, NY 10166  
Attention: Nick Krylov, Esq.  
Telephone: (212) 294-6617  
Telecopy: (212) 294-4700

Any such demand, notice or communication hereunder shall be deemed to have been duly given when received by the other party or parties at the address shown above or on the next succeeding business day if the date of receipt is not a business day, or such other address as may hereafter be furnished to the other party or parties by like notice and shall be deemed to have been received on the date delivered to or received at the premises of the addresses.

*Section 12. Counterparts.* For the purpose of facilitating the execution of this Warrant Agreement and for other purposes, this Warrant Agreement may be executed simultaneously in any number of counterparts, each of which shall be deemed to be an original, and all of which together shall constitute and be one and the same instrument; and such counterparts may be delivered via facsimile to the numbers designated in or pursuant to Section 11 hereof.

*Section 13. Assignability.* Subject to the provisions set forth in Section 10, the Holder may assign the rights and interests under this Warrant Agreement to any person without the Company's consent; provided, however, that in the event such assignee (other than an assignee which is a Holder Affiliate (as such term is defined below)) is reasonably deemed by the Company to compete with the Company in its traditional business activities (a "**competitor**"), the Company shall not be required to furnish to such assignee information and reports relating to the Company pursuant to Section 6(f) of this Warrant Agreement and, upon notice given by the Company to Holder that such assignee is deemed a "competitor," Holder shall not furnish to such assignee any information or reports relating to the Company, without the Company's prior written consent; and provided, further, however, that no such assignment shall be made to the extent such transfer would subject the Company to the reporting requirements of the Securities Exchange Act of 1934, as amended. The Holder shall promptly cause written notice of any such transfer to be sent to the Company in accordance with Section 10 hereof at least fourteen (14) days prior to such transfer. Notwithstanding the foregoing or any other provision to the contrary, the Warrant and the Warrant Shares will be "restricted securities" as defined in Rule 144 under the Securities Act, and thus will not be transferable except in compliance with applicable federal and state securities laws and regulations. "**Holder Affiliate**" shall mean any person that directly, or indirectly through one or more intermediaries, controls, or is controlled by, or is under common control with, such Holder.

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*Section 14. Governing Law; Jurisdiction; Waiver of Jury Trial.*

(a) *Governing Law.* This Warrant Agreement shall be governed by, and construed in accordance with, the laws of the State of Delaware, without regard to conflict of law principles.

(b) *Jurisdiction.* Each of the Company and the Holder hereby irrevocably submits to the jurisdiction of any New York State or Federal court sitting in New York City in any action or proceeding arising out of or relating to this Warrant Agreement or the Warrant, and each of the Company and the Holder hereby irrevocably agrees that all claims in respect of such action or proceeding may be heard and determined in such New York State court or in such Federal court. Each of the Company and the Holder hereby irrevocably waives, to the fullest extent permitted under applicable law, the defense of an inconvenient forum to the maintenance of such action or proceeding. Each of the Company and the Holder irrevocably consents, to the fullest extent permitted under applicable law, to the service of any summons and complaint and any other process by the mailing of copies of such process to them at their respective address specified in Section 11 hereof. Each of the Company and the Holder hereby agrees, to the fullest extent permitted under applicable law, that a final judgment in any such action or proceeding shall be conclusive and may be enforced in other jurisdictions by suit on the judgment or in any other manner provided by law.

(c) *Waiver of Jury Trial.* **TO THE FULLEST EXTENT PERMITTED UNDER APPLICABLE LAW, EACH OF THE COMPANY AND THE HOLDER HEREBY IRREVOCABLY WAIVES ALL RIGHT TO A TRIAL BY JURY IN ANY ACTION, PROCEEDING OR COUNTERCLAIM ARISING OUT OF OR RELATING TO THIS WARRANT AGREEMENT OR ANY WARRANT ISSUED HEREUNDER.**

*Section 15. Amendments.* This Warrant Agreement may be amended from time to time by written instrument signed by the Company and the Holders of a majority of the Warrant Shares issued or issuable upon exercise of the Warrant and no waiver of any of the terms hereof shall be effective unless it is in writing and signed by the Holders of a majority of the Warrant Shares issued or issuable upon exercise of the Warrant or the Company, as the case may be. Any amendment or waiver pursuant to this Section 15 shall be binding on all Holders of the Warrant Shares and may be given retroactive, prospective or concurrent effect, depending upon the language in such amendment or waiver.

*Section 16. No Waiver.* No failure on the part of the Holder or the Company to exercise, and no delay in exercising, any right hereunder shall operate as a waiver thereof; nor shall any single or partial exercise of any right hereunder preclude any other or further exercise thereof or the exercise of any other right. The remedies herein provided are cumulative and not exclusive of any remedies provided by law.

*Section 17. Termination.* This Warrant Agreement shall terminate on the Warrant Termination Date. Notwithstanding the foregoing, this Warrant Agreement will terminate on any earlier date if the Warrant has been exercised in full.

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IN WITNESS WHEREOF, the parties hereto have caused this Series D Warrant Agreement to be duly executed by their respective officers on the day and year first above written.

AMEDICA CORPORATION

By: /s/ Ashok Khandkar

Name: Ashok Khandkar

Title: Chief Executive Officer

CREATION CAPITAL LLC

By: /s/ Gregg R. Honigblum

Name: Gregg R. Honigblum

Title: Chief Executive Officer

Form of Warrant

THE SECURITIES EVIDENCED OR CONSTITUTED HEREBY HAVE BEEN ACQUIRED FOR INVESTMENT AND HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED. SUCH SECURITIES MAY NOT BE SOLD, TRANSFERRED, PLEDGED OR HYPOTHECATED UNLESS THE REGISTRATION PROVISIONS OF SAID ACT AND ANY APPLICABLE STATE SECURITIES LAWS HAVE BEEN COMPLIED WITH OR UNLESS THE COMPANY HAS RECEIVED AN OPINION OF COUNSEL REASONABLY SATISFACTORY TO THE COMPANY THAT SUCH REGISTRATION IS NOT REQUIRED.

Exercisable on or before  
the Warrant Termination Date  
(as defined below)

**WARRANT TO PURCHASE SERIES D CONVERTIBLE PREFERRED STOCK**

To Subscribe for and Purchase Series D Convertible Preferred Stock

of

**AMEDICA CORPORATION**

WARRANT NO. \_\_\_\_\_

This certifies that, for value received, Creation Capital LLC, a Delaware limited liability company ("*Creation Capital*"), or its assigns Creation Capital and/or its assigns are collectively referred to herein as the "*Holder*", is entitled to subscribe for and purchase from Amedica Corporation, a Delaware corporation (the "*Company*"), at any time commencing on the first anniversary of the date hereof and shall terminate at 5:00 p.m., New York City Time, on the seventh anniversary of the date hereof (the "*Warrant Termination Date*"), \_\_\_\_\_ shares (the "*Warrant Shares*") of the Company's Series D Convertible Preferred Stock, par value \$0.01 per share (the "*Series D Preferred Stock*"), subject to adjustment as provided in that certain Series D Warrant Agreement, dated as of April 27, 2007, by and between the Company and Creation Capital (the "*Warrant Agreement*"), at an exercise price of \$3.30 per share, as such exercise price may be adjusted from time to time under the Warrant Agreement. No Warrant may be exercised after the Warrant Termination Date.

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In the event of (a) the closing of the issuance and sale of shares of common stock, \$0.01 par value per share (the “**Common Stock**”), of the Company in the Company’s first underwritten public offering (“**IPO**”) pursuant to an effective registration statement under the Securities Act of 1933, as amended (the “**Securities Act**”), or (b) a Change of Control, the Warrant shall, on the date of such event, become immediately exercisable.

A “**Change of Control**” shall mean any acquisition of capital stock of the Company, directly or indirectly, any merger, tender offer, recapitalization or asset sale pursuant to which the Company’s stockholders immediately prior to such transaction hold less than 50% of the voting securities of the surviving corporation immediately after such transaction or the majority of the assets of the Company are transferred or sold, except that any internal re-structuring or re-organization of the Company that does not change the effective ultimate ownership of the Company shall not be deemed a Change of Control.

This Series D Preferred Stock Purchase Warrant and all Series D Preferred Stock Purchase Warrants issued in substitution or exchange therefor are herein individually called a “**Warrant**” and collectively called “**Warrants**.”

This Warrant is issued pursuant to and, subject to the terms and conditions of, the Warrant Agreement, which Warrant Agreement is incorporated by reference in and made a part of this instrument. Capitalized terms not otherwise defined herein shall have the meanings given them in the Warrant Agreement. Any conflict between the terms of this Warrant and the Warrant Agreement shall be resolved in favor of the terms of the Warrant Agreement.

This Warrant is further subject to the following provisions, terms and conditions:

1. (a) In order to exercise this Warrant, in whole or in part, the Holder shall deliver to the Company, at the office the Company designated for such purpose in Section 11 of the Warrant Agreement, (i) the form of election to purchase set forth herein properly completed and signed, (ii) payment of the Warrant Price pursuant to Section 1(b), and (iii) this Warrant. Upon receipt of the items referred to in clauses (i), (ii) and (iii) above, the Company shall, as promptly as practicable, and in any event within ten (10) days thereafter, execute or cause to be executed and deliver or cause to be delivered to the Holder a certificate or certificates, in such name or names as the Holder may designate, representing the aggregate number of full shares of Series D Preferred Stock issuable upon such exercise, together with cash in lieu of any fraction of a share, as hereinafter provided in Section 4 hereof. If this Warrant shall have been exercised in part, the Company shall, at the time of delivery of the certificate or certificates representing Warrant Shares, deliver to the Holder a new Warrant evidencing the rights of the Holder to purchase the unpurchased shares of Series D Preferred Stock called for by this Warrant, which new Warrant shall in all other respects be identical with this Warrant.

(b) Payment to the Company of the purchase price for the Warrant Shares so purchased (the “**Warrant Price**”) may be made, at the option of the Holder, by payment of the Warrant Price in cash or by wire transfer or cashier’s check drawn on a United States bank.

(c) Net Exercise. In the event of any exercise of this Warrant in connection with an automatic conversion of the Series D Preferred Stock into shares of the Company’s

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Common Stock pursuant to Section 2(c) of the Certificate of Designation, in lieu of exercising this Warrant pursuant to Section 1(b), the Holder may elect to receive, without the payment by the Holder of any additional consideration, shares of Series D Preferred Stock equal to the value of this Warrant (or the portion thereof being canceled) by surrender of this Warrant at the principal office of the Company together with notice of such election, in which event the Company shall issue to the holder hereof a number of shares of Series D Preferred Stock computed using the following formula:

$$X = \frac{Y \times (A-B)}{A}$$

Where: X = The number of shares of Series D Preferred Stock to be issued to the Holder pursuant to this net exercise;

Y = The number of shares of Series D Preferred Stock in respect of which the net issue election is made;

A = The fair market value of one share of the Series D Preferred Stock at the time the net issue election is made;

B = The Exercise Price (as adjusted to the date of the net issuance).

For purposes of this Section 1(c), the fair market value of one share of Series D Preferred Stock (or Common Stock, to the extent all such Series D Preferred Stock has been converted into the Company's Common Stock) as of a particular date shall be determined as follows: (i) if traded on a securities exchange or through the Nasdaq Global Market, the value shall be deemed to be the average of the closing prices of the securities on such exchange over the thirty (30) day period ending three (3) days prior to the net exercise election; (ii) if traded over-the-counter, the value shall be deemed to be the average of the closing bid or sale prices (whichever is applicable) over the thirty (30) day period ending three (3) days prior to the net exercise; and (iii) if there is no active public market, the value shall be the fair market value thereof, as determined in good faith by the Board of Directors of the Company; provided, however, that, if the Warrant is being exercised upon the closing of the IPO, the value will be the initial "Price to Public" of one share of such Series D Preferred Stock (or Common Stock issuable upon conversion of such Series D Preferred Stock) specified in the final prospectus with respect to such offering (net of applicable underwriting commissions).

2. Notwithstanding the foregoing, however, the Company shall not be required to deliver any certificate for shares of stock upon exercise of this Warrant except in accordance with the provisions, and subject to the limitations of, Section 4 hereof and the restrictive legend on the first page hereof.

3. The Company covenants and agrees that the Warrant Shares will, upon issuance, delivery and receipt of consideration therefor, be duly authorized and issued, fully paid and nonassessable and free from all taxes, liens and charges with respect to the issue thereof. The Company further covenants and agrees that during the period within which the rights represented by this Warrant may be exercised, the Company will at all times have authorized,

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and reserved for the purpose of issue or transfer upon exercise of the subscription rights evidenced by this Warrant, a sufficient number of shares of Warrant Shares to provide for the exercise of the rights represented by this Warrant. The Company will take all such action as may be necessary to assure that the Warrant Shares may be so issued without violation of any applicable law or regulation or of any preemptive or contractual rights of any person or entity.

4. No fractional shares of Series D Preferred Stock shall be issued upon the exercise of this Warrant, but, instead of any fraction of a share which would otherwise be issuable, the Company shall pay a cash adjustment in respect of such fraction in an amount equal to the same fraction of the fair market value per share of Series D Preferred Stock as of the close of business on the date of the notice required by Section 1 above.

5. This Warrant, unless and until exercised, shall not entitle the Holder to any voting rights or other rights as a stockholder of the Company.

6. Subject to the provisions of Section 10 and Section 13 of the Warrant Agreement, this Warrant and all rights hereunder are assignable.

[SIGNATURE PAGE FOLLOWS]

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IN WITNESS WHEREOF, the Company has caused this Warrant to be signed by its duly authorized officer and this Warrant to be dated as of \_\_\_\_\_, 20\_\_.

AMEDICA CORPORATION

By: \_\_\_\_\_

Its: \_\_\_\_\_

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Form of Election to Purchase

(To Be Executed Upon Exercise Of Warrant)

The undersigned hereby irrevocably elects to exercise the right, represented by this Warrant, to receive \_\_\_\_\_ shares of Series D Preferred Stock and herewith tenders payment for such shares to the order of CREATION CAPITAL LLC in the amount of \$3.30 per share, as adjusted pursuant to the terms of that certain Series D Warrant Agreement, in accordance with the terms hereof and the terms of the Series D Warrant Agreement. The undersigned requests that a certificate for such shares be registered in the name of \_\_\_\_\_ whose address is \_\_\_\_\_ and that such shares be delivered to \_\_\_\_\_ whose address is \_\_\_\_\_. If said number of shares is less than all of the shares of Series D Preferred Stock purchasable hereunder, the undersigned requests that a new Warrant representing the remaining balance of such shares be registered in the name of \_\_\_\_\_ whose address is \_\_\_\_\_ and that such shares be delivered to \_\_\_\_\_ whose address is \_\_\_\_\_.

Signature: \_\_\_\_\_

Date: \_\_\_\_\_



**AMEDICA CORPORATION**  
**SUBSCRIPTION AGREEMENT**

THE SECURITIES OFFERED HEREBY IN THE FORM OF THE SERIES C CONVERTIBLE PREFERRED STOCK HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"), OR ANY STATE SECURITIES LAWS. THE SECURITIES OFFERED HEREBY CANNOT BE SOLD, TRANSFERRED, ASSIGNED OR OTHERWISE DISPOSED OF EXCEPT IN COMPLIANCE WITH THE RESTRICTIONS ON TRANSFERABILITY CONTAINED IN THIS AGREEMENT AND APPLICABLE FEDERAL AND STATE SECURITIES LAWS AND WILL NOT BE TRANSFERRED OF RECORD EXCEPT IN COMPLIANCE WITH THIS AGREEMENT AND SUCH LAWS.

Creation Capital LLC  
100 Congress Avenue, Suite 2000  
Austin, Texas 78701  
Attention: Gregg R. Honigblum

Ladies and Gentlemen:

1. Subscription. Subject to the terms and conditions of this agreement (the "Subscription Agreement") and the terms of the offering described in the Confidential Private Placement Memorandum for shares of Series C Convertible Preferred Stock, par value \$.01 per share ("Series C Preferred Stock"), of Amedica Corporation (the "Company") dated December 14, 2005 (the "Memorandum"), the undersigned hereby subscribes for and agrees to purchase from the Company \_\_\_\_\_ shares of Series C Preferred Stock, being issued and sold by the Company, at a purchase price of \$2.00 per share. In connection with the undersigned's delivery of this Subscription Agreement to the address set forth above, the undersigned herewith delivers a check in (or, at the option of the Company, wire transfer of) the amount of \$\_\_\_\_\_ (representing the number of shares of Series C Preferred Stock to be purchased multiplied by \$2.00), made payable to "Amedica Stock Subscription Escrow," which amount represents the aggregate purchase price of the shares of Series C Preferred Stock purchased by the undersigned. If the undersigned wire transfers the subscription amounts, the instructions for the wire transfer shall be as follows:

Name of Bank:	Wells Fargo Bank, N.A
Address of Bank:	299 South Main Street Salt Lake City, UT 84111
ABA Number:	XXX XXX XXX
Account Number:	XXXXXXXX
Attn:	Corporate Trust Services
Reference:	FBO Amedica Stock Subscription Escrow

**ANY SUBSCRIPTION FOR SHARES OF SERIES C PREFERRED STOCK MUST BE FOR A MINIMUM OF 50,000 SHARES (\$100,000);** however, the Company reserves the right in its discretion to accept subscriptions for lesser amounts.

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Except to the extent provided by applicable state securities laws, the undersigned agrees this subscription is irrevocable and will survive the death or disability of the undersigned. The undersigned further understands that if and to the extent this subscription is not accepted, in whole or in part, by the Company or Creation Capital LLC (the "Placement Agent") the amounts received on behalf of the Company from the undersigned will be returned, without interest, to the undersigned.

2. Access to Information. By initialing this Subscription Agreement in the space provided below, the undersigned acknowledges receipt of a copy of the Memorandum and, represents that the undersigned has read, carefully reviewed and understood the Memorandum. The undersigned further acknowledges that the Company has made available to the undersigned, or the undersigned's personal advisors, the opportunity to obtain additional information to verify the accuracy of the information contained in the Memorandum to the undersigned's satisfaction, and to evaluate the merits and risks of the undersigned's investment in the Series C Preferred Stock.

PLEASE INITIAL HERE: \_\_\_\_\_  
Initial

3. Representations and Warranties. The undersigned hereby represents and warrants to the Company and the Placement Agent and to each other person who subscribes for the Series C Preferred Stock, with the understanding that the Company and the Placement Agent will evaluate this subscription in reliance on the undersigned's representations and warranties and that the other subscribers for the Series C Preferred Stock will rely on the undersigned's representations and warranties in subscribing for the Series C Preferred Stock as follows:

(a) The Company has answered all inquiries the undersigned has made concerning the Company, its business and financial condition, or any other matter relating to the operation of the Company and the offer and sale of the Series C Preferred Stock. No person has made any oral or written statement or inducement to the undersigned that is contrary to the information set forth in the Memorandum.

(b) The undersigned has such knowledge and experience in financial and business matters, and financial and business matters of the type in which the Company is engaged, that the undersigned is capable of evaluating the merits and risks of an investment in the Company through a purchase of the Series.C Preferred Stock.

(c) The undersigned is familiar with the nature of and risks attendant to an investment of the type represented by the Series C Preferred Stock (including the fact that their transferability is significantly restricted), is financially capable of bearing the economic risk of the investment and can afford the loss of the total amount of such investment. The undersigned is purchasing shares of Series C Preferred Stock for the undersigned's own account, for investment, and not with a view to, or for, resale or further distribution in violation of the Securities Act.

(d) If the undersigned is a corporation, partnership, trust or other entity, it is duly organized and validly existing under the laws of the state and country of its incorporation or formation, the person executing this Subscription Agreement in a representative or fiduciary

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capacity on behalf of undersigned has full power and authority to execute and deliver this Subscription Agreement in that capacity and on behalf of the subscribing corporation, partnership, trust or other entity, and such entity has full right and power to perform its obligations pursuant to this Subscription Agreement.

(e) If the undersigned is a foreign investor, the undersigned is not a “U.S. person” within the meaning of Regulation S promulgated under the Securities Act, because: (1) the undersigned is not a natural person resident in the United States, or (2) a partnership or corporation organized or incorporated under the laws of any jurisdiction and formed by a U.S. person principally for purposes of investing in securities not registered under the Securities Act unless it is organized or incorporated and owned by “accredited investors” who are not natural persons, estates or trusts, or (3) an estate of which any executor or administrator is a U.S. person, or (4) a trust of which any trustee is a U.S. person, or (5) any agency or branch of a foreign entity located in the United States.

(f) (i) The undersigned is an entity that is an “accredited investor” as that term is defined in Rule 501(a) of Regulation D promulgated under the Securities Act and that was not formed for the purpose of investing in the Series C Preferred Stock;

OR

(ii) The undersigned is an individual who is an “accredited investor” because: (1) the undersigned is a director or executive officer of the Company, or (2) the undersigned has an individual net worth, or joint net worth with the undersigned’s spouse, at the time of the purchase in excess of \$1,000,000 (which net worth includes the value of homes, home furnishings and automobiles), or (3) the undersigned has an individual income in excess of \$200,000 in each of the two most recent years or joint income with the undersigned’s spouse in excess of \$300,000 in each of those years and has a reasonable expectation of reaching the same income level in the current year;\* and

(iii) The undersigned represents that the undersigned: (A) does not have an overall commitment to investments which are not readily marketable that is disproportionate to the undersigned’s net worth, and that the undersigned’s investment in the Series C Preferred Stock will not cause that overall commitment to become excessive; and (B) has adequate net worth and means of providing for the undersigned’s current needs and personal contingencies to sustain a complete loss of the undersigned’s investment in the Company at the time of investment and has no need for liquidity in the undersigned’s investment in the Series C Preferred Stock.

(iv) At the Company’s or Placement Agent’s request, the undersigned will provide the Company and/or the Placement Agent with (1) copies of its organizational

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\* A person’s “income” is the amount of his or her individual adjusted gross income (as reported on a federal income tax return), increased by the following amounts: (a) any deduction for depletion (Section 611 et seq. of the Internal Revenue Code of 1986, as amended (the “Code”)); (b) any exclusion for interest on tax exempt municipal obligations (Section 103 of the Code); and (c) any losses of a partnership allocated to the individual (Schedule E of Form 1040).

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documents if it is other than an individual, and (2) documents, statements and tax returns necessary to determine and verify the undersigned's "accredited investor" status.

PLEASE INITIAL HERE: \_\_\_\_\_  
Initial

4. Agreement Not to Sell Within Twelve Months of the Date of Purchase. Without the prior written consent of the Company, the undersigned hereby agrees that it will not, for a period of 12 months from the date of purchase of the Series C Preferred Stock, offer, sell or contract to sell, or otherwise dispose of, directly or indirectly, any shares of Series C Preferred Stock (except to affiliates or family members who agree to be so bound).

5. Indemnification. The undersigned agrees to indemnify and hold harmless the Company, its officers, directors, employees, stockholders and affiliates, and any person acting on behalf of the Company, including the Company's counsel and the Placement Agent and their officers, employees and agents, from and against any and all damage, loss, liability, cost and expense (including attorney's fees that any of them may incur by reason of the failure by the undersigned to fulfill any of the terms and conditions of this Subscription Agreement, or by reason of any breach of the representations and warranties made by the undersigned herein, or in any other document provided by the undersigned to the Company. All representations, warranties and covenants contained in this Subscription Agreement, and the indemnification contained in this Section 6, shall survive the acceptance of this Subscription Agreement.

6. Execution of Further Documents. If this subscription is accepted by the Company and the Placement Agent, the undersigned will execute and deliver such documents and agreements as shall be necessary to provide the undersigned with all of the rights and preferences of the holders of the Series C Preferred Stock as described in the Memorandum, including an agreement memorializing certain rights to have the shares of Series C Preferred Stock registered for public sale under the Securities Act.

7. Transferability; Binding Effect. The undersigned hereby agrees that neither this Subscription Agreement nor any interest in it may be sold, assigned, pledged, transferred or otherwise disposed of, except as otherwise provided for herein, in any manner, by the undersigned, without the prior written consent of the Company. This Subscription Agreement will inure to the benefit of and be binding upon the Company and its successors and assigns and the undersigned and the undersigned's heirs, personal representatives, successors and permitted assigns.

8. Acceptance of Subscription. The Company and the Placement Agent will have the right to accept or reject this Subscription Agreement, in whole or in part, and this Subscription Agreement shall be deemed to be accepted only when the acceptances attached hereto are signed by them. The undersigned acknowledges that the completion date of the offering and sale of the Series C Preferred Stock may be extended as described in the Memorandum.

9. No Waiver. Notwithstanding any of the representations, warranties, acknowledgments or agreements made herein by the undersigned, the undersigned does not thereby or in any other manner waive any of the rights granted to the undersigned under federal or state securities laws.

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10. Governing Law. **THIS AGREEMENT SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF DELAWARE, WITHOUT GIVING REGARD TO THE CONFLICT OF LAWS PRINCIPLES THEREOF.**

By accepting this Subscription Agreement, the Company agrees that it will provide the undersigned with annual audited financial statements, and unaudited quarterly financial statements, balance sheets and statements of cash flows.

IN WITNESS WHEREOF, the undersigned has executed this Subscription Agreement this \_\_\_ day of \_\_\_\_\_, 2006.

\_\_\_\_\_  
Subscription Amount

\_\_\_\_\_  
(Purchaser's Name)

\_\_\_\_\_  
(Purchaser's Address)

\_\_\_\_\_  
(Telephone - day)

\_\_\_\_\_  
(Telephone - evening)

\_\_\_\_\_  
(Purchaser's Signature)

\_\_\_\_\_  
(Purchaser's Social Security or Taxpayer Identification Number)

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ACCEPTANCE

Creation Capital LLC hereby accepts the foregoing Subscription Agreement this \_\_\_ day of \_\_\_\_\_, 2006.

CREATION CAPITAL LLC

By: \_\_\_\_\_  
Name: Gregg R. Honiglum  
Title: Chief Executive Officer

ACCEPTANCE

Amedica Corporation hereby accepts the foregoing Subscription Agreement this \_\_\_ day of \_\_\_\_\_, 2006.

AMEDICA CORPORATION

By: \_\_\_\_\_  
Name: Ashok Knandkar  
Title: President and chief Executive Officer

**AMEDICA CORPORATION**  
**SUBSCRIPTION AGREEMENT**

THE SECURITIES OFFERED IN THE FORM OF THE SERIES D CONVERTIBLE PREFERRED STOCK HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"), OR ANY STATE SECURITIES LAWS. THE SECURITIES OFFERED HEREBY CANNOT BE SOLD, TRANSFERRED, ASSIGNED OR OTHERWISE DISPOSED OF EXCEPT IN COMPLIANCE WITH THE RESTRICTIONS ON TRANSFERABILITY CONTAINED IN THIS AGREEMENT AND APPLICABLE FEDERAL AND STATE SECURITIES LAWS AND WILL NOT BE TRANSFERRED OF RECORD EXCEPT IN COMPLIANCE WITH THIS AGREEMENT AND SUCH LAWS.

Amedica Corporation  
 615 Arapeen Drive  
 Suite 302  
 Salt Lake City, Utah 84108  
 Attention: Ashok Khandkar  
 Phone: (801) 583-5100

Creation Capital LLC  
 100 Congress Avenue  
 Suite 2000  
 Austin, Texas 78701  
 Attention: Gregg R. Honigblum  
 Phone: (512) 370-4900

Ladies and Gentlemen:

1. Subscription. Subject to the terms and conditions of this agreement (this "Subscription Agreement") and the terms of the offering described in the Confidential Private Placement Memorandum dated March 28, 2007 (the "Memorandum"), for shares of Series D Convertible Preferred Stock, par value \$0.01 per share ("Series D Preferred Stock"), of Amedica Corporation, a Delaware corporation (the "Company"), the undersigned, intending to be legally bound, hereby subscribes for and agrees to purchase from the Company \_\_\_\_\_ shares of Series D Preferred Stock, being issued and sold by the Company, at a purchase price of \$3.00 per share. In connection with the undersigned's delivery of this Subscription Agreement to Creation Capital, the Company's placement agent (the "Placement Agent"), at its address set forth above, the undersigned herewith delivers a check in (or, at the option of the Company, wire transfer of) the amount of \$\_\_\_\_\_ (representing the number of shares of Series D Preferred Stock to be purchased multiplied by \$3.00), made payable to "Amedica Stock Subscription Escrow," which amount represents the aggregate purchase price of the shares of Series D Preferred Stock purchased by the undersigned. If the undersigned wire transfers the subscription amount, the instructions for the wire transfer are as follows:

Name of Bank: Wells Fargo Bank, N.A  
 Address of Bank: 299 South Main Street  
 Salt Lake City, UT 84111  
 ABA Number: XXX XXX XXX  
 Account Number: XXXXXXXXXXXX  
 Attn: Corporate Trust Services  
 Reference: FBO Amedica Stock Escrow  
 Reference: (Name of Investor)

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**ANY SUBSCRIPTION FOR SHARES OF SERIES D PREFERRED STOCK MUST BE FOR A MINIMUM OF 35,000 SHARES (or a minimum investment of \$105,000);** however, the Company reserves the right in its discretion to accept subscriptions for lesser amounts.

Except to the extent provided by applicable state securities laws, the undersigned agrees that this subscription is irrevocable and will survive the death, disability or incapacitation of the undersigned. The undersigned further understands that if and to the extent this subscription is not accepted, in whole or in part, by the Company or the Placement Agent, the amounts received on behalf of the Company from the undersigned will be returned, without interest, to the undersigned.

2. Access to Information. By initialing this Subscription Agreement in the space provided below, the undersigned acknowledges (a) receipt of a copy of the Memorandum and represents that the undersigned has read, carefully reviewed and understood the Memorandum; (b) that the Company has made available to the undersigned, or the undersigned's personal advisors, the opportunity to obtain additional information to verify the accuracy of the information contained in the Memorandum to the undersigned's satisfaction, and to evaluate the merits and risks of the undersigned's investment in shares of Series D Preferred Stock; and (c) that undersigned and/or the undersigned's advisors has/have had the opportunity to ask questions and receive answers from the officers and other representatives of the Company regarding the terms and conditions of this Subscription Agreement, the financial position of the Company, the prospects, operations and affairs of the Company and other matters.

PLEASE INITIAL HERE: \_\_\_\_\_  
Initial

3. Representations and Warranties. The undersigned hereby represents and warrants to the Company and the Placement Agent and to each other person who subscribes for shares of Series D Preferred Stock, with the understanding that the Company and the Placement Agent will evaluate this subscription (and the undersigned's suitability as a purchaser of shares of Series D Preferred Stock) in reliance on the undersigned's representations and warranties and that the other subscribers for shares of Series D Preferred Stock will rely on the undersigned's representations and warranties in subscribing for the Series D Preferred Stock as follows:

(a) The Company has answered all inquiries the undersigned has made concerning the Company, its business and financial condition, or any other matter relating to the operation of the Company and the offer and sale of the Series D Preferred Stock. No person has made any oral or written statement or inducement to the undersigned that is contrary to the information set forth in the Memorandum.

(b) The undersigned has the requisite knowledge and experience in financial and business matters, and financial and business matters of the type in which the Company is engaged, to be capable of evaluating the merits and risks (including tax considerations) of an investment in the Company through a purchase of shares of Series D Preferred Stock.

(c) If the undersigned is a foreign investor, the undersigned is not a "U.S. person" within the meaning of Regulation S promulgated under the Securities Act, because: (1) the undersigned is not a natural person resident in the United States, or (2) a partnership or corporation organized or incorporated under the laws of any jurisdiction and formed by a U.S. person principally for purposes of investing in securities not registered under the Securities Act unless it is organized or incorporated and owned by "accredited investors" who are not natural persons, estates or trusts, or (3) an estate of which any executor or administrator is a U.S. person, or (4) a trust of which any trustee is a U.S. person, or (5) any agency or branch of a foreign entity located in the United States.

(d) If the undersigned are one or more natural persons, the undersigned has/have the full power and authority to execute, deliver and perform this Subscription Agreement. If more than one person is signing this Subscription Agreement, each representation, warranty and covenant herein shall be a joint and several representation, warranty and covenant of such persons. If the undersigned is a corporation, partnership, trust or other entity, the undersigned further represents and warrants (i) it has been duly authorized to execute and deliver this Subscription Agreement, (ii) it is duly organized and validly existing under the laws of the state and country of its incorporation or formation, (iii) the person executing this Subscription Agreement is a duly authorized representative or fiduciary of undersigned and has full power and authority to execute and deliver this Subscription Agreement in that capacity and on behalf of the subscribing corporation, partnership, trust or other entity and to bind such entity, and (iv) such entity has full right and power to perform its obligations pursuant to this Subscription Agreement. This Subscription Agreement constitutes the valid and binding obligation of the undersigned in accordance with its terms.

(e) The undersigned (i) is acquiring the shares of Series D Preferred Stock solely for its own account, for investment purposes only, and not with the intention of, or a view toward, the subdivision, resale, transfer or further distribution thereof in violation of the Securities Act or other laws; (ii) has no contract, undertaking, understanding, agreement or arrangement, formal or informal, with any person to sell, transfer or pledge to, or hold for, any person any of the shares of Series D Preferred Stock subscribed for herein; and (iii) has no present plans to enter into any such contract, undertaking, understanding, agreement or arrangement.

(f) The undersigned is an entity that is an “accredited investor” as that term is defined in Rule 501(a) of Regulation D promulgated under the Securities Act and that was not formed for the purpose of investing in shares of Series D Preferred Stock;

OR

(i) The undersigned is an individual who is an “accredited investor” because: (1) the undersigned is a director or executive officer of the Company, or (2) the undersigned has an individual net worth, or joint net worth with the undersigned’s spouse, at the time of the purchase in excess of \$1,000,000 (which net worth includes the value of homes, home furnishings and automobiles), or (3) the undersigned has an individual income in excess of \$200,000 in each of the two most recent years or joint income with the undersigned’s spouse in excess of \$300,000 in each of those years and has a reasonable expectation of reaching the same income level in the current year;\* and

(ii) The undersigned represents that the undersigned: (A) does not have an overall commitment to investments which are not readily marketable that is disproportionate to the undersigned’s net worth, and that the undersigned’s investment in shares of Series D Preferred Stock will not cause that overall commitment to become excessive; and (B) has adequate net worth and means of providing for the undersigned’s current needs and personal contingencies to sustain a complete loss of the undersigned’s investment in the Company at the time of investment and has no need for liquidity in the undersigned’s investment in shares of Series D Preferred Stock.

(iii) At the Company’s or Placement Agent’s request, the undersigned will provide the Company and/or the Placement Agent with (1) copies of its organizational documents if it is other than an individual, and (2) documents, statements and tax returns necessary to determine and verify the undersigned’s “accredited investor” status.

**PLEASE INITIAL HERE:** \_\_\_\_\_  
Initial

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\* A person’s “income” is the amount of his or her individual adjusted gross income (as reported on a federal income tax return), increased by the following amounts: (a) any deduction for depletion (Section 611 *et seq.* of the Internal Revenue Code of 1986, as amended (the “Code”)); (b) any exclusion for interest on tax exempt municipal obligations (Section 103 of the Code); and (c) any losses of a partnership allocated to the individual (Schedule E of Form 1040).

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(g) The undersigned acknowledges that no federal or state agency has made any finding or determination as to the fairness of the offering of the shares of Series D Preferred Stock, or any recommendation or endorsement of the shares of Series D Preferred Stock. The undersigned understands that the shares of Series D Preferred Stock have not been registered under the Securities Act or under applicable state securities laws, and that the Company has no obligation to cause the shares of Series D Preferred Stock to be registered under the Securities Act, or under applicable state securities laws, or to comply with the requirements of any exemption under the Securities Act, or under applicable state securities laws, which would permit the shares of Series D Preferred Stock to be sold by the undersigned. The undersigned understands the legal consequences of the foregoing to mean that the undersigned must bear the economic risk of his investment in shares of Series D Preferred Stock for an indefinite period of time. The undersigned further represents that it understands and agrees that, until registered under the Securities Act or transferred pursuant to the provisions of Rule 144 or Rule 144A under the Securities Act, any certificates evidencing the shares of Series D Preferred Stock, whether upon initial issuance or upon any transfer thereof, shall bear the following legend, prominently stamped or printed thereon:

“The securities represented by this certificate have not been registered under the Securities Act of 1933, as amended (the “Act”), or any other securities laws and may not be offered, sold, pledged or otherwise transferred except pursuant to registration under the Act and any other applicable securities laws or pursuant to an available exemption from registration under the Act and any other applicable securities law.”

4. Agreement Not to Sell Within Twelve Months of the Date of Purchase. Without the prior written consent of the Company, the undersigned hereby agrees that it will not, for a period of 12 months from the date of purchase of the shares of Series D Preferred Stock subscribed for pursuant to this Subscription Agreement, offer, sell or contract to sell, or otherwise dispose of, directly or indirectly, any shares of Series D Preferred Stock (except to affiliates or family members who agree to be so bound).

5. Indemnification. The undersigned agrees to indemnify and hold harmless the Company, its officers, directors, employees, stockholders and affiliates, and any person acting on behalf of the Company, including the Company’s counsel and the Placement Agent and their officers, employees and agents, from and against any and all damage, loss, liability, cost and expense (including attorney’s fees) that any of them may incur by reason of the failure by the undersigned to fulfill any of the terms and conditions of this Subscription Agreement, or by reason of any breach of the representations and warranties made by the undersigned herein, or in any other document provided by the undersigned to the Company. All representations, warranties and covenants contained in this Subscription Agreement, and the indemnification contained in this Section 5, shall survive the acceptance of this Subscription Agreement.

6. Execution of Further Documents. If this subscription is accepted by the Company and the Placement Agent, the undersigned will execute and deliver such documents and agreements as shall be necessary to provide the undersigned with all of the rights and preferences of the holders of the Series D Preferred Stock as described in the Memorandum, including an agreement memorializing certain rights to have the shares of Series D Preferred Stock registered for public sale under the Securities Act.

7. Transferability; Binding Effect. The undersigned hereby agrees that neither this Subscription Agreement nor any interest in it may be sold, assigned, pledged, transferred or otherwise

disposed of, except as otherwise provided for herein, in any manner, by the undersigned, without the prior written consent of the Company. This Subscription Agreement will inure to the benefit of and be binding upon the Company and its successors and assigns and the undersigned and the undersigned's heirs, personal representatives, successors and permitted assigns.

8. Acceptance of Subscription. The Company and the Placement Agent will have the right to accept or reject this Subscription Agreement, in whole or in part, and this Subscription Agreement shall be deemed to be accepted only when the acceptances attached hereto are signed by them. The undersigned acknowledges that the completion date of the offering and sale of the Series D Preferred Stock may be extended as described in the Memorandum.

9. No Waiver. Notwithstanding any of the representations, warranties, acknowledgments or agreements made herein by the undersigned, the undersigned does not thereby or in any other manner waive any of the rights granted to the undersigned under federal or state securities laws.

10. Governing Law. **THIS AGREEMENT SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF DELAWARE, WITHOUT GIVING REGARD TO THE CONFLICT OF LAWS PRINCIPLES THEREOF.**

By accepting this Subscription Agreement, the Company agrees that it will provide the undersigned with annual audited financial statements, and unaudited quarterly financial statements, balance sheets and statements of cash flows.

IN WITNESS WHEREOF, the undersigned has executed this Subscription Agreement this \_\_\_ day of \_\_\_\_\_, 2007.

\$ \_\_\_\_\_  
Subscription Amount

\_\_\_\_\_  
(Purchaser's Name)

\_\_\_\_\_  
(Address)

\_\_\_\_\_  
(Telephone – day)

\_\_\_\_\_

\_\_\_\_\_  
(Telephone – evening)

\_\_\_\_\_  
(Purchaser's Signature)

\_\_\_\_\_  
(email address)

\_\_\_\_\_  
(Purchaser's Social Security or Taxpayer Identification Number)

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APPROVAL

Creation Capital LLC hereby approves the foregoing Subscription Agreement this \_\_\_ day of \_\_\_\_\_, 2007.

CREATION CAPITAL LLC

By: \_\_\_\_\_  
Name: Gregg R. Honigblum  
Title: Chief Executive Officer

ACCEPTANCE

Amedica Corporation hereby accepts the foregoing Subscription Agreement this \_\_\_ day of \_\_\_\_\_, 2007.

AMEDICA CORPORATION

By: \_\_\_\_\_  
Name: Ashok Khandkar  
Title: Chief Executive Officer

## AMEDICA CORPORATION

## 2003 STOCK OPTION PLAN

1. DEFINITIONS.

Unless otherwise specified or unless the context otherwise requires, the following terms, as used in this **Amedica Corporation** 2003 Stock Option Plan, have the following meanings:

Administrator means the Board of Directors, unless it has delegated power to act on its behalf to the Committee, in which case the Administrator means the Committee.

Affiliate means a corporation which, for purposes of Section 424 of the Code, is a parent or subsidiary of the Company, direct or indirect.

Board of Directors means the Board of Directors of the Company.

Code means the United States Internal Revenue Code of 1986, as amended.

Committee means the committee of the Board of Directors to which the Board of Directors has delegated power to act under or pursuant to the provisions of the Plan.

Common Stock means shares of the Company's common stock, \$.01 par value per share.

Company means Amedica Corporation, a Delaware corporation.

Disability or Disabled means permanent and total disability as defined in Section 22(e)(3) of the Code.

Employee means any employee of the Company or of an Affiliate (including, without limitation, an employee who is also serving as an officer or director of the Company or of an Affiliate), designated by the Administrator to be eligible to be granted one or more Options under the Plan.

Fair Market Value of a Share of Common Stock means:

(1) If the Common Stock is listed on a national securities exchange or traded in the over-the-counter market and sales prices are regularly reported for the Common Stock, the closing or last price of the Common Stock on the Composite Tape or other comparable reporting system for the trading day immediately preceding the applicable date;

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(2) If the Common Stock is not traded on a national securities exchange but is traded on the over-the-counter market, if sales prices are not regularly reported for the Common Stock for the trading day referred to in clause (1), and if bid and asked prices for the Common Stock are regularly reported, the mean between the bid and the asked price for the Common Stock at the close of trading in the over-the-counter market for the trading day on which Common Stock was traded immediately preceding the applicable date; and

(3) If the Common Stock is neither listed on a national securities exchange nor traded in the over-the-counter market, such value as the Administrator, in good faith, shall determine.

ISO means an option meant to qualify as an incentive stock option under Section 422 of the Code.

Non-Qualified Option means an option which is not intended to qualify as an ISO.

Option means an ISO or Non-Qualified Option granted under the Plan.

Option Agreement means an agreement between the Company and a Participant delivered pursuant to the Plan, in such form as the Administrator shall approve.

Participant means an Employee, director or consultant of the Company or an Affiliate to whom one or more Options are granted under the Plan. As used herein, "Participant" shall include "Participant's Survivors" where the context requires.

Plan means this Amedica Corporation 2003 Stock Option Plan.

Shares means shares of the Common Stock as to which Options have been or may be granted under the Plan or any shares of capital stock into which the Shares are changed or for which they are exchanged within the provisions of Paragraph 3 of the Plan. The Shares issued upon exercise of Options granted under the Plan may be authorized and unissued shares or shares held by the Company in its treasury, or both.

Survivor means a deceased Participant's legal representatives and/or any person or persons who acquired the Participant's rights to an Option by will or by the laws of descent and distribution.

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## 2. PURPOSES OF THE PLAN.

The Plan is intended to encourage ownership of Shares by Employees and directors of and certain consultants to the Company in order to attract such people, to induce them to work for the benefit of the Company or of an Affiliate and to provide additional incentive for them to promote the success of the Company or of an Affiliate. The Plan provides for the granting of ISOs and Non-Qualified Options.

## 3. SHARES SUBJECT TO THE PLAN.

The number of Shares which may be issued from time to time pursuant to this Plan shall be 4,000,000, or the equivalent of such number of Shares after the Administrator, in its sole discretion, has interpreted the effect of any stock split, stock dividend, combination, recapitalization or similar transaction in accordance with Paragraph 16 of the Plan.

If an Option ceases to be "outstanding", in whole or in part, the Shares which were subject to such Option shall be available for the granting of other Options under the Plan. Any Option shall be treated as "outstanding" until such Option is exercised in full, or terminates or expires under the provisions of the Plan, or by agreement of the parties to the pertinent Option Agreement.

## 4. ADMINISTRATION OF THE PLAN.

The Administrator of the Plan will be the Board of Directors, except to the extent the Board of Directors delegates its authority to the Committee, in which case the Committee shall be the Administrator. Subject to the provisions of the Plan, the Administrator is authorized to:

- a. Interpret the provisions of the Plan or of any Option or Option Agreement and to make all rules and determinations which it deems necessary or advisable for the administration of the Plan;
- b. Determine which Employees, directors and consultants shall be granted Options;
- c. Determine the number of Shares for which an Option or Options shall be granted;
- d. Specify the terms and conditions upon which an Option or Options may be granted; and
- e. Adopt any sub-plans applicable to residents of any specified jurisdiction as it deems necessary or appropriate in order to comply with or take advantage of any tax laws applicable to the Company or to Plan Participants or to otherwise facilitate the administration of the Plan, which sub-plans may include additional restrictions or conditions applicable to Options or Shares acquired upon exercise of Options.

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provided, however, that all such interpretations, rules, determinations, terms and conditions shall be made and prescribed in the context of preserving the tax status under Section 422 of the Code of those Options which are designated as ISOs. Subject to the foregoing, the interpretation and construction by the Administrator of any provisions of the Plan or of any Option granted under it shall be final, unless otherwise determined by the Board of Directors, if the Administrator is the Committee. In addition, if the Administrator is the Committee, the Board of Directors may take any action under the Plan that would otherwise be the responsibility of the Committee.

If permissible under applicable law, the Board of Directors or the Committee may allocate all or any portion of its responsibilities and powers to any one or more of its members and may delegate all or any portion of its responsibilities and powers to any other person selected by it. Any such allocation or delegation may be revoked by the Board of Directors or the Committee at any time.

#### 5. ELIGIBILITY FOR PARTICIPATION.

The Administrator will, in its sole discretion, name the Participants in the Plan, provided, however, that each Participant must be an Employee, director or consultant of the Company or of an Affiliate at the time an Option is granted. Notwithstanding the foregoing, the Administrator may authorize the grant of an Option to a person not then an Employee, director or consultant of the Company or of an Affiliate; provided, however, that the actual grant of such Option shall be conditioned upon such person becoming eligible to become a Participant at or prior to the time of the execution of the Option Agreement evidencing such Option. ISOs may be granted only to Employees. Non-Qualified Options may be granted to any Employee, director or consultant of the Company or an Affiliate. The granting of any Option to any individual shall neither entitle that individual to, nor disqualify him or her from, participation in any other grant of Options.

#### 6. TERMS AND CONDITIONS OF OPTIONS.

Each Option shall be set forth in writing in an Option Agreement, duly executed by the Company and, to the extent required by law or requested by the Company, by the Participant. The Administrator may provide that Options be granted subject to such terms and conditions, consistent with the terms and conditions specifically required under this Plan, as the Administrator may deem appropriate including, without limitation, subsequent approval by the shareholders of the Company of this Plan or any amendments thereto. The Option Agreements shall be subject to at least the following terms and conditions:

- A. Non-Qualified Options: Each Option intended to be a Non-Qualified Option shall be subject to the terms and conditions which the Administrator determines to be appropriate and in the best interest of the Company, subject to the following minimum standards for any such Non-Qualified Option:
  - a. Option Price: Each Option Agreement shall state the option price per share of the Shares covered by each Option, which option price shall be determined by the Administrator but shall not be less than the par value per share of Common Stock.

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- b. Each Option Agreement shall state the number of Shares to which it pertains;
  - c. Each Option Agreement shall state the date or dates on which it first is exercisable and the date after which it may no longer be exercised, and may provide that the Option rights accrue or become exercisable in installments over a period of months or years, or upon the occurrence of certain conditions or the attainment of stated goals or events; and
  - d. Exercise of any Option may be conditioned upon the Participant's execution of a Share purchase agreement in form satisfactory to the Administrator providing for certain protections for the Company and its other shareholders, including requirements that:
    - i. The Participant's or the Participant's Survivors' right to sell or transfer the Shares may be restricted; and
    - ii. The Participant or the Participant's Survivors may be required to execute letters of investment intent and must also acknowledge that the Shares will bear legends noting any applicable restrictions.
- B. **ISOs:** Each Option intended to be an ISO shall be issued only to an Employee and be subject to the following terms and conditions, with such additional restrictions or changes as the Administrator determines are appropriate but not in conflict with Section 422 of the Code and relevant regulations and rulings of the Internal Revenue Service:
- a. Minimum standards: The ISO shall meet the minimum standards required of Non-Qualified Options, as described in Paragraph 6(A) above.
  - b. Option Price: Immediately before the ISO is granted, if the Participant owns, directly or by reason of the applicable attribution rules in Section 424(d) of the Code:
    - i. 10% or less of the total combined voting power of all classes of stock of the Company or an Affiliate, the Option price per share of the Shares covered by each ISO shall not be less than 100% of the Fair Market Value per share of the Shares on the date of the grant of the Option; or

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- ii. More than 10% of the total combined voting power of all classes of stock of the Company or an Affiliate, the Option price per share of the Shares covered by each ISO shall not be less than 110% of the said Fair Market Value on the date of grant.
  - c. Term of Option: For Participants who own:
    - i. 10% or less of the total combined voting power of all classes of stock of the Company or an Affiliate, each ISO shall terminate not more than ten years from the date of the grant or at such earlier time as the Option Agreement may provide; or
    - ii. More than 10% of the total combined voting power of all classes of stock of the Company or an Affiliate, each ISO shall terminate not more than five years from the date of the grant or at such earlier time as the Option Agreement may provide.
  - d. Limitation on Yearly Exercise: The Option Agreements shall restrict the amount of ISOs which may become exercisable in any calendar year (under this or any other ISO plan of the Company or an Affiliate) so that the aggregate Fair Market Value (determined at the time each ISO is granted) of the stock with respect to which ISOs are exercisable for the first time by the Participant in any calendar year does not exceed \$100,000.

#### 7. EXERCISE OF OPTIONS AND ISSUE OF SHARES.

An Option (or any part or installment thereof) shall be exercised by giving written notice to the Company or its designee, together with provision for payment of the full purchase price in accordance with this Paragraph for the Shares as to which the Option is being exercised, and upon compliance with any other condition(s) set forth in the Option Agreement. Such notice shall be signed by the person exercising the Option, shall state the number of Shares with respect to which the Option is being exercised and shall contain any representation required by the Plan or the Option Agreement. Payment of the purchase price for the Shares as to which such Option is being exercised shall be made (a) in United States dollars in cash or by check, or (b) at the discretion of the Administrator, through delivery of shares of Common Stock having a Fair Market Value equal as of the date of the exercise to the cash exercise price of the Option and held for at least six months, or (c) at the discretion of the Administrator, by delivery of the grantee's personal note, for full, partial or no recourse, bearing interest payable not less than annually at market rate on the date of exercise and at no less than 100% of the applicable Federal rate, as defined in Section 1274(d) of the Code, with or without the pledge of such Shares as collateral, or (d) at the discretion of the Administrator, in accordance with a cashless exercise program established with a securities brokerage firm, and approved by the Administrator, or (e) at the discretion of the Administrator, by any combination of (a), (b), (c) and (d) above. Notwithstanding the foregoing, the Administrator shall accept only such payment on exercise of an ISO as is permitted by Section 422 of the Code.

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The Company shall then reasonably promptly deliver the Shares as to which such Option was exercised to the Participant (or to the Participant's Survivors, as the case may be). In determining what constitutes "reasonably promptly," it is expressly understood that the issuance and delivery of the Shares may be delayed by the Company in order to comply with any law or regulation (including, without limitation, state securities or "blue sky" laws) which requires the Company to take any action with respect to the Shares prior to their issuance. The Shares shall, upon delivery, be fully paid, non-assessable Shares.

The Administrator shall have the right to accelerate the date of exercise of any installment of any Option; provided that the Administrator shall not accelerate the exercise date of any installment of any Option granted to any Employee as an ISO (and not previously converted into a Non-Qualified Option pursuant to Paragraph 19) if such acceleration would violate the annual vesting limitation contained in Section 422(d) of the Code, as described in Paragraph 6.B.d.

The Administrator may, in its discretion, amend any term or condition of an outstanding Option provided (i) such term or condition as amended is permitted by the Plan, (ii) any such amendment shall be made only with the consent of the Participant to whom the Option was granted, or in the event of the death of the Participant, the Participant's Survivors, if the amendment is adverse to the Participant, and (iii) any such amendment of any ISO shall be made only after the Administrator determines whether such amendment would constitute a "modification" of any Option which is an ISO (as that term is defined in Section 424(h) of the Code) or would cause any adverse tax consequences for the holder of such ISO.

#### 8. RIGHTS AS A SHAREHOLDER.

No Participant to whom an Option has been granted shall have rights as a shareholder with respect to any Shares covered by such Option, except after due exercise of the Option and tender of the full purchase price for the Shares being purchased pursuant to such exercise and registration of the Shares in the Company's share register in the name of the Participant.

#### 9. ASSIGNABILITY AND TRANSFERABILITY OF OPTIONS.

By its terms, an Option granted to a Participant shall not be transferable by the Participant other than (i) by will or by the laws of descent and distribution, or (ii) as approved by the Administrator in its discretion and set forth in the applicable Option Agreement. Notwithstanding the foregoing, an ISO transferred except in compliance with clause (i) above shall no longer qualify as an ISO. The designation of a beneficiary of an Option by a Participant, with the prior approval of the Administrator and in such form as the Administrator shall prescribe, shall not be deemed a transfer prohibited by this Paragraph. Except as provided above, an Option shall be exercisable, during the Participant's lifetime, only by such Participant

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(or by his or her legal representative) and shall not be assigned, pledged or hypothecated in any way (whether by operation of law or otherwise) and shall not be subject to execution, attachment or similar process. Any attempted transfer, assignment, pledge, hypothecation or other disposition of any Option or of any rights granted thereunder contrary to the provisions of this Plan, or the levy of any attachment or similar process upon an Option, shall be null and void.

**10. EFFECT OF TERMINATION OF SERVICE OTHER THAN “FOR CAUSE” OR DEATH OR DISABILITY.**

Except as otherwise provided in a Participant’s Option Agreement, in the event of a termination of service (whether as an employee, director or consultant) with the Company or an Affiliate before the Participant has exercised an Option, the following rules apply:

- a. A Participant who ceases to be an employee, director or consultant of the Company or of an Affiliate (for any reason other than termination “for cause”, Disability, or death for which events there are special rules in Paragraphs 11, 12, and 13, respectively), may exercise any Option granted to him or her to the extent that the Option is exercisable on the date of such termination of service, but only within such term as the Administrator has designated in a Participant’s Option Agreement.
- b. Except as provided in Subparagraph (c) below, or Paragraph 12 or 13, in no event may an Option intended to be an ISO, be exercised later than three months after the Participant’s termination of employment.
- c. The provisions of this Paragraph, and not the provisions of Paragraph 12 or 13, shall apply to a Participant who subsequently becomes Disabled or dies after the termination of employment, director status or consultancy, provided, however, in the case of a Participant’s Disability or death within three months after the termination of employment, director status or consultancy, the Participant or the Participant’s Survivors may exercise the Option within one year after the date of the Participant’s termination of service, but in no event after the date of expiration of the term of the Option.
- d. Notwithstanding anything herein to the contrary, if subsequent to a Participant’s termination of employment, termination of director status or termination of consultancy, but prior to the exercise of an Option, the Board of Directors determines that, either prior or subsequent to the Participant’s termination, the Participant engaged in conduct which would constitute “cause”, then such Participant shall forthwith cease to have any right to exercise any Option.
- e. A Participant to whom an Option has been granted under the Plan who is absent from work with the Company or with an Affiliate because of temporary disability (any disability other than a permanent and total Disability as defined in Paragraph 1 hereof), or who is on leave of absence for any purpose, shall not, during the period of any such absence, be deemed, by virtue of such absence

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alone, to have terminated such Participant's employment, director status or consultancy with the Company or with an Affiliate, except as the Administrator may otherwise expressly provide.

- f. Except as required by law or as set forth in a Participant's Option Agreement, Options granted under the Plan shall not be affected by any change of a Participant's status within or among the Company and any Affiliates, so long as the Participant continues to be an employee, director or consultant of the Company or any Affiliate.

#### 11. EFFECT OF TERMINATION OF SERVICE "FOR CAUSE".

Except as otherwise provided in a Participant's Option Agreement, the following rules apply if the Participant's service (whether as an employee, director or consultant) with the Company or an Affiliate is terminated "for cause" prior to the time that all his or her outstanding Options have been exercised:

- a. All outstanding and unexercised Options as of the time the Participant is notified his or her service is terminated "for cause" will immediately be forfeited.
- b. For purposes of this Plan, "cause" shall include (and is not limited to) dishonesty with respect to the Company or any Affiliate, insubordination, substantial malfeasance or non-feasance of duty, unauthorized disclosure of confidential information, breach by the Participant of any provision of any employment, consulting, advisory, nondisclosure, non-competition or similar agreement between the Participant and the Company or any Affiliate, and conduct substantially prejudicial to the business of the Company or any Affiliate. The determination of the Administrator as to the existence of "cause" will be conclusive on the Participant and the Company.
- c. "Cause" is not limited to events which have occurred prior to a Participant's termination of service, nor is it necessary that the Administrator's finding of "cause" occur prior to termination. If the Administrator determines, subsequent to a Participant's termination of service but prior to the exercise of an Option, that either prior or subsequent to the Participant's termination the Participant engaged in conduct which would constitute "cause," then the right to exercise any Option is forfeited.
- d. Any definition in an agreement between the Participant and the Company or an Affiliate, which contains a conflicting definition of "cause" for termination and which is in effect at the time of such termination, shall supersede the definition in this Plan with respect to that Participant.

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12. EFFECT OF TERMINATION OF SERVICE FOR DISABILITY.

Except as otherwise provided in a Participant's Option Agreement, a Participant who ceases to be an employee, director or consultant of the Company or of an Affiliate by reason of Disability may exercise any Option granted to such Participant:

- a. To the extent that the Option has become exercisable but has not been exercised on the date of Disability; and
- b. In the event rights to exercise the Option accrue periodically, to the extent of a pro rata portion through the date of Disability of any additional vesting rights that would have accrued on the next vesting date had the Participant not become Disabled. The proration shall be based upon the number of days accrued in the current vesting period prior to the date of Disability.

A Disabled Participant may exercise such rights only within the period ending one year after the date of the Participant's termination of employment, directorship or consultancy, as the case may be, notwithstanding that the Participant might have been able to exercise the Option as to some or all of the Shares on a later date if the Participant had not become Disabled and had continued to be an employee, director or consultant or, if earlier, within the originally prescribed term of the Option.

The Administrator shall make the determination both of whether Disability has occurred and the date of its occurrence (unless a procedure for such determination is set forth in another agreement between the Company and such Participant, in which case such procedure shall be used for such determination). If requested, the Participant shall be examined by a physician selected or approved by the Administrator, the cost of which examination shall be paid for by the Company.

13. EFFECT OF DEATH WHILE AN EMPLOYEE, DIRECTOR OR CONSULTANT.

Except as otherwise provided in a Participant's Option Agreement, in the event of the death of a Participant while the Participant is an employee, director or consultant of the Company or of an Affiliate, such Option may be exercised by the Participant's Survivors:

- a. To the extent that the Option has become exercisable but has not been exercised on the date of death; and
- b. In the event rights to exercise the Option accrue periodically, to the extent of a pro rata portion through the date of death of any additional vesting rights that would have accrued on the next vesting date had the Participant not died. The proration shall be based upon the number of days accrued in the current vesting period prior to the Participant's date of death.

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If the Participant's Survivors wish to exercise the Option, they must take all necessary steps to exercise the Option within one year after the date of death of such Participant, notwithstanding that the decedent might have been able to exercise the Option as to some or all of the Shares on a later date if he or she had not died and had continued to be an employee, director or consultant or, if earlier, within the originally prescribed term of the Option.

#### 14. PURCHASE FOR INVESTMENT.

Unless the offering and sale of the Shares to be issued upon the particular exercise of an Option shall have been effectively registered under the Securities Act of 1933, as now in force or hereafter amended (the "1933 Act"), the Company shall be under no obligation to issue the Shares covered by such exercise unless and until the following conditions have been fulfilled:

- a. The person(s) who exercise(s) such Option shall warrant to the Company, prior to the receipt of such Shares, that such person(s) are acquiring such Shares for their own respective accounts, for investment, and not with a view to, or for sale in connection with, the distribution of any such Shares, in which event the person(s) acquiring such Shares shall be bound by the provisions of the following legend which shall be endorsed upon the certificate(s) evidencing their Shares issued pursuant to such exercise or such grant:

"The shares represented by this certificate have been taken for investment and they may not be sold or otherwise transferred by any person, including a pledgee, unless (1) either (a) a Registration Statement with respect to such shares shall be effective under the Securities Act of 1933, as amended, or (b) the Company shall have received an opinion of counsel satisfactory to it that an exemption from registration under such Act is then available, and (2) there shall have been compliance with all applicable state securities laws."
- b. At the discretion of the Administrator, the Company shall have received an opinion of its counsel that the Shares may be issued upon such particular exercise in compliance with the 1933 Act without registration thereunder.

#### 15. DISSOLUTION OR LIQUIDATION OF THE COMPANY.

Upon the dissolution or liquidation of the Company, all Options granted under this Plan which as of such date shall not have been exercised will terminate and become null and void; provided, however, that if the rights of a Participant or a Participant's Survivors have not otherwise terminated and expired, the Participant or the Participant's Survivors will have the right immediately prior to such dissolution or liquidation to exercise any Option to the extent that the Option is exercisable as of the date immediately prior to such dissolution or liquidation.

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## 16. ADJUSTMENTS.

Upon the occurrence of any of the following events, a Participant's rights with respect to any Option granted to him or her hereunder which has not previously been exercised in full shall be adjusted as hereinafter provided, unless otherwise specifically provided in the Participant's Option Agreement:

A. Stock Dividends and Stock Splits. If (i) the shares of Common Stock shall be subdivided or combined into a greater or smaller number of shares or if the Company shall issue any shares of Common Stock as a stock dividend on its outstanding Common Stock, or (ii) additional shares or new or different shares or other securities of the Company or other non-cash assets are distributed with respect to such shares of Common Stock, the number of shares of Common Stock deliverable upon the exercise of such Option may be appropriately increased or decreased proportionately, and appropriate adjustments may be made, including in the purchase price per share, to reflect such events.

B. Corporate Transactions. If the Company is to be consolidated with or acquired by another entity in a merger, sale of all or substantially all of the Company's assets other than a transaction to merely change the state of incorporation (a "Corporate Transaction"), the Administrator or the board of directors of any entity assuming the obligations of the Company hereunder (the "Successor Board"), shall, as to outstanding Options, either (i) make appropriate provision for the continuation of such Options by substituting on an equitable basis for the Shares then subject to such Options either the consideration payable with respect to the outstanding shares of Common Stock in connection with the Corporate Transaction or securities of any successor or acquiring entity; or (ii) upon written notice to the Participants, provide that all Options must be exercised (either to the extent then exercisable or, at the discretion of the Administrator or, upon a change of control of the Company, all Options being made fully exercisable for purposes of this Subparagraph), within a specified number of days of the date of such notice, at the end of which period the Options shall terminate; or (iii) terminate all Options in exchange for a cash payment equal to the excess of the Fair Market Value of the Shares subject to such Options (either to the extent then exercisable or, at the discretion of the Administrator, all Options being made fully exercisable for purposes of this Subparagraph) over the exercise price thereof.

C. Recapitalization or Reorganization. In the event of a recapitalization or reorganization of the Company other than a Corporate Transaction pursuant to which securities of the Company or of another corporation are issued with respect to the outstanding shares of Common Stock, a Participant upon exercising an Option after the recapitalization or reorganization shall be entitled to receive for the purchase price paid upon such exercise the number of replacement securities which would have been received if such Option had been exercised prior to such recapitalization or reorganization.

D. Modification of ISOs. Notwithstanding the foregoing, any adjustments made pursuant to Subparagraph A, B or C above with respect to ISOs shall be made only after the Administrator determines whether such adjustments would constitute a "modification" of such ISOs (as that term is defined in Section 424(h) of the Code) or would cause any adverse tax

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consequences for the holders of such ISOs. If the Administrator determines that such adjustments made with respect to ISOs would constitute a modification of such ISOs, it may refrain from making such adjustments, unless the holder of an ISO specifically requests in writing that such adjustment be made and such writing indicates that the holder has full knowledge of the consequences of such "modification" on his or her income tax treatment with respect to the ISO.

17. ISSUANCES OF SECURITIES.

Except as expressly provided herein, no issuance by the Company of shares of stock of any class, or securities convertible into shares of stock of any class, shall affect, and no adjustment by reason thereof shall be made with respect to, the number or price of shares subject to Options. Except as expressly provided herein, no adjustments shall be made for dividends paid in cash or in property (including without limitation, securities) of the Company.

18. FRACTIONAL SHARES.

No fractional shares shall be issued under the Plan and the person exercising such right shall receive from the Company cash in lieu of such fractional shares equal to the Fair Market Value thereof.

19. CONVERSION OF ISOs INTO NON-QUALIFIED OPTIONS; TERMINATION OF ISOs.

The Administrator, at the written request of any Participant, may in its discretion take such actions as may be necessary to convert such Participant's ISOs (or any portions thereof) that have not been exercised on the date of conversion into Non-Qualified Options at any time prior to the expiration of such ISOs, regardless of whether the Participant is an employee of the Company or an Affiliate at the time of such conversion. At the time of such conversion, the Administrator (with the consent of the Participant) may impose such conditions on the exercise of the resulting Non-Qualified Options as the Administrator in its discretion may determine, provided that such conditions shall not be inconsistent with this Plan. Nothing in the Plan shall be deemed to give any Participant the right to have such Participant's ISOs converted into Non-Qualified Options, and no such conversion shall occur until and unless the Administrator takes appropriate action. The Administrator, with the consent of the Participant, may also terminate any portion of any ISO that has not been exercised at the time of such conversion.

20. WITHHOLDING.

In the event that any federal, state, or local income taxes, employment taxes, Federal Insurance Contributions Act ("F.I.C.A.") withholdings or other amounts are required by applicable law or governmental regulation to be withheld from the Participant's salary, wages or

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other remuneration in connection with the exercise of an Option or a Disqualifying Disposition (as defined in Paragraph 21), the Company may withhold from the Participant's compensation, if any, or may require that the Participant advance in cash to the Company, or to any Affiliate of the Company which employs or employed the Participant, the statutory minimum amount of such withholdings unless a different withholding arrangement, including the use of shares of the Company's Common Stock or a promissory note, is authorized by the Administrator (and permitted by law). For purposes hereof, the Fair Market Value of the shares withheld for purposes of payroll withholding shall be determined in the manner provided in Paragraph 1 above, as of the most recent practicable date prior to the date of exercise. If the Fair Market Value of the shares withheld is less than the amount of payroll withholdings required, the Participant may be required to advance the difference in cash to the Company or the Affiliate employer. The Administrator in its discretion may condition the exercise of an Option for less than the then Fair Market Value on the Participant's payment of such additional withholding.

**21. NOTICE TO COMPANY OF DISQUALIFYING DISPOSITION.**

Each Employee who receives an ISO must agree to notify the Company in writing immediately after the Employee makes a Disqualifying Disposition of any shares acquired pursuant to the exercise of an ISO. A Disqualifying Disposition is defined in Section 424(c) of the Code and includes any disposition (including any sale or gift) of such shares before the later of (a) two years after the date the Employee was granted the ISO, or (b) one year after the date the Employee acquired Shares by exercising the ISO, except as otherwise provided in Section 424(c) of the Code. If the Employee has died before such stock is sold, these holding period requirements do not apply and no Disqualifying Disposition can occur thereafter.

**22. TERMINATION OF THE PLAN.**

The Plan will terminate on August 7, 2013, the date which is ten years from the earlier of the date of its adoption by the Board of Directors and the date of its approval by the shareholders. The Plan may be terminated at an earlier date by vote of the shareholders or the Board of Directors of the Company; provided, however, that any such earlier termination shall not affect any Option Agreements executed prior to the effective date of such termination.

**23. AMENDMENT OF THE PLAN AND AGREEMENTS.**

The Plan may be amended by the shareholders of the Company. The Plan may also be amended by the Administrator, including, without limitation, to the extent necessary to qualify any or all outstanding Options granted under the Plan or Options to be granted under the Plan for favorable federal income tax treatment (including deferral of taxation upon exercise) as may be afforded incentive stock options under Section 422 of the Code, and to the extent necessary to qualify the shares issuable upon exercise of any outstanding Options granted, or Options to be granted, under the Plan for listing on any national securities exchange or quotation in any national automated quotation system of securities dealers. Any amendment approved by the

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Administrator which the Administrator determines is of a scope that requires shareholder approval shall be subject to obtaining such shareholder approval. Any modification or amendment of the Plan shall not, without the consent of a Participant, adversely affect his or her rights under an Option previously granted to him or her. With the consent of the Participant affected, the Administrator may amend outstanding Option Agreements in a manner which may be adverse to the Participant but which is not inconsistent with the Plan. In the discretion of the Administrator, outstanding Option Agreements may be amended by the Administrator in a manner which is not adverse to the Participant.

24. EMPLOYMENT OR OTHER RELATIONSHIP.

Nothing in this Plan or any Option Agreement shall be deemed to prevent the Company or an Affiliate from terminating the employment, consultancy or director status of a Participant, nor to prevent a Participant from terminating his or her own employment, consultancy or director status or to give any Participant a right to be retained in employment or other service by the Company or any Affiliate for any period of time.

25. GOVERNING LAW.

This Plan shall be construed and enforced in accordance with the laws of the State of Delaware.

2116 South Lakeline Drive  
Salt Lake City, UT 84109  
Tel: (801) 231-5729  
Fax: (801) 584-2533

Date: April 2, 2004

**AMEDICA CORPORATION**

Eugene Jones

Dear Gene,

We are very pleased that you have decided to join Amedica Corporation. We are confident that you will find Amedica to have a stimulating and rewarding environment that you seek.

Amedica is pleased to offer you the position of Vice President, Finance with Amedica Corporation at an annual salary of \$ 140,000, reporting to Ashok Khandkar. Your responsibilities will be those described to you during our previous discussions. We anticipate your start date to be April 19th, 2004.

Upon beginning employment at Amedica Corporation, you will be nominated for 200,000 shares of stock options, subject to a 4 year vesting schedule, 10-year option life, and approval by Amedica's Board of Directors. We feel that these stock options are a very valuable part of your total compensation package.

As part of this offer, you will be eligible for Amedica's complete benefit program, including our excellent medical insurance, dental insurance, life/AD&D and long term disability insurance, and 401(k) retirement plan. Please note that our 401-(k) plan currently is an employee contribution only plan. Also included is Amedica's 10 paid holidays, 5 days of personal/sick leave and 15 days of vacation per year. When you report to work, you will be provided with more detailed information regarding our complete policies and benefits program.

Your employment at Amedica assumes an obligation to maintain confidentiality of Amedica's business information and that of its clients, partners and suppliers. By safeguarding such confidential information, Amedica earns the respect and further trust of our clients, suppliers and partners. Thus, as a condition of your employment you will be required to sign the attached confidentiality agreement.

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Page 2  
Eugene Jones  
April 2, 2004

Additionally, Amedica insists and expects that each employee act in a manner which does not compromise their personal and professional integrity. Consequently, Amedica insists and expects that you will abide by the terms of your present employment agreement.

Amedica is committed to maintaining its leading technology position in the orthopedic implant field, and to the commercialization of revolutionary orthopedic implant products for treatment of joint diseases. Our success depends upon bright, dedicated staff such as yourself. If you are in agreement with the terms of this letter, please sign below and return one of the originals to our offices as soon as possible. I look forward to hearing your favorable response.

Very truly yours,

/s/ Ashok Khandkar

Ashok C. Khandkar, Ph.D.  
President & CEO

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Page 3  
Eugene Jones  
April 2, 2004

Accepted by:

/s/ Eugene Jones  
Date: April 2, 2004

2116 South Lakeline Drive  
Salt Lake City, UT 84109  
Tel: (801) 231-5729  
Fax: (801) 584-2533

Date: May 29, 2004

**AMEDICA CORPORATION**

Bryan J. McEntire

Dear Bryan,

We are very pleased that you have decided to join Amedica Corporation. We are confident that you will find Amedica to have a stimulating and rewarding environment that you seek.

Amedica is pleased to offer you the position of Vice President, Manufacturing with Amedica Corporation at an annual salary of \$ 145,000, reporting to Ashok Khandkar. Your responsibilities will be those described to you during our previous discussions. We anticipate your start date to be August 1, 2004.

Upon beginning employment at Amedica Corporation, you will be nominated for 200,000 shares of stock options, subject to a 4 year vesting schedule, 10-year option life, and approval by Amedica's Board of Directors. We feel that these stock options are a very valuable part of your total compensation package. You will also be eligible to participate in a bonus option pool based on meeting performance objectives. As part of this offer, you will be eligible for Amedica's complete benefit program, including our excellent medical insurance, dental insurance, life/AD&D and long term disability insurance, and 401(k) retirement plan. Please note that our 401-(k) plan currently is an employee contribution only plan. Also included is Amedica's 10 paid holidays, 5 days of personal/sick leave and 15 days of vacation per year. When you report to work, you will be provided with more detailed information regarding our complete policies and benefits program.

Your employment at Amedica assumes an obligation to maintain confidentiality of Amedica's business information and that of its clients, partners and suppliers. By safeguarding such confidential information, Amedica earns the respect and further trust of our clients, suppliers and partners. Thus, as a condition of your employment you will be required to sign the attached confidentiality agreement.

Additionally, Amedica insists and expects that each employee act in a manner which does not compromise their personal and professional integrity. Consequently, Amedica insists and expects that you will abide by the terms of your present employment agreement.

Your offer includes a comprehensive relocation package. Amedica will directly reimburse you for all reasonable and customary deductible relocation expenses pursuant to IRS Publication 521 for an Accountable Plan, including shipment of household goods, transporting, temporary storage if needed, and temporary lodging for you and your family for up to 45 days, and transportation of family, or a mileage allowance of \$.36/mile and an appropriate per diem hotel and meal allowance. To the extent that reimbursement of these expenses exceeds IRS guidelines, portions thereof will be considered non-deductible and taxable.

In addition, within 180 days of your hire date, Amedica will reimburse you for non-deductible costs incurred in the sale of your current residence in California. These costs include applicable realtor's fees and/or closing costs, and a reimbursement allowance for the amount of additional federal and state income and Social Security taxes incurred by you solely as a result of the final amount of the reimbursement of realtor's fees and closing costs noted above. The total relocation allowance for these non-deductible realtor's fees and/or closing costs is subject to a limit of \$60,000, and to your providing proper documentation of a closing (HUD) statement for the sale of your home.

Internal Revenue Service regulations require that the amount of reimbursements set forth in the two preceding paragraphs will be included in your 2004 form W-2 from Amedica.

Amedica is committed to maintaining its leading technology position in the orthopedic implant field, and to the commercialization of revolutionary orthopedic implant products for treatment of joint diseases.

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Page 3  
Bryan J. McEntire  
May 29, 2004

Our success depends upon bright, dedicated professionals such as yourself. If you are in agreement with the terms of this letter, please sign below and return one of the originals to our offices as soon as possible. I look forward to hearing your favorable response.

Very truly yours,

/s/ Ashok C. Khandkar PhD

Ashok C. Khandkar, Ph.D.  
President & CEO

Accepted by:

/s/ Brian J. McEntire

Date: 6/3/04

AMEDICA CORPORATION

November 11, 2004

Mr. Robert M. Wolfarth

Dear Robert:

Amedica is pleased to offer you the position of Director, Regulatory Affairs and Quality Assurance reporting to Ashok Khandkar, CEO at a salary of \$3,625.00 per average semi monthly pay period which equates to \$87,000.00 per year. This position is exempt. We anticipate your employment to begin on January 17, 2005 which will be your hire date.

This offer includes a comprehensive relocation package for your move to Utah, limited to \$10,000.00. Amedica will directly reimburse you for all reasonable and customary deductible relocation expenses pursuant to IRS Publication 521 for an accountable Plan, including shipment of household goods, transporting, temporary storage if needed and temporary lodging for you and your family for up to 45 days and transportation of family or a mileage allowance of \$.375/mile and an actual hotel and meal expenses. To the extent that reimbursement of these expenses exceeds IRS guidelines, portions thereof will be considered non-deductible and taxable.

Upon your hire date, you will be nominated to receive an incentive stock option award for 35,000 shares of Amedica's common stock, subject to a 4-year vesting schedule, 10-year option life and approval by Amedica's Board of Directors. We feel that these stock options are a valuable part of your total compensation package.

As part of this offer, you will be eligible for Amedica's complete benefits program, including medical, dental, life and long term disability insurances and our 401(k) retirement plan. Also included are Amedica's 10 paid holidays, 5 days of personal/sick leave and 10 days of vacation per year. An Employee Handbook will be mailed to you in January that will provide more detailed information regarding our complete policies and benefits programs.

Your employment at Amedica assumes an obligation to maintain confidentiality of Amedica's business information and that of its clients, partners and suppliers. By safeguarding such confidential information, Amedica earns the respect and further trust of our clients, suppliers and partners. Thus, as a condition of your employment, you will be required to sign a standard confidentiality agreement.

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Robert M. Wolfart  
11/11/04  
Page 2

Amedica is committed to maintain its leading technology position in the orthopedic implant field and to the commercialization of revolutionary orthopedic implant products for treatment of joint diseases. Our success depends upon bright, dedicated staff such as yourself. If you are in agreement with the terms of this letter, please sign below and return one original to our offices.

Sincerely,

/s/ Eugene B. Jones

Eugene B. Jones

Vice President Finance & CFO

Agreed to and Accepted by:

/s/ Robert M. Wolfarth

Robert M. Wolfarth

Date: 12/03/2004

615 Arapeen Drive  
Suite 302  
Salt Lake City, UT 84108  
Tel: (801) 583-5100  
Fax: (801) 583-8635

December 17, 2004

Cameron Rouns

**AMEDICA CORPORATION**

Dear Cameron:

Amedica is pleased to offer you the position of Vice President—Sales & Marketing at a salary of \$5,833.33 per average semi monthly pay period which equates to \$140,000 per year. This position is exempt. We anticipate your employment to begin on January 4, 2005, which will be your hire date.

Upon your hire date, you will be nominated to receive an incentive stock option award for 70,000 shares of Amedica's common stock, subject to a 4-year vesting schedule, 10-year option life and approval by Amedica's Board of Directors. We feel that these stock options are a valuable part of your total compensation package.

As part of this offer, you will be eligible for Amedica's complete benefits program, including medical, dental, life and long term disability insurances and our 401(k) retirement plan. Also included are Amedica's 10 paid holidays, 5 days of personal/sick leave and 10 days of vacation per year. When you report to work, you will be provided with more detailed information regarding our complete policies and benefits programs.

Your employment at Amedica assumes an obligation to maintain confidentiality of Amedica's business information and that of its clients, partners and suppliers. By safeguarding such confidential information, Amedica earns the respect and further trust of our clients, suppliers and partners. Thus, as a condition of your employment, you will be required to sign a standard confidentiality agreement.

Amedica is committed to maintaining its leading technology position in the orthopedic implant field and to the commercialization of revolutionary orthopedic implant products for treatment of joint diseases. Our success depends upon bright, dedicated staff such as yourself. If you are in agreement with the terms of this letter, please sign below and return one original to our offices.

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Sincerely,

/s/ Eugene B. Jones  
Eugene B. Jones  
Vice President Finance & CFO

Agreed to and Accepted by:

/s/ Cameron Rouns  
Cameron Rouns

AMEDICA CORPORATION

615 Arapeen Drive  
Suite 302  
Salt Lake City, Utah 84108

(801) 583-5100 telephone  
(801) 583-8635 fax  
www.amedicacorp.com

May 31, 2005

Mr. Warionex J. Belen

Dear Jose:

Amedica is pleased to offer you the position of Vice President – Products at a salary of \$6,250.00 per average semi monthly pay period which equates to \$150,000 per year. This position is exempt. We anticipate your employment to begin on May 31, 2005 which will be your hire date.

This offer includes a comprehensive relocation package for your move to Utah, limited to \$25,000. Amedica will directly reimburse you for all reasonable and customary deductible relocation expenses pursuant to IRS Publication 521 for an Accountable Plan, including shipment of household goods, transporting, temporary storage if needed and temporary lodging for you and your family for up to 90 days and transportation of family or a mileage allowance of \$0.15/mile and an actual hotel and meal expenses. To the extent that reimbursement of these expenses exceeds IRS guidelines, portions thereof will be considered non-deductible and taxable.

Upon your hire date, you will be nominated to receive an incentive stock option award for 100,000 shares of Amedica's common stock, subject to a 4-year vesting schedule, 10-year option life and approval by Amedica's Board of Directors. We feel that these stock options are a valuable part of your total compensation package.

As part of this offer, you will be eligible for Amedica's complete benefits program, including medical, dental, life and long term disability insurances and our 401(k) retirement plan. Also included are Amedica's 10 paid holidays, 5 days of personal/sick leave and 20 days of vacation per year. When you report to work, you will be provided with more detailed information regarding our complete policies and benefits programs.

Your employment at Amedica assumes an obligation to maintain confidentiality of Amedica's business information and that of its clients, partners and suppliers. By safeguarding such confidential information, Amedica earns the respect and further trust of our clients, suppliers and partners. Thus, as a condition of your employment, you will be required to sign a standard confidentiality agreement.

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Mr. Warionex J. Belen  
5/31/05  
Page 2

Amedica is committed to maintaining its leading technology position in the orthopedic implant field and to the commercialization of revolutionary orthopedic implant products for treatment of joint diseases. Our success depends upon bright, dedicated personnel such as yourself. If you are in agreement with the terms of this letter, please sign below and return one original to our offices.

Sincerely,

/s/ Eugene J. Jones  
Eugene B. Jones  
Vice President, Finance & CFO

Agreed to and Accepted by:

/s/ Warionex Belen  
Warionex Belen



January 3, 2006

Reyn Gallacher

Dear Reyn:

Amedica is pleased to offer you the position of Controller at a salary of \$4153.85 per average biweekly pay period which equates to \$108,000 per year. This position is exempt. Amedica provides a drug free work environment; therefore, this offer is conditioned upon you taking a drug test and such test results are negative. Amedica will arrange and pay for this test. We anticipate your employment to begin on January 9, 2006 which will be your hire date.

Upon your hire date, you will be nominated to receive an incentive stock option award for 40,000 shares of Amedica's common stock, subject to a 4-year vesting schedule, 10-year option life and approval by Amedica's Board of Directors. We feel that these stock options are a valuable part of your total compensation package.

As part of this offer, you will be eligible for Amedica's complete benefits program, including medical, dental, life and long term disability insurances and our 401(k) retirement plan. Also included are Amedica's 10 paid holidays, 5 days of personal/sick leave and 15 days of vacation per year. When you report to work, you will be provided with more detailed information regarding our complete policies and benefits programs.

Your employment at Amedica assumes an obligation to maintain confidentiality of Amedica's business information and that of its clients, partners and suppliers. By safeguarding such confidential information, Amedica earns the respect and further trust of our clients, suppliers and partners. Thus, as a condition of your employment, you will be required to sign a standard confidentiality agreement.

Amedica is committed to maintaining its leading technology position in the orthopedic implant field and to the commercialization of revolutionary orthopedic implant products for treatment of joint diseases. Our success depends upon bright, dedicated staff such as yourself. If you are in agreement with the terms of this letter, please sign below and return one original to our offices.

Sincerely,

/s/ Eugene B. Jones

Eugene B. Jones  
Vice President – Finance  
Chief Financial Officer

615 Arapeen Drive Suite 302

Salt Lake City, UT 84108

(801) 583 5100 (phone)

(801) 583-8635 (fax)

www.amediacorp.com

Agreed to and Accepted by:

/s/ Reyn Gallacher

Reyn Gallacher



May 10, 2006

Mr. Ken Ludwig

Dear Ken:

Amedica is pleased to offer you the position of Global Marketing Director at a salary of \$4,807.00 per average semi monthly pay period which equates to \$125,000.00 per year. This position is exempt. Amedica provides a drug free work environment; therefore, this offer is conditioned upon you taking a drug test and such test results are negative. Amedica will arrange and pay for this test. We anticipate your employment to begin on May 31, 2006 which will be your hire date.

Upon your hire date, you will be nominated to receive an incentive stock option award for 50,000 shares of Amedica's common stock, subject to a 4-year vesting schedule, 10-year option life and approval by Amedica's Board of Directors. We feel that these stock options are a valuable part of your total compensation package.

As part of this offer, you will be eligible for Amedica's complete benefits program, including medical, dental, life and long term disability insurances and our 401(k) retirement plan. Also included are Amedica's 10 paid holidays, 5 days of personal/sick leave and 10 days of vacation per year. When you report to work, you will be provided with more detailed information regarding our complete policies and benefits programs.

Your employment at Amedica assumes an obligation to maintain confidentiality of Amedica's business information and that of its clients, partners and suppliers. By safeguarding such confidential information, Amedica earns the respect and further trust of our clients, suppliers and partners. Thus, as a condition of your employment, you will be required to sign a standard confidentiality agreement.

Amedica is committed to maintaining its leading technology position in the orthopedic implant field and to the commercialization of revolutionary orthopedic implant products for treatment of joint diseases. Our success depends upon bright, dedicated staff such, as yourself. If you are in agreement with the terms of this letter, please sign below and return one original to our offices.

Sincerely,

/s/ Eugene B. Jones

Eugene B. Jones

Vice President, Finance &amp; CFO

Agreed to and Accepted by:

/s/ Ken Ludwig 5-22-06

Ken Ludwig

615 Arapeen Drive Suite 302

Salt Lake City, UT 84108

(801) 583-5100 (phone)

(801) 583-8635 (fax)

www.amediacorp.com

**SEVERANCE AGREEMENT**

This Agreement is entered into as of the 23rd day of May, 2005 by and between Ametica Corporation, a Delaware corporation (the "Company") and Ashok C. Khandkar (the "Executive").

WHEREAS, the Executive is President and Chief Executive Officer of the Company;

WHEREAS, the Company recognizes that the Executive's service to the Company is very important to the future success of the Company;

WHEREAS, the Executive desires to enter into this Agreement to provide the Executive with certain financial protection in the event that his employment terminates under certain conditions following a change in control of the Company; and

WHEREAS the Board of Directors of the Company (the "Board") has determined that it is in the best interests of the Company to enter into this Agreement.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Company and the Executive agree as follows:

1. Definitions.

(a) Cause. For purposes of this Agreement, "Cause" means: (i) the Executive's commission of a felony (other than through vicarious liability or through a motor vehicle offense); (ii) the Executive's material disloyalty or dishonesty to the Company; (iii) the commission by the Executive of an act of fraud, embezzlement or misappropriation of funds; (iv) a material breach by the Executive of any material provision of this Agreement or any other agreement to which the Executive and the Company are party, which breach is not cured within thirty (30) days after delivery to the Executive by the Company of written notice of such breach; or (v) the Executive's refusal to carry out a lawful written directive from the Board. Any determination of Cause will be made by a majority of the Board voting on such determination.

(b) Change in Control. For purposes of this Agreement, a "Change in Control" shall mean: (i) any "person" (as such term is used in Sections 13(d) and 14(d) of the Securities Exchange Act of 1934, as amended (the "Act")) becomes the "beneficial owner" (as defined in Rule 13d-3 under the Act), directly or indirectly, of securities of the Company representing 50% or more of the total voting power represented by the Company's then outstanding voting securities (excluding for this purpose the Company or its Affiliates or any employee benefit plan of the Company) pursuant to a transaction or a series of related transactions of which the Board does not approve; (ii) a merger or consolidation of the Company, whether or not approved by the Board, other than a merger or consolidation which would result in the voting securities of the Company outstanding immediately prior thereto continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity or the parent of such corporation) at least 50% of the total voting power represented by the voting securities of the Company or such surviving entity or parent of such corporation outstanding immediately

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after such merger or consolidation; or (iii) the stockholders of the Company approve an agreement for the sale or disposition by the Company of all or substantially all of the Company's assets. For purposes of this Agreement, "Change in Control" shall be interpreted in a manner, and limited to the extent necessary, so that it will not cause adverse tax consequences for either party with respect to Section 409A of the Internal Revenue Code of 1986, as amended (the "Code"), and the provisions of Treasury Notice 2005-1, and any successor statute, regulation and guidance thereto.

(c) Disability. For purposes of this Agreement, "Disability" means the inability of the Executive to perform the principal functions of his duties due to a physical or mental impairment, but only if such inability has lasted or is reasonably expected to last for at least sixty (60) consecutive days or an aggregate of one hundred twenty (120) days during any twelve-month period. Whether the Executive has a Disability will be determined by a majority of the Board based on evidence provided by one or more physicians selected by the Board and approved by Executive, which approval shall not be unreasonably withheld.

(d) Good Reason. For purposes of this Agreement, "Good Reason" shall mean, without the Executive's consent: (i) a change in the principal location at which the Executive performs his duties for the Company to a new location that is at least fifty (50) miles from the prior location; or (ii) a material change in the Executive's authority, functions, duties or responsibilities as President and Chief Executive Officer of the Company, which would cause his position with the Company to become of less responsibility, importance or scope than his position on the date of this Agreement or as of any subsequent date prior to the Change in Control, provided, however, that such material change is not in connection with the termination of the Executive's employment by the Company for any reason.

## 2. Severance Compensation

(a) In the event that, within a period of one (1) year following the consummation of a Change in Control, the Executive's employment with the Company is terminated by the Company other than for Cause (but not including termination due to the Executive's death or Disability), or by the Executive for Good Reason, then, within ten (10) days of the applicable termination date, the Executive shall be entitled to, in addition to any amounts due to the Executive for services rendered prior to the termination date: (i) a lump sum payment from the Company of an amount equal to three (3) times the Executive's highest Annual Salary with the Company during the preceding three-year period, including the year of such termination; and (ii) all outstanding options, restricted stock and other similar rights held by the Executive shall become one hundred percent (100%) vested (collectively, the "Severance Compensation"). For purposes of this Agreement, "Annual Salary" shall mean the Executive's annual base salary and bonus payments (measured on the Company's 12-month fiscal year period), excluding reimbursements and amounts attributable to stock options and other non-cash compensation. Notwithstanding the foregoing, in the event that the Executive is deemed to be a "key employee" under Code Section 416 and the Company's common stock is publicly traded on an established securities market or otherwise, then any payment under subsection (i) above to which the

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Executive may become entitled will be postponed until six (6) months following the date his employment with the Company is terminated so as to avoid any adverse tax consequences for either party with respect to Code Section 409A, or any successor statute, regulation and guidance thereto.

(b) If it is determined that the amounts payable to the Executive under this Agreement, when considered together with any other amounts payable to the Executive in connection with a Change in Control, cause such payments to be treated as excess parachute payments within the meaning of Code Section 280G, then the Company will make an additional "gross up" payment to the Executive in order to pay for any additional tax imposed on the Executive pursuant to Code Section 4999.

3. No Duplication of Compensation. The Severance Compensation shall replace, and be provided in lieu of, any severance compensation that may be provided to the Executive under any other agreement, provided, however, that this prohibition against duplication shall not be construed to otherwise limit the Executive's rights as to payments or benefits provided under any pension plan (as defined in Section 3(2) of the Employee Retirement Income Security Act of 1974, as amended), deferred compensation, stock, stock option or similar plan sponsored by the Company.

4. Enforceability. If any provision of this Agreement shall be deemed invalid or unenforceable as written, this Agreement shall be construed, to the greatest extent possible, or modified, to the extent allowable by law, in a manner which shall render it valid and enforceable. No invalidity or unenforceability of any provision contained herein shall affect any other portion of this Agreement.

5. Notices. All notices, requests, consents and other communications hereunder shall be in writing, shall be addressed to the receiving party's address set forth below or to such other address as a party may designate by notice hereunder, and shall be either (i) delivered by hand, (ii) made by facsimile transmission, (iii) sent by overnight courier, or (iv) sent by registered or certified mail, return receipt requested, postage prepaid.

If to the Company:

Amedica Corporation  
615 Arapeen Drive, Suite 302  
Salt lake City, UT 84108  
Facsimile: (801)583-8635  
Attn: Board of Directors

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With a copy to:

Jonathan L. Kravetz, Esq.  
Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C.  
One Financial Center  
Boston, MA 02111  
Facsimile: (617)542-2241

If to the Executive:

To the Executive's last-known home address and/or facsimile number as set forth in the Company's personnel records

All notices, requests, consents and other communications hereunder shall be deemed to have been given either (i) if by hand, at the time of the delivery thereof to the receiving party at the address of such party set forth above, (ii) if made by facsimile transmission, at the time that receipt thereof has been acknowledged by electronic confirmation or otherwise, (iii) if sent by overnight courier, on the next business day following the day such notice is delivered to the courier service, or (iv) if sent by registered or certified mail, on the 5th business day following the day such mailing is made.

6. Entire Agreement. This Agreement, together with the other agreements referenced herein, embodies the entire agreement and understanding between the parties hereto with respect to the subject matter hereof and supersedes all prior oral or written agreements and understandings relating to the subject matter hereof. No statement, representation, warranty, covenant or agreement of any kind not expressly set forth in this Agreement shall affect, or be used to interpret, change or restrict, the express terms and provisions of this Agreement.

7. Modifications and Amendments. The terms and provisions of this Agreement may be modified or amended only by written agreement executed by the Company and the Executive. The Company and the Executive agree that they will jointly execute an amendment to modify this Agreement to the extent necessary to comply with the requirements of Code Section 409A, or any successor statute, regulation and guidance thereto; provided that no such amendment shall increase the total financial obligation of the Company under this Agreement.

8. Waivers and Consents. The terms and provisions of this Agreement may be waived, or consent for the departure therefrom granted, only by a written document executed by the party entitled to the benefits of such terms or provisions. No such waiver or consent shall be deemed to be or shall constitute a waiver or consent with respect to any other terms or provisions of this Agreement, whether or not similar. Each such waiver or consent shall be effective only in the specific instance and for the purpose for which it was given, and shall not constitute a continuing waiver or consent.

9. Binding Effect; Assignment. The Agreement will be binding upon and inure to the benefit of (a) the heirs, executors and legal representatives of the Executive upon the Executive's

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death and (b) any successor of the Company. Any such successor of the Company will be deemed substituted for the Company under the terms of the Agreement for all purposes. For this purpose, "successor" means any person, firm, corporation or other business entity which at any time, whether by purchase, merger or otherwise, directly or indirectly acquires all or substantially all of the assets or business of the Company. None of the rights of the Executive to receive any form of compensation payable pursuant to the Agreement may be assigned or transferred except by will or the laws of descent and distribution. Any other attempted assignment, transfer, conveyance or other disposition of the Executive's right to compensation or other benefits will be null and void.

10. Governing Law. This Agreement and the rights and obligations of the parties hereunder shall be construed in accordance with and governed by the law of the State of Utah, without giving effect to the conflict of law principles thereof.

11. Jurisdiction and Service of Process. Any legal action or proceeding with respect to this Agreement shall be brought in the courts of the State of Utah or of the United States of America for the District of Utah. By execution and delivery of this Agreement, each of the parties hereto accepts for itself and in respect of its property, generally and unconditionally, the jurisdiction of the aforesaid courts. Each of the parties hereto irrevocably consents to the service of process of any of the aforementioned courts in any such action or proceeding by the mailing of copies thereof by certified mail, postage prepaid, to the party at its address set forth in Section 5 hereof.

12. No Waiver of Rights, Powers and Remedies. No failure or delay by a party hereto in exercising any right, power or remedy under this Agreement, and no course of dealing between the parties hereto, shall operate as a waiver of any such right, power or remedy of the party. No single or partial exercise of any right, power or remedy under this Agreement by a party hereto, nor any abandonment or discontinuance of steps to enforce any such right, power or remedy, shall preclude such party from any other or further exercise thereof or the exercise of any other right, power or remedy hereunder. The election of any remedy by a party hereto shall not constitute a waiver of the right of such party to pursue other available remedies. No notice to or demand on a party not expressly required under this Agreement shall entitle the party receiving such notice or demand to any other or further notice or demand in similar or other circumstances or constitute a waiver of the rights of the party giving such notice or demand to any other or further action in any circumstances without such notice or demand.

13. Withholding. The Company is authorized to withhold, or cause to be withheld, from any payment or benefit under the Agreement the full amount of any applicable withholding taxes.

14. Tax Consequences. The Company does not guarantee the tax treatment or tax consequences associated with any payment or benefit arising under this Agreement.

15. Acknowledgment. The Executive acknowledges that he has had the opportunity to discuss this matter with and obtain advice from his private attorney, has had sufficient time to, and has carefully read and fully understands all the provisions of the Agreement, and is knowingly and voluntarily entering into the Agreement.

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16. Counterparts. This Agreement may be executed in one or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

IN WITNESS WHEREOF, the parties have executed this Agreement as of the day and year first above written.

COMPANY:

AMEDICA CORPORATION

By: /s/ Eugene B. Jones

Name: Eugene B. Jones

Title: Vice President - Finance

EXECUTIVE:

/s/ Ashok C. Khandkar

Ashok C. Khandkar

**SEVERANCE AGREEMENT**

This Agreement is entered into as of the 23rd day of May, 2005 by and between Ametica Corporation, a Delaware corporation (the "Company") and Bryan J. McEntire (the "Executive").

WHEREAS, the Executive is Vice President – Manufacturing of the Company;

WHEREAS, the Company recognizes that the Executive's service to the Company is very important to the future success of the Company;

WHEREAS, the Executive desires to enter into this Agreement to provide the Executive with certain financial protection in the event that his employment terminates under certain conditions following a change in control of the Company; and

WHEREAS the Board of Directors of the Company (the "Board") has determined that it is in the best interests of the Company to enter into this Agreement.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Company and the Executive agree as follows:

1. Definitions.

(a) Cause. For purposes of this Agreement, "Cause" means: (i) the Executive's commission of a felony (other than through vicarious liability or through a motor vehicle offense); (ii) the Executive's material disloyalty or dishonesty to the Company; (iii) the commission by the Executive of an act of fraud, embezzlement or misappropriation of funds; (iv) a material breach by the Executive of any material provision of this Agreement or any other agreement to which the Executive and the Company are party, which breach is not cured within thirty (30) days after delivery to the Executive by the Company of written notice of such breach; or (v) the Executive's refusal to carry out a lawful written directive from the Board. Any determination of Cause will be made by a majority of the Board voting on such determination.

(b) Change in Control. For purposes of this Agreement, a "Change in Control" shall mean: (i) any "person" (as such term is used in Sections 13(d) and 14(d) of the Securities Exchange Act of 1934, as amended (the "Act")) becomes the "beneficial owner" (as defined in Rule 13d-3 under the Act), directly or indirectly, of securities of the Company representing 50% or more of the total voting power represented by the Company's then outstanding voting securities (excluding for this purpose the Company or its Affiliates or any employee benefit plan of the Company) pursuant to a transaction or a series of related transactions of which the Board does not approve; (ii) a merger or consolidation of the Company, whether or not approved by the Board, other than a merger or consolidation which would result in the voting securities of the Company outstanding immediately prior thereto continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity or the parent of such corporation) at least 50% of the total voting power represented by the voting securities of the Company or such surviving entity or parent of such corporation outstanding immediately

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after such merger or consolidation; or (iii) the stockholders of the Company approve an agreement for the sale or disposition by the Company of all or substantially all of the Company's assets. For purposes of this Agreement, "Change in Control" shall be interpreted in a manner, and limited to the extent necessary, so that it will not cause adverse tax consequences for either party with respect to Section 409A of the Internal Revenue Code of 1986, as amended (the "Code"), and the provisions of Treasury Notice 2005-1, and any successor statute, regulation and guidance thereto.

(c) Disability. For purposes of this Agreement, "Disability" means the inability of the Executive to perform the principal functions of his duties due to a physical or mental impairment, but only if such inability has lasted or is reasonably expected to last for at least sixty (60) consecutive days or an aggregate of one hundred twenty (120) days during any twelve-month period. Whether the Executive has a Disability will be determined by a majority of the Board based on evidence provided by one or more physicians selected by the Board and approved by Executive, which approval shall not be unreasonably withheld.

(d) Good Reason. For purposes of this Agreement, "Good Reason" shall mean, without the Executive's consent: (i) a change in the principal location at which the Executive performs his duties for the Company to a new location that is at least fifty (50) miles from the prior location; or (ii) a material change in the Executive's authority, functions, duties or responsibilities as Vice President – Manufacturing of the Company, which would cause his position with the Company to become of less responsibility, importance or scope than his position on the date of this Agreement or as of any subsequent date prior to the Change in Control, provided, however, that such material change is not in connection with the termination of the Executive's employment by the Company for any reason.

## 2. Severance Compensation

(a) In the event that, within a period of one (1) year following the consummation of a Change in Control, the Executive's employment with the Company is terminated by the Company other than for Cause (but not including termination due to the Executive's death or Disability), or by the Executive for Good Reason, then, within ten (10) days of the applicable termination date, the Executive shall be entitled to, in addition to any amounts due to the Executive for services rendered prior to the termination date: (i) a lump sum payment from the Company of an amount equal to two (2) times the Executive's highest Annual Salary with the Company during the preceding three-year period, including the year of such termination; and (ii) all outstanding options, restricted stock and other similar rights held by the Executive shall become one hundred percent (100%) vested (collectively, the "Severance Compensation"). For purposes of this Agreement, "Annual Salary" shall mean the Executive's annual base salary and bonus payments (measured on the Company's 12-month fiscal year period), excluding reimbursements and amounts attributable to stock options and other non-cash compensation. Notwithstanding the foregoing, in the event that the Executive is deemed to be a "key employee" under Code Section 416 and the Company's common stock is publicly traded on an established securities market or otherwise, then any payment under subsection (i) above to which the

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Executive may become entitled will be postponed until six (6) months following the date his employment with the Company is terminated so as to avoid any adverse tax consequences for either party with respect to Code Section 409A, or any successor statute, regulation and guidance thereto.

(b) If it is determined that the amounts payable to the Executive under this Agreement, when considered together with any other amounts payable to the Executive in connection with a Change in Control, cause such payments to be treated as excess parachute payments within the meaning of Code Section 280G, then the Company will make an additional "gross up" payment to the Executive in order to pay for any additional tax imposed on the Executive pursuant to Code Section 4999.

3. No Duplication of Compensation. The Severance Compensation shall replace, and be provided in lieu of, any severance compensation that may be provided to the Executive under any other agreement, provided, however, that this prohibition against duplication shall not be construed to otherwise limit the Executive's rights as to payments or benefits provided under any pension plan (as defined in Section 3(2) of the Employee Retirement Income Security Act of 1974, as amended), deferred compensation, stock, stock option or similar plan sponsored by the Company.

4. Enforceability. If any provision of this Agreement shall be deemed invalid or unenforceable as written, this Agreement shall be construed, to the greatest extent possible, or modified, to the extent allowable by law, in a manner which shall render it valid and enforceable. No invalidity or unenforceability of any provision contained herein shall affect any other portion of this Agreement.

5. Notices. All notices, requests, consents and other communications hereunder shall be in writing, shall be addressed to the receiving party's address set forth below or to such other address as a party may designate by notice hereunder, and shall be either (i) delivered by hand, (ii) made by facsimile transmission, (iii) sent by overnight courier, or (iv) sent by registered or certified mail, return receipt requested, postage prepaid.

If to the Company:

Amedica Corporation  
615 Arapeen Drive, Suite 302  
Salt lake City, UT 84108  
Facsimile: (801)583-8635  
Attn: Board of Directors

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With a copy to:

Jonathan L. Kravetz, Esq.  
Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C.  
One Financial Center  
Boston, MA 02111  
Facsimile: (617)542-2241

If to the Executive:

To the Executive's last-known home address and/or facsimile number as set forth in the Company's personnel records

All notices, requests, consents and other communications hereunder shall be deemed to have been given either (i) if by hand, at the time of the delivery thereof to the receiving party at the address of such party set forth above, (ii) if made by facsimile transmission, at the time that receipt thereof has been acknowledged by electronic confirmation or otherwise, (iii) if sent by overnight courier, on the next business day following the day such notice is delivered to the courier service, or (iv) if sent by registered or certified mail, on the 5th business day following the day such mailing is made.

6. Entire Agreement. This Agreement, together with the other agreements referenced herein, embodies the entire agreement and understanding between the parties hereto with respect to the subject matter hereof and supersedes all prior oral or written agreements and understandings relating to the subject matter hereof. No statement, representation, warranty, covenant or agreement of any kind not expressly set forth in this Agreement shall affect, or be used to interpret, change or restrict, the express terms and provisions of this Agreement.

7. Modifications and Amendments. The terms and provisions of this Agreement may be modified or amended only by written agreement executed by the Company and the Executive. The Company and the Executive agree that they will jointly execute an amendment to modify this Agreement to the extent necessary to comply with the requirements of Code Section 409A, or any successor statute, regulation and guidance thereto; provided that no such amendment shall increase the total financial obligation of the Company under this Agreement.

8. Waivers and Consents. The terms and provisions of this Agreement may be waived, or consent for the departure therefrom granted, only by a written document executed by the party entitled to the benefits of such terms or provisions. No such waiver or consent shall be deemed to be or shall constitute a waiver or consent with respect to any other terms or provisions of this Agreement, whether or not similar. Each such waiver or consent shall be effective only in the specific instance and for the purpose for which it was given, and shall not constitute a continuing waiver or consent.

9. Binding Effect; Assignment. The Agreement will be binding upon and inure to the benefit of (a) the heirs, executors and legal representatives of the Executive upon the Executive's

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death and (b) any successor of the Company. Any such successor of the Company will be deemed substituted for the Company under the terms of the Agreement for all purposes. For this purpose, "successor" means any person, firm, corporation or other business entity which at any time, whether by purchase, merger or otherwise, directly or indirectly acquires all or substantially all of the assets or business of the Company. None of the rights of the Executive to receive any form of compensation payable pursuant to the Agreement may be assigned or transferred except by will or the laws of descent and distribution. Any other attempted assignment, transfer, conveyance or other disposition of the Executive's right to compensation or other benefits will be null and void.

10. Governing Law. This Agreement and the rights and obligations of the parties hereunder shall be construed in accordance with and governed by the law of the State of Utah, without giving effect to the conflict of law principles thereof.

11. Jurisdiction and Service of Process. Any legal action or proceeding with respect to this Agreement shall be brought in the courts of the State of Utah or of the United States of America for the District of Utah. By execution and delivery of this Agreement, each of the parties hereto accepts for itself and in respect of its property, generally and unconditionally, the jurisdiction of the aforesaid courts. Each of the parties hereto irrevocably consents to the service of process of any of the aforementioned courts in any such action or proceeding by the mailing of copies thereof by certified mail, postage prepaid, to the party at its address set forth in Section 5 hereof.

12. No Waiver of Rights, Powers and Remedies. No failure or delay by a party hereto in exercising any right, power or remedy under this Agreement, and no course of dealing between the parties hereto, shall operate as a waiver of any such right, power or remedy of the party. No single or partial exercise of any right, power or remedy under this Agreement by a party hereto, nor any abandonment or discontinuance of steps to enforce any such right, power or remedy, shall preclude such party from any other or further exercise thereof or the exercise of any other right, power or remedy hereunder. The election of any remedy by a party hereto shall not constitute a waiver of the right of such party to pursue other available remedies. No notice to or demand on a party not expressly required under this Agreement shall entitle the party receiving such notice or demand to any other or further notice or demand in similar or other circumstances or constitute a waiver of the rights of the party giving such notice or demand to any other or further action in any circumstances without such notice or demand.

13. Withholding. The Company is authorized to withhold, or cause to be withheld, from any payment or benefit under the Agreement the full amount of any applicable withholding taxes.

14. Tax Consequences. The Company does not guarantee the tax treatment or tax consequences associated with any payment or benefit arising under this Agreement.

15. Acknowledgment. The Executive acknowledges that he has had the opportunity to discuss this matter with and obtain advice from his private attorney, has had sufficient time to, and has carefully read and fully understands all the provisions of the Agreement, and is knowingly and voluntarily entering into the Agreement.

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16. Counterparts. This Agreement may be executed in one or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

IN WITNESS WHEREOF, the parties have executed this Agreement as of the day and year first above written.

COMPANY:

AMEDICA CORPORATION

By: /s/ Eugene B. Jones

Name: Eugene B. Jones

Title: Vice President - Finance

EXECUTIVE:

/s/ Bryan J. McEntire

Bryan J. McEntire

**SEVERANCE AGREEMENT**

This Agreement is entered into as of the 14<sup>th</sup> day of February, 2006 by and between Amedica Corporation, a Delaware corporation (the "Company") and Warionex J. Belen (the "Executive").

WHEREAS, the Executive is Vice President – Products of the Company;

WHEREAS, the Company recognizes that the Executive's service to the Company is very important to the future success of the Company;

WHEREAS, the Executive desires to enter into this Agreement to provide the Executive with certain financial protection in the event that his employment terminates under certain conditions following a change in control of the Company; and

WHEREAS the Board of Directors of the Company (the "Board") has determined that it is in the best interests of the Company to enter into this Agreement.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Company and the Executive agree as follows:

1. Definitions.

(a) Cause. For purposes of this Agreement, "Cause" means: (i) the Executive's commission of a felony (other than through vicarious liability or through a motor vehicle offense); (ii) the Executive's material disloyalty or dishonesty to the Company; (iii) the commission by the Executive of an act of fraud, embezzlement or misappropriation of funds; (iv) a material breach by the Executive of any material provision of this Agreement or any other agreement to which the Executive and the Company are party, which breach is not cured within thirty (30) days after delivery to the Executive by the Company of written notice of such breach; or (v) the Executive's refusal to carry out a lawful written directive from the Board. Any determination of Cause will be made by a majority of the Board voting on such determination.

(b) Change in Control. For purposes of this Agreement, a "Change in Control" shall mean: (i) any "person" (as such term is used in Sections 13(d) and 14(d) of the Securities Exchange Act of 1934, as amended (the "Act")) becomes the "beneficial owner" (as defined in Rule 13d-3 under the Act), directly or indirectly, of securities of the Company representing 50% or more of the total voting power represented by the Company's then outstanding voting securities (excluding for this purpose the Company or its Affiliates or any employee benefit plan of the Company) pursuant to a transaction or a series of related transactions of which the Board does not approve; (ii) a merger or consolidation of the Company, whether or not approved by the Board, other than a merger or consolidation which would result in the voting securities of the Company outstanding immediately prior thereto continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity or the parent of such corporation) at least 50% of the total voting power represented by the voting securities of the Company or such surviving entity or parent of such corporation outstanding immediately

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after such merger or consolidation; or (iii) the stockholders of the Company approve an agreement for the sale or disposition by the Company of all or substantially all of the Company's assets. For purposes of this Agreement, "Change in Control" shall be interpreted in a manner, and limited to the extent necessary, so that it will not cause adverse tax consequences for either party with respect to Section 409A of the Internal Revenue Code of 1986, as amended (the "Code"), and the provisions of Treasury Notice 2005-1, and any successor statute, regulation and guidance thereto.

(c) Disability. For purposes of this Agreement, "Disability" means the inability of the Executive to perform the principal functions of his duties due to a physical or mental impairment, but only if such inability has lasted or is reasonably expected to last for at least sixty (60) consecutive days or an aggregate of one hundred twenty (120) days during any twelve-month period. Whether the Executive has a Disability will be determined by a majority of the Board based on evidence provided by one or more physicians selected by the Board and approved by Executive, which approval shall not be unreasonably withheld.

(d) Good Reason. For purposes of this Agreement, "Good Reason" shall mean, without the Executive's consent: (i) a change in the principal location at which the Executive performs his duties for the Company to a new location that is at least fifty (50) miles from the prior location; or (ii) a material change in the Executive's authority, functions, duties or responsibilities as Vice President – Products of the Company, which would cause his position with the Company to become of less responsibility, importance or scope than his position on the date of this Agreement or as of any subsequent date prior to the Change in Control, provided, however, that such material change is not in connection with the termination of the Executive's employment by the Company for any reason.

## 2. Severance Compensation

(a) In the event that, within a period of one (1) year following the consummation of a Change in Control, the Executive's employment with the Company is terminated by the Company other than for Cause (but not including termination due to the Executive's death or Disability), or by the Executive for Good Reason, then, within ten (10) days of the applicable termination date, the Executive shall be entitled to, in addition to any amounts due to the Executive for services rendered prior to the termination date: (i) a lump sum payment from the Company of an amount equal to two (2) times the Executive's highest Annual Salary with the Company during the preceding three-year period, including the year of such termination; and (ii) all outstanding options, restricted stock and other similar rights held by the Executive shall become one hundred percent (100%) vested (collectively, the "Severance Compensation"). For purposes of this Agreement, "Annual Salary" shall mean the Executive's annual base salary and bonus payments (measured on the Company's 12-month fiscal year period), excluding reimbursements and amounts attributable to stock options and other non-cash compensation. Notwithstanding the foregoing, in the event that the Executive is deemed to be a "key employee" under Code Section 416 and the Company's common stock is publicly traded on an established securities market or otherwise, then any payment under subsection (i) above to which the

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Executive may become entitled will be postponed until six (6) months following the date his employment with the Company is terminated so as to avoid any adverse tax consequences for either party with respect to Code Section 409A, or any successor statute, regulation and guidance thereto.

(b) If it is determined that the amounts payable to the Executive under this Agreement, when considered together with any other amounts payable to the Executive in connection with a Change in Control, cause such payments to be treated as excess parachute payments within the meaning of Code Section 280G, then the Company will make an additional "gross up" payment to the Executive in order to pay for any additional tax imposed on the Executive pursuant to Code Section 4999.

3. No Duplication of Compensation. The Severance Compensation shall replace, and be provided in lieu of, any severance compensation that may be provided to the Executive under any other agreement, provided, however, that this prohibition against duplication shall not be construed to otherwise limit the Executive's rights as to payments or benefits provided under any pension plan (as defined in Section 3(2) of the Employee Retirement Income Security Act of 1974, as amended), deferred compensation, stock, stock option or similar plan sponsored by the Company.

4. Enforceability. If any provision of this Agreement shall be deemed invalid or unenforceable as written, this Agreement shall be construed, to the greatest extent possible, or modified, to the extent allowable by law, in a manner which shall render it valid and enforceable. No invalidity or unenforceability of any provision contained herein shall affect any other portion of this Agreement.

5. Notices. All notices, requests, consents and other communications hereunder shall be in writing, shall be addressed to the receiving party's address set forth below or to such other address as a party may designate by notice hereunder, and shall be either (i) delivered by hand, (ii) made by facsimile transmission, (iii) sent by overnight courier, or (iv) sent by registered or certified mail, return receipt requested, postage prepaid.

If to the Company:

Amedica Corporation  
615 Arapeen Drive, Suite 302  
Salt lake City, UT 84108  
Facsimile: (801)583-8635  
Attn: Board of Directors

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With a copy to:

Jonathan L. Kravetz, Esq.  
Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C.  
One Financial Center  
Boston, MA 02111  
Facsimile: (617)542-2241

If to the Executive:

To the Executive's last-known home address and/or facsimile number as set forth in the Company's personnel records

All notices, requests, consents and other communications hereunder shall be deemed to have been given either (i) if by hand, at the time of the delivery thereof to the receiving party at the address of such party set forth above, (ii) if made by facsimile transmission, at the time that receipt thereof has been acknowledged by electronic confirmation or otherwise, (iii) if sent by overnight courier, on the next business day following the day such notice is delivered to the courier service, or (iv) if sent by registered or certified mail, on the 5th business day following the day such mailing is made.

6. Entire Agreement. This Agreement, together with the other agreements referenced herein, embodies the entire agreement and understanding between the parties hereto with respect to the subject matter hereof and supersedes all prior oral or written agreements and understandings relating to the subject matter hereof. No statement, representation, warranty, covenant or agreement of any kind not expressly set forth in this Agreement shall affect, or be used to interpret, change or restrict, the express terms and provisions of this Agreement.

7. Modifications and Amendments. The terms and provisions of this Agreement may be modified or amended only by written agreement executed by the Company and the Executive. The Company and the Executive agree that they will jointly execute an amendment to modify this Agreement to the extent necessary to comply with the requirements of Code Section 409A, or any successor statute, regulation and guidance thereto; provided that no such amendment shall increase the total financial obligation of the Company under this Agreement.

8. Waivers and Consents. The terms and provisions of this Agreement may be waived, or consent for the departure therefrom granted, only by a written document executed by the party entitled to the benefits of such terms or provisions. No such waiver or consent shall be deemed to be or shall constitute a waiver or consent with respect to any other terms or provisions of this Agreement, whether or not similar. Each such waiver or consent shall be effective only in the specific instance and for the purpose for which it was given, and shall not constitute a continuing waiver or consent.

9. Binding Effect; Assignment. The Agreement will be binding upon and inure to the benefit of (a) the heirs, executors and legal representatives of the Executive upon the Executive's

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death and (b) any successor of the Company. Any such successor of the Company will be deemed substituted for the Company under the terms of the Agreement for all purposes. For this purpose, "successor" means any person, firm, corporation or other business entity which at any time, whether by purchase, merger or otherwise, directly or indirectly acquires all or substantially all of the assets or business of the Company. None of the rights of the Executive to receive any form of compensation payable pursuant to the Agreement may be assigned or transferred except by will or the laws of descent and distribution. Any other attempted assignment, transfer, conveyance or other disposition of the Executive's right to compensation or other benefits will be null and void.

10. Governing Law. This Agreement and the rights and obligations of the parties hereunder shall be construed in accordance with and governed by the law of the State of Utah, without giving effect to the conflict of law principles thereof.

11. Jurisdiction and Service of Process. Any legal action or proceeding with respect to this Agreement shall be brought in the courts of the State of Utah or of the United States of America for the District of Utah. By execution and delivery of this Agreement, each of the parties hereto accepts for itself and in respect of its property, generally and unconditionally, the jurisdiction of the aforesaid courts. Each of the parties hereto irrevocably consents to the service of process of any of the aforementioned courts in any such action or proceeding by the mailing of copies thereof by certified mail, postage prepaid, to the party at its address set forth in Section 5 hereof.

12. No Waiver of Rights, Powers and Remedies. No failure or delay by a party hereto in exercising any right, power or remedy under this Agreement, and no course of dealing between the parties hereto, shall operate as a waiver of any such right, power or remedy of the party. No single or partial exercise of any right, power or remedy under this Agreement by a party hereto, nor any abandonment or discontinuance of steps to enforce any such right, power or remedy, shall preclude such party from any other or further exercise thereof or the exercise of any other right, power or remedy hereunder. The election of any remedy by a party hereto shall not constitute a waiver of the right of such party to pursue other available remedies. No notice to or demand on a party not expressly required under this Agreement shall entitle the party receiving such notice or demand to any other or further notice or demand in similar or other circumstances or constitute a waiver of the rights of the party giving such notice or demand to any other or further action in any circumstances without such notice or demand.

13. Withholding. The Company is authorized to withhold, or cause to be withheld, from any payment or benefit under the Agreement the full amount of any applicable withholding taxes.

14. Tax Consequences. The Company does not guarantee the tax treatment or tax consequences associated with any payment or benefit arising under this Agreement.

15. Acknowledgment. The Executive acknowledges that he has had the opportunity to discuss this matter with and obtain advice from his private attorney, has had sufficient time to, and has carefully read and fully understands all the provisions of the Agreement, and is knowingly and voluntarily entering into the Agreement.

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16. Counterparts. This Agreement may be executed in one or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

IN WITNESS WHEREOF, the parties have executed this Agreement as of the day and year first above written.

COMPANY:

AMEDICA CORPORATION

By: /s/ Eugene B. Jones

Name: Eugene B. Jones

Title: Vice President - Finance and Chief Financial  
Officer

EXECUTIVE:

/s/ Warionex J. Belen

Warionex J. Belen

## SEVERANCE AGREEMENT

This Agreement is entered into as of the 27th day of March, 2007 by and between Amedica Corporation, a Delaware corporation (the "Company") and Reyn E. Gallacher (the "Executive").

WHEREAS, the Executive is Vice President Finance of the Company;

WHEREAS, the Company recognizes that the Executive's service to the Company is very important to the future success of the Company;

WHEREAS, the Executive desires to enter into this Agreement to provide the Executive with certain financial protection in the event that his employment terminates under certain conditions following a change in control of the Company; and

WHEREAS the Board of Directors of the Company (the "Board") has determined that it is in the best interests of the Company to enter into this Agreement.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Company and the Executive agree as follows:

1. Definitions.

(a) Cause. For purposes of this Agreement, "Cause" means: (i) the Executive's commission of a felony (other than through vicarious liability or through a motor vehicle offense); (ii) the Executive's material disloyalty or dishonesty to the Company; (iii) the commission by the Executive of an act of fraud, embezzlement or misappropriation of funds; (iv) a material breach by the Executive of any material provision of this Agreement or any other agreement to which the Executive and the Company are party, which breach is not cured within thirty (30) days after delivery to the Executive by the Company of written notice of such breach; or (v) the Executive's refusal to carry out a lawful written directive from the Board. Any determination of Cause will be made by a majority of the Board voting on such determination.

(b) Change in Control. For purposes of this Agreement, a "Change in Control" shall mean: (i) any "person" (as such term is used in Sections 13(d) and 14(d) of the Securities Exchange Act of 1934, as amended (the "Act")) becomes the "beneficial owner" (as defined in Rule 13d-3 under the Act), directly or indirectly, of securities of the Company representing 50% or more of the total voting power represented by the Company's then outstanding voting securities (excluding for this purpose the Company or its Affiliates or any employee benefit plan of the Company) pursuant to a transaction or a series of related transactions of which the Board does not approve; (ii) a merger or consolidation of the Company, whether or not approved by the Board, other than a merger or consolidation which would result in the voting securities of the Company outstanding immediately prior thereto continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity or the parent of such corporation) at least 50% of the total voting power represented by the voting securities of the Company or such surviving entity or parent of such corporation outstanding immediately after such merger or consolidation; or (iii) the stockholders of the Company approve an

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agreement for the sale or disposition by the Company of all or substantially all of the Company's assets. For purposes of this Agreement, "Change in Control" shall be interpreted in a manner, and limited to the extent necessary, so that it will not cause adverse tax consequences for either party with respect to Section 409A of the Internal Revenue Code of 1986, as amended (the "Code"), and the provisions of Treasury Notice 2005-1, and any successor statute, regulation and guidance thereto.

(c) Disability. For purposes of this Agreement, "Disability" means the inability of the Executive to perform the principal functions of his duties due to a physical or mental impairment, but only if such inability has lasted or is reasonably expected to last for at least sixty (60) consecutive days or an aggregate of one hundred twenty (120) days during any twelve-month period. Whether the Executive has a Disability will be determined by a majority of the Board based on evidence provided by one or more physicians selected by the Board and approved by Executive, which approval shall not be unreasonably withheld.

(d) Good Reason. For purposes of this Agreement, "Good Reason" shall mean, without the Executive's consent: (i) a change in the principal location at which the Executive performs his duties for the Company to a new location that is at least fifty (50) miles from the prior location; or (ii) a material change in the Executive's authority, functions, duties or responsibilities as Vice President Finance of the Company, which would cause his position with the Company to become of less responsibility, importance or scope than his position on the date of this Agreement or as of any subsequent date prior to the Change in Control, provided, however, that such material change is not in connection with the termination of the Executive's employment by the Company for any reason.

## 2. Severance Compensation.

(a) In the event that, within a period of one (1) year following the consummation of a Change in Control, the Executive's employment with the Company is terminated by the Company other than for Cause (but not including termination due to the Executive's death or Disability), or by the Executive for Good Reason, then, within ten (10) days of the applicable termination date, the Executive shall be entitled to, in addition to any amounts due to the Executive for services rendered prior to the termination date: (i) a lump sum payment from the Company of an amount equal to two (2) times the Executive's highest Annual Salary with the Company during the preceding three-year period, including the year of such termination; and (ii) all outstanding options, restricted stock and other similar rights held by the Executive shall become one hundred percent (100%) vested (collectively, the "Severance Compensation"). For purposes of this Agreement, "Annual Salary" shall mean the Executive's annual base salary and bonus payments (measured on the Company's 12-month fiscal year period), excluding reimbursements and amounts attributable to stock options and other non-cash compensation. Notwithstanding the foregoing, in the event that the Executive is deemed to be a "key employee" under Code Section 416 and the Company's common stock is publicly traded on an established securities market or otherwise, then any payment under subsection (i) above to which the Executive may become entitled will be postponed until six (6) months following the date his

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employment with the Company is terminated so as to avoid any adverse tax consequences for either party with respect to Code Section 409A, or any successor statute, regulation and guidance thereto.

(b) If it is determined that the amounts payable to the Executive under this Agreement, when considered together with any other amounts payable to the Executive in connection with a Change in Control, cause such payments to be treated as excess parachute payments within the meaning of Code Section 280G, then the Company will make an additional "gross up" payment to the Executive in order to pay for any additional tax imposed on the Executive pursuant to Code Section 4999.

3. No Duplication of Compensation. The Severance Compensation shall replace, and be provided in lieu of, any severance compensation that may be provided to the Executive under any other agreement, provided, however, that this prohibition against duplication shall not be construed to otherwise limit the Executive's rights as to payments or benefits provided under any pension plan (as defined in Section 3(2) of the Employee Retirement Income Security Act of 1974, as amended), deferred compensation, stock, stock option or similar plan sponsored by the Company.

4. Enforceability. If any provision of this Agreement shall be deemed invalid or unenforceable as written, this Agreement shall be construed, to the greatest extent possible, or modified, to the extent allowable by law, in a manner which shall render it valid and enforceable. No invalidity or unenforceability of any provision, contained herein shall affect any other portion of this Agreement.

5. Notices. All notices, requests, consents and other communications hereunder shall be in writing, shall be addressed to the receiving party's address set forth below or to such other address as a party may designate by notice hereunder, and shall be either (i) delivered by hand, (ii) made by facsimile transmission, (iii) sent by overnight courier, or (iv) sent by registered or certified mail, return receipt requested, postage prepaid.

If to the Company:

Amedica Corporation  
615 Arapeen Drive, Suite 302  
Salt lake City, UT 84108  
Facsimile: (801) 583-8635  
Attn: Board of Directors

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With a copy to:

Jonathan L. Kravetz, Esq.  
Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C.  
One Financial Center  
Boston, MA 02111  
Facsimile: (617)542-2241

If to the Executive:

To the Executive's last-known home address and/or facsimile number as set forth in the Company's personnel records

All notices, requests, consents and other communications hereunder shall be deemed to have been given either (i) if by hand, at the time of the delivery thereof to the receiving party at the address of such party set forth above, (ii) if made by facsimile transmission, at the time that receipt thereof has been acknowledged by electronic confirmation or otherwise, (iii) if sent by overnight courier, on the next business day following the day such notice is delivered to the courier service, or (iv) if sent by registered or certified mail, on the 5th business day following the day such mailing is made.

6. Entire Agreement. This Agreement, together with the other agreements referenced herein, embodies the entire agreement and understanding between the parties hereto with respect to the subject matter hereof and supersedes all prior oral or written agreements and understandings relating to the subject matter hereof. No statement, representation, warranty, covenant or agreement of any kind not expressly set forth in this Agreement shall affect, or be used to interpret, change or restrict, the express terms and provisions of this Agreement.

7. Modifications and Amendments. The terms and provisions of this Agreement may be modified or amended only by written agreement executed by the Company and the Executive. The Company and the Executive agree that they will jointly execute an amendment to modify this Agreement to the extent necessary to comply with the requirements of Code Section 409A, or any successor statute, regulation and guidance thereto; provided that no such amendment shall increase the total financial obligation of the Company under this Agreement.

8. Waivers and Consents. The terms and provisions of this Agreement may be waived, or consent for the departure therefrom granted, only by a written document executed by the party entitled to the benefits of such terms or provisions. No such waiver or consent shall be deemed to be or shall constitute a waiver or consent with respect to any other terms or provisions of this Agreement, whether or not similar. Each such waiver or consent shall be effective only in the specific instance and for the purpose for which it was given, and shall not constitute a continuing waiver or consent.

9. Binding Effect: Assignment. The Agreement will be binding upon and inure to the benefit of (a) the heirs, executors and legal representatives of the Executive upon the Executive's

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death and (b) any successor of the Company. Any such successor of the Company will be deemed substituted for the Company under the terms of the Agreement for all purposes. For this purpose, "successor" means any person, firm, corporation or other business entity which at any time, whether by purchase, merger or otherwise, directly or indirectly acquires all or substantially all of the assets or business of the Company. None of the rights of the Executive to receive any form of compensation payable pursuant to the Agreement may be assigned or transferred except by will or the laws of descent and distribution. Any other attempted assignment, transfer, conveyance or other disposition of the Executive's right to compensation, or other benefits will be null and void.

10. Governing Law. This Agreement and the rights and obligations of the parties hereunder shall be construed in accordance with and governed by the law of the State of Utah, without giving effect to the conflict of law principles thereof.

11. Jurisdiction and Service of Process. Any legal action or proceeding with respect to this Agreement shall be brought in the courts of the State of Utah or of the United States of America for the District of Utah. By execution and delivery of this Agreement, each of the parties hereto accepts for itself and in respect of its property, generally and unconditionally, the jurisdiction of the aforesaid courts. Each of the parties hereto irrevocably consents to the service of process of any of the aforementioned courts in any such action or proceeding by the mailing of copies thereof by certified mail, postage prepaid, to the party at its address set forth in Section 5 hereof.

12. No Waiver of Rights, Powers and Remedies. No failure or delay by a party hereto in exercising any right, power or remedy under this Agreement, and no course of dealing between the parties hereto, shall operate as a waiver of any such right, power or remedy of the party. No single or partial exercise of any right, power or remedy under this Agreement by a party hereto, nor any abandonment or discontinuance of steps to enforce any such right, power or remedy, shall preclude such party from any other or further exercise thereof or the exercise of any other right, power or remedy hereunder. The election of any remedy by a party hereto shall not constitute a waiver of the right of such party to pursue other available remedies. No notice to or demand on a party not expressly required under this Agreement shall entitle the party receiving such notice or demand to any other or further notice or demand in similar or other circumstances or constitute a waiver of the rights of the party giving such notice or demand to any other or further action in any circumstances without such notice or demand.

13. Withholding. The Company is authorized to withhold, or cause to be withheld, from any payment or benefit under the Agreement the full amount of any applicable withholding taxes.

14. Tax Consequences. The Company does not guarantee the tax treatment or tax consequences associated with any payment or benefit arising under this Agreement.

15. Acknowledgment. The Executive acknowledges that he has had the opportunity to discuss this matter with and obtain advice from his private attorney, has had sufficient time to, and has carefully read and fully understands all the provisions of the Agreement, and is knowingly and voluntarily entering into the Agreement.

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16. Counterparts. This Agreement may be executed in one or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

IN WITNESS WHEREOF, the parties have executed this Agreement as of the day and year first above written.

COMPANY:

AMEDICA CORPORATION

By: /s/ Ashok C. Khandkar

Name: Ashok C. Khandkar

Title: Chief Executive Officer

EXECUTIVE:

/s/ Reyn E. Gallacher

Reyn E. Gallacher

**SEVERANCE AGREEMENT**

This Agreement is entered into as of the 27th day of March, 2007 by and between Amedica Corporation, a Delaware corporation (the "Company") and Kenneth W. Ludwig (the "Executive").

WHEREAS, the Executive is Vice President Marketing of the Company;

WHEREAS, the Company recognizes that the Executive's service to the Company is very important to the future success of the Company;

WHEREAS, the Executive desires to enter into this Agreement to provide the Executive with certain financial protection in the event that his employment terminates under certain conditions following a change in control of the Company; and

WHEREAS the Board of Directors of the Company (the "Board") has determined that it is in the best interests of the Company to enter into this Agreement.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Company and the Executive agree as follows:

1. Definitions.

(a) Cause. For purposes of this Agreement, "Cause" means: (i) the Executive's commission of a felony (other than through vicarious liability or through a motor vehicle offense); (ii) the Executive's material disloyalty or dishonesty to the Company; (iii) the commission by the Executive of an act of fraud, embezzlement or misappropriation of funds; (iv) a material breach by the Executive of any material provision of this Agreement or any other agreement to which the Executive and the Company are party, which breach is not cured within thirty (30) days after delivery to the Executive by the Company of written notice of such breach; or (v) the Executive's refusal to carry out a lawful written directive from the Board. Any determination of Cause will be made by a majority of the Board voting on such determination.

(b) Change in Control. For purposes of this Agreement, a "Change in Control" shall mean: (i) any "person" (as such term is used in Sections 13(d) and 14(d) of the Securities Exchange Act of 1934, as amended (the "Act")) becomes the "beneficial owner" (as defined in Rule 13d-3 under the Act), directly or indirectly, of securities of the Company representing 50% or more of the total voting power represented by the Company's then outstanding voting securities (excluding for this purpose the Company or its Affiliates or any employee benefit plan of the Company) pursuant to a transaction or a series of related transactions of which the Board does not approve; (ii) a merger or consolidation of the Company, whether or not approved by the Board, other than a merger or consolidation which would result in the voting securities of the Company outstanding immediately prior thereto continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity or the parent of such corporation) at least 50% of the total voting power represented by the voting securities of the Company or such surviving entity or parent of such corporation outstanding immediately after such merger or consolidation; or (iii) the stockholders of the Company approve an

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agreement for the sale or disposition by the Company of all or substantially all of the Company's assets. For purposes of this Agreement, "Change in Control" shall be interpreted in a manner, and limited to the extent necessary, so that it will not cause adverse tax consequences for either party with respect to Section 409A of the Internal Revenue Code of 1986, as amended (the "Code"), and the provisions of Treasury Notice 2005-1, and any successor statute, regulation and guidance thereto.

(c) Disability. For purposes of this Agreement, "Disability" means the inability of the Executive to perform the principal functions of his duties due to a physical or mental impairment, but only if such inability has lasted or is reasonably expected to last for at least sixty (60) consecutive days or an aggregate of one hundred twenty (120) days during any twelve-month period. Whether the Executive has a Disability will be determined by a majority of the Board based on evidence provided by one or more physicians selected by the Board and approved by Executive, which approval shall not be unreasonably withheld.

(d) Good Reason. For purposes of this Agreement, "Good Reason" shall mean, without the Executive's consent: (i) a change in the principal location at which, the Executive performs his duties for the Company to a new location that is at least fifty (50) miles from the prior location; or (ii) a material change in the Executive's authority, functions, duties or responsibilities as Vice President Marketing of the Company, which would cause his position with the Company to become of less responsibility, importance or scope than his position on the date of this Agreement or as of any subsequent date prior to the Change in Control, provided, however, that such material change is not in connection, with the termination of the Executive's employment by the Company for any reason.

## 2. Severance Compensation.

(a) In the event that, within a period of one (1) year following the consummation of a Change in Control, the Executive's employment with the Company is terminated by the Company other than for Cause (but not including termination due to the Executive's death or Disability), or by the Executive for Good Reason, then, within ten (10) days of the applicable termination date, the Executive shall be entitled to, in addition to any amounts due to the Executive for services rendered prior to the termination date: (i) a lump sum payment from the Company of an amount equal to two (2) times the Executive's highest Annual Salary with the Company during the preceding three-year period, including the year of such termination; and (ii) all outstanding options, restricted stock and other similar rights held by the Executive shall become one hundred percent (100%) vested (collectively, the "Severance Compensation"). For purposes of this Agreement, "Annual Salary" shall mean the Executive's annual base salary and bonus payments (measured on the Company's 12-month fiscal year period), excluding reimbursements and amounts attributable to stock options and other non-cash compensation. Notwithstanding the foregoing, in the event that the Executive is deemed to be a "key employee" under Code Section 416 and the Company's common stock is publicly traded on an established securities market or otherwise, then any payment under subsection (i) above to which the Executive may become entitled will be postponed until six (6) months following the date his

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employment with the Company is terminated so as to avoid any adverse tax consequences for either party with respect to Code Section 409A, or any successor statute, regulation and guidance thereto.

(b) If it is determined that the amounts payable to the Executive under this Agreement, when considered together with any other amounts payable to the Executive in connection with a Change in Control, cause such payments to be treated as excess parachute payments within the meaning of Code Section 280G, then the Company will make an additional "gross up" payment to the Executive in order to pay for any additional tax imposed on the Executive pursuant to Code Section 4999.

3. No Duplication of Compensation. The Severance Compensation shall replace, and be provided in lieu of, any severance compensation that may be provided to the Executive under any other agreement, provided, however, that this prohibition against duplication shall not be construed to otherwise limit the Executive's rights as to payments or benefits provided under any pension plan (as defined in Section 3(2) of the Employee Retirement Income Security Act of 1974, as amended), deferred compensation, stock, stock option or similar plan sponsored by the Company.

4. Enforceability. If any provision of this Agreement shall be deemed invalid or unenforceable as written, this Agreement shall be construed, to the greatest extent possible, or modified, to the extent allowable by law, in a manner which shall render it valid and enforceable. No invalidity or unenforceability of any provision contained herein shall affect any other portion of this Agreement.

5. Notices. All notices, requests, consents and other communications hereunder shall be in writing, shall be addressed to the receiving party's address set forth below or to such other address as a party may designate by notice hereunder, and shall be either (i) delivered by hand, (ii) made by facsimile transmission, (iii) sent by overnight courier, or (iv) sent by registered or certified mail, return receipt requested, postage prepaid.

If to the Company:

Amedica Corporation  
615 Arapeen Drive, Suite 302  
Salt lake City, UT 84108  
Facsimile: (801)583-8635  
Attn: Board of Directors

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With a copy to:

Jonathan L. Kravetz, Esq.  
Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C.  
One Financial Center  
Boston, MA 02111  
Facsimile: (617)542-2241

If to the Executive:

To the Executive's last-known home address and/or facsimile number as set forth in the Company's personnel records

All notices, requests, consents and other communications hereunder shall be deemed to have been given either (i) if by hand, at the time of the delivery thereof to the receiving party at the address of such party set forth above, (ii) if made by facsimile transmission, at the time that receipt thereof has been acknowledged by electronic confirmation or otherwise, (iii) if sent by overnight courier, on the next business day following the day such notice is delivered to the courier service, or (iv) if sent by registered or certified mail, on the 5th business day following the day such mailing is made.

6. Entire Agreement. This Agreement, together with the other agreements referenced herein, embodies the entire agreement and understanding between the parties hereto with respect to the subject matter hereof and supersedes all prior oral or written agreements and understandings relating to the subject matter hereof. No statement, representation, warranty, covenant or agreement of any kind not expressly set forth in this Agreement shall affect, or be used to interpret, change or restrict, the express terms and provisions of this Agreement.

7. Modifications and Amendments. The terms and provisions of this Agreement may be modified or amended only by written agreement executed by the Company and the Executive. The Company and the Executive agree that they will jointly execute an amendment to modify this Agreement to the extent necessary to comply with the requirements of Code Section 409A, or any successor statute, regulation and guidance thereto; provided that no such amendment shall increase the total financial obligation of the Company under this Agreement.

8. Waivers and Consents. The terms and provisions of this Agreement may be waived, or consent for the departure therefrom granted, only by a written document executed by the party entitled to the benefits of such terms or provisions. No such waiver or consent shall be deemed to be or shall constitute a waiver or consent with respect to any other terms or provisions of this Agreement, whether or not similar. Each such waiver or consent shall be effective only in the specific instance and for the purpose for which it was given, and shall not constitute a continuing waiver or consent.

9. Binding Effect; Assignment. The Agreement will be binding upon and inure to the benefit of (a) the heirs, executors and legal representatives of the Executive upon the Executive's

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death and (b) any successor of the Company. Any such successor of the Company will be deemed substituted for the Company under the terms of the Agreement for all purposes. For this purpose, "successor" means any person, firm, corporation or other business entity which at any time, whether by purchase, merger or otherwise, directly or indirectly acquires all or substantially all of the assets or business of the Company. None of the rights of the Executive to receive any form of compensation payable pursuant to the Agreement may be assigned or transferred except by will or the laws of descent and distribution. Any other attempted assignment, transfer, conveyance or other disposition of the Executive's right to compensation or other benefits will be null and void.

10. Governing Law. This Agreement and the rights and obligations of the parties hereunder shall be construed in accordance with and governed by the law of the State of Utah, without giving effect to the conflict of law principles thereof.

11. Jurisdiction and Service of Process. Any legal action or proceeding with respect to this Agreement shall be brought in the courts of the State of Utah or of the United States of America for the District of Utah. By execution and delivery of this Agreement, each of the parties hereto accepts for itself and in respect of its property, generally and unconditionally, the jurisdiction of the aforesaid courts. Each of the parties hereto irrevocably consents to the service of process of any of the aforementioned courts in any such action or proceeding by the mailing of copies thereof by certified mail, postage prepaid, to the party at its address set forth in Section 5 hereof.

12. No Waiver of Rights, Powers and Remedies. No failure or delay by a party hereto in exercising any right, power or remedy under this Agreement, and no course of dealing between the parties hereto, shall operate as a waiver of any such right, power or remedy of the party. No single or partial exercise of any right, power or remedy under this Agreement by a party hereto, nor any abandonment or discontinuance of steps to enforce any such right, power or remedy, shall preclude such party from any other or further exercise thereof or the exercise of any other right, power or remedy hereunder. The election of any remedy by a party hereto shall not constitute a waiver of the right of such party to pursue other available remedies. No notice to or demand on a party not expressly required under this Agreement shall entitle the party receiving such notice or demand to any other or further notice or demand in similar or other circumstances or constitute a waiver of the rights of the party giving such notice or demand to any other or further action in any circumstances without such notice or demand.

13. Withholding. The Company is authorized to withhold, or cause to be withheld, from any payment or benefit under the Agreement the full amount of any applicable withholding taxes.

14. Tax Consequences. The Company does not guarantee the tax treatment or tax consequences associated with any payment or benefit arising under this Agreement.

15. Acknowledgement. The Executive acknowledges that he has had the opportunity to discuss this matter with and obtain advice from his private attorney, has had sufficient time to, and has carefully read and fully understands all the provisions of the Agreement, and is knowingly and voluntarily entering into the Agreement.

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16. Counterparts. This Agreement may be executed in one or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

IN WITNESS WHEREOF, the parties have executed this Agreement as of the day and year first above written.

COMPANY:

AMEDICA CORPORATION

By: /s/ Ashok C. Khandkar

Name: Ashok C. Khandkar

Title: Chief Executive Officer

EXECUTIVE:

/s/ Kenneth Ludwig

Kenneth Ludwig

## ASSIGNMENT

This Assignment is made and entered into as of the 1 day of August, 2001, by and between JOINT ENTERPRISES, L.C., a Utah limited liability company (“Assignor”) and AMEDICA CORP., a Delaware corporation (“Assignee”), having a place of business at 2116 South Lakeline Drive, Salt Lake City, Utah 84109.

WHEREAS, Assignor owns the entire right, title and interest in and to a “Self-Venting Intramedullary Cement Restrictor” (the “Device”) for which United States Letters Patent No. 5,972,034 (the “Patent”) has been issued on October 26, 1999; and

WHEREAS, Assignee desires to acquire by formal, recordable assignment the entire right, title and interest in and to said Patent in the United States and throughout the world.

NOW, THEREFORE, in consideration of the mutual covenants and agreements contained herein and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties agree as follows:

**1. Assignment of Patent.** Assignor sells, assigns, transfers and conveys to Assignee all of the entire right, title and interest in and to the Patent in the United States and throughout the world.

**2. Payment to Assignee.** In consideration for the assignment of the Patent hereunder, Assignee agrees to pay to Assignor the following:

- a. A one-time payment of \$25,000.00 payable on or before Dec 31, 2001

and

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b. Royalty payments as follows:

i. For each sold Device, the greater of 5% of the net after-tax profits relating to the sale of the Device or \$5.00 per Device sold.

“Net After-Tax Profits” is defined as the gross proceeds attributable to the sale of the Device, after deducting therefrom all costs and expenses attributable to development, testing and sale of the Device, all sales, use, occupation or excise taxes, and all income taxes applicable to income generated from the Device. In no event shall any of the Assignee’s overhead or expenses unrelated to the Device constitute a deduction for purposes of royalty calculation.

**3. Accounting and Payment for Royalty.** The accounting and payment for the royalty shall be as follows:

a. The Net After-Tax Profits shall be calculated on a quarterly basis, and Assignee shall pay to Assignor the amounts owing from that quarter’s sales no later than the last day of the month following that applicable quarter.

b. Assignee shall maintain separate accountings related to the Device. Assignor or Assignor’s agents or representatives shall at all times have reasonable access to examine Assignee’s books and records relating to the Device to verify the sales and the calculation of the royalties hereunder.

**4. Patent Rights Only.** The assignment and calculation of the payments provided hereunder are solely for the Patent and rights to the Device. Nothing herein is intended, nor shall it be construed, to constitute any payment for any consulting or other personal services.

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**5. Sale of Capital Asset.** The parties intend that this Assignment provides for the “sale or exchange of a capital asset” from Assignor to Assignee as defined in, and pursuant to, Section 1235 of the Internal Revenue Code of 1986, as amended, entitled “Sale or Exchange of Patents,” and that all payments made to Assignor hereunder shall be taxed as long-term capital gains. Nothing in this Agreement to the contrary shall imply that the parties intend that all payments to Assignor hereunder shall be for anything other than the transfer of all substantial rights which Assignor may have in Patent and in the Device. Assignee, however, is making no warranties or representations as to the ultimate taxability of the payments to Assignor hereunder.

**6. Further Actions.** Assignor, upon request and without further compensation, but without expense to Assignor, shall take such actions and execute all such papers and provide testimony necessary or desirable to assist Assignee in obtaining, sustaining, perfecting, recording, reissuing, maintaining and enforcing the Patent in the United States and throughout the world.

Assignor represents and warrants it has not granted and will not grant to others any rights inconsistent with the rights granted herein.

**7. Indemnification.** Except as otherwise specifically provided herein, Assignee shall indemnify and hold Assignor harmless from any claims, damages or liabilities, of any nature, including attorneys’ fees, stemming from or in connection with the manufacture, marketing and sale of the Device and the use of the Patent.

**8. Default.** **If either party defaults in any of the covenants or provisions herein, the defaulting party shall pay all costs and attorneys’ fees incurred by the other party in enforcing its rights arising hereunder.**

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**9. Binding.** This Agreement shall be binding upon and inure to the benefit of the parties hereto, their heirs, agents, personal representatives, successors and assigns.

**10. Paragraph Numbers and Headings.** The paragraph and subparagraph headings and numbers used herein are for purposes of convenience and shall not be considered in the interpretation of this Agreement.

IN WITNESS WHEREOF, the parties have entered into this agreement as of the day and year first above written.

ASSIGNOR:

JOINT ENTERPRISES, L.C.  
A Utah limited liability company

By /s/ Aaron Hofmann

Its Member

ASSIGNEE:

AMEDICA CORP.  
A Delaware corporation

By /s/ Ashok Khandkar

Its CEO

STATE OF UTAH )  
 :ss.  
COUNTY OF SALT LAKE)

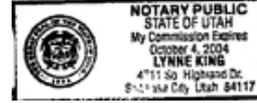
On this 1<sup>st</sup> day of August, 2001, personally appeared before me AARON HOFMANN, the signer of the above instrument, who duly acknowledged to me that \_\_\_he is the member of JOINT ENTERPRISES, L.C., the Assignor named above, and that \_\_\_he executed the above instrument on behalf of the Assignor as such \_\_\_\_\_.

/s/ Lynne King

My Commission Expires:  
10-4-04

Notary Public  
Residing at 4711 So Highland Drive

STATE OF UTAH )  
 :ss.  
COUNTY OF SALT LAKE)

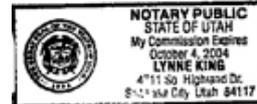


On this 1<sup>st</sup> day of, August 2001, personally appeared before me ASHOK KHANDKAR, the signer of the above instrument, who duly acknowledged to me that \_\_\_he is the CEO of AMEDICA CORP., the Assignee named above, and that \_\_\_he executed the above instrument of the Assignee a such \_\_\_\_\_.

/s/ Lynne King

My Commission Expires:  
10-4-04

Notary Public  
Residing at 4711 So Highland Drive



## AMENDMENT TO ASSIGNMENT

This Amendment to Assignment is made and entered into as of this 12<sup>th</sup> day of August, 2005, by and between Joint Enterprises, L.C., a Utah limited liability company ("Assignor"), and Amedica Corporation., a Delaware corporation ("Assignee").

## RECITALS:

A. The parties hereto entered into an Assignment, dated August 1, 2001 (the "Assignment"), whereby Assignor assigned and transferred to Assignee the right, title and interest in and to a "Self-Venting Intramedullary Cement Restrictor."

B. The parties have agreed to modify certain of the provisions of that Assignment and desire to formalize the changes thereto.

NOW, THEREFORE, in consideration of the mutual covenants and agreements contained herein and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the undersigned agree as follows:

1. Paragraph 2 is restated and amended in its entirety to read as follows:

**2. Payment to Assignee.** In consideration for the assignment of the Patent hereunder, Assignee agrees to pay to Assignor the following:

a. A one-time payment of \$25,000.00; and

b. Royalty payment of Two Dollars Fifty Cents (\$2.50) for each Device sold.

c. Assignor may, at its option, elect to receive nonqualified stock options to purchase shares of Assignee's common stock, in lieu of cash payments, subject to approval by Assignee's Board of Directors. The stock option exercise price, in such event, shall be as follows:

i. If Assignor elects to accept shares of stock in lieu of some or all of the \$25,000 payment specified in subparagraph 2(a) above, the exercise price under the option shall be One Dollar (\$1.00) per share so issued.

ii The exercise price per share under options for stock issued in lieu of royalty payments under subparagraph 2(b) above, shall be at Assignee's then-current exercise price per share, as established by Assignee's Board of Directors.

All other terms and conditions of the stock options shall be in accordance with Assignee's 2003 Stock Option Plan.

2. Paragraph 3 is restated and amended in its entirety to read as follows:

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**3. Accounting and Payment for Royalty.** The accounting and payment for the royalty shall be as follows:

a. The royalty shall be calculated on a quarterly basis; and Assignee shall pay to Assignor the amounts owing from each quarter's sales no later than one-hundred twenty (120) days following that applicable quarter, unless Assignor elects to receive stock options, pursuant to Paragraph 2(c), above, wherein the stock options will be delivered within 30 days of the grant, which grant shall be determined on an annual basis based on an accumulation of quarterly royalty amounts for which the Assignor has elected to receive stock options in lieu of cash as set forth in subparagraph 2(c) above .

b. Assignee shall maintain separate accounting records related to the Device. Assignor or Assignor's agents or representatives shall at all times have access to examine Assignee's books and records relating to the Device to verify the sales and the calculation of the royalties hereunder.

3. Except as otherwise amended herein, all other provisions of that Assignment shall continue in full force and effect.

Made and entered into as of the day and year first above mentioned.

**ASSIGNOR:**

Joint Enterprise, L.C.  
A Utah limited liability company

By: /s/ Aaron Hofmann

Its: Member

**ASSIGNEE:**

Amedica Corporation  
A Delaware corporation

By: /s/ Ashok Khandkar

Its: PRESIDENT & CEO

LEASE

by and between

PARADIGM RESOURCES, L.C.

a Utah limited liability company

as Landlord

and

AMEDICA CORPORATION

as Tenant

615 ARAPEEN DRIVE  
SALT LAKE CITY, UTAH

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SALT LAKE CITY, UTAH**

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**LEASE AGREEMENT**

**ARTICLE I. BASIC LEASE PROVISIONS; ENUMERATION OF EXHIBITS**

**SECTION 1.01 BASIC LEASE PROVISIONS**

- (A) DATE: March \_\_, 2004
- (B) LANDLORD; PARADIGM RESOURCES, L.C., a Utah limited liability company
- (C) ADDRESS OF LANDLORD FOR NOTICES (Section 16.01): 2733 East Parleys Way, Suite 300, Salt Lake City, UT 84109.
- (D) TENANT: Amedica Corporation, a Delaware "C" corporation (EIN: 841375299)
- (E) ADDRESS OF TENANT FOR NOTICES (Section 16.01); 2116 South Lakeline Drive, Salt Lake City, Utah 84109
- (F) PERMITTED USES (Section 7.01): Amedica is a development stage company of medical implants, focused in orthopedics with patented technologies for materials and processes that will set the standard for the industry.
- (G) TENANT'S TRADE NAME (Exhibit "D" - Sign Criteria): Amedica Corp.
- (H) BUILDING (Section 2.01): Situated at 615 Arapeen Drive, in the City of Salt Lake, County of Salt Lake, State of Utah.
- (I) PREMISES (Section 2.01): That portion of the building at the approximate location outlined on Exhibit "A" known as Suite 302 consisting of approximately 5,197 square feet of gross rentable area. Approximately 16.5288% of such area is Tenant's proportionate share of common area hallways, restrooms, etc. in the building.
- (J) DELIVERY OF POSSESSION (Section 5.03): On or about April 1, 2004. Preliminary Term begins on Delivery of Possession (Section 4.03). Tenant may choose to occupy portions of the Leased Premises during remodeling.
- (K) RENTAL TERM, COMMENCEMENT AND EXPIRATION DATE (Sections 4.01 & 4.02): The Rental Term shall commence on the earlier of (a) May 1, 2004 or (b) opening of Tenant for business at the Premises, and shall be for a period of five (5) full Lease Years ending April 30, 2009.
- (L) BASE MONTHLY RENT (Section 3.01): Eight Thousand Five Hundred Fifty-Three and 40/100 Dollars (\$8,553.40).
- (M) ESCALATIONS IN BASE MONTHLY RENT (Section 3.02): \$8,810.00 monthly, commencing May 1, 2005; \$9,074.00 monthly, commencing May 1, 2006; \$9,347.00 monthly, commencing May 1, 2007; \$9,626.93 monthly, commencing May 1, 2008.

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- (N) LANDLORD'S SHARE OF OPERATING EXPENSES (Section 3.03): The Base Monthly Rent shall be absolutely net to the Landlord as provided in Section 3.03.
- (O) TENANT'S PRO RATA SHARE OF OPERATING EXPENSES (Section 3.03): Tenant shall be responsible for all operating expenses as defined in Section 3.03. Tenant's proportionate of Basic Costs shall be 5.70%. Said operating expenses include Basic Costs, Direct Costs, and Metered Costs as defined in Section 3.03 and are currently estimated to be \$5.50 per square foot or \$2,381.95 monthly.
- (P) UTILITIES AND SERVICES. Subject to the provisions of Section 3.03, 12.01 and 12.02, this Lease provides that the utilities and services shall be paid or reimbursed by Tenant
- (Q) LANDLORD'S CONTRIBUTION TO TENANT'S WORK (Section 6.02): \$8.00 per square foot or \$41,576.00.
- (R) PREPAID RENT: Eight Thousand Five Hundred Fifty-Three and 40/100 Dollars (\$8,553.40) paid upon execution of this Lease to be applied to the first installment(s) of Base Monthly Rent due hereunder.
- (S) EXCESS HOUR UTILITY CHARGES AND HOURS OF OPERATION (Section 12.02): Standard operating hours for the Building shall be 7:00 a.m. to 6:00 p.m. Monday through Friday and 8:00 .a.m. to 1:00 p.m. on Saturday, excluding holidays. To the extent Tenant operates during any time in excess of those specified above, Tenant shall pay an extra hourly utility charge of \$0.20 per hour per 1,000 square feet for lighting and electricity and \$3.00 per hour per 1,000 square feet for mechanical/HVAC system for each full or partial hour during which Tenant operates.
- (T) ADJUSTMENTS BASED ON FINAL AREA DETERMINATION: Upon final completion, the Building shall be measured and the actual rentable area of the Premises determined in accordance with standards of Section 2.01. The sums set forth in Sections 1.01(L), (M), (O), (P) and (U) shall then be proportionately adjusted to reflect the actual area of the Premises.
- (U) SECURITY DEPOSIT (Section 26.01): Fifty-Four Thousand and 00/100 Dollars (\$54,000.00)
- (V) GUARANTOR'S: Not Applicable.
- (W) GUARANTOR'S ADDRESS: Not Applicable.
- (X) LEASE OF PERSONAL PROPERTY AND EQUIPMENT: Landlord is leasing to Tenant certain items of personal property and equipment (hereinafter "Equipment"), more particularly described on Exhibit "E" attached hereto and by

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this reference incorporated herein. The lease of the personal property and equipment by Landlord to Tenant shall be coterminous with that of this Lease as a whole, and Tenant shall return the Equipment when this Lease expires or terminates to Landlord in the condition that equipment is in on the Possession Date, reasonable wear and tear accepted.

- (Y) FIRST RIGHT TO LEASE (Section 28.01): Tenant shall have the first right to lease any additional contiguous space on the third floor of the building in accordance with the terms and conditions set forth in Section 28.01 herein. Landlord shall give Tenant written notice of its intent to lease other contiguous space on said third floor, together with the lease terms therefor, and thereafter Tenant shall have five (5) business days after receipt of such notice to elect in writing whether or not to lease the additional space on the terms stated in Landlord's notice. Failure of Tenant to give written notice accepting or rejecting Landlord's proposal as set forth above shall be deemed a waiver by Tenant of its first right to lease.

If Tenant does not elect to lease the additional space and Landlord fails to enter into a lease with another tenant within one hundred twenty (120) days from the date of said Landlord notice, then Tenant shall have a reinstated first right to lease the subject space in accordance with the above process.

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**SECTION 1.02 SIGNIFICANCE OF A BASIC LEASE PROVISION.** The foregoing provisions of Section 1.01 summarize for convenience only certain fundamental terms of the Lease delineated more fully in the Articles and Sections referenced therein. In the event of a conflict between the provisions of Section 1.01 and the balance of the Lease, the latter shall control.

**SECTION 1.03 ENUMERATION OF EXHIBITS.** The exhibits enumerated in this Section and attached to this Lease are incorporated in the Lease by this reference and are to be construed as a part of the Lease.

EXHIBIT "A" - LEASING PLAN SHOWING THE PREMISES  
EXHIBIT "B" - LEGAL DESCRIPTION(S)  
EXHIBIT "C" - LANDLORD'S WORK  
EXHIBIT "D" - TENANT'S WORK  
EXHIBIT "E" - PERSONAL PROPERTY AND EQUIPMENT

## **ARTICLE II. GRANT AND PREMISES**

**SECTION 2.01 PREMISES.** Landlord has heretofore obtained a long-term ground lease covering that certain tract of real property situated in the University of Utah Research Park in Salt Lake City, State of Utah, more particularly described in Exhibit "B" attached hereto, together with certain easement for access rights. (Said tract is hereinafter referred to as the "Property").

Landlord owns a building on the Property referred to in Section 1.01 (H) (hereinafter the "Building") suitable for use as office/research and development space, together with related parking facilities and other improvements necessary to enable to the Building to be so used (the Building and related facilities and improvements are hereinafter collectively referred to as the "Improvements").

In consideration for the rent to be paid and covenants to be performed by Tenant, Landlord hereby leases to Tenant, and Tenant leases from Landlord for the Term and upon the terms and conditions herein set forth premises described in Section 1.01(1) (hereinafter referred to as the "Premises" or "Leased Premises"), located in the Building. Gross rentable area measurements herein specified are from the exterior of the perimeter walls of the building to the center of the interior walls. In addition, the factor set forth in Section 1.01(1) has been added to the area as measured above to adjust for Tenant's proportionate share of common hallways, restrooms, elevators, stairways, etc. in the building.

The exterior walls and roof of the Premises and the areas beneath said Premises are not demised hereunder, and the use thereof together with the right to install, maintain, use, repair, and replace pipes, ducts, conduits, and wires leading through the Premises in locations which will not materially interfere with Tenant's use thereof and serving other parts of the building or buildings are hereby reserved to Landlord. Landlord reserves (a) such access rights through the Premises as may be reasonably necessary to enable access by Landlord to the balance of the building and reserved areas and elements as set forth above; and (b) the right to install or maintain meters on the Premises to monitor use of utilities. In exercising such rights, Landlord

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will use reasonable efforts so as to not commit waste upon the Premises and as far as practicable to minimize annoyance, interference or damage to Tenant when making modifications, additions or repairs.

Subject to the provisions of Article VIII and Section 27.11, Tenant and its customers, agents and invitees have the right to the non-exclusive use, in common with others of such unreserved automobile parking spaces, driveways, footways, and other facilities designated for common use within the Building, except that with respect to non-exclusive areas, Tenant shall cause its employees to park their cars only in areas specifically designated from time to time by Landlord for that purpose. Landlord shall have the right to designate, in its sole business judgment, certain spaces as "customer" parking spaces and Tenant shall use its best efforts to cause its employees not to park in said customer parking.

### **ARTICLE III. RENT**

**SECTION 3.01 BASE MONTHLY RENT.** Tenant agrees to pay to Landlord the Base Monthly Rent set forth in Section 1.01(L) at such place as Landlord may designate, without prior demand therefor, without offset or deduction and in advance on or before the first day of each calendar month during the Rental Term, commencing on the Rental Commencement Date. In the event the Rental Commencement Date occurs on a day other than the first day of a calendar month, then the Base Monthly Rent to be paid on the Rental Commencement Date shall include both the Base Monthly Rent for the first full calendar month occurring after the Rental Commencement Date, plus the Base Monthly Rent for the initial fractional calendar month prorated on a per-diem basis (based upon a thirty (30) day month).

**SECTION 3.02 ESCALATION.** As set forth in Section 1.01(M).

#### **SECTION 3.03 TENANT'S SHARE OF LANDLORD'S EXPENSES.**

(a) "Basic Costs" shall mean all reasonable actual costs and expense incurred by Landlord in connection with the ownership, operation, management and maintenance of the Building and Property and related improvements located thereon (the "Improvements", including, but not limited to, all reasonable expenses incurred by Landlord as a result of Landlord's compliance with any and all of its obligations under this Lease (or under similar leases with other tenants). In explanation of the foregoing, and not in limitation thereof, Basic Costs shall include: all real and personal property taxes and assessments (whether general or special, known or unknown, foreseen or unforeseen) and any tax or assessment levied or charged in lieu thereof, whether assessed against Landlord and/or Tenant and whether collected from Landlord and/or Tenant; snow removal, trash removal; common area utilities, cost of equipment or devices used to conserve or monitor energy consumption, supplies, insurance, license, permit and inspection fees, cost of services of independent contractors, cost or compensation (including employment taxes and fringe benefits) of all persons who perform regular and recurring duties connected with day-to-day operation, maintenance, repair, and replacement of the Building, its equipment and the adjacent walk, and landscaped area (including, but not limited to janitorial, scavenger, gardening, security, parking, elevator, painting, plumbing, electrical, mechanical, carpentry, window washing, structural and roof repairs and reserves, signing and advertising), but excluding persons performing services not uniformly available to or performed for

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substantially all Building tenants; and rental expense or a reasonable allowance for depreciation of personal property used in the maintenance, operation and repair of the Building. The foregoing notwithstanding, Basic Costs shall not include depreciation on the Building and . Improvements; amounts paid toward principal or interest of loans of Landlord; nor “Direct Costs” as defined in Section 3.03 (b). Tenant shall pay its Proportionate Share of Basic Costs. “Tenant’s Proportionate Share of Basic Costs” shall mean the percentage derived from a fraction, the numerator of which is the gross rentable area of the Premises as set forth in Section 1.01(1) and the denominator of which is the gross rentable square footage of the Building (90,159 s.f.). Tenant’s Proportionate Share of Basic Costs initially is set forth in Section 1.01 (O), subject to increase or decrease due to increases or decreases in the gross rentable square footage of the Premises and/or the Building.

(b) “Direct Costs” shall mean all actual costs and expenses incurred by Landlord in connection with the operation, management, maintenance, replacement, and repair of the Premises, including but not limited to janitorial services, maintenance, repairs, supplies, utilities, heating, ventilation, air conditioning, and property management fees, which property management fees shall not exceed standard fees for agency management of similar buildings. If any category of Directs Costs can only be determined on a Building wide basis, Tenant’s proportionate share of any such category of Direct Costs will be based on the same percentage established for Tenant’s Proportionate Share of Basic Costs.

(c) Landlord may cause meters or monitors to be installed to measure actual electrical and ventilation/air conditioning usage in the Premises by Tenant. “Metered Costs” shall mean the actual cost of such usage. If such meters are installed, Tenant shall pay Landlord monthly, as Additional Rent, the estimated costs of such metered electrical and ventilation/air conditioning usage. If the costs of ventilation/air conditioning usage are not separately metered for tenants in the Building said costs shall be considered Direct Costs and shall be calculated as set forth in 3.03(a).

(d) “Estimated Costs” shall mean the projected amount of Direct Costs, Metered Costs and Proportionate Share of Basic Costs. The Estimated Costs for the calendar year in which the Lease commences are set forth in Section 1.01(O), and are not included in the Base Monthly Rent. If the Estimated Costs as of the date Tenant takes occupancy are greater than the Estimated Costs at the time this Lease is executed, the Estimated Costs shall be increased to equal the Estimated Costs as of the date of Tenant’s, occupancy.

#### **SECTION 3.04 REPORT OF COSTS AND STATEMENT OF ESTIMATED COSTS.**

(a) After the expiration of each calendar year occurring during the term of this Lease, Landlord shall furnish Tenant a written statement (“Annual Report of Costs”) of the Tenant’s actual Direct Costs, Metered Costs and Proportionate Share of Basic Costs occurring during the previous calendar year. The Annual Report of Costs shall specify the amount by which said actual costs for the previous year exceeds or is less than the amounts paid by Tenant as Estimated Costs during the previous calendar year.

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(b) At the same time specified in Section 3.04 (a), Landlord shall furnish Tenant a written statement of the Estimated Costs for the then current calendar year ("Annual Statement of Estimated Costs.")

**SECTION 3.05 PAYMENT OF ADDITIONAL RENT.** Tenant shall pay additional rent ("Additional Rent") as follows:

(a) With each monthly payment of Base Monthly Rent pursuant to Section 3.01 above, Tenant shall pay to Landlord, without offset or deduction, one-twelfth (1/12th) of the Annual Statement of Estimated Costs. If at any time Landlord obtains information that indicates that any of the categories of cost comprising Estimated Costs are significantly different than as calculated in the Annual Statement of Estimated Costs then in effect, Landlord may amend said Statement in order to reflect a more accurate prediction of the actual costs that will be incurred during the calendar year, and Tenant will pay amended Additional Rent consistent with said amended Statement.

(b) Within thirty (30) days after delivery of the Annual Report of Costs, Tenant shall pay to Landlord the amount by which Direct Costs, Metered Costs and Proportionate Share of Basic Costs, as specified in the Report, exceed the aggregate of Estimated Costs actually paid by Tenant as Additional Rent for the year at issue.

(c) If the Annual Report of Costs indicates that the Estimated Costs paid by Tenant exceeded the actual Direct Costs, Metered Costs and Proportionate Share of Basic Costs for the same year, Landlord, at its sole election, shall either (i) pay the amount of such excess to Tenant, or (ii) apply such excess against the next installment(s) of Base Monthly Rent and/or Additional Rent due hereunder and so notify Tenant.

**SECTION 3.06 TAXES.**

(a) Landlord shall advance all real property taxes and assessments (all of which are hereinafter collectively referred to as "Taxes") which are levied against or which apply with respect to the Premises to be reimbursed by Tenant as a part of Basic Costs.

(b) Tenant shall prior to delinquency pay all taxes, assessments, charges, and fees which during the Rental Term hereof may be imposed, assessed, or levied by any governmental or public authority against or upon Tenant's use of the Premises or any inventory, personal property, fixtures or equipment kept or installed, or permitted to be located therein by Tenant.

**SECTION 3.07 PAYMENTS.** All payments of Base Monthly Rent, Additional Rent and other payments to be made to Landlord shall be made on a timely basis and shall be payable to Landlord or as Landlord may otherwise designate. All such payments shall be mailed or delivered to Landlord's principal office set forth in Section 1.01(C), or at such other place as Landlord may designate from time to time in writing. If mailed, all payments shall be mailed in sufficient time and with adequate postage thereon to be received in Landlord's account by no later than the due date for such payment. If Tenant shall fail to pay any Base Monthly Rent or any additional rent or any other amounts or charges when due, Tenant shall pay interest from the due date of such past due amounts to the date of payment, both before and after judgment at a rate equal to the greater of fourteen (14%) percent per annum or two (2%) percent over the

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“prime” or “base” rate charged by Zions First National Bank of Utah at the due date of such payment; provided, however, that in any case the maximum amount or rate of interest to be charged shall not exceed the maximum non-usurious rate in accordance with applicable law. Notwithstanding the foregoing, and not more than twice per calendar year, Landlord shall give Tenant a ten (10) day written notice of its failure to pay any sums due hereunder prior to exercising its rights pursuant to this Section.

#### **ARTICLE IV. RENTAL TERM, COMMENCEMENT DATE & PRELIMINARY TERM**

**SECTION 4.01 RENTAL TERM.** The initial term of this Lease shall be for the period defined as the Rental Term in Section 1.01(K), plus the partial calendar month, if any, occurring after the Rental Commencement Date (as hereinafter defined) if the Rental Commencement Date occurs other than on the first day of a calendar month. “Lease Year” shall include twelve (12) calendar months, except that first Lease Year will also include any partial calendar month beginning on the Rental Commencement Date.

**SECTION 4.02 RENTAL COMMENCEMENT DATE.** The Rental Term of this Lease and Tenant’s obligation to pay rent hereunder shall commence as set forth in Section 1.01(K) (the “Rental Commencement Date”). Within five (5) days after Landlord’s request to do so, Landlord and Tenant shall execute a written affidavit, in recordable form, expressing the Rental Commencement Date and the termination date, which affidavit shall be deemed to be part of this Lease.

**SECTION 4.03 PRELIMINARY TERM.** The period between the date Tenant enters upon the Premises and the commencement of the Rental Term will be designated as the “preliminary term” during which no Base Monthly Rent shall accrue; however, other covenants and obligations of Tenant shall be in full force and effect. Delivery of possession of the Premises to Tenant as provided in Section 5.03 shall be considered “entry” by Tenant and commencement of “preliminary term”.

#### **ARTICLE V. CONSTRUCTION OF PREMISES**

**SECTION 5.01 CONSTRUCTION BY LANDLORD.** Landlord has constructed the Building in which the Premises are located. The Premises are constructed substantially in accordance with Outline Specifications entitled “Landlord’s Work” marked Exhibit “C” attached hereto and made a part hereof. It is understood and agreed by Tenant that no minor changes from any plans or from said Outline Specifications made necessary during construction of the Premises or the Building shall affect or change this Lease or invalidate same.

**SECTION 5.02 CHANGES AND ADDITIONS BY LANDLORD.** Landlord hereby reserves the right at any time, and from time to time, to make alterations or additions to, and to build additional stories on the Building in which the Premises are contained and to build adjoining the same and to modify the existing parking or other common areas to accommodate additional buildings. Landlord also reserves the right to construct other buildings or improvements in the Building area from time to time, on condition that if the Building area is expanded so as to include any additional buildings, Landlord agrees to create or maintain a parking ratio adequate to meet local laws and ordinances, including the right to add land to the Building or to erect parking structures thereon.

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**SECTION 5.03 DELIVERY OF POSSESSION.** Except as hereinafter provided, Landlord shall deliver the Premises to Tenant ready for Tenant's Work on or before the date set forth in Section 1.01(J). The Premises shall be deemed as ready for delivery when Landlord shall have substantially completed construction of the portion of the said Premises to be occupied exclusively by Tenant, in accordance with Landlord's obligations set forth in Exhibit "C". Landlord shall, from time to time during the course of construction, provide information to Tenant concerning the progress of construction of said Premises, and will give written notice to Tenant when said Premises are in fact ready for Tenant's Work. Notwithstanding the foregoing, Landlord shall have the right to extend the date for delivery of possession of the Premises for a period of three one (1) month periods by notice in writing given to Tenant any time prior to said delivery date. If any disputes shall arise as to the Premises being ready for delivery of possession, a certificate furnished by Landlord's architect in charge so certifying shall be conclusive and binding of that fact and date upon the parties. It is agreed that by occupying the Premises as a tenant, Tenant formally accepts the same and acknowledges that the Premises are in the condition called for hereunder, except for items specifically excepted in writing at date of occupancy as "incomplete".

#### **ARTICLE VI. TENANT'S WORK & LANDLORD'S CONTRIBUTION**

**SECTION 6.01 TENANT'S WORK.** Tenant agrees to provide all work of whatsoever nature in accordance with its obligations set forth in Exhibit "D". Tenant agrees to furnish Landlord, within the time periods required in Exhibit "D", with a complete and detailed set of plans and specifications drawn by some qualified person acceptable to Landlord setting forth and describing Tenant's Work in such detail as Landlord may require and in compliance with Exhibit "D", unless this requirement be waived in writing by Landlord. If said plans and specifications are not so furnished by Tenant within the required time periods, then Landlord may, at its option, in addition to other remedies Landlord may enjoy, cancel this Lease at any time thereafter while such plans and specifications have not been so furnished. No deviation from the final set of plans and specifications once submitted to and approved by Landlord, shall be made by Tenant without Landlord's prior written consent. Landlord shall have the right to approve Tenant's architect and contractor to be used in performing Tenant's Work, and the right to require and approve insurance or bonds provided by Tenant or such contractors. In due course after completion of Tenant's Work, Tenant shall certify to Landlord the itemized cost of Tenant improvements and fixtures located upon the Premises.

**SECTION 6.02 LANDLORD CONTRIBUTION TO TENANT'S WORK.** In addition to Landlord Work to be completed pursuant to Exhibit "C", Landlord shall contribute the amount set forth in Section 1.01(Q) toward Tenant's Work set forth in Exhibit "D".

#### **ARTICLE VII. USE**

**SECTION 7.01 USE OF PREMISES.** Tenant shall use the Premises solely for the purpose of conducting the business indicated in Section 1.01(F) and for purposes ordinarily incidental to such use and only for such purposes and in such manner as are permitted both by

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the Protective Covenants relating to the University of Utah Research Park and by any existing legislation concerning the Research Park. Tenant shall not make any use of the Premises which might cause cancellation or an increase in the cost of any insurance policy covering the same. Tenant shall not make any use of the Leased Premises any article, item, or thing which is prohibited by the standard form of fire insurance policy. Tenant shall not commit any waste upon the Leased Premises and shall not conduct or allow any business activity, or thing on the Leased Premises which is an annoyance or causes damage to Landlord, to other sub-tenants, occupants, or users of the Improvements, or to occupants of the vicinity. Tenant shall comply with and abide by all laws, ordinances, and regulations of all municipal, county, state, and federal authorities which are now in force or which may hereafter become effective with respect to use and occupancy of the Premises. Landlord represents that to the best of its knowledge and understanding, that upon delivery of possession as set forth in Section 5.03, the Building will comply with all currently applicable laws, ordinances and regulations of municipal, county, state and federal authorities.

#### **SECTION 7.02 HAZARDOUS SUBSTANCES.**

(a) Landlord shall be responsible for removal of any Hazardous Substances that existed at the Project prior to construction or any that Landlord has or does install at the Premises or Building. After reasonable inquiry, Landlord is not aware of any existing Hazardous Substances within the Project areas.

(b) Tenant shall not use, produce, store, release, dispose or handle in or about the Leased Premises or transfer to or from the Leased Premises (or permit any other party to do such acts) any Hazardous Substance except in compliance with all applicable Environmental Laws. Tenant shall not construct or use any improvements, fixtures or equipment or engage in any act on or about the Leased Premises that would require the procurement of any license or permit pursuant to any Environmental Law. Tenant shall immediately notify Landlord of (i) the existence of any Hazardous Substance on or about the Leased Premises that may be in violation of any Environmental Law (regardless of whether Tenant is responsible for the existence of such Hazardous Substance), (ii) any proceeding or investigation by any governmental authority regarding the presence of any Hazardous Substance on the Leased Premises or the migration thereof to or from any other property, (iii) all claims made or threatened by any third party against Tenant relating to any loss or injury resulting from any Hazardous Substance, or (iv) Tenant's notification of the National Response Center of any release of a reportable quantity of a Hazardous Substance in or about the Leased Premises. "Environmental Laws" shall mean any federal, state or local statute, ordinance, rule, regulation or guideline pertaining to health, industrial hygiene, or the environment, including without limitation, the federal Comprehensive Environmental Response, Compensation, and Liability Act; "Hazardous Substance" shall mean all substances, materials and wastes that are or become regulated, or classified as hazardous or toxic, under any Environmental Law. If it is determined that any Hazardous Substance exists on the Leased Premises resulting from any act of Tenant or its employees, agents, contractors, licensees, subtenants or customers, then Tenant shall immediately take necessary action to cause the removal of said substance and shall remove such within ten (10) days after discovery. Notwithstanding the above, if the Hazardous Substance is of a nature that can not be reasonably removed within ten (10) days Tenant shall not be in default if Tenant has commenced to cause such removal and proceeds diligently thereafter to complete removal, except that in all cases, any

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Hazardous Substance must be removed within sixty (60) days after discovery thereof. Furthermore, notwithstanding the above, if in the good faith judgment of Landlord, the existence of such Hazardous Substance creates an emergency or is of a nature which may result in immediate physical danger to persons at the Property, Landlord may enter upon the Leased. Premises and remove such Hazardous Substances and charge the cost thereof to Tenant as Additional Rent.

## **ARTICLE VIII. OPERATION AND MAINTENANCE OF COMMON AREAS**

**SECTION 8.01 CONSTRUCTION AND CONTROL OF COMMON AREAS.** All automobile parking areas, driveways, entrances and exits thereto, and other facilities furnished by Landlord in or near the buildings or Building, including if any, employee parking areas, truck ways, loading docks, mail rooms or mail pickup areas, pedestrian sidewalks and hallways, landscaped areas, retaining walls, stairways, elevators, utility rooms, restrooms and other areas and improvements provided by Landlord for the general use in common tenants, their officers, agents, employees and customers, shall at all times be subject to the exclusive control and management of Landlord which shall have the right from time to time to establish, modify and enforce reasonable Rules and Regulations with respect to all facilities and areas mentioned in this Section. Landlord shall have the right to construct, maintain and operate lighting and drainage facilities on or in all said areas and improvements; to police the same, from time to time to change the area, level, location and arrangement of parking areas and other facilities hereinabove referred to; to restrict parking by tenants, their officers, agents and employees to employee parking areas; to close temporarily all or any portion of said areas or facilities to such extent as may, in the opinion of counsel, be legally sufficient to prevent a dedication thereof or the accrual of any rights to any person or the public therein; to assign "reserved" parking spaces for exclusive use of certain tenants or for customer parking, to discourage non-employee and non-customer parking; and to do and perform such other acts in and to said areas and improvements as, in the exercise of good business judgment, the Landlord shall determine to be advisable with a view toward maintaining of appropriate convenience uses, amenities, and for permitted uses by tenants, their officers, agents, employees and customers. Landlord will operate and maintain the common facilities referred to above in such a manner as it, in its sole discretion, shall determine from time to time. Without limiting the scope of such discretion, Landlord shall have the full right and authority to employ all personnel and to make all Rules and Regulations pertaining to and necessary for the proper operation, security and maintenance of the common areas and facilities. Building and/or project signs, traffic control signs and other signs determined by Landlord to be in best interest of the Building, will be considered part of common area and common facilities.

**SECTION 8.02 LICENSE.** All common areas and facilities not within the Premises, which Tenant may be permitted to use and occupy, are to be used and occupied under a revocable license, and if the amount of such areas be diminished, Landlord shall not be subject to any liabilities nor shall Tenant be entitled to any compensation or diminution or abatement of rent, nor shall such diminution of such areas be deemed constructive or actual eviction, so long as such revocations or diminutions are deemed by Landlord to serve the best interests of the Building.

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## **ARTICLE IX. ALTERATIONS, SIGNS, LOCKS & KEYS**

**SECTION 9.01 ALTERATIONS.** Tenant shall not make or suffer to be made any alterations or additions to the Premises or any part thereof without the prior written consent of Landlord. Any additions to, or alterations of the Premises except movable furniture, equipment and trade fixtures shall become a part of the realty and belong to Landlord upon the termination of Tenant's lease or renewal term or other termination or surrender of the Premises to Landlord.

**SECTION 9.02 SIGNS.** Tenant shall not place or suffer to be placed or maintained on any exterior door, wall or window of the Premises, or elsewhere in the Building, any sign, awning, marquee, decoration, lettering, attachment, canopy, advertising matter or other thing of any kind, and will not place or maintain any decoration, lettering or advertising matter on the glass of any window or door of the Premise without first obtaining Landlord's written approval. Tenant shall maintain such sign, awning, canopy, decoration, lettering, advertising matter or other things as may be approved in good condition and repair at all times. Landlord may, at Tenant's cost, and without liability to Tenant, enter the Premises and remove any item erected in violation of the Section 9.02. Landlord may establish rules and regulations governing the size, type and design of all signs, decorations, etc., and Tenant agrees to abide by same.

### **SECTION 9.03 LOCKS AND KEYS.**

(a) The building shall be equipped with an electronic card access system at entrance to building as well as primary doors of the Leased Premises. Landlord shall issue, monitor, and program key cards for Tenant and Tenant's employees, as reasonably needed. When employment relationships change, Tenant shall cooperate to attempt to retrieve said key cards from employees leaving Tenant.

(b) Where key access exists, Tenant may change locks or install other locks on doors, but if Tenant does, Tenant must provide Landlord with duplicate keys within twenty four hours after said change or installation.

(c) Upon termination of this Lease Tenant shall deliver to Landlord all cards and keys to the Premises including any interior offices, toilet rooms, combinations to built-in safes, etc. which shall have been furnished to or by the Tenant or are in the possession of the Tenant.

## **ARTICLE X. MAINTENANCE AND REPAIRS; ALTERATIONS; ACCESS**

**SECTION 10.01 LANDLORD'S OBLIGATION FOR MAINTENANCE.** Landlord shall maintain and repair: (1) the areas outside the Premises including hallways, stairways, elevators, public restrooms, if any, general landscaping, parking areas, driveways and walkways; (2) the Building structure including roof, exterior walls, and foundation; and (3) all plumbing, electrical, heating, and air conditioning systems. However, if the need for such repairs or maintenance results from any careless, wrongful or negligent act or omission of Tenant, Tenant shall pay the entire cost of any such repair or maintenance including a reasonable charge to cover Landlord's supervisory overhead. Landlord shall not be obligated to repair any damage or defect until receipt of written notice from Tenant of the need of such repair and Landlord shall have a reasonable time after receipt of such notice in which to make such repairs. Tenant shall give immediate notice to Landlord in case of fire or accidents in the Premises or in the building of which the Premises are a part or of defects therein or in any fixtures or equipment provided by Landlord.

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**SECTION 10.02 TENANT'S OBLIGATION FOR MAINTENANCE.**

(a) Tenant shall provide its own janitorial service and keep and maintain the Premises including the interior wall surfaces and windows, floors, floor coverings and ceilings in a clean, sanitary and safe condition in accordance with the laws of the State and in accordance with all directions, rules and regulations of the health officer, fire marshall, building inspector, or other proper officials of the governmental agencies having jurisdiction, at the sole cost and expense of Tenant, and Tenant shall comply with all requirements of law, ordinance and otherwise, affecting said Premises.

(b) Tenant shall pay, when due, all claims for labor or material furnished, for work under Sections 9.01, 9.02 and 10.02 hereof, to or for Tenant at or for use in the Premises, and shall bond such work if reasonably required by Landlord to prevent assertion of claims against Landlord.

(c) Tenant agrees to be responsible for all furnishings, fixtures and equipment located upon the Premises from time to time and shall replace carpeting within the Premises if same shall be damaged by tearing, burning, or stains resulting from spilling anything on said carpet, reasonable wear and tear accepted. Tenant further agrees to use chairmats or floor protectors wherever it uses chairs with wheels or casters on carpeted areas.

**SECTION 10.03 SURRENDER AND RIGHTS UPON TERMINATION.**

(a) This Lease and the tenancy hereby created shall cease and terminate at the end of the Rental Term hereof, or any extension or renewal thereof, without the necessity of any notice from either Landlord or Tenant to terminate the same, and Tenant hereby waives notice to vacate the Premises and agrees that Landlord shall be entitled to the benefit of all provisions of law respecting summary recovery of possession of Premises from a Tenant holding over to the same extent as if statutory notice has been given.

(b) Upon termination of this Lease at any time and for any reason whatsoever, Tenant shall surrender and deliver up the Premises to Landlord in the same condition as when the Premises were delivered to Tenant or as altered as provided in Section 9.01, ordinary wear and tear excepted. Upon request of Landlord, Tenant shall promptly remove all personal property from the Premises and repair any damage caused by such removal. Obligations under this Lease relating to events occurring or circumstances existing prior to the date of termination shall survive the expiration or other termination of the Rental Term of this Lease. Liabilities accruing after date of termination are defined in Sections 13.05, 19.01 and 19.02.

**ARTICLE XI. INSURANCE AND INDEMNITY**

**SECTION 11.01 LIABILITY INSURANCE AND INDEMNITY.** Tenant shall, during all terms hereof, keep in full force and effect a policy of public bodily injury and property damage liability insurance with respect to the Premises, with a combined single limit of not less than Two Million Dollars (\$2,000,000.00) per occurrence. The policy shall name Landlord,

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Property Manager (i.e., Woodbury Corporation) and any other persons, firms or corporations designated by Landlord and Tenant as insured, and shall contain a clause that the insurer will not cancel or change the insurance without first giving the Landlord ten (10) days prior written notice. Such insurance shall include an endorsement permitting Landlord and Property Manager to recover damage suffered due to act or omission of Tenant, notwithstanding being named as an additional "Insured party" in such policies. Such insurance may be furnished by Tenant under any blanket policy carried by it or under a separate policy therefor. The insurance shall be with an insurance company approved by Landlord and a copy of the paid-up policy evidencing such insurance or a certificate of insurer certifying to the issuance of such policy shall be delivered to Landlord. If Tenant fails to provide such insurance, Landlord may do so and charge same to Tenant.

Tenant will indemnify, defend and hold Landlord harmless from and against any and all claims, actions, damages, liability and expense in connection with loss of life, personal injury and/or damage to property arising from or out of any occurrence in, upon or at the Premises or from the occupancy or use by Tenant of the Premises or any part thereof, or occasioned wholly or in part by any act or omission of Tenant, its agents, contractors, employees, servants, sublessees, concessionaires or business invitees unless caused by the negligence of Landlord and to the extent not covered by its fire, casualty and liability insurance. In case Landlord shall, without fault of its part, be made a party to any litigation commenced by or against Tenant, then Tenant shall protect and hold Landlord harmless and shall pay all costs, expenses and reasonable attorney fees incurred or paid by either in defending itself or enforcing the covenants and agreements of this Lease.

#### **SECTION 11.02 FIRE AND CASUALTY INSURANCE.**

(a) Subject to the provisions of this Section 11.02, Landlord shall secure, pay for, and at all times during the terms hereof maintain, insurance providing coverage upon the building improvements in an amount equal to the full insurable value thereof (as determined by Landlord) and insuring against the perils of fire, extended coverage, vandalism, and malicious mischief. All insurance required hereunder shall be written by reputable, responsible companies licensed in the State of Utah. Tenant shall have the right, at its request at any reasonable time, to be furnished with copies of the insurance policies then in force pursuant to this Section, together with evidence that the premiums therefor have been paid.

(b) Tenant agrees to maintain at its own expense such fire and casualty insurance coverage as Tenant may desire or require in respect to Tenant's personal property, equipment, furniture, fixtures or inventory and Landlord shall have no obligation in respect to such insurance or losses. All property kept or stored on the Premises by Tenant or with Tenant's permission shall be so done at Tenant's sole risk and Tenant shall indemnify Landlord against and hold it harmless from any claims arising out of loss or damage to same.

(c) Tenant will not permit said Premises to be used for any purpose which would render the insurance thereon void or cause cancellation thereof or increase the insurance risk or increase the insurance premiums in effect just prior to the commencement of this Lease. Tenant agrees to pay as additional rent the total amount of any increase in the insurance premium of Landlord over that in effect prior to the commencement of this lease resulting from Tenant use of

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the Premises. If Tenant installs any electrical or other equipment which overloads the lines in the Premises, Tenant shall at its own expense make whatever changes are necessary to comply with the requirements of Landlord's insurance.

(d) Tenant shall be responsible for all glass breakage from any cause whatsoever and agrees to immediately replace all glass broken or damaged during the terms hereof with glass of the same quality as that broken or damaged. Landlord may replace, at Tenant's expense, any broken or damaged glass if not replaced by Tenant within five (5) days after such damage.

**SECTION 11.03 WAIVER OF SUBROGATION.** Each party hereto does hereby release and discharge the other party hereto and any officer, agent, employee or representative of such party, of and from any liability whatsoever hereafter arising from loss, damage or injury caused by fire or other casualty for which insurance (permitting waiver of liability and containing a waiver of subrogation) is carried by the injured party at the time of such loss, damage or injury to the extent of any recovery by the injured party under such insurance.

## **ARTICLE XII. UTILITY CHARGES**

**SECTION 12.01 OBLIGATION OF LANDLORD.** Subject to the terms of Section 3.03 and unless otherwise agreed in writing by the parties, during the term of this Lease the Landlord shall cause to be furnished to the Premises during standard business hours (7:00 a.m. to 6:00 p.m. Monday through Friday and 8:00 a.m. to 1:00 p.m. on Saturday), except Holidays, the following utilities and services, the cost and expense of which shall be included in Direct Costs, Metered Costs and/or Basic Costs as appropriately categorized by the Landlord:

(a) Electricity, water, gas and sewer service.

(b) Telephone connection, but not including telephone stations and equipment (it being expressly understood and agreed that Tenant shall be responsible for the ordering and installation of telephone lines and equipment which pertain to the Premises).

(c) Heat and air-conditioning to such extent and to such levels as, in Landlord's judgment, is reasonably required for the comfortable use and occupancy of the Premises subject however to any limitations imposed by University Research Park or any government agency. The parties agree and understand that the above heat and air-conditioning will be provided Monday through Friday from 7:00 a.m. to 6:00 p.m. and Saturday from 8:00 a.m. to 1:00 p.m.

(d) Snow removal and parking lot sweeping services.

(e) Elevator service.

**SECTION 12.02 OBLIGATIONS OF TENANT.** Tenant shall arrange for and shall pay the entire cost and expense of all telephone stations, equipment and use charges, electric light bulbs (but not fluorescent bulbs used in fixtures originally installed in the Premises) and all other materials and services not expressly required to be provided and paid for pursuant to the provisions of Section 12.01 above. Tenant covenants to use good faith efforts to reasonably conserve utilities by turning off lights and equipment when not in use and taking such other reasonable actions in accordance with sound standards for energy conservation. Landlord

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reserves the right to separately meter or otherwise monitor any utility usage and to separately charge Tenants for its own utilities, in which case an equitable adjustment shall be made to Base Rental and Tenant's share of Operating Expenses as set forth in this Lease. Additional limitations of Tenant are as follows:

(a) Tenant will not, without the written consent of Landlord, which consent shall not be unreasonably withheld, use any apparatus or device on the Premises (including but without limitation thereto, electronic data processing machines, punch card machines or machines using current in excess of 208 volts) which will in any way or to any extent increase the amount of electricity or water usually furnished or supplied for use on the Premises for the use designated in Section 7.01 above, nor connect with electrical current, except through existing electrical outlets in the Premises, or water pipes, any apparatus or device, for the purposes of using electric current or water.

(b) If Tenant shall require water or electric current in excess of that usually furnished or supplied for use of the Premises, or for purposes other than those designated in Section 7.01 above, Tenant shall first procure the written consent of Landlord for the use thereof, which consent Landlord may refuse and/or Landlord may cause a water meter or electric current meter to be installed in the Leased Premises, so as to measure the amount of water and/or electric current consumed for any such use. The cost of such meters and of installation maintenance, and repair thereof shall be paid for by Tenant and Tenant agrees to pay Landlord promptly upon demand by Landlord for all such water and electric current consumed as shown by said meters, at the rates charged for such service by the City in which the Building is located or the local public utility, as the case may be, furnishing the same, plus any additional expense incurred in keeping account of the water and electric current so consumed.

(c) If and where heat generating machines devices are used in the Premises which affect the temperature otherwise maintained by the air conditioning system, Landlord reserves the, right to install additional or supplementary air conditioning units for the Premises, and the entire cost of installing, operating, maintaining and repairing the same shall be paid by Tenant to Landlord promptly after demand by Landlord.

To the extent that Tenant operates hours in excess of the stated standard business hours, Tenant may cause Landlord to provide services set forth in Section 12.01 (a), (b), (c) and (e) above; however, Tenant shall pay extra hourly utility charges as set forth in Section 1.01(S) herein. If electricity is metered pursuant to Section 3.03(c), then Tenant shall not be required to extra electrical charges as electrical usage during "excess hours" will be metered and charged to Tenant in any case.

**SECTION 12.03 LIMITATIONS ON LANDLORDS LIABILITY.** Landlord shall not be liable for and Tenant shall not be entitled to terminate this Lease or to effectuate any abatement or reduction of rent by reason of Landlord's failure to provide or furnish any of the foregoing utilities or services if such failure was reasonably beyond the control of Landlord.

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### ARTICLE XIII. OFF-SET STATEMENT, ATTORNMENT AND SUBORDINATION

**SECTION 13.01 OFF-SET STATEMENT.** Tenant agrees within ten (10) days after request therefor by Landlord to execute in recordable form and deliver to Landlord a statement in writing, certifying

- (a) that this Lease is in full force and effect,
- (b) the date of commencement of the Rental Term of this Lease,
- (c) that rent is paid currently without any off-set or defense thereto,
- (d) the amount of rent, if any paid in advance, and
- (e) that there are no uncured defaults by Landlord or stating those claimed by Tenant.

**SECTION 13.02 ATTORNMENT.** Tenant shall, in the event any proceedings are brought for the foreclosure of, or in the event of exercise of the power of sale under any mortgage or deed of trust made by Landlord covering the Premises, attorn to the purchaser upon any such foreclosure or sale and recognize such purchaser as the Landlord under this Lease.

**SECTION 13.03 SUBORDINATION.** Tenant agrees that this Lease shall, at the request of Landlord, be subordinate to any first mortgages or deeds of trust that may hereafter be placed upon said Premises and to any and all advances to be made thereunder, and to the interest thereon, and all renewals, replacements and extensions thereof, provided the mortgagees or trustees named in said mortgages or deeds of trust shall agree to recognize the Lease of Tenant in the event of foreclosure, if Tenant is not in default.

**SECTION 13.04 MORTGAGEE SUBORDINATION.** Tenant hereby agrees that this Lease shall, if at any time requested by Landlord or any lender in respect to Landlord's financing of the building or project in which the Premises are located or any portion hereof, be made superior to any mortgage or deed of trust that may have preceded such Lease.

**SECTION 13.05 REMEDIES.** Tenant hereby irrevocably appoints Landlord as attorney-in-fact for the Tenant with full power and authority to execute and deliver in the name of the Tenant any such instruments described in this Article XIII upon failure of the Tenant to execute and deliver any of the above instruments within fifteen (15) days after written request so to do by Landlord; and such failure shall constitute a breach of this Lease entitling the Landlord, at its option, to cancel this Lease and terminate the Tenant's interest therein.

### ARTICLE XIV. ASSIGNMENT

**SECTION 14.01 ASSIGNMENT.** Tenant may assign or sublet all or any portion of the Premises, or any part thereof, provided that Tenant shall maintain continuing liability for all obligations under this Lease.

### ARTICLE XV. WASTE OR NUISANCE

**SECTION 15.01 WASTE OR NUISANCE.** Tenant shall not commit or suffer to be committed any waste upon the Premises, or any nuisance or other act or thing which may disturb the quiet enjoyment of any other tenant in the building in which the Premises may be located, or elsewhere within the Building.

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## ARTICLE XVI. NOTICES

**SECTION 16.01 NOTICES.** Except as provided in Section 19.01, any notice required or permitted hereunder to be given or transmitted between the parties shall be either personally delivered, or mailed postage prepaid by registered mail, return receipt requested, addressed if to Tenant at the address set forth in Section 1.01(E), and if to Landlord at the address set forth in Section 1.01(C). Either party may, by notice to the other given as prescribed in this Section 16.01, change its above address for any future notices which are mailed under this Lease.

## ARTICLE XVII. DESTRUCTION OF THE PREMISES

### SECTION 17.01 DESTRUCTION.

(a) If the Premises are partially or totally destroyed by fire or other casualty insurable under standard fire insurance policies with extended coverage endorsement so as to become partially or totally untenable, the same shall be repaired or rebuilt as speedily as practical under the circumstances at the expense of the Landlord, unless Landlord elects not to repair or rebuild as provided in Subsection (b) of this Section 17.01. During the period required for restoration, a just and proportionate part of Base Rent, additional rent and other charges payable by Tenant hereunder shall be abated until the Premises are repaired or rebuilt.

(b) If the Premises are (I) rendered totally untenable by reason of an occurrence described in Subsection (a), or (II) damaged or destroyed as a result of a risk which is not insured under Landlord's fire insurance policies, or (III) at least twenty percent (20%) damaged or destroyed during the last two years of the Rental Term, or (IV) if the Building is damaged in whole or in part (whether or not the Premises are damaged), to such an extent that Tenant cannot practically use the Premises for its intended purpose, then and in any such events Landlord may at its option terminate this Lease Agreement by notice in writing to the Tenant within sixty (60) days after the date of such occurrence. Unless Landlord gives such notice, this Lease Agreement will remain in full force and effect and Landlord shall repair such damage at its expense as expeditiously as possible under the circumstances. Should Landlord fail to rebuild within six the earlier of (6) months of the insurance claim settlement or one year, then Tenant shall have the option to terminate the Lease with thirty (30) days' prior written notice to Landlord.

(c) If Landlord should elect or be obligated pursuant to Subsection (a) above to repair or rebuild because of any damage or destruction, Landlord's obligation shall be limited to the original Building any other work or improvements which may have been originally performed or installed at Landlord's expense. If the cost of performing Landlord's obligation exceeds the actual proceeds of insurance paid or payable to Landlord on account of such casualty, Landlord may terminate this Lease Agreement unless Tenant, within fifteen (15) days after demand therefor, deposits with Landlord a sum of money sufficient to pay the difference between the cost of repair and the proceeds of the insurance available for such purpose. Tenant shall replace all work and improvements not originally installed or performed by Landlord at its expense.

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(d) Except as stated in this Article XVII, Landlord shall not be liable for any loss or damage sustained by Tenant by reason of casualties mentioned hereinabove or any other accidental casualty.

#### **ARTICLE XVIII. CONDEMNATION**

**SECTION 18.01 CONDEMNATION.** As used in this Section the term "Condemnation Proceeding" means any action or proceeding in which any interest in the Premises or Building is taken for any public or quasi-public purpose by any lawful authority through exercise of the power of eminent domain or right of condemnation or by purchase or otherwise in lieu thereof. If the whole of the Premises is taken through Condemnation Proceedings, this Lease shall automatically terminate as of the date possession is taken by the condemning authority. If in excess of twenty-five (25%) percent of the Premises is taken, either party hereto shall have the option to terminate this Lease by giving the other written notice of such election at any time within thirty (30) days after the date of taking. If less than twenty-five (25%) percent of the space is taken and Landlord determines, in Landlord's sole discretion, that a reasonable amount of reconstruction thereof will not result in the Premises or the Building becoming a practical improvement reasonably suitable for use for the purpose for which it is designed, then Landlord may elect to terminate this Lease Agreement by giving thirty (30) days written notice as provided hereinabove. In all other cases, or if neither party exercises its option to terminate, this Lease shall remain in effect and the rent payable hereunder from and after the date of taking shall be proportionately reduced in proportion to the ratio of: (I) the area contained in the Premises which is capable of occupancy after the taking; to (II) the total area contained in the Premises which was capable of occupancy prior to the taking. In the event of any termination or rental reduction provided for in this Section, there shall be a proration of the rent payable under this Lease and Landlord shall refund any excess theretofore paid by Tenant. Whether or not this Lease is terminated as a consequence of Condemnation Proceedings, all damages or compensation awarded for a partial or total taking, including any sums compensating Tenant for diminution in the value of or deprivation of its leasehold estate, shall be the sole and exclusive property of Landlord, except that Tenant will be entitled to any awards intended to compensate Tenant for expenses of locating and moving Tenant's operations to a new space.

#### **ARTICLE XIX. DEFAULT OF TENANT**

**SECTION 19.01 DEFAULT - RIGHT TO RE-ENTER.** In the event of any failure of Tenant to pay any rental due hereunder within ten (10) days after written notice that the same is past due shall have been mailed to Tenant, or any failure by Tenant to perform any other of the terms, conditions or covenants required of Tenant by this Lease within thirty (30) days after written notice of such default shall have been mailed to Tenant, or if Tenant shall abandon said Premises, or permit this Lease to be taken under any writ of execution, then Landlord, besides other rights or remedies it may have, shall have the right to declare this Lease terminated and shall have the immediate right of re-entry and may remove all persons and property from the Premises. Such property may be removed and stored in a public warehouse or elsewhere at the cost of and for the account of Tenant, without evidence of notice or resort to legal process and without being deemed guilty of trespass, or becoming liable for any loss or damage which may be occasioned thereby. Tenant hereby waives all compensation for the forfeiture of the term or its loss of possession of the Premises in the event of the forfeiture of this Lease as provided for

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above. Any notice that Landlord may desire or is required to give Tenant with reference to the foregoing provision may, in lieu of mailing, at the option of Landlord, be conspicuously posted for ten (10) consecutive days at the main entrance to or in front of the Premises, and such notice shall constitute a good, sufficient, and lawful notice for the purpose of declaring a forfeiture of this Lease and for terminating all of the rights of the Tenant hereunder.

**SECTION 19.02 DEFAULT - RIGHT TO RE-LET.** Should Landlord elect to re-enter, as herein provided, or should it take possession pursuant to legal proceedings or pursuant to any notice provided for by law, it may either terminate this Lease or it may from time to time, without terminating this Lease, make such alterations and repairs as may be necessary in order to relet the Premises, and may relet said Premises or any part thereof for such term or terms (which may be for a term extending beyond the term of this Lease) and at such rental or rentals and upon such other terms and conditions as Landlord in its sole discretion may deem advisable. Upon each such reletting, all rentals received by Landlord from such reletting shall be applied first to the payment of any costs and expenses of such reletting, including brokerage fees and attorney's fees and costs of such alterations and repairs; second, to the payment of rent or other unpaid obligations due hereunder; and the residue, if any, shall be held by Landlord and applied in payment of future rent as the same may become due and payable hereunder. If such rental received from such reletting during any month be less than that to be paid during that month by Tenant hereunder, Tenant shall pay any such deficiency to Landlord. Such deficiency shall be calculated and paid monthly. No such re-entry or taking possession of said Premises by Landlord shall be construed as an election on its part to terminate this Lease unless a written notice of such intention be given to Tenant or unless the termination thereof be decreed by a court or competent jurisdiction. Notwithstanding any such reletting without termination, Landlord may at any time elect to terminate this Lease for such previous default. Should Landlord at any time terminate this Lease for any default, in addition to any other remedies it may have, it may recover from Tenant all damages it may incur by reason of such default, including the cost of recovering the Premises, reasonable attorney's fees, and including the worth at the time of such termination of the excess, if any, of the amount of rent and charges equivalent to rent reserved in this Lease for the remainder of the stated term over the then reasonable rental value of the Premises for the remainder of the stated term, all of which amounts shall be immediately due and payable.

**SECTION 19.03 LEGAL EXPENSES.** In case of default by either party in the performance and obligations under this Lease, the defaulting party shall pay all costs incurred in enforcing this Lease, or any right arising out of such default, whether by suit or otherwise, including a reasonable attorney's fee.

## **ARTICLE XX. BANKRUPTCY, INSOLVENCY, OR RECEIVERSHIP**

**SECTION 20.01 ACT OF INSOLVENCY, GUARDIANSHIP, ETC.** The following shall constitute a default of this Lease by the Tenant for which Landlord, at Landlord's option, may immediately terminate this Lease.

- (a) The appointment of a receiver to take possession of all or substantially all of the assets of the Tenant.
- (b) A general assignment by the Tenant of his assets for the benefit of creditors.

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(c) Any action taken or suffered by or against the Tenant under any federal or state insolvency or bankruptcy act. In the event of an involuntary petition filed against Tenant, Tenant shall be permitted sixty (60) days to seek a dismissal before such filing shall constitute a default.

(d) The appointment of a guardian, conservator, trustee, or other similar officer to take charge of all or any substantial part of the Tenant's property.

Neither this Lease, nor any interest therein nor any estate thereby created shall pass to any trustee, guardian, receiver or assignee for the benefit of creditors or otherwise by operation of law.

#### **ARTICLE XXI. LANDLORD ACCESS**

**SECTION 21.01 LANDLORD ACCESS.** Landlord or Landlord's agent shall have the right to enter the Premises at all reasonable times to examine the same, or to show them to prospective purchasers or lessees of the Building, or to make all repairs, alterations, improvements or additions as Landlord may deem necessary or desirable, and Landlord shall be allowed to take all material into and upon said Premises that may be required therefor without the same constituting an eviction of Tenant in whole or in part, and rent shall not abate while said repairs, alterations, improvements, or additions are being made, by reason of loss or interruption of business of Tenant, or otherwise. During the ninety days prior to the expiration of the Rental Term of this Lease or any renewal term, Landlord may exhibit the Premises to prospective tenants and place upon the Premises the usual notices "To Let" or "For Rent" which notices Tenant shall permit to remain thereon without molestation.

#### **ARTICLE XXII. LANDLORD'S LIEN**

**SECTION 22.01 LANDLORD'S LIEN.** Tenant hereby grants to Landlord a lien upon the improvements, trade fixtures and furnishings of Tenant to secure full and faithful performance of all of the terms of this Lease.

#### **ARTICLE XXIII. HOLDING OVER.**

**SECTION 23.01 HOLDING OVER.** Any holding over after the expiration of the Rental Term hereof shall be construed to be a tenancy at sufferance and all provisions of this Lease Agreement shall be and remain in effect except that the monthly rental shall be double the amount of rent (including any adjustments as provided herein) payable for the last full calendar month of the Rental Term including renewals or extensions.

**SECTION 23.02 SUCCESSORS.** All rights and liabilities herein given to, or imposed upon, the respective parties hereto shall extend to and bind the several respective heirs, executors, administrators, successors and assigns of the said parties; and if there shall be more than one tenant, they shall all be bound jointly and severally by the terms, covenants and agreements herein. No rights, however, shall inure to the benefit of any assignee of Tenant unless the assignment to such assignee has been approved by Landlord in writing.

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## **ARTICLE XXIV. RULES AND REGULATIONS**

**SECTION 24.01 RULES AND REGULATIONS.** Tenant shall comply with all reasonable rules and regulations which are now or which may be hereafter prescribed by the Landlord and posted in or about said Premises or otherwise brought to the notice of the Tenant, both with regard to the project as a whole and to the Premises including common facilities.

## **ARTICLE XXV. QUIET ENJOYMENT**

**SECTION 25.01 QUIET ENJOYMENT.** Upon payment by the Tenant of the rents herein provided, and upon the observance and performance of all the covenants, terms and conditions on Tenant's part to be observed and performed, Tenant shall peaceably and quietly hold and enjoy the Premises for the term hereby demised without hindrance or interruption by Landlord or any other person or persons lawfully or equitably claiming by, through or under the Landlord, subject, nevertheless, to the terms and conditions of this Lease and actions resulting from future eminent domain proceedings and casualty losses.

## **ARTICLE XXVI. SECURITY DEPOSIT**

**SECTION 26.01 SECURITY DEPOSIT.** The Landlord herewith acknowledges receipt of the amount set forth in Section 1.01 (U) which it is to retain as security for the faithful performance of all the covenants, conditions and agreements of this Lease, but in no event shall the Landlord be obliged to apply the same upon rents or other charges in arrears or upon damages for the Tenant's failure to perform the said covenants, conditions and agreements; the Landlord may so apply the Security Deposit, at its option; and the Landlord's right to the possession of the Leased Premises for non-payment of rents or for other reasons shall not in any event be affected by reason of the fact that the Landlord holds this Security Deposit. The said sum, if not applied toward the payment of rents in arrears or toward the payment of damages suffered by the Landlord by reason of the Tenant's breach of the covenants, conditions and agreements of this Lease, is to be returned to Tenant without interest when this Lease is terminated, according to these terms, and in no event is the said Security Deposit to be returned until Tenant has vacated the Leased Premises and delivered possession to the Landlord.

In the event that the Landlord repossesses Leased Premises because of the Tenant's default or because of the Tenant's failure to carry out the covenants, conditions and agreements of this Lease, Landlord may apply the said Security Deposit toward damages as may be suffered or shall accrue thereafter by reason of the Tenant's default or breach. In the event of bankruptcy or other debtor-creditor proceedings against Tenant as specified in Article XX, the Security Deposit shall be deemed to be applied first to the payment of Rents and other charges due Landlord for the earliest possible periods prior to the filing of such proceedings. The Landlord shall not be obliged to keep the said Security Deposit as a separate fund, but may mix the same with its own funds.

## **ARTICLE XXVII. MISCELLANEOUS PROVISIONS**

**SECTION 27.01 WAIVER.** No failure on the part of Landlord to enforce any covenant or provision of this Lease shall discharge or invalidate such covenant or provision or affect the right of Landlord to enforce the same in the event of any subsequent breach. One or more waivers of any covenant or condition by Landlord shall not be construed as a waiver of a

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subsequent breach of the same covenant or condition and the consent to or approval of any subsequent similar act by Tenant. No breach of a covenant or condition of this Lease shall be deemed to have been waived by Landlord, unless such waiver be in writing signed by Landlord.

**SECTION 27.02 ENTIRE AGREEMENT.** This Lease constitutes the entire Agreement and understanding between the parties hereto and supersedes all prior discussions, understandings and agreements. This Lease may not be altered or amended except by a subsequent written agreement executed by all parties.

**SECTION 27.03 FORCE MAJEURE.** Any failure to perform or delay in performance by either party of any obligation under this Lease, other than Tenant's obligation to pay rent, shall be excused if such failure or delay is caused by any strike, lockout, governmental restriction or any similar cause beyond the control of the party so falling to perform, to the extent and for the period that such continues.

**SECTION 27.04 LOSS AND DAMAGE.** The Landlord shall not be responsible or liable to the Tenant for any loss or damage that may be occasioned by or through the acts or omissions of persons occupying all or any part of the premises adjacent to or connected with the Premises or any part of the building of which the Premises are a part, or for any loss or damage resulting to the Tenant or his property from bursting, stoppage or leaking of water, gas sewer or steam pipes or for any damage or loss of property within the Premises from any cause whatsoever.

**SECTION 27.05 ACCORD AND SATISFACTION.** No payment by Tenant or receipt by Landlord of a lesser amount than the amount owing hereunder shall be deemed to be other than on account of the earliest stipulated amount receivable from Tenant, nor shall any endorsement or statement on any check or any letter accompanying any check or payment as rent be deemed an accord and satisfaction, and Landlord may accept such check or payment without prejudice to Landlord's right to recover the balance of such rent or receivable or pursue any other remedy available under this Lease or the law of the state where the Premises are located.

**SECTION 27.06 NO OPTION.** The submission of this Lease for examination does not constitute a reservation of or option for the Premises and this Lease becomes effective as a lease only upon full execution and delivery thereof by Landlord and Tenant.

**SECTION 27.07 ANTI-DISCRIMINATION.** Tenant herein covenants by and for itself, its heirs, executors, administrators and assigns and all persons claiming under or through it, and this Lease is made and accepted upon and subject to the following conditions: That there shall be no discrimination against or segregation of any person or group of persons on account of race, sex, marital status, color, creed, national origin or ancestry, in the leasing, subleasing, assigning, use, occupancy, tenure or enjoyment of the Premises, nor shall the Tenant itself, or any person claiming under or through it, establish or permit any such practice or practices of discrimination or segregation with reference to the selection, location, number, use or occupancy of tenants, lessees, sublessees, or subtenants in the Premises.

**SECTION 27.08 SEVERABILITY.** If any term, covenant or condition of this Lease or the application thereof to any person or circumstance shall be invalid or unenforceable to any

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extent, the remainder of this Lease, or the application of such term, covenant or condition to persons or circumstances other than those as to which it is held invalid or unenforceable, shall not be affected thereby and each term, covenant or condition of this Lease shall be valid and be enforced to the fullest extent permitted by law.

**SECTION 27.09 OTHER MISCELLANEOUS PROVISIONS.** This instrument shall not be recorded without the prior written consent of Landlord; however, upon the request of either party hereto, the other party shall join in the execution of a memorandum or "short form" lease for recording purposes which memorandum shall describe the parties, the Premises, the Rental Term and shall incorporate this Lease by reference, and may include other special provisions. The captions which precede the Sections of this Lease are for convenience only and shall in no way affect the manner in which any provisions hereof is construed. In the event there is more than one Tenant hereunder, the liability of each shall be joint and several. This instrument shall be governed by and construed in accordance with the laws of the State wherein the Premises are located. Words of any gender used in this Lease shall be held to include any other gender, and words in the singular number shall be held to include the plural when the sense requires. Time is of the essence of this Lease and every term, covenant and condition herein contained.

**SECTION 27.10 REPRESENTATION REGARDING AUTHORITY.** The persons who have executed this Agreement represent and warrant that they are duly authorized to execute this Agreement in their individual or representative capacity as indicated.

#### **ARTICLE XXVIII. ADDITIONAL PROVISIONS**

**SECTION 28.01 RIGHT OF FIRST REFUSAL.** Tenant shall have the first right to lease any additional contiguous space on the third floor of the building in accordance with the terms and conditions set forth in Section 28.01 herein. Landlord shall give Tenant written notice of its intent to lease other contiguous space on said third floor, together with the lease terms therefor, and thereafter Tenant shall have five (5) business days after receipt of such notice to elect in writing whether or not to lease the additional space on the terms stated in Landlord's notice. Failure of Tenant to give written notice accepting or rejecting Landlord's proposal as set forth above shall be deemed a waiver by Tenant of its first right to lease.

If Tenant does not elect to lease the additional space and Landlord fails to enter into a lease with another tenant within one hundred twenty (120) days from the date of said Landlord notice, then Tenant shall have a reinstated first right to lease the subject space in accordance with the above process.

**IN WITNESS WHEREOF**, Landlord and Tenant have executed and delivered this Lease as of the day and year first above written.

SIGNATURES:

LANDLORD

PARADIGM RESOURCES, L.C.,  
a Utah limited liability company

By: /s/ W. Richards Woodbury  
W. Richards Woodbury, Manager

By: /s/ Don R. Brown  
Don R. Brown, Manager

TENANT

AMEDICA CORPORATION,  
a Delaware corporation

By: /s/ Ashok Khandkar  
Its: President and CEO

By: \_\_\_\_\_  
Its: \_\_\_\_\_

**LANDLORD ACKNOWLEDGMENT**

STATE OF UTAH                    )  
  ss  
COUNTY OF SALT LAKE        )

On this 25<sup>th</sup> day of March, 2004, before me personally appeared W. RICHARDS WOODBURY and DON R. BROWN to me personally known, who being by me duly sworn did each for himself say that he is a Manager of that certain limited liability company known as PARADIGM RESOURCES, L.C., and that the within instrument was executed on behalf of said company by authority granted in said companies operating agreement.

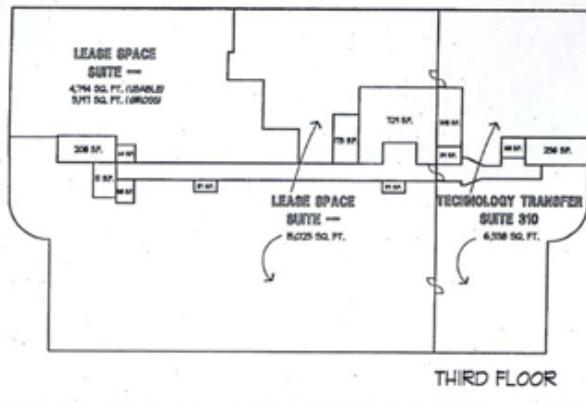
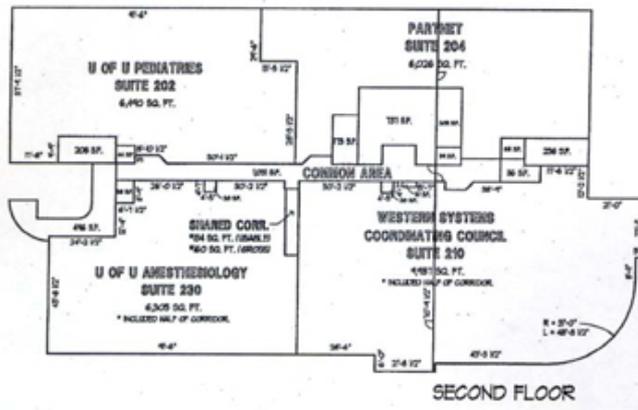
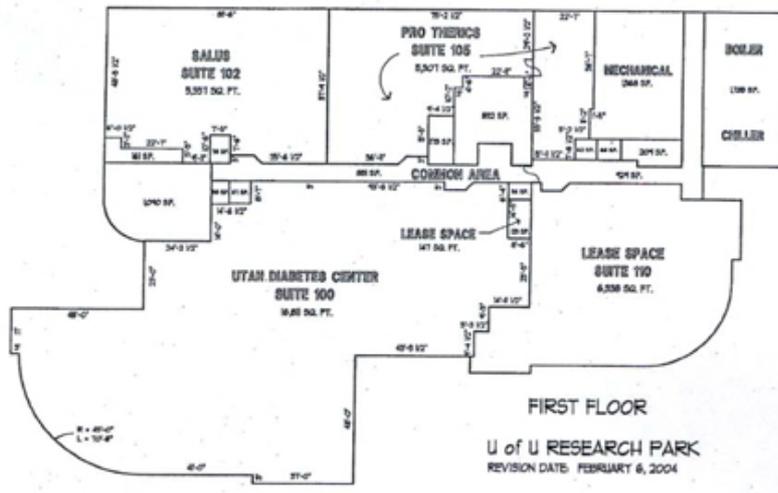
/s/ Julie Wismar  
Notary Public

**TENANT ACKNOWLEDGMENT  
(Corporate)**

STATE OF UTAH            )  
                                  ss  
COUNTY OF SALT LAKE )

On this 22<sup>nd</sup> day of March, 2005, before me personally appeared Ashok Khandkar, and \_\_\_\_\_, known to me to be the President and CEO of AMEDICA CORPORATION, a Delaware “S” corporation, a corporation that executed the within instrument, known to me to be the persons who executed the within instrument on behalf of the corporate therein named, and acknowledged to me that such corporation executed the within instrument pursuant to its bylaws or a resolution of its board of directors.

/s/ Rachell A. Blessing  
\_\_\_\_\_  
Notary Public



LEASE  
INITIAL  
*[Signature]*

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**EXHIBIT "B"**  
**LEGAL DESCRIPTION**

Beginning at a point on the northwesterly right-of-way line of Chipeta Way said point being South 44°00'00" West along the monument line 546.107 feet and North 46°00'00" East 52.00 feet from a Salt Lake City monument located at the P.T. of Chipeta Way and running thence South 44°00'00" West along said northwesterly right-of-way line 43.261 feet to a point of curvature; thence along the arc of a 660.000 foot radius curve to the right and said northwesterly right-of-way line; through a central angle of 24°00'07", 276.484 feet to a point of compound curvature; thence along the arc of a 45.000 foot radius curve to the right, through a central angle of 81°21'51", 63.903 feet to a point of reverse curvature, said point also being on the northeasterly right-of-way line of Arapeen Drive; thence along the arc of a 600.575 foot radius curve to the left, through a central angle of 18°21'58", 192.515 feet to a point of tangency; thence North 49°00'00" West along said northeasterly right-of-way line 484.077 feet; thence North 41 ° 00'00" East 300.000 feet; thence South 49°00'00" East 800.892 feet to the point of beginning.

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**EXHIBIT "C"**  
**LANDLORD'S WORK**  
**(Previously Occupied Space)**

Notwithstanding anything contained in the foregoing Lease to the contrary, Tenant accepts the Premises in an "as is" condition. All references to Exhibit "C" and/or Landlord's Work contained in this Lease shall be deemed to mean the condition of the Leased Premises on the date this Lease was executed.

In addition, Landlord agrees to make the modifications to the premises as shown on the attached floor plan, Exhibit A-1. Final plans and construction costs shall be mutually agreed upon by Landlord and Tenant prior to commencement of construction. Landlord shall contribute \$8.00 per rentable square foot towards the cost of the modifications shown. If the costs exceed \$8.00 per rentable square foot, then Tenant shall pay the overage costs. If the costs do not exceed \$8.00 per rentable square foot, then the difference will be retained as a credit toward future remodeling.

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**EXHIBIT "D"**  
**TENANT'S WORK**

It is believed that little, if any, Tenant remodeling is contemplated. If Tenant at any time desires to alter building construction, such work will be performed at Tenant's sole cost subject to prior written approval of Landlord. Any such construction work by Tenant shall be done in accordance with the requirements of this Exhibit "D". Except as specifically described in Exhibit "C" of this Lease, the Tenant is responsible for the final design and construction of all modifications to interior improvements within its premises including all architectural, plumbing, mechanical, electrical, finishes, and furnishings necessary to place the premises in a complete and occupiable condition in accordance with the requirements and specifications described herein. Where two types of materials, structures, or installations are indicated, the option will be the Tenant's.

**A. PLANS AND SPECIFICATIONS**

To be prepared in accordance with the criteria and procedures outlined in Exhibit "C" of this Lease. Notwithstanding anything to the contrary elsewhere in the Lease, Tenant shall pay the costs of all plan preparation and construction documents describing Tenant's desired modifications to the Leased Premises. Landlord's mechanical and electrical engineers shall be utilized to perform all final construction documents describing plumbing, HVAC, and electrical installations required.

**B. LANDLORD'S WORK WITHIN THE PREMISES (PAID FOR BY TENANT)**

1. **Purchases by Landlord**: Landlord reserves the right to provide certain materials and/or improvements on behalf of Tenant where deemed prudent by Landlord. Wherever materials and/or improvements are provided by Landlord, Tenant will be charged at Landlord's actual cost thereof, but may include markup for a ratable share of General Conditions and contractor overhead and fee plus five (5%) percent for Landlord's overhead.
2. **Scope**: Such items of work may include but is not limited to the following:
  - a. **Rest Rooms**: To be constructed as described an Exhibit "C" of this Lease including all fixtures and finishes.
  - b. **Entrance Door Card Access**: At the election of Tenant, provide card access pad, magnetic lock or electric strike and installation of electronic controls compatible with main building system.
  - c. **Doors**: To facilitate timely completion for doors that have special sizes or finishes.
  - d. **VAV Boxes**: Provide branch takeoff, hot water piping, and box including electrical connection where deemed prudent.

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- e. **Temperature Control:** Provide controls compatible with building system including installation and programming.
  - f. **Power Meters:** Provide sub-meters compatible with building electrical system including installation.
3. **Tenant Space Layout and Design:** Landlord's architect may prepare plans and specifications for Tenant's desired modifications only if requested by Tenant. Rate to be 75 cents per sq. ft. Final electrical and mechanical engineering to be provided at a competitive rate based on the scope and complexity of the installation required.

**C. GENERAL SCOPE AND MINIMUM DESIGN CRITERIA FOR TENANT WORK (to extend not currently existing)**

1. **General Conditions:** Provide all general conditions pertaining to Tenant Work.
2. **Drywall Construction:** All drywall surfaces shall be prepared for a smooth painted finish except where not exposed.
  - a. **Perimeter, Demising and Area Separation Walls:** Install 5/8" Type X sheetrock extending from floor to window sill and from window head to the underside of deck above, or where no windows exist from floor to underside of deck. Fire tape as required to achieve a 1-hour rating and install rock-wool, other acceptable insulation, or otherwise fill voids between top of wall and deck flutes on all rated assemblies. Provide 2 layers of 5/8" sheetrock on area separation wall to achieve 2-hour rated assembly. Make allowance for deflection at top track.
  - b. **Interior Partitions:** Conference rooms, server rooms, and other designated walls to be constructed of 3-5/8" metal studs at 24" o.c., with sound insulation and 5/8" sheetrock on both sides extending full height. Provide fire rated partition assemblies where required by code. Partitions dividing other Tenant rooms shall be similarly constructed except that no sound insulation will be installed and partitions shall extend to approximately 6" above the finished ceiling height. Ceiling height is generally at 9'0". In laboratory or other wet areas use water resistant sheetrock. All sheetrock shall be taped, sanded and ready for wall finishes.
  - c. **Columns:** All perimeter and interior columns except tube columns not engaging any partition wall shall be furred out with metal studs and 5/8" gypsum board to 6" above finished ceiling. Sheetrock shall be taped, sanded and ready for finishes.
  - d. **Ceilings:** Restroom, janitor's room, or other areas designated by Tenant's space planner may have suspended sheetrock on metal tracks, taped and finished, ready for paint. Storage, equipment, or other-special purpose rooms may be left exposed to the structure where approved by Landlord.

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3. **Doors, Frames & Hardware:** Tenant interior doors, frames and hardware shall be consistent with existing construction and as follows:
    - a. **Doors:** All doors shall be 3'0" x 7'0" solid core, clear maple with plain sliced veneers, or plastic laminate clad to match; pre-machined for hardware. Provide UL fire rating labels as required.
    - b. **Frames:** All frames abutting common areas and corridors shall be 8'0" height of welded hollow metal construction painted on the exterior side to match Landlord's, area finish. Other frames may be three piece metal construction, be pre-finished with snap on covers (Timely), or may be solid maple with clear finish matching doors at Tenant's option. Painted pine frames and casings prohibited. Provide UL fire rating labels as required.
    - c. **Hardware:** Provide a complete assembly of hardware for each door, including locksets with lever handles, 1-1/2 pair hinges, and door stops. Provide door closers where required by code. Hardware shall be commercial grade, have a clear aluminum (26D) finish, and meet the requirements of the ADA, where applicable. Keying shall be coordinated with Landlord and Landlord's existing building security/lock system.
    - d. **Doors with Sidelights:** Frames used in conjunction with doors with sidelights to be fully welded hollow metal. Openings to match standard details and to extend from floor to height of door with intermediate, horizontal divider at 30". Provide clear tempered glass. Where wire-glass is required by code, use type with square vertical and horizontal pattern.
  4. **Wall Finishes:** All interior sheetrock walls shall receive a standard three coat paint application. Colors to be at Tenant's option except in front reception areas. Vinyl wall covering must be provided in front reception areas. Vinyl wall covering or wood paneling of Tenant's choice and option may be utilized elsewhere in lieu of paint. In laboratory or other wet areas use epoxy paint, FRP board or other water resistant finish.
  5. **Floor Finishes:** Provide not less than 26 oz. level-loop carpet directly glued to floor throughout the Premises or other floor coverings as may be designated by Tenant's space planner. Equipment rooms, file rooms, or other areas designated by Tenant's space planner to have vinyl composition tile or static resistive tile. Laboratory areas subject to water or chemical spillage shall utilize chemical resistant and water tight materials and application methods. Colors and styles at Tenant's option.
  6. **Wall Base:** To be 4" high, sewn edged carpet, straight or coved. vinyl base, wood or tile to be provided throughout. Color at Tenant's option.
  7. **Ceiling Finishes:** To be a factory finished, 1" wide suspended, metal grid system with 2'0" x 4'0" regular edge and standard fissure finish, with a minimum STC rating of 65. Suspended gypboard or open ceilings may be utilized in special

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purpose rooms where requested by Tenant's space planner. Ceilings shall generally be constructed at 9'0" above finished floor except where Tenant's equipment or other structural elements dictate otherwise.

8. **Millwork**: Provide plastic laminate counter-top with 4" back-splash and base cabinets in breakrooms and other areas as determined by Tenant. Utilize chemical resistant or other special laminates and finishes where necessary. Wood casings, chair rails, ceiling coves, and/or base matching color and finish of wood doors may be used around doors and windows or in other locations where determined by Tenant. Other millwork or shelving may be provided as desired.
9. **Window Coverings**: To be 3" vertical shades of a uniform type and color as dictated by Landlord's architect on all exterior windows. Coverings on interior windows are at Tenant's option.
10. **Restrooms**: Tenant may install additional restrooms, showers, or other special facilities requiring plumbing connections to the extent desired at Tenant's sole cost and expense.
11. **Breakroom**: Breakroom construction shall generally include plastic laminate clad, base cabinets, countertops, and wall cabinets of the length determined necessary by Tenant, with a two compartment sink, in-line electric water heater, and special electrical outlets for refrigerator, dishwasher, and microwave oven or other appliances.
12. **Plumbing**: Provide all culinary and hot water systems, equipment, fixtures, and distribution; sanitary sewer lines, indirect waste lines, grease and chemical separators; and other special plumbing systems for distilled water, compressed air, special chemicals or gases, and natural gas as may be required. Provide equipment and storage rooms within the premises for chemicals and gases. Make connections to main water and sewer lines within the premises and extend to necessary locations as required. Make connection to natural gas, if required, at building main metering center, provide separate meter, and extend in concealed spaces to premises as required. All water pipe to be heavy-walled type K copper. All waste piping to be no-hub cast iron.
13. **HVAC**: Provide additional VAV boxes, associated water piping, and controls as required to augment that provided by Landlord, if necessary. All secondary supply and return air distribution from all VAV boxes and return air collection ducts, including all diffusers, registers, dampers, outlets, and grilles shall be provided. Make connections to existing systems. Provide final control wiring, balancing, and start-up, etc. utilizing materials and systems matching those provided elsewhere in the facility by Landlord.
  - a. **Zones**: The mechanical engineering design shall incorporate perimeter and interior zones, based upon solar exposure, and individual zones for spaces with special heating or air conditioning demands, such as Computer Room; Main Server Room; IDF Rooms; and all conference Rooms and Vendateria.

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- b. **Controls:** All temperature sensors and smoke detectors shall be interconnected with Landlord's energy management and monitoring system. Each zone shall be equipped with thermostatic control boxes adjustable within preset limits for individual comfort. Type shall match those utilized elsewhere in the building and each control shall be equipped with an override switch for HVAC operation and a separate override switch for ceiling lights. Override switches may be keyed at Tenant's option.
  - c. **Special Purpose Rooms:** Such rooms requiring 24 hour cooling or which contain extraordinary loads must be equipped with independent cooling equipment that is self-contained to the extent possible. Remote condensers, if required, shall be located within ceiling plenums or mechanical penthouses determined by Landlord (but not on rooftops). All such equipment shall be connected to Tenant's power panel and circuited through Tenant's power submeter. Landlord reserves the right to assess a power consumption surcharge to Tenant based on the load requirement and demand factor associated with any such special purpose equipment.
  - d. **Ductwork:** All supply ductwork to be metal with 1" wrap insulation and/or insulated duct liner. Branch takeoffs from supply air mains to be a minimum of 5'0" in length. Flexible ductwork may be utilized for drops but shall not exceed 10'0" in length. Provide balancing dampers as necessary. All bends to have turning vanes.
  - e. **Exhaust Systems:** Exhaust fans in conference rooms and breakrooms shall be extended to main supply lines. Exhaust duct from equipment hoods etc. to be connected to main exhaust shafts and all required balancing and smoke/fire dampers and controls provided. Utilize Teflon lined or other special duct where good engineering practice may dictate.
14. **Fire Sprinklers:** Tenant is responsible for the relocation or addition of any fire sprinkler heads and drops including the adjustment of the height of any sprinkler heads provided by Landlord to the extent required in order to maintain a design in conformance with NFPA #13 and other applicable codes and requirements of Landlord's insurance carrier. All heads and escutcheons shall match the type and color provided elsewhere in the facility. Tenant to provide special chemical sprinkler systems where operations dictate.
  15. **Electrical:** Provide overhead lighting, special lighting, emergency lighting, switches, duplex outlets, horns, strobes, phone outlets, alarm systems, and other electrical devices as required by codes. Work shall include all circuitry, wiring,, conduits, raceways, disconnects and breakers, and termination devices extending from panels in electrical rooms on each floor to equipment and fixtures provided.

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- a. **Conduit and Wiring:** Wire to be copper, minimum #12 THW and enclosed in minimum 1/2" rigid steel conduit. All conduit and wiring to be concealed in walls or ceiling plenums above. MC cabling and wiring or flexible conduit may only be utilized where specifically approved by Landlord. Low voltage, telephone and data wiring shall be plenum rated of the size and type required for the specific application. Category V wire to be provided for all data cabling.
- b. **Power Distribution in Fixed Walls:**
- 1) Light switches and outlets to be white colored, 20 amp devices or of any other matching type specifically required.
  - 2) Provide duplex outlets where required or indicated by Tenant's space planner. Outlets for computerized equipment to be on isolated ground circuits. GFI receptacles to be provided in breakrooms and other areas adjacent to water sources.
  - 3) Provide box and conduit extending to ceiling plenum above for required data or telephone outlets.
- c. **Work Station Distribution Systems:** Provide in-slab and/or overhead electrical power distribution systems to power poles or other designated location to connect to and deliver services to each work station.
- 1) In-slab distribution shall consist of empty conduit and floor junction boxes or a pre-manufactured ducted system. Overhead distribution shall consist of a grid of empty conduit and junction boxes mounted to the structure above. These distribution systems, combined, shall be of sufficient size, spacing and density to serve the initial work stations as well as to provide flexibility for future work station reconfigurations.
  - 2) Cable trays are recommended for data and telecommunication distribution. If not provided, such wiring should be bundled together and hung from the structure in a uniform and well organized manner and shall not be laid loosely in a random alignment on top of ceiling systems. All wiring terminations and equipment to be provided, installed, and paid for by Tenant.
  - 3) Perimeter furred walls, interior partitions and furred columns shall be used to extend conduit feeds and conductors from the overhead grid system to Tenant's work station wire management raceways. Dropped cables not enclosed in walls or power poles are prohibited.
- d. **Interior Lighting:** General office areas and conference rooms to have 2'0"x 4'0", 18-cell deep parabolic light fixtures with T-8 lamps and

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- electronic ballasts. Exit lights to have clear aluminum finish and LED type lettering. Provide recessed fluorescent can lights or other special fixtures as desired. Utility rooms, breakrooms, and storage rooms may be furnished with lay-in fixtures with acrylic lenses or surface mounted, acrylic wrapped fluorescent fixtures. Provide exit, life-safety and emergency lighting and circuits and connect to emergency panels as required to meet applicable codes.
- e. **Fire Alarm**: Tenant shall provide a fire alarm system throughout the premises as required by codes including but not limited to local annunciators, strobes, manual pull stations, smoke detectors, controls at dampers and emergency lighting. All devices must match those used elsewhere in the facility must be interconnected with Landlord's master alarm control panel.
  - f. **Security**: Building security shall consist of rough-in for electrically operated card access devices located at each building main entrance. At Tenant's option main entrance doors may also be provided with a card access lock control mechanism connected with Landlord's building system. All materials must match those used elsewhere within the facility. Additional security systems may be provided by the Tenant at Tenant's option.
  - g. **Telephone & Data**: Overhead telephone and data distribution systems shall be provided as indicated above. All other work associated with telecommunications and data services shall be provided, installed, and paid for by Tenant. On-site fiber optic may be utilized by Tenant at Tenant's option. Tenant responsible for contracting with a local telephone dial-tone provider.
  - h. **Un-interrupted Power Supply**: Provide all panels, circuitry, wiring, batteries, switching devices and other items required to provide an un-interrupted power source.
  - i. **Emergency Generator**: Make connection to emergency panels provided by Landlord. Pay any additional costs to augment or enlarge existing system or for extraordinary use and equipment as described in Exhibit "C"
  - j. **Power Meters**: Provide all sub-meters on 120/208 volt power and 277 volt power circuits. Consumption may be measured by means of a sub-meter placed around all power circuits used by a Tenant.
16. **Seismic Bracing**: All fixtures, equipment, suspended ceiling systems, other equipment, and piping supported from the structure above shall be seismically braced in accordance with local codes and good engineering design.

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17. **Other**: Any work that is otherwise required to place the Premises in a finished occupiable condition shall be provided by Tenant in accordance with plans and specifications approved in advance by Landlord's architect.
  18. **Signage**: Suite identification signs and signage within the Leased Premises. Exterior signs are not permitted.
  19. **Special Millwork**: Reception counters and other special purpose work stations, counters, and cabinetry.
  20. **Furniture Systems**: Landscape office furniture, shelving, desks, and other associated accessories, tables, chairs, couches, artwork, planters and plants, and other furnishings.
  21. **Equipment**: Office equipment, copy machines, faxes, computers, servers, telephone equipment, switch boards, handsets, sound systems, security equipment, safes, audio visual equipment, etc.
  22. **Other Specialties**: Chalk boards, white boards, tack boards, projection screens, movable or operable wall systems, postal accessories, etc.

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**EXHIBIT "E"**  
**PERSONAL PROPERTY AND EQUIPMENT**

Office 1     A cubicle, overhang cupboards and 2 white boards  
Office 2     2 cubicles and 2 white boards  
Office 3     2 cubicles and 2 white boards  
Office 4     2 cubicles, large two draw file cabinet and 2 white boards  
Office 5     Half a cubicle and 1 white board  
Office 6     Half a cubicle and 1 white board

Tissue culture rooms:

Tissue Culture 1     Work Bench with Sink, 5 work benches with cabinets, ceiling curtain and shelves  
Tissue Culture 2     2 work benches with cabinets  
Flow Room             Work Bench with sink, 2 work benches with cabinets and shelves  
Chemical Room        work bench and shelves

Open Area:

1 Fume Hood  
1 Eye Wash  
6 long work benches:  
    3 sinks  
    5 cabinets  
    5 X 6 X 3 Shelving unit  
    6 half cubicles  
9 Short work benches:  
    2 X 9 X 3 shelving unit  
    9 half cubicles

**FIRST AMENDMENT TO LEASE**

Effective the 11<sup>th</sup> day of May, 2005, PARADIGM RESOURCES, L.C., a Utah limited liability company (hereinafter "Landlord"), and AMEDICA CORPORATION, a Delaware "C" corporation (hereinafter "Tenant"), enter into the following agreement:

**RECITALS:**

WHEREAS, Landlord and Tenant entered into that certain Lease Agreement dated March 22, 2004 (hereinafter "Lease"), for Space 302, consisting of approximately 5,197 square feet of gross rentable area located at (hereinafter "Leased Premises").

WHEREAS, Landlord and Tenant desire to modify the Lease to include an additional 1,174 square feet.

WHEREAS, Landlord and Tenant desire to modify the Lease as follows:

**AGREEMENT:**

NOW, THEREFORE, in consideration of the mutual covenants herein contained, and other good and valuable consideration, it is covenanted and agreed between the parties that the Lease be modified and amended as follows:

1. Section 1.01(I) of the Lease is amended and restated as follows: "That portion of the building at the approximate location outlined on Exhibit "A" known as Suite 302 consisting of approximately 6,371 square feet of gross rentable area. Approximately 16.5288% of such area is Tenant's proportionate share of common area hallways, restrooms, etc. in the building."
2. Section. 1.01(K) RENTAL TERM, COMMENCEMENT AND EXPIRATION DATE of the Lease is amended and restated as follows: "The Rental Term shall commence on the earlier of (a) June 1, 2005 or (b) opening of Tenant for business at the Premises, and shall be for a period of four (4) and three (3) months ending August 31, 2009."
3. Section 1.01(L) BASE MONTHLY RENT of the Lease is amended and restated as follows: "Ten Thousand Four Hundred Eighty-Five and 60/100 Dollars (\$10,485.60) commencing May 1, 2005."
4. Section 1.01(M) ESCALATIONS IN BASE MONTHLY RENT shall be amended and restated as follows: "\$10,798.85 monthly, commencing June 1, 2005; \$11,122.81 monthly, commencing June 1, 2006; \$11,456.50 monthly, commencing June 1, 2007; \$11,800.19 monthly, commencing June 1, 2008."
5. LANDLORD CONTRIBUTION TO TENANT'S WORK: Landlord shall contribute an amount not to exceed Eight Dollars (\$8.00) per square foot or Nine Thousand Three Hundred Ninety Two and 00/100 Dollars (\$9,392.00) toward Tenant's cost of improvements in the Leased Premises, to be paid on the latter of

Tenant opening for business or upon satisfactory completion of Tenant's work in accordance with the terms of Exhibit "C-1". Landlord shall have no obligation to pay any portion of Landlord's contribution to Tenant's Work unless and until Landlord has been satisfied in its sole reasonable determination that Tenant has completed all of its construction obligations for the Leased Premises and provided Landlord with satisfactory evidence thereof, including, but not limited to, lien waivers from all contractors and subcontractors who have worked on the Leased Premises and all those who have supplied materials which have been utilized in the construction of the space. Tenant shall submit to Landlord a written request for payment of Landlord's contribution as set forth herein, together with commercially reasonable evidence of the fact that it has completed all of Tenant's work. Such evidence to be provided by Tenant shall include, but not be limited to, lien waivers from all contractors and subcontractors who have performed Tenant's Work together with additional lien waivers from any supplier which has provided materials utilized in Tenant's Work with a total aggregate value of more than \$1,000.00. Within ten (10) days of receiving the written request for payment from Tenant, Landlord shall either pay Tenant the requested amount, or respond in writing with a list of specific objections to Tenant's evidence, together with a request for any additional evidence, detail, and/or information which Landlord reasonably deems to be required. In the event Tenant's improvements do not exceed the amount, any residual monies may be applied toward the Tenant's lease for Suite 110 in the same building.

6. Except as specifically modified, altered, or changed by this Amendment, the Lease and any amendments and/or extensions shall remain unchanged and in full force and effect throughout the term of the Lease.

LANDLORD:

PARADIGM RESOURCES, L.C., a Utah limited liability company

By: /s/ W. Richards Woodbury  
W. Richards Woodbury, Manager

By: /s/ Don R. Brown  
Don R. Brown, Manager

TENANT:

AMEDICA CORPORATION, a Delaware "C" corporation

By: /s/ Eugene B. Jones  
Its Vice President, Finance

By: \_\_\_\_\_  
Its: \_\_\_\_\_

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**ACKNOWLEDGMENT OF LANDLORD**

STATE OF UTAH  
COUNTY OF SALT LAKE

On this 18<sup>th</sup> day of May, 2005, before me personally appeared W. RICHARDS WOODBURY and DON R. BROWN, who being by me duly sworn did each for himself say that he is a Manager of that certain limited liability company known as PARADIGM RESOURCES, L.C., and that the within instrument was executed on behalf of said company by authority granted in said company's operating agreement.

/s/ Delanie Kay Tucker  
Notary Public

**ACKNOWLEDGMENT OF TENANT  
(Corporate)**

STATE OF  
COUNTY OF

On this 11<sup>th</sup> day of May, 2005, before me personally appeared Eugene B. Jones and \_\_\_\_\_, to me personally known to be the Vice President and \_\_\_\_\_ of Amedica, the corporation that executed the within instrument, known to me to be the persons who executed the within instrument on behalf of said corporation therein named, and acknowledged to me that such corporation executed the within instrument pursuant to its by-laws or a resolution of its board of directors.

/s/ Linda L. Lamoreaux  
Notary Public

**SECOND AMENDMENT TO LEASE**

Effective the 15<sup>th</sup> day of August, 2006, PARADIGM RESOURCES, L.C., a Utah limited liability company (hereinafter "Landlord") and AMEDICA CORPORATION, a Delaware corporation (hereinafter "Tenant") enter into the following agreement:

**RECITALS:**

WHEREAS, Landlord and Tenant entered into that certain Lease Agreement dated March 22, 2004 (hereinafter "Lease"), for Suite 302, located at 615 Arapeen Drive, in the City of Salt Lake, County of Salt Lake, State of Utah (hereinafter "Leased Premises"); and

WHEREAS, Landlord and Tenant desire to lease Suite 305 as additional space to Tenant (hereinafter "Additional Space"); and

WHEREAS, Landlord and Tenant desire to recalculate and update the pro rata share and load factor based on the current configuration of the overall square footage of the building; and

WHEREAS, Landlord and Tenant desire to modify the Lease as follows:

**AGREEMENT:**

NOW, THEREFORE, in consideration of the mutual covenants herein contained, and other good and valuable consideration, it is covenanted and agreed between the parties that the Lease be modified and amended as follows:

1. Section 1.01(1) PREMISES of the Lease is stricken in its entirety and restated as follows: "That portion of the building at the approximate location outlined on Exhibit "A" known as Suite 302 consisting of approximately 6,371 square feet of gross rentable area, and Suite 305 consisting of approximately 3,134 square feet of gross rentable area for an overall total of 9,505 square feet of gross rentable area. Approximately 16.5288% of such area is Tenant's proportionate share of common area hallways, restrooms, etc. in the building."
2. BASE MONTHLY RENT from and after the date of this Agreement shall be as follows: Sixteen Thousand Five Hundred Twenty-Four and 56/100 Dollars (\$16,524.56).
3. Base Monthly Rent shall thereafter escalate as follows: "\$17,020.30 monthly, commencing September 1, 2006; \$17,530.90 monthly, commencing September 1, 2007; \$18,056.83 monthly, commencing September 1, 2008."
4. Section 1.01(O) TENANT'S PRO RATA SHARE OF OPERATING EXPENSES shall be stricken in its entirety and restated as follows: "Tenant shall be responsible for all operating expenses as defined in Section 3.03. Tenant's proportionate of Basic Costs shall be 10.59%. Said operating expenses include Basic Costs, Direct Costs, and Metered Costs as defined in Section 3.03 and are currently estimated to be \$5.50 per square foot or \$4,356.46/month.

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5. **LANDLORD CONTRIBUTION TO TENANT'S WORK:** Landlord shall contribute an amount not to exceed Fifteen Thousand Forty-Three and 20/100 Dollars (\$15,043.20) toward Tenant's cost of improvements in the Additional Space, to be paid on the latter of Tenant opening for business or upon satisfactory completion of Tenant's work. Landlord shall have no obligation to pay any portion of Landlord's contribution to Tenant's Work unless and until Landlord has been satisfied in its sole reasonable determination that Tenant has completed all of its construction obligations for the Leased Premises and provided Landlord with satisfactory evidence thereof, including, but not limited to, lien waivers from all contractors and subcontractors who have worked on the Leased Premises and all those who have supplied materials which have been utilized in the construction of the space. Tenant shall submit to Landlord a written request for payment of Landlord's contribution as set forth herein, together with commercially reasonable evidence of the fact that it has completed all of Tenant's work. Such evidence to be provided by Tenant shall include, but not be limited to, lien waivers from all contractors and subcontractors who have performed Tenant's Work together with additional lien waivers from any supplier which has provided materials utilized in Tenant's Work with a total aggregate value of more than \$1,000.00. Within ten (10) days of receiving the written request for payment from Tenant, Landlord shall either pay Tenant the requested amount, or respond in writing with a list of specific objections to Tenant's evidence, together with a request for any additional evidence, detail, and/or information which Landlord reasonably deems to be required.
  6. The current gross rentable square footage of the building is agreed by both Landlord and tenant to be 89,766 square feet.
  7. Except as specifically modified, altered, or changed by this Amendment, the Lease and any amendments and/or extensions shall remain unchanged and in full force and effect throughout the term of the Lease.

LANDLORD:

PARADIGM RESOURCES, L.C., a Utah limited liability company

By: /s/ W. Richards Woodbury  
W. Richards Woodbury, Manager

By: /s/ Don R. Brown  
Don R. Brown, Manager

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TENANT:

AMEDICA CORPORATION, a Delaware corporation

By: /s/ Eugene B. Jones

Its Vice President - Finance

By: \_\_\_\_\_

Its \_\_\_\_\_

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**ACKNOWLEDGMENT OF LANDLORD**

STATE OF UTAH  
COUNTY OF SALT LAKE

On this 22<sup>nd</sup> day of August, 2006, before me personally appeared W. RICHARDS WOODBURY and DON R. BROWN, who being by me duly sworn did each for himself say that he is a Manager of that certain limited liability company known as PARADIGM RESOURCES, L.C., and that the within instrument was executed on behalf of said company by authority granted in said company's operating agreement.

/s/ Delanie Kay Tucker

Notary Public

**ACKNOWLEDGEMENT OF TENANT  
(Corporate)**

STATE OF UTAH  
COUNTY OF SALT LAKE

On this 15<sup>th</sup> day of August, 2006, before me personally appeared Eugene B. Jones and \_\_\_\_\_, to me personally known to be the VP Finance and \_\_\_\_\_ of Amedica, the corporation that executed the within instrument, known to me to be the persons who executed the within instrument on behalf of said corporation therein named, and acknowledged to me that such corporation executed the within instrument pursuant to its by-laws or a resolution of its board of directors.

/s/ Linda L. Lamoreaux

Notary Public

**INDUSTRIAL BUILDING LEASE**

BETWEEN

560 ARAPEEN LLC, SEVENTH AVENUE LLC, FIRST AVENUE LLC  
ALASKA LIMITED LIABILITY COMPANIES  
("LANDLORD")

AND

AMEDICA CORP., A DELAWARE CORPORATION ("TENANT")

DATE OF LEASE February 20, 2006

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INDUSTRIAL BUILDING LEASE AGREEMENT

This Industrial Building Lease Agreement (“Lease”), made and entered into on this 20<sup>th</sup> day of February, 2006, between 560 Arapeen LLC, Seventh Avenue LLC, First Avenue LLC, also known as 560 Arapeen Co-Tenancy (“Landlord”) and Amedica Corp., a Delaware corporation (“Tenant”).

WITNESSETH:

**1. Definitions.** The following are definitions of some of the defined terms used in this Lease. The definitions of other defined terms are found throughout this Lease.

- A. **“Building”** shall mean the industrial and office building at 560 Arapeen, Salt Lake City, County of Salt Lake, State of Utah which is located on property subject to a lease from the University of Utah, dated September 4, 1979, as amended by each of (i) that First Addendum to Lease Agreement, dated April 9, 1987, (ii) that Second Addendum to Lease Agreement, dated December 31, 1990, (iii) that Memorandum of Ground Lease and Amendment to Ground Lease, recorded June 1, 2000 as Entry No. 7650612, in Book 8365 at Page 3595 of the official records of the Salt Lake County Recorder, and (iv) that Third Addendum to Lease Agreement, dated May 30, 2003 (collectively, the “Ground Lease”).
- B. **“Base Rent”**: Base Rent will be paid according to the following schedule, subject to the provisions of Section 5. hereof, and shall be revised if the rentable square footage is found to be different than 17,439. For the purposes of this Section 1.B., “Lease Year” shall mean the twelve (12) month period commencing on the Commencement Date, and on each anniversary of the Commencement Date.

<u>PERIOD</u>	<u>RATE/SF</u>	<u>ANNUAL BASE RENT</u>	<u>MONTHLY INSTALLMENTS OF BASE RENT</u>
First Lease Year	\$ 13.25	\$ 231,066.75	\$ 19,255.56
Second Lease Year	\$ 13.65	\$ 238,042.35	\$ 19,836.86
Third Lease Year	\$ 14.06	\$ 245,192.34	\$ 20,432.70
Fourth Lease Year	\$ 14.48	\$ 252,516.72	\$ 21,043.06
Fifth Lease Year	\$ 14.91	\$ 260,015.49	\$ 21,667.96

The Base Rent due for the first month rent is payable during the Lease Term (hereinafter defined) shall be paid by Tenant to Landlord contemporaneously with Tenant’s execution hereof.

- C. **“Additional Rent”**: shall mean Tenant’s Pro Rata Share of Triple Net Costs (hereinafter defined) and any other sums (exclusive of Base Rent) that are required to be paid to Landlord by Tenant hereunder, which sums are deemed to be Additional Rent under this Lease. Additional Rent and Base Rent are sometimes collectively referred to herein as “Rent.”

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- D. **“Triple Net Costs”** shall mean all direct and indirect costs and expenses incurred in connection with the Building as more fully defined in **Exhibit C** attached hereto.
- E. **“Security Deposit”** shall mean the sum of Nineteen Thousand Two Hundred Fifty-Five and 56/100 Dollars (\$19,255.56). The Security Deposit shall be paid by Tenant to Landlord contemporaneously with Tenant’s execution hereof.
- F. **“Commencement Date”**, **“Lease Term”** and **“Termination Date”** shall have the meanings set forth in subsection I.F.(2) below:
- (1) Intentionally Omitted
  - (2) The **“Lease Term”** shall mean a period of sixty (60) months commencing on April 15, 2006 (the **“Commencement Date”**). The **“Termination Date”** shall, unless sooner terminated as provided herein, mean April 30, 2011. Notwithstanding the foregoing, if the Termination Date, as determined herein, does not occur on the last day of a calendar month, the Lease Term shall be extended by the number of days necessary to cause the Termination Date to occur on the last day of the last calendar month of the Lease Term. Tenant shall pay Base Rent and Additional Rent for such additional days at the same rate payable for the portion of the last calendar month immediately preceding such extension.
- G. **“Premises”** shall mean the space located on the first floor within the Building and outlined on **Exhibit A** to this Lease.
- H. **“Approximate Rentable Area in the Premises”** shall mean the area contained within the demising walls of the Premises and any other area designated for the exclusive use of Tenant plus an allocation of the Tenant’s pro rata share of the square footage of the **“Common Areas”** and the **“Service Areas”** (as defined below). For purposes of the Lease it is agreed and stipulated by both Landlord and Tenant that the Approximate Rentable Area in the Premises is 17,439 square feet, which amount shall be revised upon completion of the plans for the Premises.
- I. The **“Approximate Rentable Area in the Building”** is 83,271 square feet. The Approximate Rentable Area in the Premises and the Approximate Rentable Area in the Building as set forth herein may be revised at Landlord’s election if Landlord’s architect determines such estimate to be inaccurate in any material degree after examination of the final drawings of the Premises and the Building.
- J. **“Tenant’s Pro Rata Share”** shall mean twenty and 96/100 percent (20.96%) which is the quotient (expressed as a percentage), derived by dividing the Approximate Rentable Area in the Premises by the Approximate Rentable Area in the Building.

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- K. **“Permitted Use”** shall mean laboratories, offices, and prototype production facilities or the research related assembly of high technology equipment or components and no other use or purpose unless approved by the University of Utah, but only in accordance with the Ground Lease and applicable zoning requirements. If Tenant desires any other Permitted Use, Tenant shall make such request to the University on or before February 15, 2006. If the University of Utah fails to approve Tenant’s request to expand the Permitted Use to include the same uses as currently allowed for Tenant’s other facility in Research Park, Tenant may terminate this Lease in which event Landlord shall have no obligation to reimburse Tenant for any tenant improvements.
- L. **“Operating Expense”** Tenant shall be responsible for its pro-rata share of increases in general operating expenses above a base year of 2006.
- LI. **“Triple Net Costs”** Tenant shall be responsible for its pro-rata share of the following costs: utilities, property taxes, insurance, janitorial, and Ground Lease.
- M. **“Guarantor(s)”** shall mean NONE
- N. **“Broker”** shall mean CB Richard Ellis.
- O. **“Building Manager”** shall mean CB Richard Ellis or such other company as Landlord shall designate from time to time.
- P. **“Building Standard”**, shall mean the type, brand, quality and/or quantity of materials Landlord designates from time-to-time to be the minimum quality and/or quantity to be used in the Building or the exclusive type, grade, quality and/or quantity of material to be used in the Building.
- Q. **“Business Day(s)”** shall mean Mondays through Fridays exclusive of the normal business holidays of New Year’s Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day (“Holidays”). Landlord, from time to time during the Lease Term, shall have the right to designate additional Holidays, provided such additional Holidays are commonly recognized by other industrial buildings in the area where the Building is located.
- R. **“Common Areas”** shall mean those areas located within the Building or on the Property used for corridors, elevator foyers, mail rooms, restrooms, mechanical rooms, elevator mechanical rooms, property management office, janitorial closets, electrical and telephone closets, vending areas, and lobby areas (whether at ground level or otherwise), entrances, exits, sidewalks, skywalks, tunnels, driveways, parking areas and parking garages and landscaped areas and other similar facilities provided for the common use or benefit of tenants generally and/or the public; provided however that Tenant shall be entitled to use 1.5 undesignated parking spaces per 1,000 useable square feet at no cost during the Term.

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- S. “**Default Rate**” shall mean the lower of (i) the Prime Rate plus six percent (6%) or (ii) the Maximum Rate (if any).
  - T. “**Maximum Rate**” shall mean the highest rate of interest from time-to-time permitted under applicable federal and state law (if any)
  - U. “**Normal Business Hours**” for the Building shall mean 8:00 a.m. to 6:00 p.m. Mondays through Fridays, and 8:00 a.m. to 1:00 p.m. on Saturdays, exclusive of Holidays.
  - V. “**Prime Rate**” shall mean the per annum interest rate announced by and quoted in the Wall Street Journal from time-to-time as the prime or base rate as determined on the date in which the amount is deemed to be in default.
  - W. “**Property**” shall mean the Building and the parcel(s) of land on which it is located, other improvements located on such land, adjacent parcels of land that Landlord operates jointly with the Building, and other buildings and improvements located on such adjacent parcels of land.
  - X. “**Service Areas**” shall mean those areas within the Building used for stairs, elevator shafts, flues, vents, stacks, pipe shafts and other vertical penetrations (but shall not include any such areas for the exclusive use of a particular tenant).
  - Y. “**Notice Addresses**” shall mean the following addresses for Tenant and Landlord, respectively:

Tenant:

Amedica Corp.  
Ashok Khandkar, President  
615 Arapeen Drive, Suite 320  
Salt Lake City, Utah 84108

Landlord:

CB Richard Ellis  
2755 E. Cottonwood Parkway, Suite 100  
Salt Lake City, UT 84121  
Attn: Property Manager

with a copy to:

Stuart C. Bond  
3201 C Street, Suite 200  
Anchorage, Alaska 99503

Payments of Rent only shall be made payable to the order of.

560 Arapeen LLC

at the address of the Property Manager, or such other name and address as Landlord shall, from time to time, designate.

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**2. Lease Grant.** Subject to and upon the terms herein set forth, Landlord leases to Tenant and Tenant leases from Landlord the Premises together with the right, in common with other tenants and users of the Building, to use the Common Areas.

**3. Adjustment of Commencement Date/Possession.**

- A. Intentionally Omitted
- B. By taking possession of the Premises, Tenant is deemed to have accepted the Premises and agreed that the Premises is in good order and satisfactory condition, with no representation or warranty by Landlord as to the condition of the Premises or the Building or suitability thereof for Tenant's use.
- C. Notwithstanding anything to the contrary contained in this Lease, Landlord shall not be obligated to tender possession of any portion of the Premises or other space leased by Tenant from time to time hereunder that, on the date possession is to be delivered, is occupied by a tenant or other occupant or that is subject to the rights of any other tenant or occupant, nor shall Landlord have any other obligations to Tenant under this Lease with respect to such space until the date Landlord: (1) recaptures such space from such existing tenant or occupant; and (2) regains the legal right to possession thereof. This Lease shall not be affected by any such failure to deliver possession and Tenant shall have no claim for damages against Landlord as a result thereof, all of which are hereby waived and released by Tenant. If Landlord is prevented from delivering possession of the Premises to Tenant due to the holding over in possession of the Premises by a tenant or other occupant thereof, Landlord shall use reasonable efforts to regain possession of the Premises in order to deliver the same to Tenant. If the Lease Term is to be determined pursuant to Section I.F.(1) hereof, the Commencement Date shall be postponed until the date Landlord delivers possession of the Premises to Tenant, in which event the Termination Date shall, at the option of Landlord, correspondingly be postponed on a per diem basis. If the Lease Term is to be determined pursuant to Section I.F.(2), the Commencement Date and Termination Date shall be determined as provided in Section 3.A. above.
- D. If Tenant takes possession of the Premises prior to the Commencement Date, such possession shall be subject to all the terms and conditions of the Lease and Tenant shall pay Base Rent and Additional Rent to Landlord for each day of occupancy prior to the Commencement Date. Notwithstanding the foregoing, if Tenant, with Landlord's prior approval, takes possession of the Premises prior to the Commencement Date for the sole purpose of performing any Landlord-approved improvements therein or installing furniture, equipment or other personal property of Tenant, such possession shall be subject to all of the terms and conditions of the Lease, except that Tenant shall not be required to pay Rent with respect to the period of time prior to the Commencement Date during which Tenant performs

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such work. Tenant shall, however, be liable for the cost of any services (e.g. electricity, HVAC, freight elevators) that are provided to Tenant or the Premises during the period of Tenant's possession prior to the Commencement Date. Nothing herein shall be construed as granting Tenant the right to take possession of the Premises prior to the Commencement Date, whether for construction, fixturing or any other purpose, without the prior consent of Landlord.

#### **4. Use.**

The Premises shall be used for the Permitted Use and for no other purpose unless permitted by the University of Utah. The Ground Lease limits the Permitted Uses to the following: laboratories, offices and prototype production facilities or the research related assembly of high technology equipment of components; retail uses incidental to and in support of the above; such as cafeterias, restaurants, shops, and such service facilities as banking and postal services, conducted primarily for the convenience of employees; support and maintenance shops for the above; and parking, parking structures, and driveways incidental to building use. Tenant agrees not to use or permit the use of the Premises for any purpose which is illegal, dangerous to life, limb or property or which, in Landlord's sole judgment, creates a nuisance or which would increase the cost of insurance coverage with respect to the Building. Tenant will conduct its business and control its agents, servants, employees, customers, licensees, and invitees in such a manner as not to interfere with, annoy or disturb other tenants or Landlord in the management of the Building and the Property. Tenant will maintain the Premises in a clean and healthful condition, and comply with all laws, ordinances, orders, rules and regulations of any governmental entity with reference to the use, condition, configuration or occupancy of the Premises. Tenant, within ten (10) days after the receipt thereof, shall provide Landlord with copies of any notices it receives with respect to a violation or alleged violation of any such laws, ordinances, orders, rules and regulations. Tenant, at its expense, will comply with the rules and regulations of the Building attached hereto as **Exhibit B** and such other rules and regulations adopted and altered by Landlord from time-to-time and will cause all of its agents, employees, invitees and visitors to do so. All such changes to rules and regulations will be reasonable and shall be sent by Landlord to Tenant in writing.

#### **5. Base Rent.**

- A. Tenant covenants and agrees to pay to Landlord during the Lease Term, without any setoff or deduction except as otherwise expressly provided herein, the full amount of all Base Rent and Additional Rent due hereunder and the full amount of all such other sums of money as shall become due under this Lease (including, without limitation, any charges for replacement of electric lamps and ballasts and any other services, goods or materials furnished by Landlord at Tenant's request), all of which hereinafter may be collectively called "Rent." Rent payments shall be sent to:

CB Richard Ellis  
2755 E. Cottonwood Parkway, Suite 100  
Salt Lake City, UT 84121  
Attn: Property Manager

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In addition Tenant shall pay and be liable for, as Additional Rent, all rent, sales and use taxes or other similar taxes, if any, levied or imposed by any city, state, county or other governmental body having authority, such payments to be in addition to all other payments required to be paid to Landlord by Tenant under the terms and conditions of this Lease. Any such payments shall be paid concurrently with the payments of the Rent on which the tax is based. The Base Rent and Additional Rent for each calendar year or portion thereof during the Lease Term, shall be due and payable in advance in monthly instalments of the first day of each calendar month during the Lease Term and any extensions or renewals hereof, and Tenant hereby agrees to pay such Base Rent and Additional Rent to Landlord without demand. If the Lease Term commences on a day other than the first day of a month or terminates on a day other than the last day of a month, then the instalments of Base Rent and Additional Rent for such month or months shall be prorated, based on the number of days in such month. Tenant's covenant to pay Rent shall be independent of every other covenant set forth in this Lease.

- B. To the extent allowed by law, all instalments of Rent not paid within five (5) days of when due shall bear interest at the Default Rate from the date due until paid. In addition, if Tenant fails to pay any instalment of Base Rent and Additional Rent or any other item of Rent when due and payable hereunder, a "**Late Charge**" equal to five percent (5%) of such unpaid amount will be due and payable immediately by Tenant to Landlord.
- C. The Additional Rent payable hereunder shall be adjusted from time-to-time in accordance with the provisions of **Exhibit C** attached hereto and incorporated herein for all purposes.

**6. Security Deposit.** The Security Deposit shall be held by Landlord without liability for interest and as security for the performance by Tenant of Tenant's covenants and obligations under this Lease including but not limited to those set forth in Section 10 hereof, it being expressly understood that the Security Deposit shall not be considered an advance payment of Rent or a measure of Tenant's liability for damages in case of default by Tenant. Landlord shall have no fiduciary responsibilities or trust obligations whatsoever with regard to the Security Deposit and shall not assume the duties of a trustee for the Security Deposit. Landlord may, from time-to-time, without prejudice to any other remedy and without waiving such default, use the Security Deposit to the extent necessary to cure or attempt to cure, in whole or in part, any default of Tenant hereunder. Following any such application of the Security Deposit, Tenant shall pay to Landlord on demand the amount so applied in order to restore the Security Deposit to its original amount. If Tenant is not in default at the termination of this Lease, the balance of the Security Deposit remaining after any such application shall be returned by Landlord to Tenant within sixty (60) days thereafter. If Landlord transfers its interest in the Premises during the term of this Lease, Landlord may assign the Security Deposit to the transferee and thereafter shall have no further liability for the return of such Security Deposit. Tenant agrees to look solely to such transferee or assignee or successor thereof for the return of the Security Deposit. Landlord and its successors and assigns shall not be bound by any actual or attempted assignment or encumbrance of the Security Deposit by Tenant. Landlord shall not be required to keep the Security Deposit separate from its other accounts.

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**7. Services to be Furnished by Landlord.**

- A. Landlord agrees to furnish Tenant the following services some of which are solely Tenant's expense and some of which are for a pro-rata share of increases over a base year of 2006 all as provided in more detail in **Exhibit C** incorporated herein by reference:
- (1) Water for use in the lavatories on the floor(s) on which the Premises is located. If Tenant desires water in the Premises for any approved reason, including a private lavatory or kitchen, cold water shall be supplied, at Tenant's sole cost and expense, from the Building water main through a line and fixtures installed at Tenant's sole cost and expense with the prior reasonable consent of Landlord; unless such work is expressly included in the allowance for tenant improvements provided for in Exhibit D. If Tenant desires hot water in the Premises, Tenant, at its sole cost and expense and subject to the prior reasonable consent of Landlord, may install a hot water heater in the Premises. Tenant shall be solely responsible for the maintenance and repair of any such water heater.
  - (2) Maintenance and repair of all Common Areas in the manner and to the extent reasonably deemed by Landlord to be standard for buildings of similar class, age and location.
  - (3) Electricity to the Premises in accordance with and subject to the terms and conditions of Section 11. of this Lease.
- B. If Tenant requests any other utilities or building services in addition to those identified above, or any of the above utilities or building services in frequency, scope, quality or quantities substantially greater than the standards set by Landlord for the Building, then Landlord shall use reasonable efforts to attempt to furnish Tenant with such additional utilities or building services. Landlord may impose a reasonable charge for such additional utilities or building services, which shall be paid monthly by Tenant as Additional Rent on the same day that the monthly installment of Base Rent is due.
- C. Except as otherwise expressly provided herein, the failure by Landlord to any extent to furnish, or the interruption or termination of these defined services in whole or in part, resulting from adherence to laws, regulations and administrative orders, wear, use, repairs, improvements alterations or any causes beyond the reasonable control of Landlord shall not render Landlord liable in any respect nor be construed as a constructive eviction of Tenant, nor give rise to an abatement of Rent, nor relieve Tenant from the obligation to fulfill any covenant or agreement hereof. Should any of the equipment or machinery used in the provision of such services for any cause cease to function properly, Landlord shall use reasonable diligence to repair such equipment or machinery.

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**8. Leasehold Improvements/Tenant's Property.** All fixtures, equipment, improvements and appurtenances attached to, or built into, the Premises at the commencement of or during the Lease Term, whether or not by, or at the expense of, Tenant ("Leasehold Improvements"), shall be and remain a part of the Premises; shall be the property of Landlord; and shall not be removed by Tenant except as expressly provided herein. The parties anticipate Tenant will have a number of fixtures and equipment items to install which will remain the property of Tenant and must be removed at the termination of the Lease, with the Premises to be restored by Tenant to their original condition, normal wear and tear excepted. Tenant shall provide a list of the equipment and fixtures which will remain Tenant's property, and the parties will mutually agree on installation process which shall be reasonably satisfactory to Landlord. All unattached and moveable partitions, trade fixtures, moveable equipment or furniture located in the Premises and acquired by or for the account of Tenant, without expense to Landlord, which can be removed without structural damage to the Building or Premises, and all personally brought into the Premises by Tenant ("Tenant's Property") shall be owned and insured by Tenant. Landlord may, nonetheless, at any time prior to, or within one (1) month after, the expiration or earlier termination of this Lease or Tenant's right to possession, require Tenant to remove any Leasehold improvements performed by or for the benefit of Tenant and all electronic, phone and data cabling as are designated by Landlord (the "Required Removables") at Tenant's sole cost. In the event that Landlord so elects, Tenant shall remove such Required Removables within ten (10) days after notice from Landlord, provided that in no event shall Tenant be required to remove such Required Removables prior to the expiration or earlier termination of this Lease or Tenant's right to possession. In addition to Tenant's obligation to remove the Required Removables, Tenant shall repair any damage caused by such removal and perform such other work as is reasonably necessary to restore the Premises to a "move in" condition. If Tenant fails to remove any specified Required Removables or to perform any required repairs and restoration within the time period specified above, Landlord, at Tenant's sole cost and expense, may remove the Required Removables (and repair any damage occasioned thereby) and dispose thereof or deliver the Required Removables to any other place of business of Tenant, or warehouse the same, and Tenant shall pay the cost of such removal, repair, delivery, or warehousing of the Required Removables within five (5) days after demand from Landlord.

**9. Signage.** Landlord shall provide and install, at Tenant's cost, all letters or numerals on the interior entrance to the Premises; all such letters and numerals shall be in the standard graphics for the Building and no others shall be used or permitted on the Premises without Landlord's prior written consent. In addition, Landlord will list Tenant's name in the Building's nonexclusive directory, if any. No signage shall be permitted on the exterior of the Building.

**10. Repairs and Alterations by Tenant.**

- A. Except to the extent such obligations are imposed upon Landlord hereunder, Tenant shall, at its sole cost and expense, maintain the Premises in good order, condition and repair throughout the entire Lease Term, ordinary wear and tear excepted. Tenant agrees to keep the areas visible from outside the Premises in a neat, clean and attractive condition at all times. Tenant shall be responsible for all repairs replacements and alterations in and to the Premises, Building and Property and the facilities and systems thereof, the need for which arises out of (1) Tenant's use or occupancy of the Premises, (2) the installation, removal, use or operation of

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Tenant's Property (as defined in Section 8. above), the moving of Tenant's Property into or out of the Building, or (4) the act, omission, misuse or negligence of Tenant, its agents, contractors, employees or invitees. Tenant shall be responsible for repair, maintenance and replacement, if necessary, of any HVAC system and equipment serving only the Premises. This obligation shall not relate to HVAC systems serving other portions of the Building other than the Premises. All such repairs, replacements or alterations shall be performed in accordance with Section 10.B. below and the rules, policies and procedures reasonably enacted by Landlord from time to time for the performance of work in the Building. If Tenant fails to maintain the Premises in good order, condition and repair, Landlord shall give Tenant notice to perform such acts as are reasonably required to so maintain the Premises. If Tenant fails to promptly commence such work and diligently pursue it to its completion, then Landlord may, at its option, make such repairs, and Tenant shall pay the cost thereof to Landlord on demand as Additional Rent, together with an administration charge in an amount equal to ten percent (10%) of the cost of such repairs. Landlord shall, at its expense (except as included in Triple Net Costs) keep and maintain in good repair and working order and make all repairs to and perform necessary maintenance upon: (a) all structural elements of the Building; and (b) all mechanical, electrical and plumbing systems that serve the Building in general; and (c) the Building facilities common to all tenants including but not limited to, the ceilings, walls and floors in the Common Areas.

- B. Tenant shall not make or allow to be made any alterations, additions or improvements to the Premises, without first obtaining the written consent of Landlord in each such instance, which consent may be refused or given on such conditions as Landlord may elect. Prior to commencing any such work and as a condition to obtaining Landlord's consent. Tenant must furnish Landlord with plans and specifications acceptable to Landlord; names and addresses of contractors reasonably acceptable to Landlord; copies of contracts; necessary permits and approvals; evidence of contractor's and subcontractor's insurance in accordance with Section 15. hereof; and a payment bond or other security, all in form and amount satisfactory to Landlord. Tenant shall be responsible for insuring that all such persons procure and maintain insurance coverage against such risks, in such amounts and with such companies as Landlord may require, including, but not limited to, Builder's Risk and Worker's Compensation insurance. All such improvements, alterations or additions shall be constructed in a good and workmanlike manner using Building Standard materials or other new materials of equal or greater quantity. Landlord, to the extent reasonably necessary to avoid any disruption to the tenants and occupants of the Building, shall have the right to designate the time when any such alterations, additions and improvements may be performed and to otherwise designate reasonable rules, regulations and procedures for the performance of work in the Building. Upon completion, Tenant shall furnish "as-built" plans, contractor's affidavits and full and final waivers of lien and receipted bills covering all labor and materials. All improvements, alterations and additions shall comply with the insurance requirements, codes, ordinances, laws and regulations, including without

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limitation, the Americans with Disabilities Act. Tenant shall reimburse Landlord upon demand for all sums, if any, expended by Landlord for third party examination of the architectural, mechanical, electrical and plumbing plans for any alterations, additions or improvements. In addition, if Landlord so requests, Landlord shall be entitled to oversee the construction of any alterations, additions or improvements that may affect the structure of the Building or any of the mechanical, electrical, plumbing or life safety systems of the Building. In the event Landlord elects to oversee such work, Landlord shall be entitled to receive a fee for such oversight in an amount equal to ten percent (10%) of the cost of such alterations, additions or improvements. Landlord's approval of Tenant's plans and specifications for any work performed for or on behalf of Tenant shall not be deemed to be representation by Landlord that such plans and specifications comply with applicable insurance requirements, building codes, ordinances, laws or regulations or that the alterations, additions and improvements constructed in accordance with such plans and specifications will be adequate for Tenant's use.

**11. Use of Electrical Services by Tenant.**

- A. All electricity used by Tenant in the Premises and any additional costs incurred to provide electrical service for Tenant usage requirements shall be paid for by Tenant through any one or more of the following, elected in Landlord's sole discretion: (1) through inclusion in Base Rent and Triple Net Costs (except as provided in Section 11.B. below; (2) by a separate charge billed directly to Tenant by Landlord and payable by Tenant as Additional Rent within ten (10) days after billing; or (3) by a separate charge or charges billed by the utility company(ies) providing electrical service and payable by Tenant directly to such utilities company(ies). The cost for installation of separate meters for Tenant's electrical usage above Building standard shall be billed directly to Tenant and payable as Additional Rent. Landlord shall have the right at any time and from time-to-time during the Lease Term to contract for electricity service from such providers of such services as Landlord shall elect (each being an **"Electric Service Provider"**). Tenant shall cooperate with Landlord, and the applicable Electric Service Provider, at all times and, as reasonably necessary, shall allow Landlord and such Electric Service Provider reasonable access to the Building's electric lines, feeders, risers, wiring, and any other machinery within the Premises. Landlord shall in no way be liable or responsible for any loss, damage, or expense that Tenant may sustain or incur by reason of any change, failure, interference, disruption, or defect in the supply or character of the electric energy furnished to the Premises, or if the quantity or character of the electric energy supplied by the Electric Service Provider is no longer available or suitable for Tenant's requirements, and no such change, failure, defect, unavailability, or unsuitability shall constitute an actual or constructive eviction, in whole or in part, or entitle Tenant to any abatement or diminution of rent, or relieve Tenant from any of its obligations under the Lease.
- B. In addition to Tenant paying its prorata share of electrical usage through the general electrical meter(s) for the Building, Tenant's use of electrical services

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furnished by Landlord shall not exceed in voltage, rated capacity, or overall load that which is standard for the Building, except with written consent of Landlord which consent will not unreasonably be withheld, and at Tenant's expense for any equipment or modifications reasonably necessary to the electrical system to accommodate the high usage, including but not limited to installation of a separate meter for equipment with high usage. in the event Tenant shall request that it be allowed to consume electrical services in excess of Building Standard, Landlord may refuse to consent to such usage or may consent upon such conditions as Landlord reasonably elects (including the installation of utility service upgrades, submeters, air handlers or cooling units), and all such additional usage (to the extent permitted by law), installation and maintenance thereof shall be paid for by Tenant as Additional Rent, Landlord, at any time during the Lease Term, shall have the right to separately meter electrical usage for the Premises or to measure electrical usage by survey or any other method that Landlord, in its reasonable judgment, deems appropriate.

**12. Entry by Landlord.**

Tenant shall permit Landlord or its agents or representatives to enter into and upon any part of the Premises to inspect the same, or to show the Premises to prospective purchasers, mortgagees, tenants (during the last (12) twelve months of the Lease Term or earlier in connection with a potential relocation) or insurers, or to clean or make repairs, alterations, or additions thereto, including any work that Landlord deems necessary for the safety, protection or preservation of the Building or any occupants thereof, or to facilitate repairs, alterations or additions to the Building or any other tenant's premises. Except for any entry by Landlord in an emergency situation or to provide normal cleaning and janitorial service, Landlord shall provide Tenant with reasonable prior notice of any entry into the Premises, which notice may be given verbally. Landlord shall have the right to temporarily close the Premises or the Building to perform repairs, alterations or additions in the Premises or the Building, provided that Landlord shall use reasonable efforts to perform all such work on weekends and after Normal Business Hours, Entry by Landlord hereunder shall not constitute a constructive eviction or entitle Tenant to any abatement or reduction of Rent by reason thereof.

**13. Assignment and Subletting.**

- A. Except in connection with a Permitted Transfer (defined in Section 13.E. below), Tenant shall not assign, sublease, transfer or encumber any interest in this Lease or allow any third party to use any portion of the Premises (collectively or individually, a "Transfer") without the prior written consent of Landlord, which consent shall not be unreasonably withheld, conditioned or delayed. Without limitation, it is agreed that Landlord's consent shall not be considered unreasonably withheld if: (1) the proposed transferee's financial condition does not meet the criteria Landlord uses to select Building tenants having similar leasehold obligations; (2) the proposed transferee's business is not suitable for the Building considering the business of the other tenants and the Building's prestige, or would result in a violation of another tenant's rights; (3) the proposed transferee is a governmental agency or occupant of the Building; (4) Tenant is in default

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beyond any applicable notice and cure period; (5) hazardous substances used by the proposed transferee; or (6) any portion of the Building or the Premises would likely become subject to additional or different laws as a consequence of the proposed Transfer. Any attempted Transfer in violation of this Section 13, shall, exercisable in Landlord's sole and absolute discretion, be voidable. Consent by Landlord to one or more Transfer(s) shall not operate as a waiver of Landlord's rights to approve any subsequent Transfer(s). In no event shall any Transfer or Permitted Transfer release or relieve Tenant from any obligation under this Lease or any liability hereunder.

- B. If Tenant requests Landlord's consent to a Transfer, Tenant shall submit to Landlord financial statements for the proposed transferee, a complete copy of the proposed assignment, sublease and other information as Landlord may reasonably request. Landlord shall within thirty (30) days after Landlord's receipt of the required information and documentation either: (1) consent or reasonably refuse consent to the Transfer in writing; (2) in the event of a proposed assignment of this Lease or a proposed sublease of the entire Premises for the entire remaining term of this Lease, terminate this Lease effective the first to occur of ninety (90) days following written notice of such termination or the date that the proposed Transfer would have come into effect, Tenant shall pay Landlord a review fee of \$ 1,000.00 for Landlord's review of any Permitted Transfer or requested Transfer. In addition, Tenant shall reimburse Landlord for its actual reasonable costs and expenses (including without limitation reasonable attorney's fees) incurred by Landlord in connection with Landlord's review of such requested Transfer or Permitted Transfer.
- C. Tenant shall pay to Landlord fifty percent (50%) of all cash and other consideration which Tenant receives as a result of a Transfer that is in excess of the rent payable to Landlord hereunder for the portion of the Premises and Term covered by the Transfer within ten (10) days following receipt thereof by Tenant. If Tenant is in Monetary Default (defined in Section 22. below), Landlord may require that all sublease payments be made directly to Landlord, in which case Tenant shall receive a credit against rent in the amount of any payments received (less Landlord's share of any excess).
- D. Except as provided below with respect to a Permitted Transfer, if Tenant is a corporation, limited liability company, partnership or similar entity, and the entity which owns or controls a majority of the voting shares/rights at the time changes for any reason (including but not limited to a merger, consolidation or reorganization), such change of ownership or control shall constitute a Transfer. The foregoing shall not apply so long as Tenant is an entity whose outstanding stock is listed on a nationally recognized security exchange, or if at least eighty percent (80%) of its voting stock is owned by another entity, the voting stock of which is so listed.
- E. Tenant may assign its entire interest under this Lease or sublet the Premises to any entity controlling or controlled by or under common control with Tenant or to any

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successor to Tenant by purchase, merger, consolidation or reorganization (hereinafter, collectively, referred to as "Permitted Transfer") without the consent of Landlord, provided: (1) Tenant is not in default under this Lease; (2) if such proposed transferee is a successor to Tenant by purchase, said proposed transferee shall acquire all or substantially all of the stock or assets of Tenant's business or, if such proposed transferee shall acquire all or substantially all of the stock or assets of Tenant's business or, if such proposed transferee is a successor to Tenant by merger, consolidation or reorganization, the continuing or surviving corporation shall own all or substantially all of the assets of Tenant; (3) such proposed transferee shall have a net worth which is at least equal to the greater of Tenant's net worth at the date of this Lease or Tenant's net worth as of the day prior to the proposed purchase, merger, consolidation or reorganization as evidenced to Landlord's reasonable satisfaction; (4) such proposed transferee operates the business in the Premises for the Permitted Use and no other purpose; and (5) Tenant shall give Landlord written notice at least thirty (30) days prior to the effective date of the proposed purchase, merger, consolidation or reorganization.

- F. Tenant agrees that in the event Landlord withholds its consent to any Transfer contrary to the provisions of this Section 13, Tenant's sole remedy shall be to seek an injunction in equity or compel performance by Landlord to give its consent and Tenant expressly waives any right to damages in the event of such withholding by Landlord of its consent.
- G. Any transferee shall be required to comply with all restrictions and obligations set forth in this Lease and the Ground Lease, including but not limited to the Permitted Uses.

**14. Mechanic's Liens.** Tenant will not permit any mechanic's liens or other liens to be placed upon the Premises, the Building, or the Property and nothing in this Lease shall be deemed or construed in any way as constituting the consent or request of Landlord, express or implied, by inference or otherwise, to any person for the performance of any labor or the furnishing of any materials to the Premises, the Building, or the Property or any part thereof, nor as giving Tenant any right, power, or authority to contract for or permit the rendering of any services or the furnishing of any materials that would give rise to any mechanic's or other liens against the Premises, the Building, or the Property. In the event any such lien is attached to the Premises, the Building, or the Property, then, in addition to any other right or remedy of Landlord, Landlord may, but shall not be obligated to, discharge the same. Any amount paid by Landlord for any of the aforesaid purposes including, but not limited to, reasonable attorneys' fees, shall be paid by Tenant to Landlord promptly on demand as Additional Rent. Tenant shall within ten (10) days of receiving such notice of lien or claim (a) have such lien or claim released or (b) deliver to Landlord a bond in form, content, amount and issued by surety, satisfactory to Landlord, indemnifying, protecting, defending and holding harmless the Indemnities against all costs and liabilities resulting from such lien or claim and the foreclosure or attempted foreclosure thereof. Tenant's failure to comply with the provisions of the foregoing sentence shall be deemed an Event of Default under Section 22. hereof entitling Landlord to exercise all of its remedies therefor without the requirement of any additional notice or cure period.

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**15. Insurance.**

- A. Landlord shall maintain such insurance on the Building and the Premises (other than on Tenant's Property or on any additional improvements constructed in the Premises by Tenant), and such liability insurance in such amounts as Landlord elects. The cost of such insurance shall be included as a part of the Triple Net Costs, and payments for losses thereunder shall be made solely to Landlord or the mortgagees of Landlord as their interests shall appear.
- B. Tenant shall maintain at its expense, (1) in an amount equal to full replacement cost, special form (formerly known as all risk) property insurance on all of its personal property, including removable trade fixtures and leasehold and tenant improvements, and Tenant's Property located in the Premises and in such additional amounts as are required to meet Tenant's obligations pursuant to Section 18 hereof and with deductibles in an amount reasonably satisfactory to Landlord, and (ii) a policy or policies of commercial general liability insurance (including endorsement or separate policy for owned or non-owned automobile liability) with respect to its activities in the Building and on the Property, with the premiums thereon fully paid on or before the due date, in an amount of not less than \$1,000,000 per occurrence per person and \$2,000,000 aggregate coverage for bodily injury, property damage, personal injury or combination thereof (the term "personal injury" as used herein means, without limitation, false arrest, detention or imprisonment, malicious prosecution, wrongful entry, libel and slander), provided that if only single limit coverage is available it shall be for at least \$1,000,000 per occurrence with an umbrella policy of at least \$1,000,000 combined single limit per occurrence. Tenant's insurance policies shall name Landlord and Building Manager as additional insureds and shall include coverage for the contractual liability of Tenant to indemnify Landlord and Building Manager pursuant to Section 16 of this Lease and shall have deductibles in an amount reasonably satisfactory to Landlord. Prior to Tenant's taking possession of the Premises, Tenant shall furnish evidence satisfactory to Landlord of the maintenance and timely renewal of such insurance, and Tenant shall obtain and deliver to Landlord a written obligation on the part of each insurer to notify Landlord at least thirty (30) days prior to the modification, cancellation or expiration of such insurance policies. In the event Tenant shall not have delivered to Landlord a policy or certificate evidencing such insurance at least thirty (30) days prior to the expiration date of each expiring policy, Landlord may obtain such insurance as Landlord may reasonably require to protect Landlord's interest (which obtaining of insurance shall not be deemed to be a waiver of Tenant's default hereunder). The cost to Landlord of obtaining such policies, plus an administrative fee in the amount of fifteen percent (15%) of the cost of such policies shall be paid by Tenant to Landlord as Additional Rent upon demand. Other than at times of renewal of Tenant's coverage, Landlord generally will only need certificates of insurance on an annual basis, transfer of the Property by Landlord, or refinancing of the Property.

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- C. The insurance requirements set forth in this Section 15 are independent of the waiver, indemnification, and other obligations under this Lease and will not be construed or interpreted in any way to restrict, limit or modify the waiver, indemnification and other obligations or to in any way limit any party's liability under this Lease. In addition to the requirements set forth in Sections 15 and 16, the insurance required of Tenant under this Lease must be issued by an insurance company with a rating of no less than A-VIII in the current Best's Insurance Guide, or A- in the current Standard & Poor Insurance Solvency Review, or in that is otherwise acceptable to Landlord, and admitted to engage in the business of insurance in the state in which the Building is located; be primary insurance for all claims under it and provide that any insurance carried by Landlord and Landlord's lenders is strictly excess, secondary and non-contributing with any insurance carried by Tenant; and provide that insurance may not be cancelled, nonrenewed or the subject of material change in coverage of available limits of coverage, except upon thirty (30) days prior written notice to Landlord and Landlord's lenders. Tenant will deliver either a duplicate original or a legally enforceable certificate of insurance on all policies procured by Tenant in compliance with Tenant's obligations under this Lease, together with evidence satisfactory to Landlord of the payment of the premiums therefor, to Landlord on or before the date Tenant first occupies any portion of the Premises, at least thirty (30) days before the expiration date of any policy and upon the renewal of any policy. Landlord must give its prior written approval to all deductibles and self-insured retentions under Tenant's policies. Tenant may comply with its insurance coverage requirements through a blanket policy, provided Tenant, at Tenant's sole expense, procures a "per location" endorsement, or equivalent reasonably acceptable to Landlord, so that the general aggregate and other limits apply separately and specifically to the Premises.
- D. If Tenant's business operations, conduct or use of the Premises or any other part of the Property causes an increase in the premium for any insurance policy carried by Landlord, Tenant will, within ten (10) days after receipt of notice from Landlord, reimburse Landlord for the entire increase.
- E. Neither Landlord nor Tenant shall be liable (by way of subrogation or otherwise) to the other party (or to any insurance company insuring the other party) for any personal injury or loss or damage to any of the property of Landlord or Tenant, as the case may be, with respect to their respective property, the Building, the Property or the Premises or any addition or improvements thereto, or any contents therein, to the extent covered by insurance carried or required to be carried by a party hereto even though such loss might have been occasioned by the negligence or willful acts or omissions of the Landlord or Tenant or their respective employees, agents, contractors or invitees. Since this mutual waiver will preclude the assignment of any such claim by subrogation (or otherwise) to an insurance company (or any other person), Landlord and Tenant each agree to give each insurance company which has issued, or on the future may issue, policies of insurance, with respect to the items covered by this waiver, written notice of the terms of this mutual waiver, and to have such insurance policies properly

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endorsed, if necessary, to prevent the invalidation of any of the coverage provided by such insurance policies by reason of such mutual waiver. For the purpose of the foregoing waiver, the amount of any deductible applicable to any loss or damage shall be deemed covered by, and recoverable by the insured under the insurance policy to which such deductible relates. In the event that Tenant is permitted to and self-insures any risk for which insurance is required to be carried under this Lease, or if Tenant fails to carry any insurance required to be carried by Tenant pursuant to this Lease, then all loss or damage to Tenant, its leasehold interest, its business, its property, the Premises or any additions or improvements thereto or contents thereof shall be deemed covered by and recoverable by Tenant under valid and collectible policies of insurance. Notwithstanding anything to the contrary herein, Landlord shall not be liable to the Tenant or any insurance company (by way of subrogation or otherwise) insuring the Tenant for any loss or damage to any property, or bodily injury or personal injury or any resulting loss of income or losses from worker's compensation laws and benefits, even though such loss or damage might have been occasioned by the negligence of Landlord, its agents or employees, or Building Manager, if any such loss or damage was required to be covered by insurance pursuant to this Lease.

**16. Indemnity.** To the extent not expressly prohibited by law, neither Landlord nor Building Manager nor any of their respective officers, directors, employees, members, managers, or agents shall be liable to Tenant, or to Tenant's agents, servants, employees, customers, licensees, or invitees for any injury to person or damage to property caused by any act, omission, or neglect of Tenant, its agents, servants, employees, Customers, invitees, licensees or by any other person entering the Building or upon the Property under the invitation of Tenant or arising out of the use of the Property, Building or Premises by Tenant and the conduct of its business or out of a default by Tenant in the performance of its obligations hereunder. Tenant hereby indemnifies and holds Landlord and Building Manager and their respective officers, directors, employees, members, managers and agents ("Indemnitees"), harmless from all liability and claims for any property damage, or bodily injury or death of, or personal injury to, a person in or on the Premises, or at any other place, including the Property or the Building and this indemnity shall be enforceable to the full extent whether or not such liability and claims are the result of the sole, joint or concurrent acts, negligent or intentional, or otherwise, of Tenant, or its employees, agents, servants, customers, invitees or licensees. Landlord hereby indemnifies and holds Tenant harmless from all liability and claims for any property damage, or bodily injury or death of, or personal injury to, a person in or on the Premises, or at any other place, including the Property or the Building caused by the negligence or willful conduct of Landlord. Notwithstanding the terms of this Lease to the contrary, the terms of this Section shall survive the expiration or earlier termination of this Lease.

**17. Damages from Certain Causes.** To the extent not expressly prohibited by law, Landlord shall not be liable to Tenant or Tenant's employees, contractors, agents, invitees or customers, for any injury to person or damage to property sustained by Tenant or any such party or any other person claiming through Tenant resulting from any accident or occurrence in the Premises or any other portion of the Building caused by the Premises or any other portion of the Building becoming out of repair or by defect in or failure of equipment, pipes, or wiring, or by broken glass, or by the backing up of drains, or by gas, water, steam, electricity, or oil leaking,

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escaping or flowing into the Premises (except where due to Landlord's negligent failure to make repairs required to be made pursuant to other provisions of this Lease, after the expiration of a reasonable time after written notice to Landlord of the need for such repairs), nor shall Landlord be liable to Tenant for any loss or damage that may be occasioned by or through the acts or omissions of other tenants of the Building or of any other persons whomsoever, including, but not limited to riot, strike, insurrection, war, court order, requisition, order of any governmental body or authority, acts of God, fire or theft.

**18. Casualty Damage.** If the Premises or any part thereof shall be damaged by fire or other casualty, Tenant shall give prompt written notice thereof to Landlord. In case the Building shall be so damaged that substantial alteration or reconstruction of the Building shall, in Landlord's reasonable opinion, be required and Landlord's mortgagee requires that the insurance proceeds payable as a result of a casualty be applied to the payment of the mortgage debt or in the event of any material uninsured loss to the Building, Landlord may, at its option, terminate this Lease by notifying Tenant in writing of such termination within ninety (90) days after the date of such casualty. If Landlord does not thus elect to terminate this Lease, Landlord shall commence and proceed with reasonable diligence to restore the Building, and the improvements located within the Premises, if any, for which Landlord had financial responsibility pursuant to the Work Letter Agreement attached hereto as **Exhibit D** (except that Landlord shall not be responsible for delays not within the control of Landlord) to substantially the same condition in which it was immediately prior to the happening of the casualty. Notwithstanding the foregoing, Landlord's obligation to restore the Building, and the improvements located within the Premises, if any, for which Landlord had financial responsibility pursuant to the Work Letter Agreement, shall not require Landlord to expend for such repair and restoration work more than the insurance proceeds actually received by the Landlord as a result of the casualty and Landlord's obligation to restore shall be further limited so that Landlord shall not be required to expend for the repair and restoration of the improvements located within the Premises, if any, for which Landlord had financial responsibility pursuant to the Work Letter Agreement, more than the dollar amount of the Allowance, if any, described in the Work Letter Agreement. When the repairs described in the preceding two sentences have been completed by Landlord, Tenant shall complete the restoration of all improvements, including furniture, fixtures and equipment, which are necessary to permit Tenant's reoccupancy of the Premises. Except as set forth above, all cost and expense of reconstructing the Premises shall be borne by Tenant, and Tenant shall present Landlord with evidence satisfactory to Landlord of Tenant's ability to pay such costs prior to Landlord's commencement of repair and restoration of the Premises. Landlord shall not be liable for any inconvenience or annoyance to Tenant or injury to the business of Tenant resulting in any way from such damage or the repair thereof, except that, subject to the provisions of the next sentence, Landlord shall allow Tenant a fair diminution of Rent during the time and to the extent the Premises are unfit for occupancy. If the Premises or any other portion of the Property is damaged by fire or other casualty resulting from the fault or negligence of Tenant or any of Tenant's agents, employees, or invitees, the rent hereunder shall not be diminished during the repair of such damage and Tenant shall be liable to Landlord for the cost of the repair and restoration of the Property caused thereby to the extent such cost and expense is not covered by insurance proceeds.

**19. Condemnation.** If the whole or any substantial part of the Premises or if the Building or any portion thereof which would leave the remainder of the Building unsuitable for use as an

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industrial building comparable to its use on the Commencement Date, or if the land on which the Building is located or any material portion thereof, shall be taken or condemned for any public or quasi-public use under governmental law, ordinance or regulation, or by right of eminent domain, or by private purchase in lieu thereof, then Landlord may, at its option, terminate this Lease and the rent shall be abated during the unexpired portion of this Lease, effective when the physical taking of said Premises or said portion of the Building or land shall occur. In the event this Lease is not terminated, the rent for any portion of the Premises so taken or condemned shall be abated during the unexpired term of this Lease effective when the physical taking of said portion of the Premises shall occur. All compensation awarded for any such taking or condemnation, or sale proceeds in lieu thereof, shall be the property of Landlord, and Tenant shall have no claim thereto, the same being hereby expressly waived by Tenant, except for any portions of such award or proceeds which are specifically allocated by the condemning or purchasing party for the taking of or damage to trade fixtures of Tenant, which Tenant specifically reserves to itself.

**20. Hazardous Substances.**

- A. Tenant hereby represents and covenants to Landlord the following: No toxic or hazardous substances or wastes, pollutants or contaminants (including, without limitation, asbestos, urea formaldehyde, the group of organic compounds known as polychlorinated biphenyls, petroleum products including gasoline, fuel oil, crude oil and various constituents of such products, radon, and any hazardous substance as defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601-9657, as amended (“CERCLA”) (collectively, “Environmental Pollutants”) other than customary office supplies and cleaning supplies stored and handled within the Premises in accordance with all applicable laws, will be generated, treated, stored, released or disposed of, or otherwise placed, deposited in or located on the Property, and no activity shall be taken on the Property by Tenant, its agents, employees, invitees or contractors, that would cause or contribute to (i) the Property or any part thereof to become a generation, treatment, storage or disposal facility within the meaning of or otherwise bring the Property within the ambit of the Resource Conservation and Recovery Act of 1976 (“RCRA”), 42 U.S.C. 5901 et. seq., or any similar state law or local ordinance, (ii) a release or threatened release of toxic or hazardous wastes or substances, pollutants or contaminants, from the Property or any part thereof within the meaning of, or otherwise result in liability in connection with the Property within the ambit of CERCLA. or any similar state law or local ordinance, or (iii) the discharge of pollutants or effluents into any water source or system, the dredging or filling of any waters, or the discharge into the air of any emissions, that would require a permit under the Federal Water Pollution Control Act, 33 U.S.C. 1251 et. seq., or the Clean Air Act, 42 U.S.C. 7401 et. seq., or any similar state law or local ordinance. At the time of execution of this Lease, Landlord has no knowledge of any Environmental Pollutants in the Premises which would be a violation of the above stated laws.
- B. Tenant expressly waives, to the extent allowed by law, any claims under federal, state or other law that Tenant might otherwise have against Landlord relating to

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the condition of such Property or the Premises or the Leasehold Improvements or personal property located thereon or the presence in or contamination of the Property or the Premises by hazardous materials. Tenant agrees to indemnify and hold Indemnitees (as defined in Section 16) harmless from and against and to reimburse indemnitees with respect to, any and all claims, demands, causes of action, loss, damage, liabilities, costs and expenses (including attorneys' fees and court costs) of any and every kind or character, known or unknown, fixed or contingent, asserted against or incurred by Landlord at any time and from time-to-time by reason of or arising out of the breach of any representation or covenant contained in Section 20.A above.

- C. Tenant shall immediately notify Landlord in writing of any release or threatened release of toxic or hazardous wastes or substances, pollutants or contaminants of which Tenant has knowledge whether or not the release is in quantities that would require under law the reporting of such release to a governmental or regulatory agency.
- D. Tenant shall also immediately notify Landlord in writing of, and shall contemporaneously provide Landlord with a copy of:
  - (1) Any written notice of release of hazardous wastes or substances, pollutants or contaminants on the Property that is provided by Tenant or any subtenant or other occupant if the Premises to a governmental or regulatory agency;
  - (2) Any notice of a violation, or a potential or alleged violation, of any Environmental Law (hereinafter defined) that is received by Tenant or any subtenant or other occupant of the Premises from any governmental or regulatory agency;
  - (3) Any inquiry, investigation, enforcement, cleanup, removal, or other action that is instituted or threatened by a governmental or regulatory agency against Tenant or any subtenant or other occupant of the Premises and that relates to the release or discharge of hazardous wastes or substances, pollutants or contaminants on or from the Property;
  - (4) Any claim that is instituted or threatened by any third-party against Tenant or any subtenant or other occupant of the Premises and that relates to any release or discharge of hazardous wastes or substances, pollutants or contaminants on or from the Property; and
  - (5) Any notice of the loss of any environmental operating permit by Tenant or any subtenant or other occupant of the Premises.
- E. As used herein "Environmental Laws" mean all present and future federal, state and municipal laws, ordinances, rules and regulations applicable to environmental and ecological conditions, and the rules and regulations of the U.S. Environmental Protection Agency, and any other federal, state or municipal agency, or governmental board or entity relating to environmental matters.

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**21. Americans with Disabilities Act.** Tenant agrees to comply with all requirements of the Americans with Disabilities Act (Public Law (July 26, 1990) (“ADA”)) applicable to the Premises and such other current acts or other subsequent acts, (whether federal or state) addressing like issues as are enacted or amended. Landlord agrees to comply with all requirements of the ADA applicable to other portions of the Building. Tenant agrees to indemnify and hold Landlord harmless from any and all expenses, liabilities, costs or damages suffered by Landlord as a result of additional obligations which may be imposed on the Building or the Property under of such acts as a result of Tenant’s operations and/or occupancy. Tenant acknowledges that it will be wholly responsible for any provision of the Lease which may be construed as authorizing a violation of the ADA. Any such provision shall be interpreted in a manner which permits compliance with the ADA and is hereby amended to permit such compliance.

**22. Events of Default.**

A. The following events shall be deemed to be “Events of Default” under this Lease:

- (1) Tenant shall fail to pay within five (5) days of when due any Base Rent, Additional Rent or other amount payable by Tenant to Landlord under this Lease (hereinafter sometimes referred to as a “Monetary Default”) which failure is not cured within five (5) days after delivery to Tenant of notice of the Monetary Default; provided however, that Landlord shall not be required to provide notice of a Monetary Default to Tenant and Tenant shall not have a five (5) day cure period if a Monetary Default notice was given to Tenant in the immediately preceding month.
- (2) Any failure by Tenant (other than a Monetary Default) to comply with any term, provision or covenant of this Lease, which failure is not cured within thirty (30) days after delivery to Tenant of notice of the occurrence of such failure provided, however, that if the term, condition, covenant or obligation to be performed by Tenant is of such nature that the same cannot reasonably be performed within such thirty-day period, such default shall be deemed to have been cured if Tenant commences such performance within said thirty-day period and thereafter diligently undertakes to complete the same, and in fact, completes same within sixty (60) days after notice.
- (3) Any failure by Tenant to observe or perform any of the covenants with respect to (a) assignment and subletting set forth in Section 13, (b) mechanic’s liens set forth in Section 14, or (c) insurance set forth in Section 15.
- (4) Tenant or any Guarantor shall (a) become insolvent, (b) make a transfer in fraud of creditors (c) make an assignment for the benefit of creditors, (d)

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admit in writing its inability to pay its debts as they become due, (e) file a petition under any section or chapter of the United States Bankruptcy Code, as amended, pertaining to bankruptcy, or under any similar law or statute of the United States or any State thereof., or Tenant or any Guarantor shall be adjudged bankrupt or insolvent in proceedings filed against Tenant or any Guarantor thereunder; or a petition or answer proposing the adjudication of Tenant or any Guarantor as a bankrupt or its reorganization under any present or future federal or state bankruptcy or similar law shall be filed in any court and such petition or answer shall not be discharged or denied within sixty (60) days after the filing thereof.

- (5) A receiver or trustee shall be appointed for all or substantially all of the assets of Tenant or any Guarantor or of the Premises or of any of Tenant's property located thereon in any proceeding brought by Tenant or any Guarantor, or any such receiver or trustee shall be appointed in any proceeding brought against Tenant or any Guarantor and shall not be discharged within sixty (60) days after such appointment or Tenant or such Guarantor shall consent to or acquiesce in such appointment.
- (6) The leasehold estate hereunder shall be taken on execution or other process of law in any action against Tenant.
- (7) Tenant shall abandon or vacate any substantial portion of the Premises.
- (8) Tenant shall fail to take possession of and occupy the Premises within thirty (30) days following the Commencement Date and thereafter continuously conduct its operations in the Premises for the Permitted Use as set forth in Section 4 hereof.
- (9) The liquidation, termination, dissolution, forfeiture of right to do business or death of Tenant or any Guarantor.

### **23. Remedies.**

- A. Upon the occurrence of any Event of Default, Landlord shall have the following rights and remedies, in addition to those allowed by law or equity, any one or more of which may be exercised without further notice to or demand upon Tenant and which may be pursued successively or cumulatively as Landlord may elect:
  - (1) Landlord may re-enter the Premises and cure any default of Tenant, in which event Tenant shall, upon demand, reimburse Landlord as Additional Rent for any cost and expenses which Landlord may incur to cure such default; and Landlord shall not be liable to Tenant for any loss or damage which Tenant may sustain by reason of Landlord's action, regardless of whether caused by Landlord's negligence or otherwise.
  - (2) Landlord may terminate this Lease by giving to Tenant notice of Landlord's election to do so, in which event the Term shall end, and all right, title and interest of Tenant hereunder shall expire, on the date stated in such notice;

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- (3) Landlord may terminate the right of Tenant to possession of the Premises without terminating this Lease by giving notice to Tenant that Tenant's right to possession shall end on the date stated in such notice, whereupon the right of Tenant to possession of the Premises or any part thereof shall cease on the date stated in such notice; and
  - (4) Landlord may enforce the provisions of this Lease and may enforce and protect the rights of Landlord hereunder by a suit or suits in equity or at law for the specific performance of any covenant or agreement contained herein, or for the enforcement of any other appropriate legal or equitable remedy, including recovery of all moneys due or to become due from Tenant under any of the provisions of this Lease.

Landlord shall not be required to serve Tenant with any notices or demands as a prerequisite to its exercise of any of its rights or remedies under this Lease, other than those notices and demands specifically required under this Lease.

- B. If Landlord exercises either of the remedies provided in Sections 23.A.(2) or 23.A.(3), Tenant shall surrender possession and vacate the Premises and immediately deliver possession thereof to Landlord, and Landlord may re-enter and take complete and peaceful possession of the Premises, with process of law, full and complete license to do so being hereby granted to Landlord, and Landlord may remove all occupants and property therefrom, using such force as may be necessary to the extent allowed by law, without being deemed guilty in any manner of trespass, eviction or forcible entry and detainer and without relinquishing Landlord's right to Rent or any other right given to Landlord hereunder or by operation of law.
- C. If Landlord terminates the right of Tenant to possession of the Premises without terminating this Lease, Landlord shall have the right to immediate recovery of all amounts then due hereunder. Such termination of possession shall not release Tenant, in whole or in part, from Tenant's obligation to pay Rent hereunder for the full Term, and Landlord shall have the right, from time to time, to recover from Tenant, and Tenant shall remain liable for, all Base Rent, Additional Rent and any other sums accruing as they become due under this Lease during the period from the date of such notice of termination of possession to the stated end of the Term. In any such case, Landlord may relet the Premises or any part thereof for the account of Tenant for such rent, for such time (which may be for a term extending beyond the Term) and upon such terms as Landlord shall determine and may collect the rents from such reletting. Landlord shall not be required to accept any tenant offered by Tenant or to observe any instructions given by Tenant relative to such reletting. Also, in any such case, Landlord may make repairs, alterations and additions in or to the Premises and redecorate the same to the extent deemed by Landlord necessary or desirable and in connection therewith

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change the locks to the Premises, and Tenant upon demand shall pay the cost of all of the foregoing together with Landlord's expenses of reletting. The rents from any such reletting shall be applied first to the payment of the expenses of reentry, redecoration, repair and alterations and the expenses of reletting and second to the payment of Rent herein provided to be paid by Tenant. Any excess or residue shall operate only as an offsetting credit against the amount of Rent due and owing as the same thereafter becomes due and payable hereunder, and the use of such offsetting credit to reduce the amount of Rent due Landlord, if any, shall not be deemed to give Tenant any right, title or interest in or to such excess or residue and any such excess or residue shall belong to Landlord solely, and in no event shall Tenant be entitled to a credit on its indebtedness to Landlord in excess of the aggregate sum (including Base Rent and Additional Rent) which would have been paid by Tenant for the period for which the credit to Tenant is being determined, had no Event of Default occurred. No such reentry or repossession, repairs, alterations and additions, or reletting shall be construed as an eviction or ouster of Tenant or as an election on Landlord's part to terminate this Lease, unless a written notice of such intention is given to Tenant, or shall operate to release Tenant in whole or in part from any of Tenant's obligations hereunder, and Landlord, at any time and from time to time, may sue and recover judgment for any deficiencies remaining after the application of the proceeds of any such reletting.

- D. If this Lease is terminated by Landlord pursuant to Section 23.A.(2), Landlord shall be entitled to recover from Tenant all Rent accrued and unpaid for the period up to and including such termination date, as well as all other additional sums payable by Tenant, or for which Tenant is liable or for which Tenant has agreed to indemnify Landlord under any of the provisions of this Lease, which may be then owing and unpaid, and all costs and expenses, including without limitation court costs and attorneys' fees incurred by Landlord in the enforcement of its rights and remedies hereunder, and, in addition, Landlord shall be entitled to recover as damages for loss of the bargain and not as a penalty (i) the unamortized portion of any concessions offered by Landlord to Tenant in connection with this Lease, including without limitation Landlord's contribution to the cost of tenant improvements and alterations, if any, installed by either Landlord or Tenant pursuant to this Lease or any work letter in connection with this Lease, (ii) the aggregate sum which at the time of such termination represents the excess, if any, of the present value of the aggregate rents which would have been payable after the termination date had this Lease not been terminated, including, without limitation, Base Rent at the annual rate or respective annual rates for the remainder of the Term provided for in this Lease and the amount projected by Landlord to represent Additional Rent for the remainder of the Term over the then present value of the then aggregate fair rent value of the Premises for the balance of the Term, such present worth to be computed in each case on the basis of a ten percent (10%) per annum discount from the respective dates upon which such Rents would have been payable hereunder had this Lease not been terminated, and (iii) any damages in addition thereto, including without limitation reasonable attorneys' fees and court costs, which Landlord sustains as a result of the breach of any of the covenants of this Lease other than for the payment of Rent.

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- E. Landlord shall use commercially reasonable efforts to mitigate any damages resulting from an Event of Default by Tenant under this Lease. Landlord's obligation to mitigate damages after an Event of Default by Tenant under this Lease shall be satisfied in full if Landlord undertakes to lease the Premises to another tenant (a "Substitute Tenant") in accordance with the following criteria:
- (1) Landlord shall have no obligations to solicit or entertain negotiations with any other prospective tenants for the Premises until Landlord obtains full and complete possession of the Premises including, without limitation, the final and unappealable legal right to relet the Premises free of any claim of Tenant;
  - (2) Landlord shall not be obligated to lease or show the Premises, on a priority basis, offer the Premises to a prospective tenant when other premises in the Building suitable for that prospective tenant's use are (or soon will be) available;
  - (3) Landlord shall not be obligated to lease the Premises to a Substitute Tenant for a Rent less than the current fair market Rent then prevailing for similar uses in comparable buildings in the same market area as the Building, nor shall Landlord be obligated to enter into a new lease under other terms and conditions that are unacceptable to Landlord under Landlord's then current leasing policies for comparable space in the Building;
  - (4) Landlord shall not be obligated to enter into a lease with a Substitute Tenant whose use would:
    - (i) violate any restriction, covenant, or requirement contained in the lease of another tenant of the Building;
    - (ii) adversely affect the reputation of the Building; or
    - (iii) be incompatible with the operation of the Building as an industrial building;
  - (5) Landlord shall not be obligated to enter into a lease with any proposed Substitute Tenant which does not have, in Landlord's reasonable opinion, sufficient financial resources to operate the Premises in a first class manner; and
  - (6) Landlord shall not be required to expend any amount of money to alter, remodel, or otherwise make the Premises suitable for use by a proposed Substitute Tenant unless:
    - (i) Tenant pays any such sum to Landlord in advance of Landlord's execution of a lease with such tenant (which payment shall not be in lieu of any damages or other sums to which Landlord may be entitled as a result of Tenant's default under this Lease); or

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(ii) Landlord, in Landlord's reasonable discretion, determines that any such expenditure is financially justified in connection with entering into any such substitute lease.

- F. All property of Tenant removed from the Premises by Landlord pursuant to any provision of this Lease or applicable law may be handled, removed or stored by Landlord at the cost and expense of Tenant, and Landlord shall not be responsible in any event for the value, preservation or safekeeping thereof. Tenant shall pay Landlord for all expenses incurred by Landlord with respect to such removal and storage so long as the same is in Landlord's possession or under Landlord's control. All such property not removed from the Premises or retaken from storage by Tenant within thirty (30) days after the end of the Term or the termination of Tenant's right to possession of the Premises, however terminated, at Landlord's option, shall be conclusively deemed to have been conveyed by Tenant to Landlord as by bill of sale without further payment or credit by Landlord to Tenant.
- G. Tenant hereby grants to Landlord a first lien upon the interest of Tenant under this Lease to secure the payment of moneys due under this Lease, which lien may be enforced in equity, and Landlord shall be entitled as a matter of right to have a receiver appointed to take possession of the Premises and relet the same under order of court.
- H. If Tenant is adjudged bankrupt, or a trustee in bankruptcy is appointed for Tenant, Landlord and Tenant, to the extent permitted by law, agree to request that the trustee in bankruptcy determine within sixty (60) days thereafter whether to assume or to reject this Lease.
- I. The receipt by Landlord of less than the full rent due shall not be construed to be other than a payment on account of rent then due, nor shall any statement on Tenant's check or any letter accompanying Tenant's check be deemed an accord and satisfaction, and Landlord may accept such payment without prejudice to Landlord's right to recover the balance of the rent due or to pursue any other remedies provided in this lease. The acceptance by Landlord of rent hereunder shall not be construed to be a waiver of any breach by Tenant of any term, covenant or condition of this Lease. No act or omission by Landlord or its employees or agents during the term of this Lease shall be deemed an acceptance of a surrender of the Premises, and no agreement to accept such a surrender shall be valid unless in writing and signed by Landlord.
- J. In the event of any litigation between Tenant and Landlord to enforce any provision of this Lease or any right of either party hereto, the unsuccessful party

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to such litigation shall pay to the successful party all costs and expenses, including reasonable attorney's fees, incurred therein. Furthermore, if Landlord, without fault, is made a party to any litigation instituted by or against Tenant, Tenant shall indemnify Landlord against, and protect, defend, and save it harmless from, all costs and expenses, including reasonable attorney's fees, incurred by it in connection therewith. If Tenant, without fault, is made party to any litigation instituted by or against Landlord, Landlord shall indemnify Tenant against, and protect, defend, and save it harmless from, all costs and expenses, including reasonable attorney's fees, incurred by it in connection therewith.

**24. No Waiver.**

No failure of Landlord to declare any default immediately upon its occurrence, or delay in taking any action in connection with an event of default, shall constitute a waiver of such default, nor shall it constitute an estoppel against Landlord, but Landlord shall have the right to declare the default at any time and take such action as is lawful or authorized under this Lease. Failure by Landlord to enforce its rights with respect to any one default shall not constitute a waiver of its rights with respect to any subsequent default.

**25. Peaceful Enjoyment.**

Tenant shall, and may peacefully have, hold, and enjoy the Premises, subject to the other terms hereof, provided that Tenant pays the Rent and other sums herein recited to be paid by Tenant and timely performs all of Tenant's covenants and agreements herein contained. This covenant and any and all other covenants of Landlord shall be binding upon Landlord and its successors only with respect to breaches occurring during its or their respective periods of ownership of the Landlord's interest hereunder.

**26. Substitution. Intentionally Omitted.**

**27. Holding Over.**

In the event of holding over by Tenant after expiration or other termination of this Lease or in the event Tenant continues to occupy the Premises after the termination of Tenant's right of possession pursuant to Section 23.A(3) hereof, occupancy of the Premises subsequent to such termination or expiration shall be that of a tenancy at sufferance and in no event for month-to-month or year-to-year. Tenant shall, throughout the entire holdover period, be subject to all the terms and provisions of this Lease and shall pay for its use and occupancy an amount (on a per month basis without reduction for any partial months during any such holdover) equal to one hundred twenty-five percent (125%) of (a) the greater of then current market rate, or (b) the Base Rent and Additional Rent which would have been applicable had the Lease Term continued through the period of such holding over by Tenant. No holding over by Tenant or payments of money by Tenant to Landlord after the expiration of the Lease Term shall be construed to extend the Lease Term or prevent Landlord from recovery of immediate possession of the Premises by summary proceedings or otherwise unless Landlord has sent written notice to Tenant that Landlord has elected to extend the Lease Term. In addition to the obligation to pay the amounts set forth above during any such holdover period, Tenant shall also be liable to Landlord for all

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damages, including, without limitation, any consequential damages, which Landlord may suffer by reason of any holding over by Tenant and Tenant shall also indemnify Landlord against any and all claims made by any other tenant or prospective tenant against Landlord for delay by Landlord in delivering possession of the Premises to such other tenant or prospective tenant.

**28. Subordination to Mortgage/Estoppel Certificate.**

Tenant accepts this Lease subject and subordinate to any mortgage, deed of trust or other lien presently existing or hereafter arising upon the Premises, or upon the Building and/or the Property and to any renewals, modifications, refinancings and extensions thereof but Tenant agrees that any such mortgagee shall have the right at any time to subordinate such mortgage, deed of trust or other lien to this Lease on such terms and subject to such conditions as such mortgagee may deem appropriate in its discretion. The provisions of the foregoing sentence shall be self-operative and no further instrument of subordination shall be required. However, Landlord is hereby irrevocably vested with full power and authority to subordinate this Lease to any mortgage, deed of trust or other lien now existing or hereafter placed upon the Premises, or the Building and/or the Property and Tenant agrees within ten (10) days after demand to execute such further instruments subordinating this Lease or attorning to the holder of any such liens as Landlord may request. The terms of this Lease are subject to approval by the Landlord's existing lender(s) and any lender(s) who, at the time of the execution of this Lease, have committed or are considering committing to Landlord to make a loan secured by all or any portion of the Property, and such approval is a condition precedent to Landlord's obligations hereunder. In the event that Tenant should fail to execute any subordination or other agreement required by this Section promptly as requested, Tenant hereby irrevocably constitutes Landlord as its attorney-in-fact to execute such instrument in Tenant's name, place and stead, it being agreed that such power is one coupled with an interest in Landlord and is accordingly irrevocable. Tenant agrees that it will from time-to-time upon request by Landlord execute and deliver to such persons as Landlord shall request a statement in recordable form certifying that this Lease is unmodified and in full force and effect (or if there have been modifications, that the same is in full force and effect as so modified), stating the dates to which rent and other charges payable under this Lease have been paid, stating that Landlord is not in default hereunder (or if Tenant alleges a default stating the nature of such alleged default) and further stating such other matters as Landlord shall reasonably require. Tenant agrees periodically to furnish within ten (10) days after so requested by Landlord, ground lessor or the holder of any deed of trust, mortgage or security agreement covering the Building, the Property, or any interest of Landlord therein, a certificate signed by Tenant certifying (a) that this Lease is in full force and effect and unmodified (or if there have been modifications, that the same is in full force and effect as modified and stating the modifications), (b) as to the Commencement Date and the date through which Base Rent and Tenant's Additional Rent have been paid, (c) that Tenant has accepted possession of the Premises and that any improvements required by the terms of this Lease to be made by Landlord have been completed to the satisfaction of Tenant, (d) that except as stated in the certificate no rent has been paid more than thirty (30) days in advance of its due date, (e) that the address for notices to be sent to Tenant is as set forth in this Lease (or has been changed by notice duly given and is as set forth in the certificate), (f) that except as stated in the certificate, Tenant, as of the date of such certificate, has no charge, lien, or claim of offset against rent due or to become due, (g) that except as stated in the certificate, Landlord is not then in default under this Lease, (h) as to the amount of the Approximate Rentable Area of the Premises then occupied by Tenant, (i)

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that there are no renewal or extension options, purchase options, rights of first refusal or the like in favor of Tenant except as set forth in this Lease, 0) the amount and nature of accounts payable to Landlord under terms of this Lease, and (k) as to such other matters as may be requested by Landlord or ground lessor or the holder of any such deed of trust, mortgage or security agreement. Any such certificate may be relied upon by any ground lessor, prospective purchaser, secured party, mortgagee or any beneficiary under any mortgage, deed of trust on the Building or the Property or any part thereof or interest of Landlord therein.

**29. Notice.**

Any notice required or permitted to be given under this Lease or by law shall be deemed to have been given if it is written and delivered in person or mailed by Express or Certified mail, postage prepaid, or sent by a nationally recognized overnight delivery service to the party who is to receive such notice at the address specified in Section 1.Y. of this Lease. When so mailed, the notice shall be deemed to be effective upon receipt or refusal to accept delivery. The address specified in Section 1.Y, of this Lease may be changed from time to time by giving written notice thereof to the other party.

**30. Intentionally Omitted.**

**31. Surrender of Premises.**

Upon the termination, whether by lapse of time or otherwise, or upon any termination of Tenant's right to possession without termination of the Lease, Tenant will at once surrender possession and vacate the Premises, together with all Leasehold improvements (except those Leasehold Improvements Tenant is required to remove pursuant to Section 8 hereof), to Landlord in good condition and repair, ordinary wear and tear excepted; conditions existing because of Tenant's failure to perform maintenance, repairs or replacements as required of Tenant under this Lease shall not be deemed "reasonable wear and tear." Tenant shall surrender to Landlord all keys to the Premises and make known to Landlord the explanation of all combination locks which Tenant is permitted to leave on the Premises. Subject to the Landlord's rights under Section 23 hereof, if Tenant fails to remove any of Tenant's Property within one (1) day after the termination of this Lease, or Tenant's right to possession hereunder, Landlord, at Tenant's sole cost and expenses, shall be entitled to remove and/or store such Tenant's Property and Landlord shall be in no event be responsible for the value, preservation or safekeeping thereof. Tenant shall pay Landlord, upon demand, any and all reasonable expenses caused by such removal and all storage charges against such property so long as the same shall be in possession of Landlord or under the control of Landlord. In addition, if Tenant fails to remove any Tenant's Property from the Premises or storage, as the case may be, within ten (10) days after written notice from Landlord, Landlord, at its option, may deem all or any part of such Tenant's Property to have been abandoned by Tenant and title thereof shall immediately pass to Landlord under this Lease as by a bill of sale.

**32. Rights Reserved to Landlord.**

Landlord reserves the following rights, exercisable without notice, except as provided herein, and without liability to Tenant for damage or injury to property, person or business and

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without affecting an eviction or disturbance of Tenant's use or possession or giving rise to any claim for setoff or abatement of rent or affecting any of Tenant's obligations under this Lease: (1) upon thirty (30) days prior notice to change the name or street address of the Building; (2) to install and maintain signs on the exterior and interior of the Building; (3) to designate and approve window coverings to present a uniform exterior appearance; (4) to make any decorations, alterations, additions, improvements to the Building or Property, or any part thereof (including, with prior notice, the Premises) which Landlord shall desire, or deem necessary for the safety, protection, preservation or improvement of the Building or Property, or as Landlord may be required to do by law; (5) to have access to the Premises at reasonable hours to perform its duties and obligations and to exercise its rights under this Lease; (6) to retain at all times and to use in appropriate instances, pass keys to all locks within and to the Premises; (7) to reasonably approve the weight, size, or location of heavy equipment, or articles within the Premises; (8) to close or restrict access to the Building at all times other than Normal Business Hours subject to Tenant's right to admittance at all times under such regulations as Landlord may prescribe from time to time, or to close (temporarily or permanently) any of the entrances to the Building; provided Landlord shall have the right to restrict or prohibit access to the Building or the Premises at any time Landlord determines it is necessary to do so to minimize the risk of injuries or death to persons or damage to property; (9) to change the arrangement and/or location of entrances of passageways, doors and doorways, corridors, elevators, stairs, toilets and public parts of the Building or Property; (10) to regulate access to telephone, electrical and other utility closets in the Building and to require use of designated contractors for any work involving access to the same; (11) if Tenant has vacated the Premises during the last six (6) months of the Lease Term, to perform additions, alterations and improvements to the Premises in connection with a reletting or anticipated reletting thereof without being responsible or liable for the value or preservation of any then existing improvements to the Premises; and (12) to grant to anyone the exclusive right to conduct any business or undertaking in the Building provided Landlord's exercise of its rights under this clause 12, shall not be deemed to prohibit Tenant from the operation of its business in the Premises and shall not constitute a constructive eviction.

**33. Miscellaneous.**

- A. If any term or provision of this Lease, or the application thereof to any person or circumstance shall, to any extent, be invalid or unenforceable, the remainder of this Lease, or the application of such term or provision to persons or circumstances other than those as to which it is held invalid or unenforceable, shall not be affected thereby, and each term and provision of this Lease shall be valid and enforced to the fullest extent permitted by law.
- B. Tenant agrees not to record this Lease or any short form or memorandum hereof.
- C. This Lease and the rights and obligations of the parties hereto shall be interpreted, construed, and enforced in accordance with the laws of the state in which the Building is located.
- D. Events of "Force Majeure" shall include strikes, riots, acts of God, shortages of labor or materials, war, governmental laws, regulations or restrictions, or any other cause whatsoever beyond the control of Landlord or Tenant, as the case may

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be. Whenever a period of time is herein prescribed for the taking of any action by Landlord or Tenant (other than the payment of Rent and all other such sums of money as shall become due hereunder), such party shall not be liable or responsible for, there shall be excluded from the computation of such period of time, any delays due to events of Force Majeure.

- E. Except as expressly otherwise herein provided, with respect to all required acts of Tenant, time is of the essence of this Lease.
- F. Landlord shall have the right to transfer and assign, in whole or in part, all of its rights and obligations hereunder and in the Building and Property referred to herein, and in such event and upon such transfer Landlord shall be released from any further obligations hereunder, and Tenant agrees to look solely to such successor in interest of Landlord for the performance of such obligations.
- G. Tenant hereby represents to Landlord that it has dealt directly with and only with the Broker as a broker in connection with this Lease. Landlord and Tenant hereby indemnify and hold each other harmless against any loss, claim, expense or liability with respect to any commissions or brokerage fees claimed on account of the execution and/or renewal of this Lease due to any action of the indemnifying party.
- H. If there is more than one Tenant, or if the Tenant as such is comprised of more than one person or entity, the obligations hereunder imposed upon Tenant shall be joint and several obligations of all such parties. All notices, payments, and agreements given or made by, with or to any one of such persons or entities shall be deemed to have been given or made by, with or to all of them.
- I. The individual signing this Lease on behalf of Tenant represents (1) that such individual is duly authorized to execute or attest and deliver this Lease on behalf of Tenant in accordance with the organizational documents of Tenant; (2) that this Lease is binding upon Tenant; (3) that Tenant is duly organized and legally existing in the state of its organization, and is qualified to do business in the state in which the Premises is located.
- J. Tenant acknowledges that the financial capability of Tenant to perform its obligations hereunder is material to Landlord and that Landlord would not enter into this Lease but for its belief, based on its review of Tenant's financial statements, that Tenant is capable of performing such financial obligations. Tenant hereby represents, warrants and certifies to Landlord that its financial statements previously furnished to Landlord were at the time given true and correct in all material respects and that there have been no material subsequent changes thereto as of the date of this Lease.
- K. Notwithstanding anything to the contrary contained in this Lease, the expiration of the Lease Term, whether by lapse of time or otherwise, shall not relieve Tenant from Tenant's obligations accruing prior to the expiration of the Lease Term, and such obligations shall survive any such expiration or other termination of the Lease Term.

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- L. Landlord has delivered a copy of this Lease to Tenant for Tenant's review only, and the delivery hereof does not constitute an offer to Tenant or an option. This Lease shall not be effective until an original of this Lease executed by both Landlord and Tenant and an original Guaranty, if applicable, executed by each Guarantor is delivered to and accepted by Landlord, and this Lease has been approved by Landlord's mortgagee, if required.
  - M. Landlord and Tenant understand, agree and acknowledge that (i) this Lease has been freely negotiated by both parties; and (ii) unless prohibited by law, in any controversy, dispute or contest over the meaning, interpretation, validity, or enforceability of this Lease or any of its terms or conditions, there shall be no inference, presumption, or conclusion drawn whatsoever against either party by virtue of that party having drafted this Lease or any portion thereof.
  - N. The headings and titles to the paragraphs of this Lease are for convenience only and shall have no effect upon the construction or interpretation of any part hereof.
  - O. Receipt by Landlord of Tenant's keys to the Premises shall not constitute an acceptance of surrender of the Premises.

**34. Entire Agreement.**

This Lease, including the following Exhibits:

- Exhibit A - Outline and Location of Premises
- Exhibit B - Rules and Regulations
- Exhibit C - Payment of Operating Expenses
- Exhibit D - Work Letter
- Exhibit E - Additional Provisions

constitutes the entire agreement between the parties hereto with respect to the subject matter of this Lease and supersedes all prior agreements and understandings between the parties related to the Premises, including all lease proposals, letters of intent and similar documents. Tenant expressly acknowledges and agrees that Landlord has not made and is not making, and Tenant, in executing and delivering this Lease, is not relying upon, any warranties, representations, promises or statements, except to the extent that the same are expressly set forth in this Lease. All understandings and agreements heretofore had between the parties are merged in this Lease which alone fully and completely expresses the agreement of the parties, neither party relying upon any statement or representation not embodied in this Lease. This Lease may be modified only by a written agreement signed by Landlord and Tenant. Landlord and Tenant expressly agree that there are and shall be no implied warranties of merchantability, habitability, suitability, fitness for a particular purpose or of any other kind arising out of this Lease, all of which are hereby waived by Tenant, and that there are no warranties which extend beyond those expressly set forth in this Lease.

**35. LIMITATION OF LIABILITY.**

EXCEPT TO THE EXTENT SPECIFICALLY ADDRESSED HEREIN, TENANT SHALL NOT HAVE THE RIGHT TO AN ABATEMENT OF RENT OR TO TERMINATE THIS LEASE AS A RESULT OF LANDLORD'S DEFAULT AS TO ANY COVENANT OR AGREEMENT CONTAINED IN THIS LEASE OR AS A RESULT OF THE BREACH OF ANY PROMISE OR INDUCEMENT IN CONNECTION HERewith, WHETHER IN THIS LEASE OR ELSEWHERE AND TENANT HEREBY WAIVES SUCH REMEDIES OF ABATEMENT OF RENT AND TERMINATION. TENANT HEREBY AGREES THAT TENANT'S REMEDIES FOR DEFAULT HEREUNDER OR IN ANY WAY ARISING IN CONNECTION WITH THIS LEASE INCLUDING ANY BREACH OF ANY PROMISE OR INDUCEMENT OR WARRANTY, EXPRESSED OR IMPLIED, SHALL BE LIMITED TO SUIT FOR DIRECT AND PROXIMATE DAMAGES PROVIDED THAT TENANT HAS GIVEN THE NOTICES AS HEREINAFTER REQUIRED. NOTWITHSTANDING ANYTHING TO THE CONTRARY CONTAINED IN THIS LEASE, THE LIABILITY OF LANDLORD TO TENANT FOR ANY DEFAULT BY LANDLORD UNDER THIS LEASE SHALL BE LIMITED TO THE INTEREST OF LANDLORD IN THE BUILDING AND THE PROPERTY AND TENANT AGREES TO LOOK SOLELY TO LANDLORD'S INTEREST IN THE BUILDING AND THE PROPERTY FOR THE RECOVERY OF ANY JUDGMENT AGAINST THE LANDLORD, IT BEING INTENDED THAT LANDLORD SHALL NOT BE PERSONALLY LIABLE FOR ANY JUDGMENT OR DEFICIENCY. TENANT HEREBY COVENANTS THAT, PRIOR TO THE FILING OF ANY SUIT FOR DIRECT AND PROXIMATE DAMAGES, IT SHALL GIVE LANDLORD AND ALL MORTGAGEES WHOM TENANT HAS BEEN NOTIFIED HOLD MORTGAGES OR DEED OF TRUST LIENS ON THE PROPERTY, BUILDING OR PREMISES ("LANDLORD MORTGAGEES") NOTICE AND REASONABLE TIME TO CURE ANY ALLEGED DEFAULT BY LANDLORD.

IN WITNESS WHEREOF, Landlord and Tenant have executed this Lease in multiple original counterparts as of the day and year first above written,

LANDLORD:

560 Arapeen LLC, First Avenue LLC, and Seventh Avenue LLC

By: First Avenue LLC

By: /s/ Stuart C. Hond  
Stuart C. Hond, Managing Member

TENANT:

Amedica Corp.

By: /s/ Eugene B. Jones  
Name: Eugene B. Jones  
Title: VP - Finance

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**Exhibit A-Outline and Location of Premises**

This Exhibit is attached to and made a part of the Lease dated February 21, 2006 by and between 560 Arapeen LLC, First Avenue LLC, and Seventh Avenue LLC (“Landlord”) and Amedica Corp., a(n) Utah corporation (“Tenant”) for space in the Building located at 560 Arapeen, Salt Lake City, Utah.

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## **EXHIBIT B -Rules and Regulation**

The following rules and regulations shall apply, where applicable, to the Premises, the Building, the parking garage associated therewith (if any), the Property and the appurtenances thereto:

1. Sidewalks, entrances, passageways, courts, corridors, vestibules, halls, elevators and stairways in and about the Building shall not be obstructed nor shall objects be placed against glass partitions, doors or windows which would be unsightly from the Building's corridors from the exterior of the Building.
2. Plumbing, fixtures and appliances shall be used for only the purpose for which they were designed and no foreign substance of any kind whatsoever shall be thrown or placed therein. Damage resulting to any such fixtures or appliances from misuse by Tenant or its agents, employees or invitees, shall be paid for by Tenant and Landlord shall not in any case be responsible therefor.
3. Any sign, lettering, picture, notice, advertisement installed within the Premises which is visible from the public corridors within the Building shall be installed in such manner, and be of such character and style as Landlord shall approve, in writing in its reasonable discretion. No sign, lettering, picture, notice or advertisement shall be placed on any outside window or door or in a position to be visible from outside the Building. No nails, hooks or screws (except for customary artwork or wall hangings) shall be driven or inserted into any part of the Premises or Building except by Building maintenance personnel, nor shall any part of the Building be defaced or damaged by Tenant.
4. Tenant shall not place any additional lock or locks on any door in the Premises or Building without Landlord's prior written consent. A reasonable number of keys to the locks on the doors in the Premises shall be furnished by Landlord to Tenant at the cost of Tenant, and Tenant shall not have any duplicate keys made. All keys and passes shall be returned to Landlord at the expiration or earlier termination of this Lease.
5. Tenant shall refer all contractors, contractors representatives and installation technicians for Landlord for Landlord's supervision, approval and control before the performance of any contractual services. This provision shall apply to all work performed in the Building including, but not limited to installation of telephones, telegraph equipment, electrical devices and attachments, doors, entranceways, and any and all installations of every nature affecting floors, walls, woodwork, window trim, ceilings, equipment and any other physical portion of the Building. Tenant shall not waste electricity, water or air conditioning. All controls shall be adjusted only by Building personnel.
6. All corridor doors, when not in use, shall remain closed. Tenant shall cause all doors to the Premises to be closed and securely locked before leaving the Building at the end of the day.

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7. Tenant shall keep all electrical and mechanical apparatus owned by Tenant free of vibration, noise and airwaves which may be transmitted beyond the Premises. Any equipment of Tenant located anywhere in the Building or on the property shall also be free of vibration and noise so as to not unreasonably disturb other tenants in the Building or users of adjacent properties. Tenant shall properly insulate, cushion, and stabilize all equipment wherever located, to prevent unreasonable noise and vibration.
  8. Canvassing, soliciting and peddling in or about the Building or Property are prohibited. Tenant shall cooperate and use its best efforts to prevent the same.
  9. Tenant shall not use the Premises in any manner which would overload the standard heating, ventilating or air conditioning systems of the Building,
  10. Tenant shall not utilize any equipment or apparatus in such manner as to create any magnetic fields or waves which adversely affect or interfere with the operation of any systems or equipment in the Building or Property.
  11. Bicycles and other vehicles are not permitted inside or on the walkways outside the Building, except in those areas specifically designated by Landlord for such purposes.
  12. Tenant shall not operate or permit to be operated on the Premises any coin or token operated vending machine or similar device (including, without limitation, telephones, lockers, toilets, scales, amusements devices and machines for sale of beverages, foods, candy, cigarettes or other goods), except for those vending machines or similar devices which are for the sole and exclusive use of Tenant's employees, and then only if such operation does not violate the lease of any other tenant in the Building.
  13. Tenant shall utilize the termite and pest extermination service designated by Landlord to control termites and pests in the Premises. Except as included in Triple Net Costs, Tenant shall bear the cost and expense of such extermination services.
  14. To the extent permitted by law, Tenant shall not permit picketing or other union activity involving its employees or agents in the Building or on the Property, except in those locations and subject to time and other constraints as to which Landlord may give its prior written consent, which consent may be withheld in Landlord's sole discretion.
  15. Tenant shall comply with all applicable laws, ordinances, governmental orders or regulations and applicable orders or directions from any public office or body having jurisdiction, with respect to the Premises, the Building, the Property and their respective use or occupancy thereof. Tenant shall not make or permit any use of the premises, the Building or the Property, respectively, which is directly or indirectly forbidden by law, ordinance, governmental regulation or order, or direction of applicable public authority, or which may be dangerous to person or property.

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16. Tenant shall not use or occupy the Premises in any manner or for any purpose which would injure the reputation or impair the present or future value of the Premises, the Building or the Property; without limiting the foregoing, Tenant shall not use or permit the Premises or any portion thereof to be used for lodging, sleeping or for any illegal purpose.
  17. Tenant shall carry out Tenant's permitted repair, maintenance, alterations, and improvements in the Premises only during times agreed to in advance by Landlord and in a manner which will not interfere with the rights of other tenants in the Building.
  18. Landlord may from time to time adopt appropriate systems and procedures for the security or safety of the Building, its occupants, entry and use, or its contents. Tenant, Tenant's agents, employees, contractors, guests and invitees shall comply with Landlord's reasonable requirements thereto.
  19. Landlord shall have the right to prohibit the use of the name of the Building or any other publicity by Tenant that in Landlord's opinion may tend to impair the reputation of the Building or its desirability for Landlord or its other tenants. Upon written notice from Landlord, Tenant will refrain from and/or discontinue such publicity immediately.
  20. Neither Tenant nor any of its employees, agents, contractors, invitees or customers shall smoke in any area designated by Landlord (whether through the posting of a "no smoking" sign or otherwise) as a "no smoking" area. In no event shall Tenant or any of its employees, agents, contractors, invitees or customers smoke in the hallways or bathrooms of the Building. Landlord reserves the right to designate, from time to time, additional areas of the Building and the Property as "no smoking" areas and to designate the entire Building and the Property as a "no smoking" area.
  21. DANGEROUS SUBSTANCES, INCLUDING BUT NOT LIMITED TO, LIQUID NITROGEN.

On or before occupancy of the Premises, Tenant shall develop an evacuation plan for the Building and the area to be used in the event dangerous substances from Tenant's operations are escaping from the Premises or present a danger to the safety of persons in the Building or area around the Building.

**SPECIAL FIREFIGHTING INSTRUCTIONS:** If possible, remove liquid nitrogen and any other containers of dangerous substances from fire area or cool with water. Do not direct water spray at a container vent. Self contained breathing apparatus may be required for rescue workers. Evacuate the Building and area as provided in the evacuation plan.

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**UNUSUAL FIRE AND EXPLOSION HAZARDS:** Liquid nitrogen when spilled is expected to vaporize rapidly and may form an oxygen deficient vapor cloud. Tenant must take all precautions to protect other users of the Building and area from liquid nitrogen and other dangerous substances in the event of a fire. Pressure in storage containers of dangerous substances may build up due to heat and may rupture if pressure relief devices fail to function.

Because contact with cold liquid may cause frostbite, dangerous substances may cause injury, and visibility may be obscured in its vapor cloud, Tenant must evacuate all people from affected area. Tenant should increase ventilation to release area and monitor oxygen levels. Appropriate protective equipment should be used for all persons in the area and Tenant should call the appropriate emergency personnel.

**STORAGE:** No liquid nitrogen or other dangerous substances may be stored in a confined space must be store in safe containers and areas. All storage containers must be marked with clear instructions as to contents.

**HANDLING:** All dangerous substances must be handled with care and in accordance with industry customs, including at least two (2) people being used when moving containers of dangerous substances. All exposed pipes or vessels which contain liquid nitrogen must be marked and should be insulated unless expressly consented to by Landlord in writing, to prevent injuries from the cold metal caused when flesh sticks to the metal and is torn when one attempts to withdraw from such metal. Some metals, such as carbon steel, may become brittle and fracture at low temperatures.

A suitable hand truck or other safe device must be used for any movement of containers of liquid nitrogen or other dangerous substances. All containers shall be handled and stored in an upright position with all applicable precautions, unless customary safety standards require a different storage position.

Use of piping and equipment must be adequately designed to withstand pressures to be encountered form dangerous substances. Protective apparatus should be used in any line or piping to prevent reverse flow and such lines or piping shall be equipped with pressure relief devices. Only transfer lines designed for cryogenic liquids shall be used for liquid nitrogen. Unless otherwise agreed to by Landlord or required by applicable law, all vents shall be piped to the exterior of the Building.

**EMERGENCY SUPPLIES:** if any liquid nitrogen is used in the Premises, self contained breathing apparatus (SCBA) or positive pressure airline with mask and escape pack are to be available and clearly marked for use by Building personnel in all areas where dangerous substances are stored or used, along with loose fitting thermal insulated or leather gloves, full face shield and safety glasses.

**LOW OXYGEN ALARM:** if any liquid nitrogen is used in the Premises, Tenant shall provide the property manager with monthly reports showing the alarm has been tested and is functioning satisfactorily.

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**EXHIBIT C-Payment of Triple Net Costs  
(USE FOR NET DEALS)**

This Exhibit is attached to and made a part of the Lease dated February 20, 2006 by and between 560 Arapeen LLC, First Avenue LLC, and Seventh Avenue LLC ("Landlord") and Amedica Corp. ("Tenant") for space in the Building located at 560 Arapeen, Salt Lake City, Utah.

A. Triple Net Costs. During each calendar year, or portion thereof, falling within the Lease Term, Tenant shall pay to Landlord as Additional Rent hereunder Tenant's Pro Rata Share of Triple Net Costs (as defined below) directly attributable to the Premises for the applicable calendar year.

B. Operating Expenses. in addition to the Triple Net Costs, Tenant shall also pay Landlord as Additional Rent, Tenant's Pro Rata Share of increases in operating expenses for the Building ("Operating Expenses") over the Base Year of 2006 (as defined below). These provisions shall apply to Tenant only and may not be relied upon by other tenants or third parties.

C. Payments for Triple Net Costs and Operating Expenses. Prior to January 1 of each calendar year during the Lease Term, or as soon thereafter as practical, Landlord shall make a good faith estimate of Triple Net Costs and Operating Expenses for the applicable full or partial calendar year and Tenant's Pro Rata Share thereof. On or before the first day of each month during such calendar year, Tenant shall pay Landlord, as Additional Rent, a monthly installment equal to one-twelfth of Tenant's Pro Rata Share of Landlord's estimate of Triple Net Costs and Operating Expenses. Landlord shall have the right from time to time during any such calendar year to revise the estimates of Triple Net Costs and/or Operating Expenses for such year and provide Tenant with a revised statement therefor (provided, however, Landlord agrees that Landlord shall not issue a revised statement more than twice in any calendar year), and thereafter the amount Tenant shall pay each month shall be based upon such revised estimate. If Landlord does not provide Tenant with an estimate of the Triple Net Costs and Operating Expenses by January 1 of any calendar year, Tenant shall continue to pay a monthly installment based on the previous year's estimate until such time as Landlord provides Tenant with an estimate of Triple Net Costs and Operating Expenses for the current year. Upon receipt of such current year's estimate, an adjustment shall be made for any month during the current year with respect to which Tenant paid monthly installments of Additional Base Rent based on the previous years estimate. Tenant shall pay Landlord for any underpayment upon demand. Any overpayment in excess of the equivalent of one (1) month's Base Rent shall, at Landlord's option, be refunded to Tenant or credited against the installment(s) of Additional Rent next coming due under the Lease. Any overpayment in an amount equal to or less than the equivalent of one (1) month's Base Rent shall, at Landlord's option, be refunded to Tenant or credited against the installment of Additional Rent due for the month immediately following the furnishing of such estimate. Any amount paid by Tenant based on any estimate shall be subject to adjustment pursuant to Paragraph D below, when actual Triple Net Costs and/or Operating Expenses are determined for such calendar year.

D. Reconciliation of Estimates for Triple Net Costs and Operating Expenses. As soon as is practical following the end calendar year during the Lease Term, Landlord shall furnish to Tenant statements of Landlord's actual Triple Net Costs and Operating Expenses for the previous

calendar year. If for any calendar year the Additional Rent collected for the prior year, as a result of Landlord's estimates of Triple Net Costs and Operating Expenses, is in excess of Tenant's actual Pro Rata Share of Triple Net Costs or Operating Expenses for such prior year, then Landlord shall refund to Tenant any overpayment (or at Landlord's option apply such amount against Additional Base Rent due or to become due hereunder). Likewise, Tenant shall pay to Landlord, on demand, any underpayment with respect to the prior year whether or not the Lease has terminated prior to receipt by Tenant of a statement for such underpayment, it being understood that this clause shall survive the expiration of the Lease.

E. Description of Triple Net. Triple Net Costs shall mean all direct Taxes, insurance, utilities, and ground lease rent which Landlord incurs, pays or becomes obligated to pay in each calendar year in connection with the Building and the Project. Initial estimates for the Triple Net Costs for 2006 are:

Taxes:	\$125,000
Insurance	\$ 18,000
Utilities	\$126,000
Ground Lease	\$ 51,500

F. Operating Expenses. In addition to the Triple Net Costs, Tenant shall pay as Additional Rent Tenant's pro-rata share of the increases over a base year of 2006 in the following expenses ("Operating Expenses"), provided however that such share of the Operating Expenses shall not increase by more than five percent (5%) per calendar year:

- (1) All labor costs for all persons performing services required or utilized in connection with the operation, repair, replacement and maintenance of and control of access to the Building and the Project, including but not limited to amounts incurred for wages, salaries and other compensation for services, professional training, payroll, social security, unemployment and other similar taxes, workers' compensation insurance, uniforms, training, disability benefits, pensions, hospitalization, retirement plans, group insurance or any other similar or like expenses or benefits.
- (2) All management fees, the cost of equipping and maintaining a management office at the Building, accounting services, legal fees not attributable to leasing and collection activity, and all other administrative costs relating to the Building and the Property.
- (3) All Rent and/or purchase costs of materials, supplies, tools and equipment used in the operation, repair, replacement and maintenance and the control of access to the Building and the Property, including but not limited to the Ground Lease rent.
- (4) All amounts charged to Landlord by contractors and/or suppliers for services, replacement parts, components, materials, and supplies furnished in connection with the operation, repair, maintenance, and control of access to any part of the Building, or the Property generally, including the heating, air conditioning, ventilating, plumbing, electrical, elevator and other systems and equipment of the

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Building. Major repair items shall be amortized over a reasonably determined estimated useful life of such repair items or the largest period permitted by law or generally accepted accounting principles, whichever is less, but in no event shall the amortization period exceed five (5) years.

- (5) All premiums and deductibles paid by Landlord for fire, flood and extended insurance coverage, earthquake and extended coverage insurance, liability and extended coverage insurance, Rent loss insurance, elevator insurance, boiler insurance and other insurance customarily carried from time to time by landlords of comparable industrial buildings or required to be carried by Landlord's mortgagee for common areas of the Building.
- (6) Charges for all utilities, including but not limited to water, electricity, gas and sewer, but excluding those electrical charges for which tenants are individually responsible for common areas of the Building.
- (7) All landscape expenses and costs of repairing, resurfacing and striping of the parking areas and garages of the Property, if any.
- (8) Cost of all maintenance service agreements, including those for equipment, alarm service, window cleaning, drapery or mini-blind cleaning, janitorial services, metal refinishing, pest control, uniform supply, landscaping and any parking equipment.
- (9) Cost of all other repairs, replacements and general maintenance of the Property and Building neither specified above nor directly billed to tenants, including the cost of maintaining all interior Common Areas including lobbies, multi-tenant hallways, restrooms and service areas.
- (10) The amortized cost of capital improvements made to the Building or the Property which are (a) reasonably determined to be primarily for the purpose of reducing operating expense costs or otherwise improving the operating efficiency of the Property or Building; or (b) required to comply with any laws, rules or regulations of any governmental authority or a requirement of Landlord's insurance carrier. The cost of such capital improvements shall be amortized over the reasonably determined estimated useful life of such capital improvement or the largest period permitted by law or generally accepted accounting principles, whichever is less, but in no event shall the amortization period exceed ten (10) years.
- (11) Any other charge or expense of any nature whatsoever which, in accordance with general industry practice with respect to the operation of a first class industrial building, would be construed as an operating expense.

G. Exclusions to Operating Expenses. Operating Expenses shall not include repairs and general maintenance paid from proceeds of insurance or by a tenant or other third parties, and alterations attributable solely to individual tenants of the Property. Further, Operating Expenses shall not include the cost of capital improvements such as to replace the roof and HVAC systems not used solely for the Premises (except as above set forth), depreciation, interest (except as

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provided above with respect to the amortization of capital improvements), lease commissions, and principal payments on mortgage and other non-operating debts of Landlord. Capital improvements are more specifically defined as:

- (1) Costs incurred in connection with the original construction of the Property or with any major changes to same, including but not limited to, additions or deletions of corridor extensions, renovations and improvements of the Common Areas beyond the costs caused by normal wear and tear, and upgrades or replacement of major Property systems; and
- (2) Costs of correcting defects (including latent defects), including any allowances for same, in the construction of the Property or its related facilities; and
- (3) Costs incurred in renovating or otherwise improving, designing, redesigning, decorating or redecorating space for tenants or other occupants of the Property or other space leased or held for lease in the Property.

H. Percentage of Building Occupied. If the Building and the other buildings Landlord operates in conjunction therewith are not at least ninety-five percent (95%) occupied, in the aggregate, during any calendar of the Lease term or if Landlord is not supplying services to at least ninety-five percent (95%) of the Approximate Rentable Area of the Building and such other buildings at any time during any calendar year of the Lease Term, actual Triple Net Costs and Operating Expenses for purposes hereof shall, be determined as if the Building and such other buildings had been ninety-five percent (95%) occupied and Landlord had been supplying services to ninety-five percent (95%) of the Approximate Rentable Area of the Building and such other buildings during such year. If Tenant pays for its Pro Rata Share of Operating Expenses based on increases over a "Base Year" and Operating Expenses for any calendar year during the Lease Term are determined as provided in the foregoing sentence, Operating Expenses for such Base Year shall also be determined as if the Building and such other buildings had been ninety-five percent (95%) occupied and Landlord had been supplying services to ninety-five percent (95%) of the Approximate Rentable Area of the Building and such other buildings. Any necessary extrapolation of Triple Net Costs or Operating Expenses that are affected by changes in the occupancy of the Building (including, at Landlord's option, Taxes) to the cost that would have been incurred if the Building had been ninety-five percent (95%) occupied and Landlord had been supplying services to ninety-five percent (95%) of the Approximate Rentable Area of the Building. In addition, Tenant's Pro Rata Share of Operating Expenses is determined based upon increase over of Base Year and Operating Expenses for the Base Year.

I. "Taxes", which for purposes hereof, shall mean (a) all real estate taxes and assessments on the Property, the Building or the Premises, and taxes and assessments levied in substitution or supplementation in whole or in part of such taxes, (b) all personal property taxes for the Building's personal property, including license expenses, (c) all taxes imposed on services of Landlord's agents and employees, (d) all sales, use or other tax, excluding state and/or federal income tax now or hereafter imposed by any governmental authority upon Rent received by Landlord, (e) all other taxes, fees or assessments now or hereafter levied by any governmental authority on the Property, the Building or its contents or on the operation and use thereof (except as relate to specific tenants), and (f) all costs and fees incurred in connection with seeking

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reductions in or refunds in Taxes including, without limitation, any costs incurred by Landlord to challenge the tax valuation of the Building or Property, but excluding income taxes. Estimates of real estate taxes and assessments for any calendar year during the Lease Term shall be determined based on Landlord's good faith estimate of the real estate taxes and assessments. Taxes and assessments hereunder are those accrued with respect to such calendar year, as opposed to the real estate taxes and assessments paid or payable for such calendar year.

IN WITNESS WHEREOF, Landlord and Tenant have executed this exhibit as of the day and year first above written.

560 Arapeen LLC, First Avenue LLC,  
and Seventh Avenue LLC

By: First Avenue LLC

By: /s/ Stuart C. Hond  
Stuart C. Hond, Managing Member

TENANT:

Amedica Corp.

By: /s/ Eugene B. Jones

Name: Eugene B. Jones

Title: VP - Finance

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## EXHIBIT D-Work Letter

**Plans and Contractor.** Tenant, following the full and final execution and delivery of this Lease and payment of all prepaid Rent and security deposits required hereunder, shall have the right to perform alterations and improvements in the Premises (the "Initial Alterations"). The Initial Alterations may, at Tenant's option, be divided into phases. The provisions of this Exhibit shall be repeated for each phase of the initial Alterations. Tenant shall be responsible for preparation of the final plans for the entire Initial Alterations and after completion shall deliver the final plans to Landlord, for Landlord's approval. Any plans to install a liquid nitrogen tank shall provide for the tank to be screened from view of the public and partially buried and shall be subject to the approval of the ground lessor, the University of Utah. The final plans shall also provide for installation of a low oxygen detection alarm system in the Premises. Landlord shall notify Tenant in writing whether it approves of the working drawings within five (5) business days after its receipt thereof. If Landlord disapproves of such working drawings, then Landlord shall notify Tenant thereof specifying in reasonable detail the reasons for such disapproval, in which case Tenant shall, within five (5) business days after such notice, revise such working drawings in accordance with Landlord's reasonable objections and resubmit the revised working drawings to Landlord for its review and approval. This process shall be repeated until the working drawings have been finally approved by Landlord and Tenant. If Landlord fails to notify Tenant that it disapproves of the initial working drawings within five (5) after the submission thereof, then Landlord shall be deemed to have approved the working drawings in question.

Notwithstanding the foregoing, Tenant and its contractors shall not have the right to perform any of the Initial Alterations or any phase of the Initial Alterations in the Premises unless and until: (1) Tenant has complied with all of the terms and conditions of Section 10 of this Lease, including, without limitation, approval by Landlord of the final plans for the Initial Alterations and of the contractors to be retained by Tenant to perform such Initial Alterations; (2) Tenant has provided Landlord with a lien waiver from the architect for payment of the cost to prepare the final plans; (3) Tenant has deposited the amount of the construction contract for the entire initial Alterations (or only the amount for a designated phase of the Initial Alterations if Tenant has given Landlord notice that phases will be used) in an escrow account with the Talon Group as escrow agent, which account shall be interest bearing if requested by Tenant; and (4) contractor has executed a standard written AIA contract providing for posting a performance bond of \$1,000,000 (or if phases are used then 120% of the contract price for the phase) and a retainage of five percent (5%) of the cost to construct the Initial Alterations (or the designated phase). The escrow agent shall make payments to the contractor upon receipt of pay requests from Tenant and approved in writing by both Tenant and Landlord's construction managers or the project architect.

Tenant shall be responsible for all elements of the design of Tenant's plans (including, without limitation, compliance with law, functionality of design, the structural integrity of the design, the configuration of the Premises and the placement of Tenant's furniture, appliances and equipment), and Landlord's approval of Tenant's plans shall in no event relieve Tenant of the responsibility for such design. Landlord's approval of the contractor to perform the Initial Alterations (or any phase of the initial Alterations) shall not be unreasonably withheld. The parties agree that Landlord's approval of the general contractor to perform the Initial Alterations shall not be considered to be unreasonably withheld if any such general contractor (i) does not

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have trade references reasonably acceptable to Landlord, (ii) does not maintain insurance as required pursuant to the terms of this Lease, (iii) does not have the ability to be bonded for the work in an amount of no less than \$1,000,000.00, (iv) does not provide current financial statements reasonably acceptable to Landlord, or (v) is not licensed as a contractor in the state/municipality in which the Premises is located. Tenant acknowledges the foregoing is not intended to be an exclusive list of the reasons why Landlord may reasonably withhold its consent to a general contractor.

**Construction Allowance.** Provided Tenant is not in default, Landlord agrees to contribute the sum of up to \$10.00 per rentable square foot in the Premises as shown in the jointly approved final plans, which is currently estimated at One Hundred Seventy-Four Thousand, Five Hundred Forty Dollars (\$174,540.00) ("Construction Allowance") toward the cost of performing the Initial Alterations in preparation of Tenant's occupancy of the Premises, plus one-half (1/2) the cost of each new demising wall being constructed in the Premises included in the Initial Alterations. For purposes of this Lease, a demising wall is a wall that separates the Premises from other tenants and the other areas of the Building. The Construction Allowance shall be payable to Tenant as a single payment following: (1) completion of the Initial Alterations (or the portion in the designated phase) including punchlist items as described below; (2) issuance of a final (not temporary) certificate of occupancy for the Premises (or the scope of work for the phase) by the applicable governmental agency(ies); (3) the certification of Tenant and its architect that the Initial Alterations (or for the work in the designated phase) have been installed in a good and workmanlike manner in accordance with the approved plans, and in accordance with applicable laws, codes and ordinances; (4) full and final contractor's, subcontractor's and material supplier's waivers of liens which shall cover all Initial Alterations (or all work in the designated phase) and all other statements and forms required for compliance with the mechanics' lien laws of the State of Utah; (5) general contractor and architect's completion affidavits; (6) plans and specifications for the initial Alterations, together with a certificate from an AIA architect that such plans and specifications comply in all material respects with all laws affecting the Building, Property and Premises; (7) Tenant furnishing Landlord with an accurate architectural "as-built" plan of the Initial Alterations as constructed, which plan shall be incorporated into this Exhibit D by this reference for all purposes, and (8) copies of all construction contracts for the Initial Alterations, together with copies of all change orders, if any; together with all such invoices, contracts, or other supporting data as Landlord or Landlord's Mortgagee may reasonably require. The Construction Allowance shall be disbursed in the amount reflected on the receipted bills meeting the requirements above. Upon making payment of the Construction Allowance, Landlord and Tenant shall also jointly notify the escrow agent that all remaining funds in the escrow account may be returned to Tenant.

Notwithstanding anything herein to the contrary, Landlord shall not be obligated to disburse any portion of the Construction Allowance during the continuance of an uncured default under the Lease, and Landlord's obligation to disburse shall only resume when and if such default is cured.

**Change Orders.** Tenant may initiate changes in the final plans. Each such change must receive the prior written approval of Landlord, such approval not to be unreasonably withheld or delayed; however, if such requested change would adversely affect (in the reasonable discretion of Landlord) (1) the Building's structure or the Building's systems (including the Building's restrooms or mechanical rooms), (2) the exterior appearance of the Building, or (3) the

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appearance of the Building's common areas or elevator lobby areas (if any), Landlord may withhold its consent in its reasonable discretion. Landlord may also request changes to Tenant for the final plans during the construction period for Tenant to approve, which approval shall not unreasonably be withheld, provided that such change orders shall not materially delay the occupancy date and shall not increase the cost of the initial Alterations. If Tenant disapproves a change requested by Landlord because of cost. Landlord shall have the option to require the change order to be made if Landlord provides funds for the change order.

**Punchlist.** When Tenant considers the initial Alterations to be substantially completed (or the portion in a designated phase), Tenant will notify Landlord and within three (3) business days thereafter, Landlord's representative and Tenant's representative shall conduct a walk-through of the Premises and identify any necessary touch-up work, repairs and minor completion items that are reasonably necessary for final completion of the Work. Neither Landlord's representative nor Tenant's representative shall unreasonably withhold his or her agreement on punchlist items. Tenant shall use reasonable efforts to cause the contractor performing the Work to complete all punchlist items within ten (10) days after agreement thereon; however, Tenant shall not be obligated to engage overtime labor in order to complete such items. As used herein "**Substantial Completion.**" "**Substantially Completed.**" and any derivations thereof means the Initial Alterations in the Premises have been performed in substantial accordance with the final plans, as reasonably determined by Tenant (other than any details of construction, mechanical adjustment or other similar matter, the noncompletion of which does not materially interfere with Tenant's use or occupancy of the Premises).

**Construction Management.** Tenant shall pay Landlord \$5000.00 toward the construction management fee of Landlord's construction manager.

In no event shall the Construction Allowance be used for the purchase of equipment, furniture or other items of personal property of Tenant. In the event Tenant does not use the entire Construction Allowance, any unused amount remaining after June 15, 2006, shall no longer be required to be applied to the initial Alterations, it being understood that Tenant shall not be entitled to any credit, abatement or other concession in connection therewith. Tenant shall be responsible for all applicable state sales or use taxes, if any, payable to connection with the Initial Alterations and/or Construction Allowance.

**No Work by Landlord.** Tenant agrees to accept the Premises in its "as-is" condition and configuration, it being agreed that Landlord shall not be required to perform any work or, except as provided above with respect to the Construction Allowance, incur any costs in connection with the construction or demolition of any improvements in the Premises.

This Exhibit shall not be deemed applicable to any additional space added to the original Premises at any time or from time to time, whether by any options under the Lease or otherwise, or to any portion of the original Premises or any additions to the Premises in the event of a renewal or extension of the original Term of this Lease, whether by any options under the Lease or otherwise, unless expressly so provided in the Lease or any amendment or supplement to the Lease.

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Landlord's and Tenant's representatives for coordination of construction and approval of change orders will be as follows, provided that either party may change its representative upon written notice to the other:

Landlord's Representative:

\_\_\_\_\_   
 c/o CB Richard Ellis \_\_\_\_\_   
 \_\_\_\_\_

Telephone: \_\_\_\_\_

Telecopy: \_\_\_\_\_

Tenant's Representative:

Bryan J. McEntire  
c/o Amedica Corporation  
615 Arapeen Drive, Suite 615  
Salt Lake City, UT 84108

\_\_\_\_\_   
 Telephone: (801) 583-5100, ext. 115

Telecopy: (801) 583-8635

IN WITNESS WHEREOF, Landlord and Tenant have entered into this Exhibit D as of the day and year first above written.

LANDLORD:

560 Arapeen LLC, First Avenue LLC, and Seventh Avenue LLC

By: First Avenue LLC

By: /s/ Stuart C. Hond

Stuart C. Hond, Managing Member

TENANT:

Amedica Corp.

By: /s/ Eugene B. Jones

Name: Eugene B. Jones

Title: VP – Finance

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**ATTACHMENT #1**  
**FINAL PLANS**

**EXHIBIT E**  
**ADDITIONAL PROVISIONS**

This exhibit is attached to and made a part of the Lease dated February 20, 2006 by and between 560 Arapeen LLC, First Avenue LLC, and Seventh Avenue LLC ("Landlord") and Amedica Corp., a Delaware corporation ("Tenant") for space in the Building located at 560 Arapeen, Salt Lake City, Utah.

The following are additional provisions to the Lease:

1. **Termination of Tenant's Existing Lease.** Landlord and Tenant shall share equally the rental costs (rental costs shall include Triple Net rental amounts plus amounts due for building operating expenses, net of receipts attributable to subletting Tenant's existing premises to a third party) associated with Tenant's termination of approximately 3,378 rentable square feet located on the first floor of 615 Arapeen Drive, Salt Lake City, Utah. Landlord's obligation shall commence on April 15, 2006, and continue through the earlier to occur of the expiration of Tenant's obligations under the existing lease, or in the even Tenant's existing Landlord releases Tenant from its obligation. Both Tenant and Landlord will work diligently to cause the existing premises to be sublet to a third party if possible.
2. **Rent Abatement.** Landlord shall provide three (3) months of free base rent on the Premises commencing upon the Commencement Date. In addition, Tenant's Base Rent for one half of the square footage in the Premises shall be abated through September 30, 2006. During the abatement period, Tenant shall be responsible for its share of Triple Net Costs and Operating Expenses applicable to the entire Premises.
3. **Early Termination.** Tenant may terminate the Lease at any time after thirty-six months of paying full rent upon six (6) months notice and upon payment at the time of notice of all unamortized tenant improvements and leasing commissions using a sixty (60) month amortization period together with interest at the rate of seven percent (7%) on such amount from the date of this Lease.
4. **Right of First Refusal.** Tenant shall have a one (1) time only option regarding any vacant space on the first floor of the Building that is or becomes available during the Lease Term, subject however to the prior rights of existing tenants. Upon any such space becoming available, Landlord shall give Tenant notice of the space availability and Tenant shall have ten (10) days to exercise the option to immediately begin leasing the additional space at the same rental rates as apply to Tenant's existing Premises. Landlord shall provide a tenant improvement allowance as follows:

<u>Expansion Year of Lease Term</u>	<u>Tenant Improvement Allowance Per Rentable Square Foot</u>
1	\$ 10.00
2	\$ 8.00
3	\$ 6.00
4	\$ 4.00
5	None

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Once additional space has been offered to Tenant one time, Landlord shall have no further obligation to offer other vacant space to Tenant.

5. Renewal Option. (a) So long as Tenant is not in default at the expiration of the term of this Lease, Tenant shall be granted one (1) renewal option for a three (3) year period. If Tenant elects to exercise this option, Tenant shall give Landlord one-hundred eighty (180) days written notice, with the base rental increasing to fair market rental rates then in effect. The base rent shall not be less than in effect at the end of the initial term of this Lease.

(b) The term "fair market rental rate" as used in the Lease shall mean the annual amount per square foot, projected during the option term, that a willing, institutional, non-equity renewal tenant (excluding sublease and assignment transactions) would pay, and a willing, institutional landlord of a comparable quality office building located in the Salt Lake City, Utah area, and in particular the University of Utah Research Park, would accept, in an arm's length transaction (what Landlord is accepting in then current transactions for the Building may be used for purposes of projecting rent for the option term), for space of comparable size, quality and floor height as the Premises, taking into account the age, quality and layout of the existing improvements in the Premises, and taking into account items that professional real estate brokers or professional real estate appraisers customarily consider, including, but not limited to, rental rates, space availability, tenant size, tenant improvement allowances, parking charges and any other lease considerations, if any, then being charged or granted by Landlord or the lessors of such similar office buildings. The fair market rental rate will be an effective rate, not specifically including, but accounting for, the appropriate economic considerations described above.

(c) In the event where a determination of fair market rental rate is required under the Lease, Landlord shall provide written notice of Landlord's determination of the fair market rental rate not later than thirty (30) days after the last day upon which Tenant may timely exercise the right giving rise to the necessity for such fair market rental rate determination. Tenant shall have ten (10) business days ("Tenant's Review Period") after receipt of Landlord's notice of the fair market rental rate within which to accept such fair market rental rate or to reasonably object thereto in writing. Failure of Tenant to so object to the fair market rental rate submitted by Landlord in writing within Tenant's Review Period shall conclusively be deemed Tenant's approval and acceptance thereof. If within Tenant's Review Period Tenant reasonably objects to or is deemed to have disapproved the fair market rental rate submitted by Landlord, Landlord and Tenant will meet together with their respective legal counsel to present and discuss their individual determinations of the fair market rental rate for the Premises under the parameters set forth in Paragraph (b) above and shall diligently and in good faith attempt to negotiate a rental rate on the basis of such individual determinations. Such meeting shall occur no later than ten (10) business days after the expiration of Tenant's Review Period. The parties shall each provide the other with such supporting information and documentation as they deem appropriate. At such meeting if Landlord and Tenant are unable to agree upon the fair market rental rate, they shall each submit to the other their respective best and final offer as to the fair market rental rate. If Landlord and Tenant fail to reach agreement on such fair market rental rate within five (5) business days following such a meeting ("Outside Agreement Date"), Tenant's renewal option will be deemed null and void unless Tenant demands appraisal, in which event each party's determination shall be submitted to appraisal in accordance with the provisions of Section (d) below.

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- (d) (1) Landlord and Tenant shall each appoint one (1) independent appraiser who shall by profession be an M.A.I. certified real estate appraiser who shall have been active over the five (5) year period ending on the date of such appointment in the leasing of commercial (including office) properties in the Salt Lake City, Utah area. The determination of the appraisers shall be limited solely to the issue of whether Landlord's or Tenant's last proposed (as of the Outside Agreement Date) best and final fair market rental rate for the Premises is the closest to the actual fair market rental rate for the Premises as determined by the appraisers, taking into account the requirements specified in Section 1 above. Each such appraiser shall be appointed within fifteen (15) days after the Outside Agreement Date.
- (2) The two (2) appraisers so appointed shall within fifteen (15) days of the date of the appointment of the last appointed appraiser agree upon and appoint a third appraiser who shall be qualified under the same criteria set forth hereinabove for qualification of the initial two (2) appraisers.
- (3) The three (3) appraisers shall within thirty (30) days of the appointment of the third appraiser reach a decision as to whether the parties shall use Landlord's or Tenant's submitted best and final fair market rental rate, and shall notify Landlord and Tenant thereof. During such thirty (30) day period, Landlord and Tenant may submit to the appraisers such information and documentation to support their respective positions as they shall deem reasonably relevant and Landlord and Tenant may each appear before the appraisers jointly to question and respond to questions from the appraisers.
- (4) The decision of the majority of the three (3) appraisers shall be binding upon Landlord and Tenant and neither party shall have the right to reject the decision or to undo the exercise of the applicable Option. If either Landlord or "Tenant fails to appoint an appraiser within the time period specified in Section c(1) hereinabove, the appraiser appointed by one of them shall within thirty (30) days following the date on which the party falling to appoint an appraiser could have last appointed such appraiser reach a decision based upon the same procedures as set forth above (i.e., by selecting either Landlord's or Tenant's submitted best and final fair market rental rate), and shall notify Landlord and Tenant thereof, and such appraiser's decision shall be binding upon Landlord and Tenant and neither party shall have the right to reject the decision or to undo the exercise of the applicable Option.
- (5) If the two (2) appraisers fail to agree upon and appoint a third appraiser, both appraisers shall be dismissed and the matter to be decided shall be forthwith submitted to arbitration under the provisions of the American Arbitration Association based upon the same procedures as set forth above (i.e., by selecting either Landlord's or Tenant's submitted best and final fair market rental rate).
- (6) The cost of each party's appraiser shall be the responsibility of the party selecting such appraiser, and the cost of the third appraiser (or arbitration, if necessary) shall be shared equally by Landlord and Tenant.

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(7) If the process described hereinabove has not resulted in a selection of either Landlord's or Tenant's submitted best and final fair market rental rate by the commencement of the applicable lease term, then the fair market rental rate estimated by Landlord will be used until the appraiser(s) reach a decision, with an appropriate rental credit and other adjustments for any overpayments of Monthly Basic Rent or other amounts if the appraisers select Tenant's submitted best and final estimate of the fair market rental rate. The parties shall enter into an amendment to this Lease confirming the terms of the decision.

- (c) Upon execution of an amendment by both parties as to the rental rate for the renewal period, Landlord shall provide a refurbishing allowance of up to \$5.00 per rentable square foot for repainting and/or recarpeting the Premises by landlord at the commencement of the renewal term in Building standard materials selected by Tenant.

IN WITNESS WHEREOF, Landlord and Tenant have executed this Lease as of the day and year first written above.

LANDLORD:

560 Arapeen LLC < First Avenue LLC, and Seventh Avenue LLC

By: First Avenue LLC

By: /s/ Stuart C. Hond  
Stuart C. Hond, Managing Member

TENANT:

Amedica Corp.

By: /s/ Eugene B. Jones

Name: Eugene B. Jones

Title: VP - Finance

**Consent of Independent Registered Public Accounting Firm**

We consent to the reference to our firm under the caption "Experts" and to the use of our report dated May 18, 2007, with respect to the financial statements of Amedica Corporation, in the Registration Statement (Form S-1) and related Prospectus of Amedica Corporation for the registration of shares of its common stock.

/s/ Ernst & Young LLP

Salt Lake City, Utah  
May 21, 2007