

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

SCHEDULE 14A
(Rule 14a-101)

INFORMATION REQUIRED IN PROXY STATEMENT
SCHEDULE 14A INFORMATION

Proxy Statement Pursuant to Section 14(a) of the Securities
Exchange Act of 1934

Filed by the Registrant

Filed by a Party other than the Registrant

Check the appropriate box:

Preliminary Proxy Statement

Confidential, for Use of the Commission Only (as permitted by Rule 14a-6(e)(2))

Definitive Proxy Statement

Definitive Additional Materials

Soliciting Material Pursuant to §240.14a-12

NxSTAGE MEDICAL, INC.

(Name of Registrant as Specified in Its Charter)

(Name of Person(s) Filing Proxy Statement, if Other Than the Registrant)

Payment of Filing Fee (Check the appropriate box):

No fee required.

Fee computed on table below per Exchange Act Rules 14a-6(i)(1) and 0-11.

(1) Title of each class of securities to which transaction applies:

(2) Aggregate number of securities to which transaction applies:

(3) Per unit price or other underlying value of transaction computed pursuant to Exchange Act Rule 0-11 (set forth the amount on which the filing fee is calculated and state how it was determined):

(4) Proposed maximum aggregate value of transaction:

(5) Total fee paid:

Fee paid previously with preliminary materials: _____

Check box if any part of the fee is offset as provided by Exchange Act Rule 0-11(a)(2) and identify the filing for which the offsetting fee was paid previously. Identify the previous filing by registration statement number, or the Form or Schedule and the date of its filing.

(1) Amount previously paid:

(2) Form, Schedule or Registration Statement No.:

(3) Filing Party:

(4) Date Filed:



NxSTAGE MEDICAL, INC.
439 South Union Street, 5th Floor
Lawrence, Massachusetts 01843

Dear NxStage Medical, Inc. stockholders:

I am pleased to report that the management and directors have successfully negotiated a \$43 million dollar private placement investment in our company, NxStage Medical, Inc. The attached proxy statement and notice of special meeting of stockholders describes in detail the proposal, which requires your support to enable us to complete this important financing.

Proceeds from this private placement will be used for working capital purposes.

THIS FINANCING WILL DILUTE YOUR STOCKHOLDING. HOWEVER, IF STOCKHOLDERS DO NOT APPROVE THE PROPOSAL, WE WILL NOT BE ABLE TO OBTAIN APPROXIMATELY \$18 MILLION OF GROSS PROCEEDS NEEDED TO FUND OUR ONGOING OPERATIONS, AS WE CONTINUE TO WORK TO DEVELOP AND EXPAND THE MARKET FOR OUR PRODUCTS.

The proposal being considered requires that a majority of all shares of our issued and outstanding common stock eligible to vote on the proposal vote in favor of the proposal. Each stockholder should take the time to review the attached proxy statement and to complete and return the enclosed proxy card.

YOUR VOTE IS IMPORTANT, NO MATTER HOW MANY OR HOW FEW SHARES YOU OWN. As of June 24, 2008, or the Record Date, investors in the private placement who may be deemed to be affiliated with one of NxStage's directors or who hold more than 5% of NxStage's outstanding shares of common stock immediately prior to the entry into the share purchase agreements in connection with the private placement (the "Affiliated Investors") hold in the aggregate approximately 12 million shares of our common stock, or approximately 29% of our outstanding shares of our common stock as of the Record Date and approximately 33% of the outstanding shares of our common stock eligible to vote on this proposal. On May 22, 2008, we entered into a voting agreement with each of these Affiliated Investors, in their capacity as current stockholders of NxStage, pursuant to which each of these Affiliated Investors agreed to vote in favor of this proposal at the special meeting and granted to us an irrevocable proxy to vote all of the outstanding shares of NxStage beneficially owned by it, him or her in favor of this proposal.

Thank you very much for your prompt attention to this important matter.

PLEASE VOTE TODAY.

/s/ Jeffrey H. Burbank
Jeffrey H. Burbank
President and Chief Executive Officer

The proxy statement is dated [•], 2008, and is first being mailed to stockholders of NxStage Medical, Inc. on or about [•], 2008.



NxSTAGE MEDICAL, INC.
439 South Union Street, 5th Floor
Lawrence, Massachusetts 01843

NOTICE OF SPECIAL MEETING OF STOCKHOLDERS

To Be Held On [•], 2008

To the stockholders of NxStage Medical, Inc.:

NOTICE IS HEREBY GIVEN THAT a special meeting of stockholders (the "Special Meeting") of NxStage Medical, Inc., a Delaware corporation, will be held [•], 2008 at [•], local time, at the offices of WilmerHale, 60 State Street, Boston, Massachusetts 02109.

The purpose of the Special Meeting is to obtain approval for (a) the issuance and sale of 4,000,000 shares of our common stock, at \$4.50 per share, and warrants exercisable for 800,000 shares of our common stock, at an initial exercise price of \$5.50 per share, to certain investors, including investors who are affiliates, either directly or through affiliates, of NxStage, among them a member of our board of directors, in exchange for aggregate gross proceeds to NxStage of \$18 million at the second closing of our private placement of securities, and (b) such other business as may properly come before the meeting, including any adjournment or postponement thereof.

Our board of directors (the "Board of Directors" or "Board") recommends that you vote in favor of the foregoing proposal, which we describe more fully in the proxy statement accompanying this notice (the "Proxy Statement").

Only stockholders of record at the close of business on June 24, 2008 are entitled to notice of and to vote at the meeting.

Your vote is very important. All stockholders are cordially invited to attend the meeting in person. Whether or not you plan to attend the special meeting, please take the time to vote by completing and mailing the enclosed proxy card to us or, if the option is available to you, by granting your proxy electronically over the Internet or by telephone. If your shares are held in "street name," meaning they are held for your account by a broker or other nominee, your shares will only be voted at the special meeting if you direct your broker to vote your shares by following the procedures established by your broker.

By Order of the Board of Directors

/s/ Winifred L. Swan
Winifred L. Swan
Secretary

Lawrence, Massachusetts
[•], 2008

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Questions and Answers

Although we encourage you to read the enclosed Proxy Statement in its entirety, we include this question and answer section to provide some background information and brief answers to several questions you might have about the enclosed proposals. In this Proxy Statement, we refer to NxStage Medical, Inc. as “NxStage,” the “Company,” “we,” “our,” or “us.”

- Q. What proposal are stockholders being asked to consider at the upcoming Special Meeting?**
- A.** We are seeking approval of our proposal for the issuance and sale of 4,000,000 shares of our common stock, at \$4.50 per share, and warrants exercisable for 800,000 shares of our common stock, at an initial exercise price of \$5.50 per share, to certain investors, including investors who are affiliates, either directly or through affiliates, of NxStage, among them a member of our Board of Directors, in exchange for aggregate gross proceeds to NxStage of \$18 million. We refer to this proposal as the “Proposal” throughout this Proxy Statement. This issuance and sale is part of our private placement involving the issuance and sale by us to investors of a total of 9,555,556 shares of our common stock and warrants exercisable for 1,911,111 shares of our common stock with aggregate proceeds before expenses to us of approximately \$43 million and net proceeds to us of approximately \$42.3 million. We describe the Proposal and the private placement in greater detail below.
- Q. How is the private placement structured?**
- A.** On May 22, 2008, we entered into Securities Purchase Agreements with certain investors, including investors who may be deemed to be affiliated with one of the directors of NxStage or hold more than 5% of our outstanding shares of common stock. These Securities Purchase Agreements provide for the issuance and sale by us to these investors of shares of our common stock and warrants exercisable for shares of our common stock. Pursuant to the Securities Purchase Agreements, we agreed to sell to the investors, and they agreed to purchase from us, in two closings, an aggregate of 9,555,556 shares of common stock at \$4.50 per share and warrants exercisable for 1,911,111 shares of common stock at an initial exercise price of \$5.50 per share (subject to potential adjustment either to \$3.00 per share or \$6.50 per share, as described further below), which are exercisable from the date of grant through the earlier of (i) five years from the grant date or (ii) the consummation of a change of control event, subject to the fulfillment of certain terms and conditions:
- In the first closing of the private placement, which occurred on May 28, 2008, and which is referred to in this Proxy Statement as the “First Closing,” an aggregate of 5,555,556 shares of our common stock and warrants to purchase 1,111,111 shares of our common stock were issued and sold by us and purchased by investors not affiliated with NxStage or with any of NxStage’s officers, directors or stockholders or any party acting for or on behalf of the foregoing. In this Proxy Statement, we refer to the investors in the First Closing as “First Closing Investors.”
 - In the second closing of the private placement, which is scheduled to take place on [•], 2008, one business day following the Special Meeting, and which is referred to in this Proxy Statement as the “Second Closing,” an aggregate of 4,000,000 shares of our common stock and warrants to purchase 800,000 shares of our common stock will be issued and sold by us and purchased by (a) unaffiliated investors and (b) investors who are affiliates of NxStage, including a member of the Board of Directors. In this Proxy Statement, we refer to these affiliates as the “Second Closing Investors.”

- Other than the different closing dates and the stockholder approval requirement for the Second Closing, all other terms of the private placement are identical in the two closings.
- Q. For which part of the private placement is NxStage seeking stockholder approval?**
- A.** NxStage is seeking stockholder approval for the Proposal for the issuance and sale, in the Second Closing, of shares of our common stock and warrants exercisable for shares of our common stock to the Second Closing Investors. NxStage is not required to seek stockholder approval for the private placement, in the First Closing, of shares and warrants to the First Closing Investors.
- Q. Who are the Second Closing Investors?**
- A.** The Second Closing Investors include: Sprout Capital VII, L.P., Sprout Capital VIII, L.P., Sprout Capital IX, L.P., Sprout CEO Fund, L.P., Sprout Entrepreneurs Fund, L.P., Sprout Venture Capital, L.P., Sprout IX Plan Investors, L.P., Sprout Plan Investors, L.P., DLJ ESC II, L.P., DLJ Capital Corporation (collectively, the “Sprout Group”), MFS Variable Insurance Trust, on behalf of one of its series, MFS Core Equity Series (VVSK), MFS Variable Insurance Trust II, on behalf of one of its series, MFS Core Equity Portfolio (RGS), MFS Series Trust I, on behalf of one of its series, MFS Core Equity Fund (RGI), Deerfield Special Situations Fund International Limited, Deerfield Special Situations Fund, L.P., Deerfield Private Design International, LP, Deerfield Private Design Fund, LP, Cross Creek Capital Employees’ Fund, L.P., Cross Creek Capital, L.P., Redmile Capital Fund, LP, Redmile Capital Offshore Fund, Ltd., Redmile Capital Offshore Fund II, Ltd., BVCF IV, L.P., Crosslink Crossover Fund V, LP, Crosslink Emerging Growth Fund, LP, Crosslink Crossover Fund IV, LP, Delta Growth, LP, HSMR Capital Partners (QP) LP, and Broadfin Healthcare Master Fund, Ltd. One Second Closing Investor, the Sprout Group, may be deemed to be affiliated with the Chairman of our Board of Directors, Dr. Philippe Chambon.
- As of June 24, 2008, or the Record Date, the Second Closing Investors owned approximately 39% of the voting power of our issued and outstanding common stock. On May 22, 2008, we entered into Voting Agreements with those Second Closing Investors who may be deemed to be affiliated with one of our directors or who hold more than 5% of our outstanding shares of common stock immediately prior the entry into the share purchase agreements in connection with the private placement (the “Affiliated Investors”), in their capacities as current stockholders of NxStage, pursuant to which each of the Affiliated Investors agreed to vote in favor of the Proposal at the Special Meeting and granted to us an irrevocable proxy to vote all of the outstanding shares of NxStage beneficially owned by it or him in favor of this Proposal. As of the Record Date, the Affiliated Investors collectively hold in the aggregate approximately 29% of the Company’s outstanding common stock and approximately 33% of the outstanding shares of our common stock eligible to vote on this proposal.
- More details about our sale to Affiliated Investors in the Second Closing are described in the section under the heading “Proposal — Interests of Certain Persons in the Second Closing” beginning on page 14 of this Proxy Statement.

- Q. Why is NxStage seeking stockholder approval for the Second Closing?**
- A.** We are subject to NASDAQ Marketplace Rules because our common stock is listed on the NASDAQ Global Market. Specifically, NASDAQ Marketplace Rule 4350(i)(1)(D) (“Rule 4350(i)(1)(D)”) requires us to obtain stockholder approval for any issuance or sale of common stock, or securities convertible into or exercisable for common stock, that is (i) equal to 20% or more of our outstanding common stock before such issuance or sale and (ii) at a price per share below the greater of book or market value at the time of such issuance or sale. Rule 4350(i)(1)(D) applies to the Second Closing because:
- the purchase price of the common stock we issued and sold at the First Closing and intend to issue and sell at the Second Closing will be at \$4.50 per share, which is below \$4.88 per share, the closing price of our common stock on NASDAQ on May 21, 2008, the last day our common stock traded on NASDAQ before the Securities Purchase Agreements were entered into, and
 - the shares of common stock and warrants to purchase shares of common stock that we intend to issue and sell at the Second Closing, together with the shares and warrants issued and sold in the First Closing, will comprise approximately 31% of the shares of our common stock outstanding immediately prior to the First Closing and approximately 25% of the outstanding shares immediately after the Second Closing.
- In addition, NASDAQ has taken the position pursuant to NASDAQ Marketplace Rule 4350(i)(1)(A) that the issuance and sale of securities to investors who may be deemed to be affiliated with a director of the issuer at a discounted price to the market value of the securities could constitute equity compensation to such director if such director could be deemed to directly or indirectly hold any of the securities issued in the transaction, and in which case such issuance and sale would require stockholder approval.
- Certain investors in the Second Closing may be deemed to be affiliated with one of our directors and therefore the sale and issuance of shares of our common stock and warrants exercisable for our common stock to such investors requires stockholder approval. More details about our sale to the investors who may be deemed to be affiliated with one of our directors in the Second Closing are described in the section under the heading “Proposal — Interests of Certain Persons in the Second Closing” beginning on page 14 of this Proxy Statement.
- For the above reasons, we are required under NASDAQ Marketplace Rules to obtain stockholder approval prior to issuing and selling the shares and warrants at the Second Closing.
- Q. Why does NxStage need to do the private placement?**
- A.** NxStage has not yet achieved profitability, and requires significant cash flow to support its ongoing operations. Revenues from product sales are becoming an increasingly important source of cash flow, but are not yet sufficient to defray all operating expenses. As of March 31, 2008, we had cash, cash equivalents and securities available-for-sale of approximately \$16.2 million. We anticipated that with our existing financial resources and expected revenues from product sales, our cash would be sufficient to meet our anticipated operating and capital requirements through 2008, but would be insufficient to satisfy our liquidity requirements beyond 2008.

Additionally, beginning in 2009, we will need to begin paying down the principal under our revolving credit facility that we entered into in November 2007 with Merrill Lynch Capital, a division of Merrill Lynch Business Services Inc., which was acquired by General Electric Capital.

Consequently, our management and Board of Directors determined in early 2008 that we will need to secure additional working capital to fund our capital requirements.

Accordingly, our management and Board of Directors undertook extensive efforts to identify and evaluate different strategic alternatives, including various forms of private debt and equity financings. Based on our stock price and the state of the medical device capital market, our management and Board of Directors concluded that it was unlikely that we would attract sufficient interest among public investors and that a private placement of our publicly-traded common stock (commonly referred to as a “PIPE” financing), targeting private venture capital investors and other institutional investors, had a higher likelihood of success. In addition, in mid-May 2008, we engaged an investment bank, Canaccord Adams Inc. (“Canaccord”) to serve as the placement agent and advisor in the private placement. The section under the heading “Proposal — Background of the Private Placement,” beginning on page 8 of this Proxy Statement, provides more details on our internal deliberation, discussions with Canaccord and extensive meetings and negotiations with prospective investors during May 2008. We finally signed the Securities Purchase Agreements on May 22, 2008, which provide for the First and Second Closings of the private placement and set forth the terms and conditions of the transaction, as described in more detail under the heading “Proposal — Terms of the Private Placement,” beginning on page 11 of this Proxy Statement. The First Closing took place on May 28, 2008, and we currently plan to complete the Second Closing on [•], 2008, one business day after we receive stockholder approval for the Proposal. Assuming the Second Closing occurs, we will receive approximately \$43 million in total gross proceeds (before fees and expenses) from the First Closing and Second Closing, and an additional \$10.5 million in aggregate gross proceeds if and when all warrants are exercised in full and for cash (assuming an exercise price of \$5.50 per share and no net exercise).

Proceeds from the Second Closing, together with the proceeds from the First Closing, will enable us to advance further the commercialization of our products and the development of new products for our product pipeline. In particular, we anticipate using the net proceeds for the expansion of sales and marketing programs, the hiring of additional personnel and investment in clinical research and product development activities. We also intend to use the proceeds for general corporate purposes.

As described in more detail under the heading “Proposal — Reasons for the Private Placement Including the Second Closing, beginning on page 9 of this Proxy Statement,” if we do not receive the proceeds from the Second Closing, meeting our capital needs on a timely basis and on terms acceptable to us will be more difficult. We may be required to delay, reduce the scope of, or eliminate one or more aspects of our business, which would likely harm our business.

- Q. What if the Proposal is not approved?**
- A.** If the Proposal does not receive stockholder approval, the issuance and sale to the First Closing Investors in the First Closing will not be affected, but the issuance and sale to the Second Closing Investors in the Second Closing, including the Affiliated Investors, will be affected. Specifically, the Second Closing Investors will not be obligated or permitted to purchase the shares of our common stock and warrants, and we will not be obligated or permitted to sell them the shares of our common stock or warrants in the Second Closing. In that case, we could request special relief from the NASDAQ Global Market to allow the investors to proceed with the purchase of the securities as contemplated by the Second Closing. The NASDAQ Global Market grants special relief based on an issuer's financial circumstances only in limited instances. There is no guarantee, however, that the NASDAQ Global Market would grant such permission, or that the original Second Closing Investors would purchase our securities even if the NASDAQ Global Market does grant such permission.
- YOUR VOTE IS IMPORTANT, NO MATTER HOW MANY OR HOW FEW SHARES YOU OWN.** As described above, as of June 24, 2008, or the Record Date, the Affiliated Investors beneficially owned, either directly or through affiliates, approximately 29% of the voting power of our issued and outstanding common stock, and approximately 33% of the outstanding shares of our common stock eligible to vote on this proposal. On May 22, 2008, we entered into a Voting Agreement with each of the Affiliated Investors, in his or its capacity as current stockholders of NxStage, pursuant to which each of the Affiliated Investors agreed to vote in favor of the Proposal at the Special Meeting, and granted to us an irrevocable proxy to vote all of the outstanding shares of NxStage beneficially owned by it, him or her in favor of this Proposal.
- Our failure to raise additional capital could require us to delay, reduce the scope of, or eliminate one or more aspects of our business, which would likely harm our business and could substantially diminish the value of our common stock and thus your investment in our shares.
- Q. Will the Second Closing dilute our stockholders' ownership interest in NxStage?**
- A.** Our stockholders will incur dilution of their percentage of stock ownership in NxStage if the Second Closing takes place. Immediately prior to the Second Closing (assuming no issuance of any shares after the First Closing), 42,350,131 shares of our common stock would be outstanding after giving effect to the issuance of 5,555,556 shares of common stock at the First Closing. If the Second Closing occurs (assuming no issuance of any shares after the First Closing), a total of 46,350,131 shares of common stock will be outstanding upon the Second Closing. Stockholders immediately prior to the First Closing will incur dilution, upon the consummation of the Second Closing, of approximately 21% (24% if the total of 1,911,111 shares issuable upon exercise in full and for cash of the warrants issued in the First and Second Closings are included).
- However, as we explained above in the answer to the question "what if the Proposal is not approved," failure to complete the Second Closing could significantly harm our business and the value of our common stock, and the value of your investment in our common stock could be substantially diminished.

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- Q. Who will bear the costs of the proxy solicitation?** **A:** We will bear the costs of soliciting proxies, including the printing, mailing and filing of this Proxy Statement and any additional information furnished to stockholders. We have engaged Georgeson Shareholder Communications Inc., a proxy solicitation firm, to solicit proxies from our stockholders. For these services, we expect to pay a fee of approximately \$7,500, plus expenses. Our directors, officers and employees may also solicit proxies by telephone, email, facsimile and in person, without additional compensation. Upon request, we will reimburse brokerage houses and other custodians, nominees and fiduciaries for their reasonable out-of-pocket expenses for distributing proxy materials.
- Q. Where can I find additional information? Who can help answer my questions?** **A:** You should carefully review the entire Proxy Statement, which contains important information regarding the Proposal, before voting on the Proposal. We filed a current report on Form 8-K with the Securities and Exchange Commission (the "SEC") on May 23, 2008, which contains a summary of the private placement and attaches each of the relevant agreements for the private placement as exhibits. These exhibits are also attached for your convenience as Annexes to this Proxy Statement. We strongly encourage you to carefully review the Form 8-K and the exhibits thereto describing the private placement. The section under the heading "Where You Can Find Additional Information," beginning on page 17 of this Proxy Statement, describes additional sources to obtain this Proxy Statement, our public filings under the Securities Exchange Act of 1934, as amended (including the Form 8-K described above), and other information about NxStage.
- If you would like copies of the current report on Form 8-K filed on May 23, 2008 (including the exhibits thereto) or additional copies of this Proxy Statement, free of charge, or if you have questions about the private placement or the procedures for voting your shares, you should contact: NxStage Medical, Inc., 439 South Union St., 5th Floor, Lawrence, Massachusetts 01843, Attention: Investor Relations.

NxSTAGE MEDICAL, INC.
Proxy Statement for the Special Meeting of Stockholders
To Be Held [•], 2008

INFORMATION CONCERNING SOLICITATION AND VOTING

General

This proxy is solicited on behalf of the Board of Directors of NxStage Medical, Inc., a Delaware corporation, at a Special Meeting of stockholders to be held [•], 2008, at [•], local time, and at any adjournment, continuation or postponement of the meeting, referred to throughout this Proxy Statement as the Special Meeting, for the purposes set forth herein and in the accompanying Notice of Special Meeting of Stockholders. The Special Meeting will be held at the offices of WilmerHale at 60 State Street, Boston, Massachusetts 02109.

These proxy solicitation materials were first mailed or given on or about [•], 2008 to all stockholders entitled to vote at the meeting.

Purpose of Special Meeting

As described above, the purpose of the Special Meeting is to obtain approval for the Proposal and such other business as may properly come before the meeting, including any adjournment or postponement thereof.

Record Date and Shares Outstanding

Only stockholders who owned shares of our common stock at the close of business on June 24, 2008, referred to in this Proxy Statement as the Record Date, are entitled to notice of, and to vote at, the Special Meeting. Except as otherwise provided in this Proxy Statement, the holders of common stock as of the Record Date are entitled to one vote per share on matters presented at the Special Meeting. As of the Record Date, 42,356,011 shares of NxStage's common stock are issued outstanding.

Vote Required

The affirmative vote of the holders of a majority of the common stock present in person or represented by proxy and entitled to vote at the Special Meeting will be required to approve the Proposal, except that in accordance with the NASDAQ Marketplace Rules, none of the shares of common stock purchased at the First Closing of the private placement are eligible to be voted with respect to this proposal, and no votes cast in respect of such shares of common stock will be counted toward the applicable threshold needed to approve the Proposal. Accordingly, of the approximately 42,356,011 shares of the Company's common stock that are issued and outstanding as of the Record Date, only 36,800,455 shares are eligible to vote on this proposal.

Revocability of Proxies

You may revoke your proxy at any time before it is exercised. Execution of the proxy will not in any way affect your right to attend the Special Meeting in person. Revocation may be made prior to the Special Meeting by written revocation or through a duly executed proxy bearing a later date sent to NxStage, Attention: Winifred L. Swan, Secretary, 439 South Union St., 5th Floor, Lawrence, Massachusetts 01843; or your proxy may be revoked personally at the Special Meeting by written notice to the Secretary at the Special Meeting prior to the voting of the proxy. Any revocation sent to NxStage must include the stockholder's name and must be received the day prior to the Special Meeting to be effective.

How Your Proxy Will Be Voted

In the absence of specific instructions to the contrary, shares represented by properly executed proxies received by NxStage, including unmarked proxies, will be voted to approve the Proposal. In addition, if any other matters properly come before the Special Meeting, it is the intention of the persons named in the

enclosed proxy card to vote the shares they represent as directed by the Board of Directors. We have not received notice of any other matters that may properly be presented at the Special Meeting.

Quorum

The presence, in person or by proxy, of the holders of a majority of the outstanding shares of NxStage's common stock as of the Record Date eligible to vote is necessary to constitute a quorum at the Special Meeting. As there were 36,800,455 shares eligible to vote on the Proposal as of the Record Date, we will need at least 18,400,228 shares present in person or by proxy at the Special Meeting for a quorum to exist.

Voting

Tabulation

Shares of stockholders entitled to vote who are present at the Special Meeting in person or by proxy, abstentions and broker non-votes are counted as present or represented at the meeting for purposes of determining whether a quorum exists. For the Proposal, the affirmative vote of a majority of the shares of common stock eligible to vote and present in person or represented by proxy at the Special Meeting is necessary for approval. An automated system administered by the Company's transfer agent tabulates the votes.

YOUR VOTE IS IMPORTANT, NO MATTER HOW MANY OR HOW FEW SHARES YOU OWN. As of the Record Date, the Affiliated Investors, beneficially owned, either directly or through affiliates, approximately 29% of the voting power of our issued and outstanding common stock, and approximately 33% of the outstanding shares of our common stock eligible to vote on this proposal. On May 22, 2008, we entered into a Voting Agreement with each of these Affiliated Investors, in their capacity as current stockholders of NxStage, pursuant to which each of these Affiliated Investors agreed to vote in favor of this proposal at the Special Meeting and granted to us an irrevocable proxy to vote all of the outstanding shares of NxStage beneficially owned by it, him or her in favor of this Proposal.

Voting Instructions

The following section summarizes important information on how to vote your shares of common stock.

Voting by Proxy

If you are a record holder, meaning your shares are registered in your name, you may vote over the Internet, by telephone, by mail or in person at the Special Meeting pursuant to the following instructions:

Over the Internet: Go to the website of our tabulator, Computershare Investor Services, at www.investorvote.com/NXTM. Use the vote control number printed on your enclosed proxy card to access your account and vote your shares. You must specify how you want your shares voted or your Internet vote cannot be completed and you will receive an error message. Your shares will be voted according to your instructions. You must submit your Internet proxy before 11:59 p.m. Eastern Time on [•], 2008, the day before the Special Meeting, for your proxy to be valid and your vote to count.

By Telephone: Call 1-800-652-VOTE (8683) toll free from the United States, Canada and Puerto Rico, and follow the instructions on your enclosed proxy card. You must specify how you want your shares voted and confirm your vote at the end of the call or your telephone vote cannot be completed. Your shares will be voted according to your instructions. You must submit your telephonic proxy before 11:59 p.m. Eastern Time on [•], 2008, the day before the Special Meeting, for your proxy to be valid and your vote to count.

By Mail: Complete and sign your enclosed proxy card and mail it in the enclosed postage prepaid envelope to Computershare Investor Services. Your shares will be voted according to your instructions. If you do not specify how you want your shares voted, they will be voted as recommended by our Board of Directors. Computershare must receive your proxy card not later than [•], 2008, the day before the Special Meeting, for your proxy to be valid and your vote to count.

In Person at the Special Meeting: If you attend the Special Meeting, you may deliver your completed proxy card in person or you may vote by completing a ballot, which we will provide to you at the Special Meeting.

Voting of Shares Held in Street Name

If your shares are held in "street name," meaning they are held for your account by a broker or other nominee, you will receive instructions from your broker or other nominee regarding how to vote your shares over the Internet, by telephone or by mail. You should follow those instructions. If you wish to vote your shares in person at the Special Meeting, contact your broker or other nominee who holds your shares to obtain a brokers' proxy card and bring it with you to the Special Meeting. You will not be able to vote in person at the Special Meeting unless you have a proxy from your broker issued in your name giving you the right to vote your shares.

Voting of Proxies at the Special Meeting

All properly executed proxies that we receive prior to the vote at the Special Meeting, and that are not revoked, will be voted in accordance with the instructions indicated on the proxies or, if no direction is indicated, to approve the private placement.

Properly executed proxies, other than proxies voting against the private placement, will also be voted for any adjournment or postponement of our Special Meeting of stockholders for the purpose of soliciting additional votes to approve the Proposal, if necessary. Our Board of Directors does not currently intend to bring any other business before the Special Meeting and, so far as our Board of Directors knows, no other matters are to be brought before the Special Meeting. If other business properly comes before the Special Meeting, the proxies will vote in accordance with their own judgment.

Copies of solicitation materials will be furnished to banks, brokerage houses, fiduciaries and custodians holding in their names shares of our common stock beneficially owned by others to forward to such beneficial owners. In addition to solicitation by use of the mails, proxies may be solicited by directors, officers, employees or agents of NxStage in person or by telephone, telegram or other means of communication. No additional compensation will be paid to directors, officers or other regular employees of NxStage for such services.

Broker Non-Votes; Abstentions

In the absence of controlling precedent to the contrary, we intend to treat broker non-votes and abstentions in the following manner.

A broker "non-vote" occurs when a nominee holding shares for a beneficial owner does not vote on a particular proposal because the nominee does not have the discretionary voting power with respect to that item and has not received instructions from the beneficial owner. Broker "non-votes" and shares as to which proxy authority has been withheld with respect to any matter are considered present for purposes of calculating a quorum but are not deemed to be entitled to vote for purposes of determining whether stockholder approval of that matter has been obtained. As a result, broker "non-votes" are not included in the tabulation of the voting results on the election of directors or any other issues requiring the approval of a majority of the shares of common stock present and entitled to vote and, therefore, do not have the effect of votes in opposition for such proposals. With respect to the Proposal, which requires a majority vote, broker "non-votes" have no effect.

Abstentions occur when a stockholder entitled to vote and present in person or represented by proxy affirmatively votes to abstain. Votes in abstention are considered present for purposes of calculating a quorum but do not count as a vote FOR or AGAINST any matter. While abstentions do not count as a vote FOR or AGAINST, they have the same effect as a negative vote on the Proposal because abstentions will be included in tabulations of the shares of common stock entitled to vote for purposes of determining whether a proposal has been approved.

Revocation of Proxies

Stockholders may revoke their proxies at any time prior to use by delivering to our corporate secretary a signed notice of revocation or a later-dated signed proxy, or by attending the Special Meeting in person and revoking the proxy by signing a notice of revocation. If you vote your shares over the Internet or by telephone, only your latest Internet or telephone vote will be counted at the Special Meeting. Attendance at the Special Meeting does not in itself constitute the revocation of a proxy. Stockholders who have instructed their broker to vote their shares of common stock must follow their broker's directions in order to change those instructions. You may also attend the Special Meeting in person instead of submitting a proxy; however, please see the instructions above under "Voting of Shares Held in Street-Name" if you wish to vote such shares in person at the Special Meeting.

Solicitation of Proxies

We will pay for all costs incurred in connection with the solicitation of proxies from our stockholders on behalf of our Board of Directors, including assembly, printing and mailing of this document, its related attachments, and the proxy card. We have engaged Georgeson Shareholder Communications, Inc., a proxy solicitation firm, to solicit proxies from our stockholders. For these services, we expect to pay a fee of approximately \$7,500 plus expenses. Our directors, officers and employees may solicit proxies by telephone, email, facsimile and in person, without additional compensation. Upon request, we will reimburse brokerage houses and other custodians, nominees and fiduciaries for their reasonable out-of-pocket expenses for distributing proxy materials.

Householding of Proxy Materials

The SEC has adopted rules that permit companies and intermediaries (e.g., brokers) to satisfy the delivery requirements for Proxy Statements and annual reports with respect to two or more stockholders sharing the same address by delivering a single Proxy Statement addressed to those stockholders and enclosing separate proxy cards for each stockholder. This process, which is commonly referred to as "householding," potentially eliminates some duplicative mailings to stockholders and reduces our mailing costs.

For this Special Meeting, a number of brokers with account holders who are stockholders of NxStage will be "householding" our proxy materials. A single Proxy Statement will be delivered to multiple stockholders sharing an address unless contrary instructions have been received from the affected stockholders. Once you have received notice from your broker that they will be "householding" communications to your address, "householding" will continue until you are notified otherwise or until you revoke your consent. If, at any time, you no longer wish to participate in "householding" and would prefer to receive a separate Proxy Statement and annual report, please notify your broker, or direct your written request to NxStage Medical, Inc., Attention: Winifred L. Swan, Secretary, 439 South Union St., 5th Floor, Lawrence, Massachusetts 01843. Stockholders who currently receive multiple copies of the Proxy Statement at their address and would like to request "householding" of their communications should contact their broker.

Stockholder Proposals for the 2009 Annual Meeting

Proposals of stockholders intended to be presented at the 2009 Annual Meeting of Stockholders must be received by us at our principal office in Lawrence, Massachusetts not later than January 2, 2009 for inclusion in the Proxy Statement for that meeting.

In addition, our bylaws require that we be given advance notice of stockholder nominations for election to our Board of Directors and of other matters which stockholders wish to present for action at an annual meeting of stockholders, other than matters included in our Proxy Statement in accordance with Rule 14a-8. The required notice must be in writing and received by our Corporate Secretary, Winifred L. Swan, at our principal offices not later than 90 days nor more than 120 days prior to the first anniversary of our 2008 Annual Meeting of Stockholders. However, if the 2009 Annual Meeting of Stockholders is advanced by more than 20 days, or delayed by more than 60 days, from the first anniversary of the 2008 Annual Meeting of Stockholders, notice must be received not earlier than the 120th day prior to such annual meeting and not later

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than the close of business on the later of (1) the 90th day prior to such annual meeting and (2) the 10th day following the date on which notice of the date of such annual meeting was mailed or public disclosure of the date of such annual meeting was made, whichever occurs first. Our bylaws also specify requirements relating to the content of the notice which stockholders must provide, including a stockholder nomination for election to the Board of Directors, to be properly presented at the 2009 Annual Meeting of Stockholders.

Appraisal Rights

Under the Delaware General Corporation Law, our stockholders are not entitled to appraisal rights or other similar rights in connection with the Second Closing or the other transactions contemplated by the private placement.

INFORMATION IN THIS PROXY STATEMENT

Unless otherwise specifically noted, all of the share numbers in this Proxy Statement are based on 36,794,575 shares of common stock outstanding as of May 27, 2008, the day prior to the First Closing. When referencing the number of shares of common stock that will be owned by the investors following the Second Closing, unless otherwise stated or reasonably clear from the context, we have taken into account the shares of common stock we have issued or will issue to the investors in both closings of the private placement, as well as the number of shares of common stock underlying the warrants that we have issued or will issue to the investors in both closings.

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

As of June 24, 2008, or the Record Date, there were 42,356,011 shares of common stock outstanding. The following table sets forth, as of the Record Date, or such earlier date as indicated below, the shares of our common stock beneficially owned by (1) each of our directors, (2) our principal executive officer, our principal financial officer and our three other most highly compensated executive officers who were serving as executive officers on December 31, 2007, whom we refer to collectively as our "named executive officers," (3) all of our directors and executive officers as a group, and (4) all persons known by us to beneficially own more than 5% of our outstanding stock.

Beneficial ownership is determined in accordance with rules of the SEC and includes shares over which the indicated beneficial owner exercises voting and/or investment power. Shares of common stock subject to options or warrants currently exercisable or exercisable within 60 days are deemed outstanding for computing the percentage ownership of the person holding the options but are not deemed outstanding for computing the percentage ownership of any other person.

Except as otherwise indicated in the footnotes to this table and subject to community property laws where applicable, we believe that each stockholder identified in the table has sole voting and investment power with respect to all shares listed opposite their names.

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Unless otherwise indicated below, the address for each person is to the care of NxStage Medical, Inc., 439 South Union Street, 5th Floor, Lawrence, Massachusetts 01843.

Name and Address of Beneficial Owner	Amount and Nature of Beneficial Ownership	Percent of Common Stock Outstanding
5% Stockholders		
David S. Utterberg c/o Medisystems Corporation 701 Pike Street, 16th Floor Seattle, Washington 98101	8,538,463(1)(7)(8)	20.1%
Credit Suisse (Sprout Entities) Eleven Madison Avenue New York, New York 10010	6,185,874(2)	14.6%
OrbiMed Advisors LLC 767 Third Avenue New York, NY 10017	6,666,667(3)	15.7%
Massachusetts Financial Services Company 600 Boylston Street Boston, MA 02116	3,424,930(4)	8.1%
Deerfield Management Co. 780 Third Avenue, 37th Floor New York, NY 10017	2,583,028(5)	6.1%
Atlas Venture entities 890 Winter Street, Suite 320 Waltham, Massachusetts 02451	1,905,608(6)	4.5%
Directors(7)		
Jeffrey H. Burbank	874,738(8)	2.0%
Philippe O. Chambon	5,979,027(8)(9)	14.1%
Daniel A. Giannini	62,235(8)	*
Reid S. Perper	1,340,817(8)(10)	3.2%
Peter P. Phildius	113,555(8)	*
Craig W. Moore	85,418(8)	*
Other Named Executive Officers		
Robert S. Brown	95,333(8)	*
Winifred L. Swan	139,096(8)	*
Joseph E. Turk, Jr.	218,593(8)	*
Michael J. Webb	120,267(8)	*
Augustin Azel	47,950	*
All directors and executive officers as a group (12 persons)	17,615,492(11)	40.3%

* Represents holdings of less than one percent.

- (1) David Utterberg holds (a) 8,482,966 shares of our common stock and (b) 55,497 shares of common stock which Mr. Utterberg has the right to acquire upon exercise of outstanding stock options (See Note 8 below).
- (2) This information is provided by Credit Suisse jointly with its affiliates, the Sprout Entities, and is as of May 27, 2008. As of May 27, 2008, the Sprout Entities may be deemed to beneficially own an aggregate of 6,185,874 shares of common stock, consisting of (i) 2,359,547 shares of common stock held directly by Sprout Capital IX, L.P., (ii) 2,108,034 shares of common stock held directly by Sprout Capital VIII, L.P., (iii) 830,437 shares of common stock held directly by Sprout Capital VII, L.P., (iv) 9,666 shares of

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common stock held directly by Sprout CEO Fund, L.P., (v) 9,402 shares of common stock held directly by Sprout Entrepreneurs Fund, L.P., (vi) 112,061 shares of common stock held directly by Sprout IX Plan Investors, L.P., (vii) 47,203 shares of common stock held directly by Sprout Plan Investors, L.P., (viii) 126,517 shares of common stock held directly by Sprout Venture Capital, L.P., (ix) 135,480 shares of common stock held directly by DLJ ESC II, L.P., (x) 174,845 shares of common stock held directly by DLJ Capital Corporation, or DLJCC, (xi) 272,582 shares of common stock held directly by CSFB Fund Co-Investment Program, L.P., and (xii) 100 shares held directly by CS SEC USA LLC.

- (3) This information is taken from the Schedule 13D/A filed on June 3, 2008 by OrbiMed Advisors LLC jointly with its affiliated entities and is as of June 3, 2008. OrbiMed Associates III, LP, or Associates, is the record holder of 62,893 shares of common stock, including 10,482 shares of common stock issuable upon exercise of outstanding warrants. Caduceus Private Investments III, LP, or Caduceus, is the record holder of 6,603,774 shares of common stock, including 1,100,629 shares of common stock issuable upon exercise of outstanding warrants. OrbiMed Advisors LLC acts as the investment manager of Associates and may be deemed to beneficially own 62,893 shares of common stock. OrbiMed Capital GP III LLC is the general partner of Caduceus and may be deemed to beneficially own 6,603,774 shares of common stock. In addition, Mr. Samuel D. Isaly is the owner of a controlling interest in both OrbiMed Advisors LLC and OrbiMed Capital GP III LLC. Thus, OrbiMed Advisors LLC, OrbiMed Capital GP III LLC and Mr. Isaly may be deemed directly or indirectly, including by reason of their mutual affiliation, to be the beneficial owners of 6,666,667 shares of common stock, including shares issuable upon exercise of warrants.
- (4) This information is as of June 12, 2008 and consisting of shares of common stock held by mutual funds and other client accounts for which Massachusetts Financial Services Company, d/b/a MFS Investment Management, or a subsidiary of Massachusetts Financial Services Company (collectively, "MFS") act as investment adviser. As investment adviser, MFS has sole voting and investment power over all of the shares beneficially held by these funds and accounts.
- (5) This information is taken from a Schedule 13G filed on June 12, 2008 by Deerfield Management Co. and its affiliated entities ("Deerfield") and is as of June 5, 2008. As of June 5, 2008, the Deerfield entities beneficially owned, either directly or indirectly an aggregate of 1,947,436 shares of common stock, consisting of (i) 923,651 shares beneficially owned by Deerfield Capital, L.P., (ii) 437,709 shares beneficially owned by Deerfield Partners, L.P., (iii) 485,942 shares beneficially owned by Deerfield Special Situations Fund, L.P., (iv) 1,659,377 shares beneficially owned by Deerfield Management Company, L.P., (v) 764,787 shares beneficially owned by Deerfield International Limited, (vi) 894,590 shares beneficially owned by Deerfield Special Situations International Limited. In addition, Mr. James E. Flynn holds controlling interests in all Deerfield entities and may be deemed to beneficially own 2,583,028 shares of common stock.
- (6) This information is taken from a Schedule 13G/A filed on February 1, 2008 by Atlas Venture jointly with its affiliates and is as of December 31, 2007. Atlas Venture Fund III, L.P., or Atlas III, is the record holder of 497,232 shares of Common Stock as of December 31, 2007, referred to as the Atlas III Shares. Atlas Venture Entrepreneurs' Fund III, L.P., or AVE III, is the record holder of 10,807 shares of Common Stock as of December 31, 2007, referred to as the AVE III Shares. Atlas Venture Fund V, L.P., or Atlas V, is the record holder of 1,379,180 shares of Common Stock as of December 31, 2007, referred to as the Atlas V Shares. Atlas Venture Entrepreneurs' Fund V, L.P., or AVE V, is the record holder of 18,389 shares of Common Stock as of December 31, 2007, referred to as the AVE V Shares. By virtue of their relationship as affiliated limited partnerships, each Fund may be deemed to share the power to direct the disposition of and vote the Atlas III Shares, the AVE III Shares, the Atlas V Shares and the AVE V Shares, for an aggregate of 1,905,608 shares of Common Stock, or the Record Shares. As general partner of the Funds, and by virtue of the Funds relationship as affiliated limited partnerships, each of Atlas Venture Associates III, L.P., or AVA III, and Atlas Venture Associates V, L.P., or AVA V, may also be deemed to beneficially own the Record Shares. As the general partner of AVA III and AVA V, respectively, Atlas Venture Associates III, Inc., or AVA III Inc., and Atlas Venture Associates V, Inc., or AVA V Inc., may also be deemed to beneficially own the Record Shares. In their capacities as directors of AVA III Inc. and

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AVA V Inc., each of Messrs. Axel Bichara, Jean-Francois Formela and Christopher Spray may be deemed to beneficially own the Record Shares.

- (7) David Utterberg, a 5% stockholder, is also a member of our Board of Directors.
- (8) The number of shares of our common stock that each person is deemed to beneficially own includes the number of shares of our common stock which such person has the right to acquire upon exercise of outstanding stock options as set forth opposite his or her name:

<u>Name</u>	<u>Shares</u>
Jeffrey H. Burbank	437,182
Philippe O. Chambon	54,000
Daniel A. Giannini	57,000
Reid S. Perper	54,000
Peter P. Phildius	109,913
David S. Utterberg	55,497
Craig W. Moore	72,791
Robert S. Brown	95,333
Winifred L. Swan	116,666
Joseph E. Turk, Jr.	117,298
Michael J. Webb	120,267
Augustin Azel	24,959

- (9) Includes 5,913,192 shares held by various Sprout Entities. Dr. Chambon is a managing director of New Leaf Venture Partners, L.L.C. or NLVP, and is a limited partner of DLJ Associates IX, L.P., which is a general partner of Sprout Capital IX, L.P. NLVP has entered into a sub-management agreement with DLJ Capital Corporation, or DLJCC, whereby NLVP and its principals, including Dr. Chambon, provide DLJCC with investment management services on the investments held by various of the Sprout venture capital funds, including (i) 2,359,547 shares of common stock held directly by Sprout Capital IX, L.P., (ii) 2,108,034 shares of common stock held directly by Sprout Capital VIII, L.P., (iii) 830,437 shares of common stock held directly by Sprout Capital VII, L.P., (iv) 9,666 shares of common stock held directly by Sprout CEO Fund, L.P., (v) 9,402 shares of common stock directly by Sprout Entrepreneurs Fund, L.P., (vi) 112,061 shares of common stock held directly by Sprout IX Plan Investors, L.P., (vii) 47,203 shares of common stock held directly by Sprout Plan Investors, L.P., (viii) 126,517 shares of common stock held directly by Sprout Venture Capital, L.P., (ix) 135,480 shares of common stock held directly by DLJ ESC II, L.P., and (x) 174,845 shares of common stock held directly by DLJCC. Dr. Chambon expressly disclaims beneficial ownership of these shares except to the extent of his pecuniary interest therein.
- (10) Includes 1,276,112 shares held by Healthcare Investment Partners Holdings LLC, of which Mr. Perper is a Managing Director. Mr. Perper disclaims beneficial ownership of these shares except to the extent of his proportionate pecuniary interest in such shares.
- (11) Includes an aggregate of 1,138,902 shares of our common stock which all executive officers and directors have the right to acquire upon exercise of outstanding stock options.

PROPOSAL:

APPROVAL OF TERMS OF SECOND CLOSING OF PRIVATE PLACEMENT

Background of the Private Placement

In early 2008, our management and Board of Directors determined that we needed to secure additional working capital to fund our capital requirements. A finance committee of the Board of Directors was formed in March 2008 to help evaluate financing alternatives. Dr. Philippe O. Chambon and Messrs. Jeffrey H. Burbank, Reid S. Perper and Daniel A. Giannini served on the committee. The finance committee, working together with our management and our full Board of Directors, undertook extensive efforts to identify and evaluate different strategic alternatives, including various forms of private debt and equity financings. Based on our stock price and the state of the medical device capital market, our management and Board of Directors concluded that it was unlikely that we would attract sufficient interest among public investors and that a private placement of our publicly-traded common stock (commonly referred to as a "PIPE" financing), targeting private venture capital investors and other institutional investors, had a higher likelihood of success.

During the week of May 12, 2008, our senior management had discussions with potential unaffiliated investors, including the First Closing Investors, regarding the possibility of a private placement. On May 16, 2008, our finance committee and the full Board each held telephonic meetings to discuss the proposed private placement. At the Board meeting, the full Board expressly authorized our senior management to negotiate with the First Closing Investors. During this meeting, the Board and senior management discussed the possibility that the Affiliated Investors would participate in the private placement, on terms identical to those negotiated with the unaffiliated investors. The Audit Committee of the Board (comprised of Messrs. Daniel A. Giannini, Craig W. Moore and Reid S. Perper, none of whom intended to or did invest in the private placement) met on May 19, 2008 to review and discuss the participation of the Affiliated Investors in the private placement. The Audit Committee followed the terms of the Company's Related Person Transaction Policy in reviewing and evaluating the proposed transaction. The full Board also met on May 19, 2008 and reviewed the terms of the transaction. On May 19, 2008, we reached tentative agreement with the First Closing Investors to pursue a private placement.

Also on May 19, 2008, we engaged an investment bank, Canaccord Adams Inc. ("Canaccord") to serve as the placement agent and advisor in the private placement. Canaccord contacted 18 potential investors, including the Affiliated Investors, on behalf of NxStage. During this period, we continued to negotiate the terms of the private placement with the First Closing Investors.

On May 21, 2008, our Audit Committee held a telephonic meeting to consider the private placement and the participation of the Affiliated Investors in the private placement. After extensive discussion of the terms and conditions among Audit Committee members and with our senior management and advisors, the Audit Committee approved the private placement and recommended to the Board that it also approve the private placement. On May 21, 2008, the Audit Committee of the Board and the Board each held an additional telephonic meeting to discuss and finalize changes in the terms of the private placement, including the final size of the private placement and certain warrant terms. The Audit Committee of the Board and the Board, with all of the members in attendance and voting, unanimously approved the terms and conditions of the transaction.

On May 22, 2008, we entered into Securities Purchase Agreements with all of the investors, pursuant to which we agreed to sell to those investors an aggregate of 9,555,556 shares of our common stock at \$4.50 per share and warrants exercisable for 1,911,111 shares of our common stock at an initial exercise price of \$5.50 per share (subject to potential adjustment to \$3.00 or \$6.50 per share, as described below). To ensure that stockholder approval would not be required at the First Closing, we did not allow any Affiliated Investors to participate in the First Closing and required that the aggregate number of shares of common stock and warrants to purchase our common stock that were purchased in the First Closing did not exceed 20% of our issued and outstanding shares immediately prior to the First Closing.

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A form of the Securities Purchase Agreement and a form of Warrant are provided for your reference as [Annexes A](#) and [B](#), respectively, to this Proxy Statement and were also included as exhibits to our Form 8-K filed on May 23, 2008.

On May 22, 2008, we also entered into Voting Agreements with the Affiliated Investors, in their capacities as current stockholders of NxStage, pursuant to which each of the Affiliated Investors agreed to vote in favor of the Proposal at the Special Meeting and granted to us an irrevocable proxy to vote all of the outstanding shares of NxStage stock owned beneficially by it, him or her in favor of the Proposal. A form of the Voting Agreement is provided for your reference as Annex C to this Proxy Statement and was also included as an exhibit to our Form 8-K filed on May 23, 2008. As discussed above, we entered into a Voting Agreement with each of the Affiliated Investors, who as of June 24, 2008 beneficially owned approximately 12 million shares of our common stock, or approximately 29% of our outstanding shares of our common stock and approximately 33% of the outstanding shares of our common stock eligible to vote on the Proposal.

The First Closing took place on May 28, 2008, and we currently plan to complete the Second Closing on [•], 2008, one business day after we receive stockholder approval of the Proposal. Assuming the Second Closing occurs, NxStage will receive approximately \$43 million in total proceeds, net of fees and our expenses, from the First and Second Closings of the private placement, and an additional \$10.5 million in aggregate proceeds if and when all warrants issued to the investors in the two closings are exercised in full and for cash (assuming an exercise price of \$5.50 and no net exercise of warrants, as described below under the heading "Terms of the Private Placement").

The following table sets forth, for the periods indicated, the high and low sales prices per share of our common stock as reported on the NASDAQ Global Market.

	<u>High</u>	<u>Low</u>
2008		
First Quarter	\$15.23	\$ 3.61
Second Quarter (through June 23, 2008)	\$ 6.83	\$ 4.38
2007		
First Quarter	\$14.16	\$ 8.04
Second Quarter	\$14.28	\$11.53
Third Quarter	\$14.92	\$12.00
Fourth Quarter	\$15.35	\$11.89
2006		
First Quarter	\$15.17	\$11.50
Second Quarter	\$13.33	\$ 8.33
Third Quarter	\$10.18	\$ 6.86
Fourth Quarter	\$ 9.80	\$ 7.29

Under the heading "Terms of the Private Placement" below, we discuss the terms of the private placement, including the Second Closing. We also discuss the material factors considered by our Board of Directors in determining to proceed with the two closings of the private placement and recommend the approval of the Second Closing by our stockholders under the heading "Reasons for the Private Placement Including the Second Closing" below.

Reasons for the Private Placement Including the Second Closing

In reaching their unanimous decision to approve the private placement, including the Second Closing, and in determining that the private placement is fair to, and in the best interests of, NxStage and its stockholders, the Audit Committee and our Board of Directors carefully considered a number of factors and consulted with NxStage's senior management as well as outside advisors. In view of the complexity and wide variety of information and factors considered in connection with its evaluation of the private placement, including the necessity of the Second Closing, the Audit Committee and the Board of Directors did not find it practicable to

and did not quantify or otherwise assign relative or specific weights to the factors it considered in reaching its determination. Instead, the material factors and the advantages and disadvantages of the private placement, including the Second Closing, considered by the Audit Committee and the Board are set forth below:

- NxStage believes that the home hemodialysis market is our largest market opportunity. In this market, a significant percentage of our home customers rent rather than purchase our System One equipment. As a result, we generate, and expect to continue generating in the future, a significant percentage of our revenues and cash flow from the use of System One equipment over time rather than upfront from the sale of System One equipment. This sales model requires significant amounts of working capital to manufacture System One equipment for rental to dialysis clinics. We have also not yet achieved profitability, which imposes additional requirements for cash.
- Our ability to raise funds depends on many factors, including, among others, the growth of our product sales, improvements in our product gross margins, leverage in our operating expenses, and cost and availability of third-party financing. Many of these factors are subject to significant uncertainty.
- In order to secure additional working capital for NxStage to improve our financial condition and our ability to fund ongoing operations, our management and Board of Directors have undertaken extensive efforts to identify and evaluate different strategic alternatives, including various forms of private debt and equity financings. Based on our stock price and the state of the medical device capital market, our management and Board of Directors agreed, after extensive discussions, that it was unlikely that we would attract sufficient interest among public investors in a public offering and that a private placement, structured as a PIPE transaction, targeting private venture capital investors and other institutional investors, had a higher likelihood of success.
- In determining the size of the private placement and the necessity of the Second Closing, the Board also considered the possibility of raising a lower amount of interim financing so as to reduce the dilution on our current stockholders, but given the volatility of the market price of our common stock and the uncertain economic climate, it was determined to be a less attractive alternative as there could be no assurance that we would be able to obtain sufficient additional financing on attractive terms in a timely fashion.
- Furthermore, in determining the size of the private placement for both closings, the Board weighted the fact that this private placement would result in additional dilution to our stockholders versus the fact that the \$43 million would allow us to fund our capital needs more fully. The section under the heading "Proposal — Dilutive Effect" below provides more detailed analysis of the dilution to our stockholders from the private placement, including the Second Closing.

The Board also evaluated certain additional obligations that NxStage will agree to in order to complete the private placement and subsequent consequences, including:

- The obligation to file and maintain a registration statement for resale by the investors of the shares issued and sold to the investors in the private placement (including the shares issuable upon exercise of the warrants), which obligation exists even if we consummate only the First Closing, and (2) the potential liquidated damages NxStage would be subjected to if such registration obligation is not met on a timely basis (see the section under the heading "Terms of the Private Placement — Terms of the Security Purchase Agreement Applicable to the Second Closing - Registration Obligations and Liquidated Damages" below);
- Once the shares covered by the registration statements become freely tradeable without restriction, their transferability could potentially reduce the market price of our common stock significantly; and
- Upon the announcement of NxStage's earnings for the fourth quarter and year ended December 31, 2008, the exercise price of the warrants shall be adjusted automatically to either \$3.00 per share or \$6.50 per share, depending upon whether NxStage achieves certain targets relating to the number of end-stage renal disease, or ESRD, patients prescribed to receive therapy with the NxStage System One

as of December 31, 2008. (see the section under the heading “Terms of the Private Placement — Terms of the Warrants — Exercise Price, Adjustment to Exercise Price and Number of Shares” below).

After a thorough analysis of the advantages and disadvantages of the private placement and an extensive discussion of the terms and conditions, including the necessity of the Second Closing, the Board of Directors determined that the importance of the timely and sufficient amount of capital provided by the two closings outweighed the actual or potential adverse impact on our company or our common stock, and therefore the terms and conditions of the private placement are favorable to our company given market conditions and the condition of our business.

Terms of the Private Placement

On May 28, 2008, we held the First Closing, consisting of the issuance and sale of 5,555,556 shares of common stock at \$4.50 per share for an aggregate purchase price of approximately \$25 million and warrants exercisable for 1,111,111 shares of common stock at an initial exercise price of \$5.50 per share (subject to potential adjustments to \$3.00 or \$6.50 per share based upon performance targets) for an aggregate exercise price of approximately \$6.1 million if exercised in full and for cash (assuming an exercise price of \$5.50 and no net exercise, as described below). We are requesting in the Proposal that the stockholders approve the sale and issuance by NxStage, in the Second Closing, of 4,000,000 shares of common stock at \$4.50 per share for an aggregate purchase price of approximately \$18 million and warrants exercisable for 800,000 shares of common stock at an initial exercise price of \$5.50 per share (subject to potential adjustments to \$3.00 or \$6.50 per share based upon performance targets) for an aggregate exercise price of approximately \$4.4 million if exercised in full and for cash (assuming an exercise price of \$5.50 and no net exercise, as described below). The sale of common stock and warrants in the private placement is intended to be exempt from the registration requirements of the Securities Act of 1933, as amended (the “Securities Act”), and we expect to rely upon Section 4(2) of the Securities Act or the Regulation D “safe harbor” provisions. This Second Closing is subject to the fulfillment of conditions that we describe below. We have set forth below the major terms of the private placement.

THIS SUMMARY OF THE TERMS OF THE PRIVATE PLACEMENT IS INTENDED TO PROVIDE YOU WITH BASIC INFORMATION CONCERNING THE TRANSACTION; HOWEVER, IT IS NOT A SUBSTITUTE FOR REVIEWING THE FORM OF SECURITIES PURCHASE AGREEMENT, THE FORM OF THE WARRANT AND THE FORM OF THE VOTING AGREEMENT IN THEIR ENTIRETY, WHICH WE HAVE INCLUDED AS ANNEXES A, B, AND C, RESPECTIVELY, TO THIS PROXY STATEMENT. YOU SHOULD READ THIS SUMMARY IN CONJUNCTION WITH THE AGREEMENT.

Terms of the Securities Purchase Agreements Applicable to the Second Closing

Securities to be Issued to Investors upon Second Closing. At the Second Closing, we will issue and sell 4,000,000 shares of common stock at \$4.50 per share for an aggregate purchase price of approximately \$18 million along with five-year warrants exercisable for 800,000 shares of common stock at \$5.50 per share (subject to customary anti-dilution and other adjustments described below) for an aggregate exercise price of approximately \$4.4 million (assuming no net exercise, as described below). The warrants may be exercised at any time from grant date through the earlier of (i) five years from the grant date or (ii) the consummation of a change of control event. We currently expect the Second Closing to take place on [•], 2008, one business day following the Special Meeting.

Registration Obligations and Liquidated Damages. No later than the earlier (the “Filing Date”) of 30 days after the Second Closing and 120 days after the First Closing, we are required, at our expense, to file with the SEC a registration statement with respect to the resale of the shares of common stock (A) issued at both the First Closing and the Second Closing of the private placement, and (B) issuable upon exercise of the warrants issued at both the First Closing and the Second Closing. We are required to use reasonable commercial efforts to have such registration statement declared effective by the SEC prior to the date which is 120 days after the Second Closing, or if the Second Closing does not occur within 120 days after the First

Closing, the later (the "Required Effective Date") of (i) 180 days after the First Closing and (ii) 90 days after the receipt of all necessary information from the investors in the First Closing, and subject to our right to suspend the resale of stock under the registration statement in certain circumstances, we are required to maintain the effectiveness of this registration statement until the earlier of (a) the date on which the investors may sell all shares (including shares issuable upon exercise of the warrants) then held by the investors without restriction by the volume limitations of Rule 144 of the Securities Act or (b) such time as all of those shares (including shares issued upon exercise of those warrants) have been sold. If the registration statement (a) is not filed by the Required Effective Date, or (b) once effective, ceases to be effective and available to investors in the private placement for any continuous period that exceeds 30 days in any 365 day period, NxStage is required to pay the investors in the private placement a cash payment as liquidated damages and not as a penalty. This cash payment is calculated as 1% of the aggregate purchase price paid by the investors in the private placement then held by the investors that have not been sold under a registration statement or pursuant to Rule 144 for each 30 day period. The liquidated damages apply on a pro rata basis for any portion of such a 30-day period.

Board Representation. NxStage has agreed that, upon the earlier of the Second Closing or 60 days after the First Closing, the Company shall appoint one individual nominated by the First Closing Investors to the vacant seat on the Company's Board.

Indemnification. NxStage has granted the investors in the private placement customary indemnification rights in connection with the registration statement. The investors have also granted NxStage customary indemnification rights in connection with the registration statement.

Terms of the Warrants

Exercise Period. The warrants are exercisable from the grant date through the earlier of (i) five years from the grant date or (ii) the consummation of a change of control event.

Methods of Exercise. The warrants may be exercised in cash at all times during the exercise period, whereby the holders of the warrants deliver the certificates representing the warrants to NxStage and the then-applicable exercise price for the warrants in exchange for the shares issuable thereunder. In addition, the warrants may be "net exercised" at any time through the exercise period of the warrants. The net exercise provision allows the holder to receive shares of common stock equal to the value of the warrant without paying the exercise price in cash, but rather with the shares underlying the warrant.

Exercise Price, Adjustment to Exercise Price and Number of Shares. The exercise price of the warrants is initially \$5.50 per share. Upon the announcement of NxStage's earnings for the fourth quarter and year ended December 31, 2008, the exercise price shall be adjusted automatically to either \$3.00 per share or \$6.50 per share, depending upon whether NxStage achieves certain targets relating to the number of ESRD patients prescribed to receive therapy with the NxStage System One as of December 31, 2008. In addition, the exercise price and the number of shares issuable under the warrants are subject to customary adjustment in certain events, including reclassification of NxStage's securities, certain mergers, consolidations, sales of substantially all of the assets of NxStage, subdivision or combination of shares of NxStage, stock dividends and other distributions of NxStage. In addition, upon a change of control event, NxStage shall pay to the holders of the warrants amounts calculated in accordance with the Black-Scholes Option Pricing formula defined in the warrants.

Registration Rights. The warrants and the shares of NxStage's common stock issuable upon exercise of the warrants are not registered under the Securities Act or any state securities laws. NxStage has granted registration rights, described above, to the investors for the shares of common stock issuable upon the exercise of the warrants.

Terms of the Voting Agreements

Each Affiliated Investor has entered into a Voting Agreement with NxStage, pursuant to which such Affiliated Investor has agreed, solely in its capacity as a stockholder, to vote all of its issued and outstanding

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shares of NxStage's common stock in favor of any matter that could reasonably be expected to facilitate the private placement investments and has granted to NxStage an irrevocable proxy to vote all of its issued and outstanding shares of NxStage's common stock in favor of the Second Closing. As of the Record Date, the Affiliated Investors collectively hold in the aggregate approximately 12 million shares of our common stock, or approximately 27% of our outstanding shares of our common stock and approximately 31% of the outstanding shares of our common stock eligible to vote on the Proposal.

Restrictions on Transfer of Shares. Pursuant to the Voting Agreements, each Affiliated Investor has agreed not to, (a) sell, assign, transfer (including by merger or otherwise) its shares of NxStage's common stock, (b) deposit any of such shares into a voting trust or enter into a voting trust or arrangement with respect to such shares or grant any proxy or power of attorney with respect to such shares which is inconsistent with the Voting Agreements, or (c) enter into any contract or other arrangement regarding the sale assignment or transfer of such shares unless, in each case, the transferee agrees to be bound by the terms of such Voting Agreement.

Termination of Voting Agreements. Each Voting Agreement will terminate upon the earlier to occur of (a) the Second Closing of the private placement, (b) the one year anniversary of the date of the Voting Agreement, or (c) the date that the Securities Purchase Agreement between NxStage and the First Closing Investors terminates under its own terms.

Conditions to Consummating the Second Closing of the Private Placement

Under the terms of the Securities Purchase Agreements that govern the private placement, the investors' obligation to consummate the Second Closing of the private placement is subject to meeting the conditions enumerated in the Securities Purchase Agreements, including the following major conditions:

- Our stockholders have approved the Proposal in this Proxy Statement.
- Each Affiliated Investor has executed and delivered to NxStage a copy of the Voting Agreement, in the form set forth in the attachment to the Securities Purchase Agreement, with respect to the voting of all of such investor's shares.
- Our representations and warranties set forth in the Securities Purchase Agreements were true and correct in all material respects as of the date of the Second Closing (or such other specific date indicated in the Securities Purchase Agreement).
- No provision of any applicable law or regulation and no judgment, injunction, order or decree shall prohibit the Second Closing or shall prohibit or restrict the investor or its affiliates from owning, voting, or exercising, any of the Shares or Warrants in accordance with the terms thereof and no lawsuit shall have been commenced by any court, administrative agency or commission or other governmental authority or instrumentality, whether federal, state, local or foreign, or any applicable industry self-regulatory organization seeking to effect any of the foregoing.

Stockholder Approval and NASDAQ Marketplace Rules

We are subject to the rules of NASDAQ Marketplace Rules because our common stock is listed on the NASDAQ Global Market. Specifically, Rule 4350(i)(1)(D) requires us to obtain stockholder approval for any issuance or sale of common stock, or securities convertible into or exercisable for common stock, that is (i) equal to 20% or more of our outstanding common stock before such issuance or sale, and (ii) is at a price per share below the greater of book or market value at the time of such issuance or sale. Rule 4350(i)(1)(D) apply to the Second Closing because:

- the purchase price of the common stock we issued and sold at the First Closing and intend to issue and sell at the Second Closing will be at \$4.50 per share, which is below \$4.88 per share, the closing price of our common stock on NASDAQ on May 21, 2008, the last day our common stock traded on NASDAQ before we entered into the Securities Purchase Agreements, and

- the shares of common stock and warrants exercisable for our common stock that we intend to issue and sell at the Second Closing, together with the shares issued and sold in the First Closing, will comprise approximately 31% of the shares of our common stock outstanding immediately prior to the First Closing and approximately 25% of the outstanding shares immediately after the Second Closing.

In addition, NASDAQ has taken the position pursuant to Rule 4350(i)(1)(A) that the issuance and sale of securities to investors who may be deemed to be affiliated with a director of the issuer at a discounted price to the market value of the securities could constitute equity compensation to such director if such director could be deemed to directly or indirectly hold any of the securities issued in the transaction, and in which case such issuance and sale would require stockholder approval. Certain investors in the Second Closing may be deemed to be affiliated with one of our directors and therefore the sale and issuance of shares of our common stock and warrants exercisable for our common stock to such investors requires stockholder approval.

Use of Proceeds

We will receive approximately \$43 million in gross proceeds from the private placement if we successfully complete the Second Closing. After paying approximately \$0.7 million in fees and expenses of private placement, we intend to use the net proceeds of approximately \$42.3 million to advance further the commercialization of our products and the development of new products for our product pipeline. In particular, we anticipate using the net proceeds for the expansion of sales and marketing programs, the hiring of additional personnel and investment in clinical research and product development activities. We also intend to use the proceeds for general corporate purposes.

Our ability to raise funds in the future will depend on many factors, as described in more detail under the heading “Proposal — Reasons for the Private Placement Including the Second Closing.” If we do not receive the proceeds from the Second Closing, meeting our capital needs on a timely basis and on terms acceptable to us will be more difficult. We may be required to delay, reduce the scope of, or eliminate one or more aspects of our business, which would likely harm our business. While we expect the private placement to provide us with sufficient capital to fund our operations in the foreseeable future, we may, from time to time, consider opportunities for additional capital.

Dilutive Effect

The Second Closing will have a dilutive effect on current stockholders in that the percentage ownership of current stockholders will decline as a result of the Second Closing of the private placement. The number of shares issued pursuant to the Second Closing will increase the number of shares of common stock currently outstanding or potentially outstanding upon the exercise of warrants. This means that our current stockholders will own a smaller percentage interest in NxStage as a result of the Second Closing. Immediately prior the First Closing of the private placement, 36,794,575 shares of our common stock were outstanding. If the Second Closing occurs, and after giving effect to the issuances at the First Closing, a total of 9,555,556 shares of common stock will have been issued in both closings and warrants to purchase a total of 1,911,111 share of common stock will have been issued. Based on the shares of common stock outstanding immediately prior to the First Closing, if the Second Closing is completed, stockholders immediately prior to the First Closing will incur dilution of 21% (24% if the warrants issued in both closings were exercised in full and for cash).

For purposes of example only, a stockholder who owned 1% of our outstanding stock immediately prior to the First Closing would own approximately 0.79% of the shares outstanding immediately after the Second Closing (or 0.76% had all the warrants issued in the First and Second Closings been immediately exercisable, and were exercised in full and for cash, after the respective closings).

Interests of Certain Persons in the Second Closing

Some of the investors in the Second Closing are Affiliated Investors, which means they may be deemed to be affiliated with one of our directors or they hold more than 5% of NxStage’s outstanding shares of common stock immediately prior to the entry into the share purchase agreements in connection with the private placement. The following table sets forth the beneficial ownership of each Affiliated Investor in our common stock immediately prior to the Second Closing, the number of shares and warrants that such Affiliated Investor has agreed to purchase in the Second Closing, and the beneficial ownership of such Affiliated Investor immediately following the Second Closing:

Affiliated Investors in the Second Closing(1)	Beneficial Ownership(1)				
	Prior to Second Closing	Shares to be Issued in Second Closing	Warrant Shares to be Issued in Second Closing (2)	Shares after Second Closing	Percentage of Shares Outstanding after Second Closing(3)
Credit Suisse (Sprout Entities)(4) Eleven Madison Avenue New York, New York 10010	6,185,874(5)	1,022,221(6)	204,445	7,208,095 (7,412,540)	15.6% (16.0)%
Massachusetts Financial Services Company 600 Boylston Street Boston, MA 02116	3,424,930(7)	444,444(8)	88,889	3,869,374 (3,958,263)	8.3% (8.5)%
Deerfield Management Co. 780 Third Avenue, 37th Floor New York, NY 10017	2,583,028(9)	1,255,556(10)	251,111	3,838,584 (4,089,695)	8.3% (8.8)%

- (1) Beneficial ownership is computed on the same basis as that in the table beginning on page 5, except as noted in footnote (2) below. Ownership in parenthetical under “After Second Closing” assumes the full exercise of warrants, which is shown here solely for purpose of illustration and does not indicate beneficial ownership of all such shares under the SEC rules for calculating beneficial ownerships, which are referred to on page 5 under the heading “Security Ownership of Certain Beneficial Owners and Management”.
- (2) Refers to shares issuable upon exercise of warrants in the Second Closing, which equal 20% of the shares to be acquired by the investor in the Second Closing and are exercisable from grant date through the earlier of (i) five years from the grant date or (ii) the consummation of a change of control event.
- (3) Based on 46,350,131 shares outstanding immediately after the Second Closing, including all of the 5,555,556 shares issue in the First Closing and 4,000,000 shares expected to be issued in the Second Closing.
- (4) See details in footnote (2) to the table beginning on page 5.
- (5) See details in footnote (9) to the table beginning on page 5 for the relationship between the Sprout Entities and Dr. Philippe O. Chambon, Chairman of NxStage’s Board of Directors.
- (6) Includes 143,868 shares to be purchased by Sprout Capital VII, L.P., 365,202 shares to be directly purchased by Sprout Capital VIII, L.P., 408,776 shares to be directly purchased by Sprout Capital IX, L.P., 1,674 shares to be directly purchased by Sprout CEO Fund, L.P., 1,628 shares to be directly purchased by Sprout Entrepreneurs Fund, L.P., 21,918 shares to be directly purchased by Sprout Venture Capital, L.P., 19,413 shares to be directly purchased by Sprout IX Plan Investors, L.P., 8,177 shares to be directly purchased by Sprout Plan Investors, L.P., 23,470 shares to be directly purchased by DLJ ESC II, L.P. and 28,096 shares to be directly purchased by DLJ Capital Corporation.
- (7) See details in footnote (4) to the table beginning on page 5.
- (8) Includes 33,830 shares to be directly purchased by MFS Variable Insurance Trust, on behalf of one of its series, MFS Core Equity Series (VVSK), 68,214 shares to be directly purchased by MFS Variable

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Insurance Trust II, on behalf of one of its series, MFS Core Equity Portfolio (RGS), and 342,400 shares to be directly purchased by MFS Series Trust I, on behalf of one of its series, MFS Core Equity Fund (RGI).

(9) See details in footnote (5) to the table beginning on page 5.

(10) Includes 525,577 shares to be directly purchased by Deerfield Special Situations Fund International Limited, 285,513 shares to be directly purchased by Deerfield Special Situations Fund, L.P., 274,213 shares to be directly purchased by Deerfield Private Design International, LP, and 170,253 shares to be directly purchased by Deerfield Private Design Fund, LP.

Pursuant to the terms of the Securities Purchase Agreements and in connection with our issuance of shares of our common stock and warrants to the OrbiMed Advisors LLC in the First Closing, we have agreed to appoint a nominee of OrbiMed Advisors to the vacant seat on our Board upon the earlier of the Second Closing or 60 days after the First Closing. The person we have agreed to appoint to our Board will have an interest in the outcome of the vote on the Proposal.

Recommendation of the Board of Directors

The Board of Directors unanimously recommends that the stockholders vote FOR the approval of the issuance and sale of 4,000,000 shares of our common stock, at \$4.50 per share, and warrants exercisable for 800,000 shares of our common stock, at an initial exercise price of \$5.50 per share, to certain investors, including investors who are affiliates, either directly or through affiliates, of NxStage, among them a member of our Board of Directors, in exchange for aggregate gross proceeds NxStage of \$18 million at the Second Closing of our private placement of securities.

OTHER MATTERS

NxStage knows of no other matters that will be presented for consideration at the Special Meeting. Our Board of Directors does not currently intend to bring any other business before the Special Meeting and, so far as our Board of Directors knows, no other matters are to be brought before the Special Meeting. If other business properly comes before the Special Meeting, the proxies will vote in accordance with their own judgment.

WHERE YOU CAN FIND ADDITIONAL INFORMATION

The SEC allows us to “incorporate by reference” information into this Proxy Statement, which means that we can disclose important information to you by referring you to another document that we filed separately with the SEC. The information incorporated by reference is considered a part of this Proxy Statement, and all information appearing in this Proxy Statement is qualified in its entirety by the information incorporated herein by reference. Information in this Proxy Statement updates and, in some cases, supersedes information incorporated by reference from documents that NxStage has filed with the SEC prior to the date of this Proxy Statement, while information that we file later with the SEC will automatically supplement, update and, in some cases, supersede the information in this Proxy Statement.

The following documents and information we previously filed with the SEC are incorporated by reference into this Proxy Statement:

- our Annual Report filed on Form 10-K for the fiscal year ended December 31, 2007 filed with the SEC on March 7, 2008;
- our Quarterly Report filed on Form 10-Q for the quarterly period ended March 31, 2008 filed with the SEC on May 12, 2008; and
- our Current Reports on Form 8-K filed with the SEC on April 2, 2008, May 8, 2008 and May 23, 2008.

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In addition, all documents we file under Section 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date of this Proxy Statement and before the date of the Special Meeting are incorporated by reference into and deemed a part of this Proxy Statement from the date of filing of those documents.

Documents incorporated by reference are available from us without charge, excluding all exhibits unless we have specifically incorporated by reference an exhibit in this Proxy Statement. You may obtain documents that we have filed with the SEC and incorporated by reference in this document, without charge, by making an oral or written request to NxStage Medical, Inc., 439 South Union Street, 5th Floor, Lawrence, Massachusetts 01843, Telephone: (978) 687-4700, Attention: Investor Relations.

In addition, you may read and copy any reports, statements or other information that NxStage files with the SEC at the SEC's public reference Room, 450 Fifth Street, N.W., Room 1024, Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the public reference room. These SEC filings are also available to the public from commercial document retrieval services and at the website maintained by the SEC at <http://www.sec.gov>.

You should rely only on the information contained (or incorporated by reference) in this Proxy Statement. We have not authorized anyone to provide you with information that is different from what is contained in this Proxy Statement. This Proxy Statement is dated [•], 2008. You should not assume that the information contained in this Proxy Statement is accurate as of any date other than that date (or as of an earlier date if so indicated in this Proxy Statement).

THE BOARD OF DIRECTORS

Lawrence, Massachusetts

[•], 2008

Annex A

FORM OF SHARE PURCHASE AGREEMENT
NXSTAGE MEDICAL, INC.

SECURITIES PURCHASE AGREEMENT

THIS SECURITIES PURCHASE AGREEMENT (this "**Agreement**") is made as of the 22nd day of May, 2008, by and between NxStage Medical, Inc., a corporation organized under the laws of the State of Delaware (the "**Company**"), with its principal offices at 439 S. Union Street, 5th Floor, Lawrence, MA, and each of the Investors whose name and address is set forth on the signature page hereof (each, an "**Investor**").

RECITALS

A. The Company has authorized the sale and issuance of up to 9,555,556 shares (the "**Shares**") of the Company's common stock, par value \$0.001 per share (the "**Common Stock**") and warrants (the "**Warrants**") to purchase 1,911,111 shares of the Company's Common Stock (the "**Warrant Shares**") to certain investors in a private placement (the "**Offering**").

B. The Company and the Investors agree that the Investors whose names appear on the signature pages hereto will purchase from the Company and the Company will issue and sell to the Investors in aggregate Shares and a Warrant to purchase Warrant Shares, for a purchase price of \$4.50 per share, or an aggregate purchase price of \$, in the amounts set forth opposite their respective names on the signature pages hereto and upon the terms and conditions set forth in this Agreement. In addition, the Other Investors (as defined below) may purchase up to 4,000,000 additional Shares and Warrants to purchase up to 800,000 additional Warrant Shares, for a purchase price of \$4.50 per share, or an aggregate purchase price of up to \$18,000,000. Unless otherwise requested by an Investor, the Warrants and certificates representing such Shares purchased by any Investor will be registered in the Investor's name and address as set forth below. The Warrants shall have the rights, preferences, privileges and restrictions as set forth in the form of Warrant attached as Exhibit A.

C. The Company and each of the Investors are executing and delivering this Agreement in reliance upon the exemption from securities regulation afforded by Section 4(2) of the Securities Act (as defined in Section 3), and Rule 506 under Regulation D.

IN CONSIDERATION of the premises and mutual covenants contained in this Agreement and other good and valuable consideration the receipt and sufficiency of which are hereby acknowledged, the Company and the Investor agree as follows:

Section 1. Authorization and Sale of the Shares and Warrants. Subject to the terms and conditions of this Agreement, the Company has authorized the sale of up to 9,555,556 Shares and Warrants to purchase up to 1,911,111 Warrant Shares.

Section 2. Agreement to Sell and Purchase the Shares and Warrants; Subscription Date.

2.1 At the Closing (as defined in Section 3), the Company will sell to the Investors and each Investor will buy from the Company, upon the terms and conditions hereinafter set forth, the number of Shares and Warrants to purchase the number of Warrant Shares set forth opposite such Investor's name on the signature pages hereto.

2.2 With respect to all other sales of Shares and Warrants in the Offering, the Company will enter into the same form of Securities Purchase Agreement, on substantially the same terms as this Agreement (and in any event on terms no more favorable to such other purchasers), with the purchasers of such other Shares and Warrants (the "**Other Investors**"). The initial Investors party hereto and the Other Investors are hereinafter sometimes collectively referred to as the "**Investors**" or individually as the "**Investor**," and this Agreement and the agreements executed by the Other Investors are hereinafter sometimes collectively referred to as the

“**Agreements**”. The Company may accept executed Agreements from Other Investors for the purchase of Shares and Warrants commencing upon the date on which the Company provides the Investors with the proposed purchase price per Share and concluding upon the date (the “**Subscription Date**”) on which the Company has executed Agreements with Investors for the purchase of up to 9,555,556 Shares and Warrants to purchase up to 1,911,111 Warrant Shares. The Company may not enter into any Agreements after the Subscription Date.

2.3 Notwithstanding any contrary provisions of the Agreements, the obligations of each Investor under any Agreement are several and not joint with the obligations of any other Investor, and no Investor shall be responsible in any way for the representations and warranties and the performance of the obligations of any other Investor. Nothing contained herein, and no action taken by any Investor, shall be deemed to constitute the Investors as a partnership, an association, a joint venture or any other kind of entity, or create a presumption that the Investors are in any way acting in concert or as a group with respect to such obligations or the transactions contemplated by the Agreements. Each Investor shall be entitled to protect and enforce its rights independently, including without limitation the rights arising out of its Agreement and it shall not be necessary for any other Investor to be joined as an additional party in any proceeding for such purpose.

Section 3. *Delivery of the Shares and Warrants at the Closings.*

3.1 The completion of the purchase and sale of the Shares and Warrants by the Investors (the “**First Closing**”) shall occur on May 28, 2008 at the offices of O’Melveny & Myers LLP, 2765 Sand Hill Road, Menlo Park, California 94025; provided, however, that the closing (the “**Second Closing**”) for the purposes of (i) any sale of Shares and Warrants to Investors who are officers or directors of the Company, or their affiliates, or to Investors who are currently holders of more than 5% of the Company’s outstanding stock (collectively, the “**Affiliate Investors**”) and (ii) any sale of Shares and Warrants to non-Affiliate Investors other than OrbiMed shall be subject to such stockholder approval and shall be the date which is one business day following such stockholder approval; provided, further, that no Other Investor shall be included in the First Closing without the consent of OrbiMed (which consent shall not be unreasonably withheld). The Investors participating in the Second Closing shall place the full purchase price for the Shares and Warrants being purchased by them hereunder in escrow (the “**Escrow**”) pursuant to the terms of the Escrow Agreement (defined below) at the First Closing. Each of the First Closing and the Second Closing shall be referred to as a “**Closing**.” The date of the Second Closing shall be referred to as the “**Closing Date**.” Promptly following the applicable Closing, the Company shall deliver to the Investor one or more stock certificates representing the number of Shares and Warrants to purchase the number of Warrant Shares, each as set forth pursuant to Section B of the Recitals of the Agreement, each such certificate to be registered in the name of the Investor or, if so indicated on the signature page of the Agreement, in the name of a nominee designated by the Investor. For the avoidance of doubt, for the purpose of the First Closing, the only Investors are those represented by OrbiMed.

3.2 The Company’s obligation to issue and deliver the Shares and Warrants to the Investors shall be subject to the following conditions, any one or more of which may be waived by the Company: (a) receipt by U.S. Bank National Association (the “**Escrow Agent**”) under the Escrow Agreement to be entered into by and between the Company and the Escrow Agent (the “**Escrow Agreement**”) of a certified or official bank check or wire transfer of funds in the full amount of the purchase price for the Shares and Warrants being purchased hereunder as set forth in Section B of the Recitals herein; and (b) the accuracy of the representations and warranties made by the Investors and the fulfillment of those undertakings of the Investors to be fulfilled prior to the Closing.

3.3 The Investor’s obligation to purchase the Shares and Warrants shall be subject to the following conditions, any one or more of which may be waived by the Investor in its sole discretion: (a) each of the Affiliate Investors shall have executed and delivered to the Company voting agreements substantially in the form attached as Exhibit C with respect to the voting of the shares of Common Stock; (b) the representations and warranties of the Company set forth herein shall be true and correct in all material respects (and shall be true and correct in all respects in the case of any representations and warranties qualified by materiality or Material Adverse Effect) as of the Closing Date (except for representations and warranties that speak as of a

specific date, which representations and warranties shall be true and correct as of such date); (c) no provision of any applicable law or regulation and no judgment, injunction, order or decree shall prohibit the Closing or shall prohibit or restrict the Investor or its Affiliates from owning, voting, or exercising, any of the Shares or Warrants in accordance with the terms thereof and no lawsuit shall have been commenced by any court, administrative agency or commission or other governmental authority or instrumentality, whether federal, state, local or foreign, or any applicable industry self-regulatory organization (each, a "Governmental Entity") seeking to effect any of the foregoing; and (d) the Investor shall have received such documents as such Investor shall reasonably have requested, including, a certificate signed on behalf of the Company by a senior executive officer certifying to the effect that the conditions set forth herein have been satisfied and a standard opinion of the Company's counsel as to the matters set forth in Section 4.2 and as to exemption from the registration requirements of the Securities Act of 1933, as amended (the "**Securities Act**"), of the sale of the Shares and Warrants.

3.4 Form D. No later than fifteen (15) days after the Closing, the Company shall file a Form D with respect to the Shares as required under Regulation D and shall provide a copy thereof to the Investor promptly after filing.

3.5 Legal Opinion. Prior to the Closing, O'Melveny & Myers LLP, counsel to the Company, will deliver its legal opinion to the Investors substantially in the form attached as Exhibit D to this Agreement. Such opinion shall also state that each of the Investors may rely thereon as though it were addressed directly to such Investor.

3.6 Certificate. At the Closing, the Company will deliver to the Investor a certificate executed by the chief executive officer, or the chief financial or accounting officer of the Company, dated the Closing Date, in form and substance reasonably satisfactory to the Investor, to the effect that the representations and warranties of the Company set forth in Section 4 are true and correct in all material respects (and in all respects with respect to representations and warranties qualified by materiality or Material Adverse Effect) as of the Closing Date (except for representations and warranties made as of a certain date, which were true and correct in all material respects as of such date), and the Company has complied in all material respects with all the agreements and satisfied all the conditions herein on its part to be performed or satisfied on or prior to such Closing Date.

3.7 Special Meeting. The Company shall call a special meeting of its stockholders, as promptly as practicable following the First Closing, to vote on proposals and to approve the issuance of shares contemplated by the Second Closing (the "**Stockholder Proposal**"). The Board of Directors shall unanimously recommend to the Company's stockholders that such stockholders vote in favor of the Stockholder Proposal.

Section 4. Representations, Warranties and Covenants of the Company. Except as described in or specifically contemplated by the Company's Exchange Act Documents, the Company hereby represents and warrants to, and, as applicable, covenants with, the Investor as follows:

4.1 Organization and Qualification. The Company is a corporation duly incorporated, validly existing and in good standing under the laws of the State of Delaware and the Company is qualified to do business as a foreign corporation in each jurisdiction in which qualification is required, except where failure to so qualify would not reasonably be expected to have a Material Adverse Effect (as defined in Section 4.18).

4.2 Authorized Capital Stock. As of March 31, 2008, (i) the authorized capital stock of the Company consisted of 100,000,000 shares of Common Stock and 5,000,000 shares of preferred Stock, par value \$0.001 per share, of which 36,794,096 shares of Common Stock and no shares of Preferred Stock were issued and outstanding; (ii) outstanding non-qualified options granted by the Company to purchase 40,622 shares of Common Stock; (iii) outstanding options and restricted stock granted pursuant to the Company's 1999 Stock Option and Grant Plan and 2005 Stock Incentive Plan to purchase a total of 5,276,313 shares of Common Stock; (iv) there were available for future grant under the Company's stock option and employee stock purchase plans a total of 1,923,354 shares of Common Stock; and (v) there were no outstanding warrants to purchase shares of Common Stock. The issued and outstanding shares of

the Company's Common Stock have been duly authorized and validly issued, are fully paid and nonassessable, have been issued in compliance with all federal and state securities laws and were not issued in violation of or subject to any preemptive rights or other rights to subscribe for or purchase securities. Except for stock options and other awards granted under the option, award and purchase plans of the Company as described in or specifically contemplated by the Company's Exchange Act Documents, the Company does not have outstanding any options to purchase, or any preemptive rights or other rights to subscribe for or to purchase, any securities or obligations convertible into, or any contracts or commitments to issue or sell, shares of its capital stock or any such options, rights, convertible securities or obligations.

4.3 *Due Authorization, Due Execution, and Valid Issuance.* The Company has all requisite power and authority to execute, deliver and perform its obligations under the Agreements and the Warrants, and the Agreements and the Warrants have been duly authorized and validly executed and delivered by the Company. The Shares and the Warrants being purchased by the Investor hereunder and the Warrant Shares issuable pursuant to the Warrants will, upon issuance and payment therefor pursuant to the terms hereof and thereof, be duly authorized, validly issued, fully-paid, nonassessable and free and clear of all liens. The Company has reserved from its duly authorized capital stock, the maximum number of shares of Common Stock and Warrant Shares issuable pursuant to this Agreement and the Warrants.

4.4 *Delivery and Performance of this Agreement.* The execution, delivery and performance of this Agreement by the Company and the consummation of the transactions herein contemplated will not violate any provision of the certificate of incorporation or bylaws of the Company and will not result in the creation of any lien, charge, security interest or encumbrance upon any assets of the Company pursuant to the terms or provisions of, nor will it conflict with, result in the breach or violation of, or constitute, either by itself or upon notice or the passage of time or both, a default under or resulting in the termination of, or result in the loss of any benefit or creation of any right on the part of any third party under, or accelerate the performance required by, or result in a right of termination or acceleration of, any agreement, mortgage, deed of trust, lease, license, credit facility, indenture, permit or other instrument to which the Company is a party or by which the Company or any of its respective properties may be bound or affected or any statute or any authorization, judgment, decree, order, rule or regulation of any court or any regulatory body, administrative agency or other governmental body applicable to the Company or any of its respective properties, except in such case where such conflict, breach, violation or default would not reasonably be expected to result in a Material Adverse Effect. No consent, approval, authorization, waiver or other order of, or filing, registration with, or notice to, any court, regulatory body, administrative agency or other governmental body is required for the execution and delivery of this Agreement or the consummation of the transactions contemplated by this Agreement, except for compliance with the Blue Sky laws and federal securities laws applicable to the offering of the Shares. The Company has validly executed and delivered this Agreement, and assuming the valid execution hereof by the Investor, this Agreement will constitute a valid and binding obligation of the Company, enforceable in accordance with its terms, except as enforceability may be limited by applicable bankruptcy, insolvency, reorganization, moratorium or similar laws affecting creditors' and contracting parties' rights generally and except as enforceability may be subject to general principles of equity (regardless of whether such enforceability is considered in a proceeding in equity or at law).

4.5 *Accountants.* The firm of Ernst & Young, LLP, which has expressed its opinion with respect to the consolidated financial statements included in the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2007, has represented that it is an independent accountant as required by the Securities Act and the rules and regulations promulgated thereunder (the "Rules and Regulations").

4.6 *Contracts.* Except as described in or contemplated by the Company's Exchange Act Documents, the contracts that are material to the Company are in full force and effect on the date hereof; neither the Company nor, to the Company's knowledge, any other party thereto, is in breach of or default under any of such contracts; to the Company's knowledge no event has occurred that with the giving of notice or the passage of time or both would give rise to such breach or default in each case, except where such breach or default would not reasonably be expected to have a Material Adverse Effect;

4.7 *No Actions*. Except as described in or contemplated by the Company's Exchange Act Documents, (i) there are no legal or governmental actions, suits, proceedings, investigations pending and (ii) to the Company's knowledge, there are no legal or governmental actions, suits, proceedings or investigations threatened, to which the Company is or may be a party or subject or of which property of the Company is or may be the subject, or related to applicable environmental or discrimination matters, or instituted by the Securities and Exchange Commission (the "SEC"), the Financial Industry Regulatory Authority, any state securities commission or other governmental or regulatory entity, except for such actions, suits, proceedings or investigations which, individually or in the aggregate, would not prevent or reasonably be expected to prevent or materially and adversely affect the transactions contemplated by this Agreement or result in a Material Adverse Effect; and, to the Company's knowledge, no labor disturbance by the employees of the Company exists, or is imminent which is reasonably expected to have a Material Adverse Effect. The Company is not party to or subject to the provisions of any material injunction, judgment, decree or order of any court, regulatory body administrative agency or other governmental body.

4.8 *Properties*. The Company has good and marketable title to all the tangible properties and assets reflected as owned by it in the consolidated financial statements incorporated by reference in the Company's Exchange Act Documents, subject to no lien, mortgage, pledge, charge or encumbrance of any kind except (i) those, if any, reflected in such consolidated financial statements, or disclosed in or contemplated by the Company's Exchange Act Documents, or (ii) those which are not material in amount and do not materially adversely affect the use made of such property by the Company. Except as described in or contemplated by the Company's Exchange Act Documents, the Company holds its leased properties under valid and binding leases, subject to such exceptions as are not materially significant in relation to its business.

4.9 *Patents and Trademarks*. To the knowledge of the Company, the Company has, or has rights to use, all patents, patent applications, trademarks, trademark applications, service marks, trade names, copyrights, licenses and other similar rights that are necessary or material for use in connection with its businesses as described in the Company's Exchange Act Documents and which the failure to so have could have or reasonably be expected to result in a Material Adverse Effect (collectively, the "Intellectual Property Rights"). The Company has not received a written notice that the Intellectual Property Rights used by the Company violates or infringes upon the rights of any person. To the knowledge of the Company, all such Intellectual Property Rights are valid and enforceable.

4.10 *Insurance*. The Company is insured by insurers of recognized financial responsibility against such losses and risks and in such amounts as are, to the best knowledge of the Company, prudent and customary in the businesses in which the Company is engaged. The Company does not have any reason to believe that it will not be able to renew its existing insurance coverage as and when such coverage expires or to obtain similar coverage from similar insurers as may be necessary to continue its business without a significant increase in cost.

4.11 *No Material Change*. Since December 31, 2007 and except as described in or contemplated by the Exchange Act Documents, (i) the Company has conducted its business in all material respects in the ordinary course, consistent with past practice, (ii) the Company has not incurred any material liabilities or obligations, indirect, or contingent, or entered into any material agreement or other transaction and no event or events have occurred, in each case which individually or in the aggregate has had or could reasonably be expected to have a Material Adverse Effect; (iii) the Company has not sustained any material loss or damage to its physical properties or assets from fire, flood, windstorm, accident or other calamity not covered by insurance; (iv) the Company has not paid or declared any dividends or other distributions with respect to its capital stock, and the Company has not defaulted in the payment of principal or interest on any outstanding debt obligations; and (v) there has not been any change in the capital stock of the Company other than the sale of the Shares hereunder and shares or options issued pursuant to employee equity incentive or stock purchase plans, or any increase in indebtedness material to the Company.

4.12 *Taxes*. Except as described in or contemplated by the Company's Exchange Act Documents, the Company has filed all necessary federal, state and foreign income and franchise tax returns and has paid or accrued all taxes shown as due thereon, and the Company has no knowledge of a material tax deficiency which has been or might be asserted or threatened against it nor to the Company's knowledge is there any basis for any such claims to be asserted or threatened which could reasonably be expected to have a Material Adverse Effect.

4.13 *Investment Company*. The Company is not an "investment company" or an "affiliated person" of, or "promoter" or "principal underwriter" for an investment company, within the meaning of the Investment Company Act of 1940, as amended.

4.14 *Securities Act*. Neither the Company nor any person acting on its behalf has in the past or will hereafter take any action to sell, offer for sale or solicit offers to buy any securities of the Company (including any offering of any securities of the Company under circumstances which would require the integration of such offering with the offering of any securities to be issued pursuant to this Agreement) which would subject the offer, issuance or sale of the Shares contemplated by this Agreement to the registration requirements of Section 5 of the Securities Act.

4.15 *Additional Information*.

(a) The information contained in the following documents, did not, as of the date of the applicable document, include any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein, in the light of the circumstances in which they were made, not misleading, as of their respective filing dates or, if amended, as so amended (the following documents, collectively, the "Exchange Act Documents"):

1. The Company's Annual Report on Form 10-K for the year ended December 31, 2007 filed with the SEC on March 7, 2008;
2. The Company's Quarterly Reports on Form 10-Q for the quarters ended March 31, 2008 filed with the SEC on May 12, 2008;
3. The Company's Current Reports on Form 8-K, filed with the SEC on April 2, 2008, May 8, 2008, May 12, 2008;
4. The Company's Proxy Statement on Schedule 14A for the 2008 Annual Meeting of Stockholders filed with the SEC on April 29, 2008; and
5. Any future filings the Company makes with the SEC under Sections 13(a), 13(c), 14, or 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), until the Closing, the existence of which filings the Company will promptly make known to the Investors prior to the Closing.

(b) In furtherance and not in limitation of the provisions of Section 4.15(a), the financial statements of the Company and the related notes contained in or incorporated by reference into any Company Report filed with the SEC prior to the date of this Agreement (the "Company Financial Statements") (i) have been prepared from and in accordance with the books and records of the Company, (ii) complied as to form, as of their respective dates of filing with the SEC, in all material respects, with the applicable accounting requirements and with the published regulations of the SEC with respect thereto and (iii) present fairly in all respects, in accordance with generally accepted accounting principles, the financial position of the Company as of the dates indicated, and the results of its operations, cash flows, and the changes in stockholders' equity for the periods therein specified, except to the extent any inaccuracies or omissions therein do not represent events or conditions that would reasonably be expected to have a Material Adverse Effect and subject, in the case of unaudited financial statements for interim periods, to normal year-end audit adjustments and the absence of full footnote disclosure as required by generally accepted accounting principles. Such consolidated financial statements (including the related notes) have been prepared in all material respects in accordance with generally accepted accounting principles applied on a consistent basis throughout the periods therein specified, subject, in the case of

unaudited financial statements for interim periods, to normal year-end adjustments, and except as otherwise described therein and except that unaudited financial statements may not contain all footnotes required by generally accepted accounting principles.

4.16 Reporting Company: Form S-3.

(a) The Company is subject to the reporting requirements of the Exchange Act and since April 30, 2007 has filed all reports registrations, documents, filings, statements and submissions, together with any amendments thereto, that it was required to file with any Governmental Entity (collectively, the “**Company Reports**”) and has paid all material fees and assessments due and payable in connection therewith. As of their respective dates of filing, the Company Reports complied in all material respects with all statutes and applicable rules and regulations of the applicable Governmental Entities. To the knowledge of the Company, as of the date of this Agreement, there are no outstanding comments from the SEC or any other Governmental Entity with respect to any Company Report. In the case of each such Company Report filed with or furnished to the SEC, such Company Report did not, as of its date or if amended prior to the date of this Agreement, as of the date of such amendment, contain an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary in order to make the statements made in it, in light of the circumstances under which they were made, not misleading and complied as to form in all material respects with the applicable requirements of the Securities Act and the Exchange Act. With respect to all other Company Reports, the Company Reports were complete and accurate in all material respects as of their respective dates. No executive officer of the Company has failed in any respect to make the certifications required of him or her under Section 302 or 906 of the Sarbanes-Oxley Act of 2002.

(b) The Company satisfies the registrant requirements for the use of a registration statement on Form S-3 to register the Shares and the Warrant Shares for resale by the Investor under the Securities Act. To the Company’s knowledge, there exist no facts or circumstances (including without limitation any required approvals or waivers or any circumstances that may delay or prevent the obtaining of accountant’s consents) that reasonably could be expected to prohibit or delay the preparation and filing of the registration statement on Form S-3 for the resale of the Shares and Warrant Shares by the Investor contemplated by Section 7 of this Agreement.

4.17 Quotation on Nasdaq. The Company has not, in the twelve (12) months preceding the date hereof, received notice (written or oral) from the Nasdaq Global Market System (“**Nasdaq**”), any stock exchange, market or trading facility on which the Common Stock is or has been listed (or on which it has been quoted) to the effect that the Company is not in compliance with the listing or maintenance requirements of such exchange, market or trading facility. The Company is in material compliance with all such listing and maintenance requirements. The Company shall use its commercially reasonable efforts to maintain the designation and quotation, or listing, of the Common Stock on the Nasdaq or on another national securities exchange for a minimum of two (2) years following the Closing Date.

4.18 Material Adverse Effect. As used in this Section 4, the term “Material Adverse Effect” means any circumstance or event which, individually or in the aggregate with any other circumstances or event, has a material adverse effect on the, business as it is currently conducted, assets, liabilities, financial condition or operations of the Company.

(a) No Defaults: Compliance With Law. The Company is not in violation or default of any provision of its certificate of incorporation or bylaws, or in breach of or default with respect to any provision of any agreement, judgment, decree, order, mortgage, deed of trust, lease, franchise, license, indenture, credit facility, permit or other instrument to which it is a party or by which it or any of its properties are bound except where such violation, breach or default would not reasonably be expected to result in a Material Adverse Effect. Except as described in or contemplated by the Company’s Exchange Act Documents, the Company has all material permits, licenses, franchises, authorizations, orders and approvals of, and have made all filings, applications and registrations with, Governmental Entities that are required in order to permit it to own or lease its properties and assets and to carry on its business as presently conducted and that are material to the business of the Company. Except as described in or

contemplated by the Company's Exchange Act Documents, the Company has complied in all material respects and is not in default or violation in any respect of, and none of them is, to the knowledge of the Company, under investigation with respect to or, to the knowledge of the Company, has been threatened to be charged with or given notice of any material violation of, any applicable material domestic (federal, state or local) or foreign law, statute, ordinance, license, rule, regulation, policy or guideline, order, demand, writ, injunction, decree or judgment of any Governmental Entity, other than such noncompliance, defaults or violations that would not reasonably be expected to have a Material Adverse Effect. Except for statutory or regulatory restrictions of general application, to the knowledge of the Company, no Governmental Entity has placed any material restriction on the business or properties of the Company.

4.19 *Transfer Taxes.* On the Closing Date, all stock transfer or other taxes (other than income or similar taxes) which are required to be paid in connection with the sale and transfer of the Shares to be sold to the Investor hereunder will be, or will have been, fully paid or provided for by the Company, and all laws imposing such taxes will be or will have been complied with.

4.20 *Use of Proceeds.* The Company will use the proceeds from the sale of the Shares for continued research and development, manufacturing and marketing, working capital and general corporate purposes.

4.21 *Price of Common Stock.* The Company has not taken any action intended to stabilize or manipulate the price of the Company's shares of the Common Stock to facilitate the sale or resale of the Shares.

4.22 *Transactions With Affiliates and Employees.* Except as described in or contemplated by the Company's Exchange Act Documents, none of the officers or directors of the Company and, to the knowledge of the Company, none of the employees of the Company is presently a party to any transaction with the Company (other than for services as employees, officers and directors), including any contract, agreement or other arrangement providing for the furnishing of services to or by, providing for rental of real or personal property to or from, or otherwise requiring payments to or from any officer, director or such employee or, to the knowledge of the Company, any entity in which any officer, director, or any such employee has a substantial interest or is an officer, director, trustee or partner, in each case in excess of \$60,000 other than (a) for payment of salary or consulting fees for services rendered, (b) reimbursement for expenses incurred on behalf of the Company and (c) for other employee benefits, including stock option agreements under any stock option plan of the Company.

4.23 *Internal Accounting Controls.* Except to the extent that the failure to do so would not be expected to result in a Material Adverse Effect, the Company maintains a system of internal accounting controls sufficient to provide reasonable assurance that (i) transactions are executed in accordance with management's general or specific authorizations, (ii) transactions are recorded as necessary to permit preparation of financial statements in conformity with GAAP and to maintain asset accountability, (iii) access to assets is permitted only in accordance with management's general or specific authorization, and (iv) the recorded accountability for assets is compared with the existing assets at reasonable intervals and appropriate action is taken with respect to any differences. Except to the extent that the failure to do so would not be expected to result in a Material Adverse Effect, the Company has established disclosure controls and procedures (as defined in Exchange Act Rules 13a-14 and 15d-14) for the Company and designed such disclosures controls and procedures to ensure that material information relating to the Company is made known to the certifying officers by others within those entities, particularly during the period in which the Company's Form 10-K or 10-Q, as the case may be, is being prepared.

Section 5. *Representations, Warranties and Covenants of the Investor.*

5.1 The Investor represents and warrants to, and covenants with, the Company that: (i) (A) the Investor is an "accredited investor" as defined in Regulation D under the Securities Act and the Investor is also knowledgeable, sophisticated and experienced in making, and is qualified to make decisions with respect to investments in shares presenting an investment decision like that involved in the purchase of the Shares and the Warrants, including investments in securities issued by the Company and investments in comparable

companies, and subject to the accuracy of the Company's representations and warranties, has requested, received, reviewed and considered all information it deemed relevant in making an informed decision to purchase the Shares and the Warrants and (B) the Company has made available to the Investor, prior to the date hereof, the opportunity to ask questions of and receive complete and correct answers from representatives of the Company concerning the terms and conditions of the Shares and the Warrants and to obtain any additional information relating to the financial condition and business of the Company and the Investor has such knowledge and experience in financial and business matters that the Investor is capable of evaluating the merits and risks of the investment in the Shares and the Warrants; (ii) the Investor is acquiring the number of Shares and the Warrants to purchase the number of Warrant Shares, each as set forth in Section 3 of the Agreement in the ordinary course of its business and for its own account and with no present intention of distributing any of such Shares, Warrants or Warrant Shares or any arrangement or understanding with any other persons regarding the distribution of such Shares, Warrants or Warrant Shares (other than pursuant to the Registration Statement or in compliance with applicable laws); (iii) the Investor will not, directly or indirectly, offer, sell, pledge, transfer or otherwise dispose of (or solicit any offers to buy, purchase or otherwise acquire or take a pledge of) any of the Shares and the Warrants except in compliance with the Securities Act, applicable state securities laws and the respective rules and regulations promulgated thereunder; (iv) the Investor has answered all questions on the Investor Questionnaire, a form of which is attached hereto as Exhibit B (the "**Investor Questionnaire**") and the answers thereto are true, correct and complete as of the date hereof and will be true, correct and complete as of the Closing Date and the Filing Date; (v) upon request of the Company, the Investor will notify the Company of any change in any of the information provided to the Company pursuant to Section 7.1(a) until such time as the Investor has sold all of its Shares and Warrant Shares or until the Company is no longer required to keep the Registration Statement effective; and (vi) the Investor has, in connection with its decision to purchase the number of Shares and the Warrants to purchase the number of Warrant Shares, each as set forth in Section 3 of the Agreement, relied only upon the Exchange Act Documents and the representations and warranties of the Company contained herein. The Investor understands that its acquisition of the Shares and the Warrants has not been registered under the Securities Act or registered or qualified under any state securities law in reliance on specific exemptions therefrom, which exemptions may depend upon, among other things, the bona fide nature of the Investor's investment intent as expressed herein.

5.2 The Investor acknowledges, represents and agrees that no action has been or will be taken in any jurisdiction outside the United States by the Company that would permit an offering of the Shares, Warrants or Warrant Shares, or possession or distribution of offering materials in connection with the issue of the Shares, Warrants or Warrant Shares, in any jurisdiction outside the United States where legal action by the Company for that purpose is required. Each Investor outside the United States will comply with all applicable laws and regulations in each foreign jurisdiction in which it purchases, offers, sells or delivers the Shares, Warrants or Warrant Shares or has in its possession or distributes any offering material, in all cases at its own expense.

5.3 The Investor hereby covenants with the Company not to make any sale of the Shares, Warrants or Warrant Shares without complying with the provisions of this Agreement and without causing the prospectus delivery requirement under the Securities Act to be satisfied (whether by delivery of the Prospectus or pursuant to and in compliance with an exemption from such requirement), and the Investor acknowledges that, subject to removal in accordance with the terms hereof, the Warrants and certificates evidencing the Shares will be imprinted with a legend that prohibits their transfer except in accordance therewith.

5.4 The Investor further represents and warrants to, and covenants with, the Company that (i) the Investor has full right, power, authority and capacity to enter into this Agreement and to consummate the transactions contemplated hereby and has taken all necessary action to authorize the execution, delivery and performance of this Agreement, and (ii) assuming the valid execution hereof by the Company, this Agreement constitutes a valid and binding obligation of the Investor enforceable against the Investor in accordance with its terms, except as enforceability may be limited by applicable bankruptcy, insolvency, reorganization, moratorium or similar laws affecting creditors' and contracting parties' rights generally and except as enforceability may be subject to general principles of equity (regardless of whether such enforceability is considered in a proceeding in equity or at law).

5.5 Neither the Investor nor any person acting on its behalf or at its direction has engaged in any sale of Common Stock (including without limitation any short sale, pledge, transfer or establishment of an open “put equivalent position” within the meaning of Rule 16a-1(h) under the Exchange Act) during the 90 days immediately preceding the date of this Agreement (other than “program trades”). Investor will not use any of the restricted Shares acquired pursuant to this Agreement, or the Warrant Shares acquired pursuant to the Warrants, to cover any short position in the Common Stock of the Company if doing so would be in violation of applicable securities laws and otherwise will comply with federal securities laws in the holding and sale of the Shares, Warrants and Warrant Shares.

5.6 The Investor understands that nothing in the Exchange Act Documents, this Agreement, the Warrant or any other materials presented to the Investor in connection with the purchase and sale of the Shares and the Warrants constitutes legal, tax or investment advice. The Investor has consulted such legal, tax and investment advisors as it, in its sole discretion, has deemed necessary or appropriate in connection with its purchase of Shares and the Warrants.

5.7 The Company acknowledges and agrees that Investor does not make or has not made any representations or warranties with respect to the transactions contemplated hereby other than those specifically set forth in this Agreement.

5.8 The Investor acknowledges the following disclosure, which is set forth herein as required pursuant to Section 25102(a) of the California Corporate Securities Law of 1968 (provided that, subject to the accuracy of the Investors’ representations and warranties to the Company, the Company represents that the sale of the Shares is so exempt):

“THE SALE OF THE SECURITIES THAT ARE THE SUBJECT OF THIS AGREEMENT HAS NOT BEEN QUALIFIED WITH THE COMMISSIONER OF CORPORATIONS OF THE STATE OF CALIFORNIA AND THE ISSUANCE OF THE SECURITIES OR THE PAYMENT OR RECEIPT OF ANY PART OF THE CONSIDERATION THEREFOR PRIOR TO THE QUALIFICATION IS UNLAWFUL, UNLESS THE SALE OF SECURITIES IS EXEMPT FROM THE QUALIFICATION BY SECTION 25100, 25102, OR 25105 OF THE CALIFORNIA CORPORATIONS CODE. THE RIGHTS OF ALL PARTIES TO THIS AGREEMENT ARE EXPRESSLY CONDITIONED UPON THE QUALIFICATION BEING OBTAINED, UNLESS THE SALE IS SO EXEMPT.”

5.9 The Investor covenants that the Investor shall deliver to the Company the completed Investor Questionnaire prior to the Second Closing.

Section 6. *Other Agreements.*

6.1 *Survival of Representations and Warranties.* Notwithstanding any investigation made by any party to this Agreement, all covenants, agreements, representations and warranties made by the Company and the Investor herein shall survive the execution of this Agreement, the delivery to the Investor of the Shares and the Warrants being purchased and the payment therefor until the expiration date of the Company’s obligation to keep the Registration Statement effective pursuant to Section 7.1(c).

6.2 *Legends.* Certificates evidencing the Shares and Warrant Shares (other than those evidencing the Shares and Warrant Shares held by the Investor or any Affiliate Investors, which shall bear the least restrictive legend the Company requires for certificates evidencing shares of the Company’s Common Stock held by affiliates of the Company) shall not contain any legend (including the legend set forth in Section 7(a) of the Warrants), (i) while a registration statement (including the Registration Statement (as defined herein)) covering the resale of such security is effective under the Securities Act and such security has been sold pursuant to such registration statement, or (ii) following any sale of such Shares or Warrant Shares pursuant to Rule 144, or (iii) if such Shares or Warrant Shares are eligible for sale under Rule 144(d)(1), or (iv) if such legend is not required under applicable requirements of the Securities Act (including judicial interpretations and pronouncements issued by the Staff of the Commission). The Company shall cause its counsel to issue a legal opinion to the Company’s transfer agent promptly after the Required Effective Date (as defined herein) if required by the Company’s transfer agent to effect the removal of the legend hereunder. The Company agrees

that following the Required Effective Date or at such time as such legend is no longer required under this Section 6.2, it will, no later than ten (10) business days following the delivery by the Investor to the Company or the Company's transfer agent of: (i) a certificate representing Shares or Warrant Shares, as the case may be, issued with a restrictive legend; and (ii) any other documentation reasonably requested by the Company, its counsel or its transfer agent, deliver or cause to be delivered to the Investor a certificate representing such Securities that is free from all restrictive and other legends. The Company may not make any notation on its records or give instructions to any transfer agent of the Company that enlarge the restrictions on transfer set forth in this Section 6.2.

Section 7. *Registration of the Shares and Warrant Shares; Compliance with the Securities Act.*

7.1 *Registration Procedures and Other Matters.* The Company shall:

(a) Subject to receipt by the Company of a completed Investor Questionnaire from the Investor as of the Closing Date, as soon as reasonably practicable, but in no event later than the earlier (the "**Filing Date**") of (i) thirty (30) calendar days following the Closing Date and (ii) one hundred and twenty (120) calendar days following the First Closing, prepare and file with the SEC a Registration Statement on Form S-3 relating to the sale of the Shares, the Warrant Shares and any other shares of capital stock or other equity interests issued or issuable with respect to the foregoing by way of stock dividends, stock split or distribution or in connection with any combination of shares, merger, recapitalization, reorganization or similar event (collectively, "**Registrable Securities**") by the Investor and the Other Investors from time to time on the Nasdaq or the facilities of any national securities exchange on which the Common Stock is then traded or in privately negotiated transactions (the "**Registration Statement**"). If Form S-3 is not available at that time, the Company will file a registration statement or such form as is then available to effect a registration of the Registrable Securities, subject to the consent of the holders of a majority of the Registrable Securities, which consent shall not be unreasonably withheld;

(b) use its commercially reasonable efforts, subject to receipt of necessary information from the Investors, to cause the SEC to declare the Registration Statement effective within one hundred and twenty (120) calendar days after the Closing Date, or if no Second Closing has occurred within one hundred and twenty (120) days of the date hereof, the later (the "**Required Effective Date**") of (i) one hundred and eighty (180) days after the First Closing or (ii) ninety (90) days after the Company has received completed Investor Questionnaires from any Investor participating in the First Closing. The Company's reasonable commercial efforts will include, but not be limited to, promptly responding to all comments received from the staff of the SEC. If the Company receives notification from the SEC that the Registration Statement will receive no action or review from the SEC, then the Company will, subject to its rights under this Agreement, use its commercially reasonable efforts to cause the Registration Statement to become effective within five (5) business days after such SEC notification;

(c) use its reasonable best efforts to promptly prepare and file with the SEC such amendments and supplements to the Registration Statement and the prospectus used in connection therewith as may be necessary to keep the Registration Statement effective until the earliest of (i) the date on which the Investors and any other holder of Registrable Securities to whom the registration rights conferred by this Agreement have been transferred in compliance with Section 7.2 (each, a "**Holder**"), may sell all Registrable Securities held thereby without registration, pursuant to Rule 144 of the Securities Act and can be sold in one transaction without limitation in accordance with the volume limitations contained in Rule 144(e)(1)(i) under the Securities Act, if applicable, or (ii) such time as all Shares and Warrant Shares purchased by all Investors in the Offering have been sold pursuant to a Registration Statement. Thereafter, the Company shall be entitled to withdraw the Registration Statement and the Holders shall have no further right to offer or sell any of the Shares and Warrant Shares pursuant to the Registration Statement;

(d) furnish to each Holder and the underwriters, such number of copies of the Registration Statement and each amendment and supplement thereto (including in each case all exhibits) and of prospectuses or preliminary prospectuses, in conformity with the Securities Act, and such other documents as the Holder or underwriter may reasonably request, in order to facilitate the public sale or other disposition or

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distribution of all or any of the Registrable Securities by the Holders; provided, however, that the obligation of the Company to deliver copies of prospectuses or preliminary prospectuses to the Holders shall be subject to the receipt by the Company of reasonable assurances from the Holder that the Holder will comply with the applicable provisions of the Securities Act and of such other securities or blue sky laws as may be applicable in connection with any use of such prospectuses or preliminary prospectuses;

(e) use its reasonable best efforts to register and qualify the securities covered by such registration statement under such other securities or Blue Sky laws of such jurisdictions as shall be reasonably requested by the Holders or any managing underwriter(s), to keep such registration or qualification in effect for so long as such registration statement remains in effect, and to take any other action which may be reasonably necessary to enable such seller to consummate the disposition in such jurisdictions of the securities owned by such Holder; *provided, however*, that the Company shall not be required to (i) qualify to do business in any jurisdiction where it would not otherwise be required to qualify but for this Section 7.1; (ii) file a general consent to service of process in any such jurisdiction; (iii) subject itself to taxation in any such jurisdiction; (iv) provide any undertakings that cause material expense or burden to the Company; or (v) make any change to its organizational documents, which in each case the Board of Directors of the Company determines to be contrary to the best interests of the Company and its stockholders;

(f) notify each Holder of Registrable Securities 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 applicable prospectus, 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 light of the circumstances then existing;

(g) bear all expenses in connection with the procedures in this Section 7.1 and the registration of the Registrable Securities pursuant to the Registration Statement, including reasonable fees and expenses, if any, of one counsel representing the Investors, if any;

(h) give prompt written notice to each Holder:

(i) when the Registration Statement is filed or any amendment thereto has been filed with the SEC and upon the effectiveness of the Registration Statement, and any post-effective amendments thereto;

(ii) of any request by the SEC for amendments or supplements to the Registration Statement or the prospectus included therein or for additional information;

(iii) of the receipt by the Company of any stop orders of the SEC with respect to the Registration Statement or the initiation of any proceedings for that purpose, and of the lifting of any such order;

(iv) of the receipt by the Company or its legal counsel of any notification with respect to the suspension of the qualification of the Common Stock for sale in any jurisdiction or the initiation or threatening of any proceeding for such purpose;

(v) of the happening of any event that requires the Company to make changes in any effective registration statement or the prospectus related to the Registration Statement in order to make the statements therein not misleading (which notice shall be accompanied by an instruction to suspend the use of the prospectus until the requisite changes have been made); and

(vi) if at any time the representations and warranties of the Company contained in any underwriting agreement contemplated by Section 7.1(l) cease to be true and correct.

(i) use its reasonable best efforts to prevent the issuance or obtain the withdrawal of any order suspending the effectiveness of any registration statement referred to in Section 7.1(h)(iii) at the earliest practicable time;

(j) upon the occurrence of any event contemplated by Section 7.1(f) or 7.1(h)(vi), promptly prepare a post-effective amendment to such registration statement or a supplement to the related prospectus or file any other required document so that, as thereafter delivered to the Holders and any underwriters, the prospectus will not contain an untrue statement of a material fact or omit to state any material fact necessary to make the statements therein, in light of the circumstances under which they were made, not misleading. If the Company notifies the Holders in accordance with Section 7.1(h)(v) to suspend the use of the prospectus until the requisite changes to the prospectus have been made, then the Holders and any underwriters shall suspend use of such prospectus and use their reasonable best efforts to return to the Company all copies of such prospectus (at the Company's expense) other than permanent file copies then in such Holder's or underwriter's possession. The total number of days that any such suspension (each, a "Suspension") may be in effect in any 365 day period shall not exceed 30 days. The Company acknowledges and agrees that nothing contained in this Agreement (including any Suspension of the prospectus as contemplated herein) shall limit in any way the Investor's trading activity with respect to securities of the Company other than Shares and Warrant Shares;

(k) use reasonable best efforts to procure the cooperation of the Company's transfer agent in settling any offering or sale of Registrable Securities, including with respect to the transfer of physical stock certificates into book entry form in accordance with any procedures reasonably requested by Holder or any managing underwriter(s);

(l) if selling Registrable Securities in a public offering for which the reasonably anticipated aggregate price to the public, net of expenses, would exceed U.S. \$20,000,000, enter into an underwriting agreement in customary form, scope and substance and take all such other actions reasonably requested by the Holders of a majority of the Registrable Securities being sold in connection therewith or by the managing underwriter(s), if any, to expedite or facilitate the underwritten disposition of such Registrable Securities, and in connection therewith in any underwritten offering (including making members of management and executives of the Company available to participate in "road shows", similar sales events and other marketing activities), (i) make such representations and warranties to the Holders that are selling stockholders and the managing underwriter(s), if any, with respect to the business of the Company, and the Registration Statement, Prospectus and documents, if any, incorporated or deemed to be incorporated by reference therein, in each case, in customary form, substance and scope, and, if true, confirm the same if and when requested, (ii) use its reasonable best efforts to furnish underwriters opinions of counsel to the Company, addressed to the managing underwriter(s), if any, covering the matters customarily covered in such opinions requested in underwritten offerings, (iii) use its reasonable best efforts to obtain "cold comfort" letters from the independent certified public accountants of the Company (and, if necessary, any other independent certified public accountants of any business acquired by the Company for which financial statements and financial data are included in the Registration Statement) who have certified the financial statements included in such Registration Statement, addressed to each of the managing underwriter(s), if any, such letters to be in customary form and covering matters of the type customarily covered in "cold comfort" letters, (iv) if an underwriting agreement is entered into, the same shall contain indemnification provisions and procedures customary in underwritten offerings, and (v) deliver such documents and certificates as may be reasonably requested by the Holders of a majority of the Registrable Securities being sold in connection therewith, their counsel and the managing underwriter(s), if any, to evidence the continued validity of the representations and warranties made pursuant to clause (i) above and to evidence compliance with any customary conditions contained in the underwriting agreement or other agreement entered into by the Company. Notwithstanding anything contained herein to the contrary, the Company shall not be required to (i) enter into any underwriting agreement or permit any underwritten offering absent an agreement by the applicable underwriter(s) to indemnify the Company in form, scope and substance as is customary in underwritten offerings by the Company in which an affiliate of the Company acts as an underwriter; (ii) enter more than one underwriting agreement or permit more than one underwritten offering pursuant to this Agreement; or (iii) extend any underwritten offering beyond the period recommended by the underwriters;

Notwithstanding the foregoing, it shall be a condition precedent to the obligations of the Company to take any action pursuant to paragraphs (a) through (f) of this Section 7.1, that the Investor shall furnish to the Company a completed Investor Questionnaire, a form of which is attached hereto as [Exhibit B](#), providing such information regarding itself, the Registrable Securities to be sold by the Investor, and the intended method of disposition of such Registrable Securities as shall be required to effect the registration of such Registrable Securities, all of which information shall be furnished to the Company in writing specifically for use in the Registration Statement.

The Company understands that the Investor disclaims being an underwriter, but the Investor being deemed an underwriter shall not relieve the Company of any obligations it has hereunder, *provided, however*, that if the Company receives notification from the SEC that the Investor is deemed an underwriter, then the period in which the Company is obligated to submit an acceleration request to the SEC shall be extended to the earlier of (i) one hundred twenty (120) days after such SEC notification, or (ii) one hundred fifty (150) days after the initial filing of the Registration Statement with the SEC. Notwithstanding the foregoing, the parties understand and agree that the Company shall not be obligated to retain an underwriter with respect to the offer and sale of Shares pursuant to the Registration Statement except as set forth in Section 7.7 herein.

7.2 Transfer of Shares and Warrant Shares After Registration: Assignment of Rights.

(a) While the Registration Statement is effective and available for resale, the Investor agrees that it will not effect any disposition of the Shares or Warrant Shares or its right to purchase the Shares or Warrant Shares that would constitute a sale within the meaning of the Securities Act, except as contemplated in the Registration Statement referred to in Section 7.1 hereof or pursuant to an applicable exemption from registration, the availability of which is confirmed in writing by counsel to the Investor (the form, substance and scope of which opinion shall be reasonably acceptable to the Company) and delivered to the Company, and that it will promptly notify the Company of any changes in the information set forth in the Registration Statement regarding the Investor or its plan of distribution.

(b) The rights of the Investor to registration of Registrable Securities pursuant to Section 7.1 may be assigned by Investor to (i) an Affiliate or other investment vehicle managed or advised by OrbiMed or one or more of its affiliates, to which Registrable Securities are transferred, or (ii) to any transferee or assignee of Registrable Securities to which there is transferred to such transferee no less than \$10,000,000 in Registrable Securities; provided, however, the transferor shall, within ten days after such transfer, furnish to the Company written notice of the name and address of such transferee or assignee and the number and type of Registrable Securities that are being assigned.

7.3 Indemnification: Liquidated Damages.

(i) For Purpose of this Agreement, the term “**Holder/Affiliate**” shall mean any affiliate of the Holder (as defined in Rule 405 under the Securities Act) and any person who controls the Holder or any affiliate of the Holder within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act and their respective directors, officers, employees agents and Affiliates; and

(ii) For purpose of this Section 7.3, the term “**Registration Statement**” shall include any final prospectus, exhibit, supplement or amendment included in or relating to, and any document incorporated by reference in, the Registration Statement referred to in Section 7.1 hereof.

(a) The Company agrees to indemnify and hold harmless the Holder and each Holder/Affiliate against any and all losses, claims, damages, liabilities or expenses, joint or several, to which the Holder or Holder/Affiliate may become subject, under the Securities Act, the Exchange Act, or any other federal or state statutory law or regulation, or at common law or otherwise (including in settlement of any litigation, if such settlement is effected with the written consent of the Company), insofar as such losses, claims, damages, liabilities or expenses (or actions in respect thereof as contemplated below) arise out of or are based upon any untrue statement or alleged untrue statement of any material fact contained in the Registration Statement, including the prospectus, financial statements and schedules, and all other documents filed as a part thereof, as amended at the time of effectiveness of the Registration Statement, including any information deemed to be a part thereof as of the time of effectiveness

pursuant to paragraph (b) of Rule 430A, or pursuant to Rule 434, of the Rules and Regulations, or the prospectus, in the form first filed with the SEC pursuant to Rule 424(b) of the Rules and Regulations, or filed as part of the Registration Statement at the time of effectiveness if no Rule 424(b) filing is required (the “**Prospectus**”), or any amendment or supplement thereto, or arise out of or are based upon the omission or alleged omission to state in any of them a material fact required to be stated therein or necessary to make the statements in the Registration Statement or any amendment or supplement thereto not misleading or in the Prospectus or any amendment or supplement thereto not misleading in the light of the circumstances under which they were made, or arise out of or are based in whole or in part on any material breach of the representations and warranties of the Company contained in this Agreement, or any material breach by the Company of its obligations hereunder, and will reimburse the Holder or Holder/Affiliate for any legal and other expenses as such expenses are reasonably incurred by the Holder or Holder/Affiliate in connection with investigating, defending, settling, compromising or paying any such loss, claim, damage, liability, expense or action; *provided, however*, that the Company will not be liable in any such case to the extent, but only to the extent, that any such loss, claim, damage, liability or expense arises out of or is based upon (i) an untrue statement or alleged untrue statement or omission or alleged omission made in the Registration Statement, the Prospectus or any amendment or supplement thereto in reliance upon and in conformity with written information furnished to the Company by or on behalf of the Holder expressly for use therein, or (ii) the failure of the Holder to comply with the covenants and agreements contained in Section 5.3 or Section 7.2 hereof respecting the sale of the Shares and Warrant Shares, or (iii) the inaccuracy of any representations made by the Investor herein or (iv) any statement or omission in any Prospectus that is corrected in any subsequent Prospectus that was delivered to the Investor prior to the pertinent sale or sales by the Investor.

(b) The Investor will severally, but not jointly, indemnify and hold harmless the Company, each of its directors, each of its officers who signed the Registration Statement and each person, if any, who controls the Company within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act, against any losses, claims, damages, liabilities or expenses to which the Company, each of its directors, each of its officers who signed the Registration Statement or controlling person may become subject, under the Securities Act, the Exchange Act, or any other federal or state statutory law or regulation, or at common law or otherwise (including in settlement of any litigation, if such settlement is effected with the written consent of the Investor) insofar as such losses, claims, damages, liabilities or expenses (or actions in respect thereof as contemplated below) arise out of or are based upon (i) any failure to comply with the covenants and agreements contained in Section 5.3 or Section 7.2 hereof respecting the sale of the Shares and Warrant Shares, or (ii) any untrue or alleged untrue statement of any material fact contained in the Registration Statement, the Prospectus, or any amendment or supplement thereto, or omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements in the Registration Statement or any amendment or supplement thereto not misleading or in the Prospectus or any amendment or supplement thereto not misleading in the light of the circumstances under which they were made, in each case to the extent, but only to the extent, that such untrue statement or alleged untrue statement or omission or alleged omission was made in the Registration Statement, the Prospectus, or any amendment or supplement thereto, in reliance upon and in conformity with written information furnished to the Company by the Investor expressly for use therein; *provided, however*, that the obligations of the Investor under this Section 7.3 shall not exceed the net proceeds to such Investor from the sale of Shares and Warrant Shares pursuant to such Registration Statement.

(c) Promptly after receipt by an indemnified party under this Section 7.3 of notice of the threat or commencement of any action, such indemnified party will, if a claim in respect thereof is to be made against an indemnifying party under this Section 7.3, promptly notify the indemnifying party in writing thereof, *provided*, that the failure of an indemnified party to give such notice shall not relieve the indemnifying party of its obligations or liabilities pursuant to this Agreement, except (and only) to the extent that it shall be finally determined by a court of competent jurisdiction that such failure shall have prejudiced the indemnifying party. Subject to provisions hereinafter stated, in case any such action is brought against any indemnified party and such indemnified party seeks or intends to seek indemnity from an indemnifying party, the indemnifying party will be entitled to participate in, and, to the extent that it may wish, jointly with all other indemnifying parties similarly notified, to assume the defense thereof with counsel reasonably satisfactory to such indemnified party; *provided, however*, if the defendants in any such action include both the indemnified party and the indemnifying party, and the indemnifying party and the indemnified party, based upon the advice of such indemnified party’s

counsel, shall have reasonably concluded that there is an actual conflict of interest between the positions of the indemnifying party and the indemnified party in conducting the defense of any such action or that there may be legal defenses available to it and/or other indemnified parties which are different from or additional to those available to the indemnifying party, the indemnified party or parties shall have the right to select separate counsel to assume such legal defenses and to otherwise participate in the defense of such action on behalf of such indemnified party or parties. Upon receipt of notice from the indemnifying party to such indemnified party of its election so to assume the defense of such action and approval by the indemnified party of counsel, the indemnifying party will not be liable to such indemnified party under this Section 7.3 for any legal or other expenses subsequently incurred by such indemnified party in connection with the defense thereof unless the indemnified party shall have employed such counsel in connection with the assumption of legal defenses in accordance with the proviso to the preceding sentence (it being understood, however, that the indemnifying party shall not be liable for the expenses of more than one separate counsel, approved by such indemnifying party in the case of paragraph (a), representing the indemnified parties who are parties to such action (including indemnified parties under Agreements with Other Investors, plus local counsel, if appropriate). In no event shall any indemnifying person be liable in respect of any amounts paid in settlement of any action unless the indemnifying person shall have approved the terms of such settlement; *provided that* such consent shall not be unreasonably withheld. No indemnifying person shall, without the prior written consent of the indemnified person, effect any settlement of any pending or threatened proceeding in respect of which any indemnified person is or could have been a party and indemnification could have been sought hereunder by such indemnified person, unless such settlement includes an unconditional release of such indemnified person from all liability on claims that are the subject matter of such proceeding.

(d) The Investor hereby acknowledges that it is a sophisticated business person who was represented by counsel during the negotiations regarding the provisions hereof including, without limitation, the provisions of this Section 7.3, and is fully informed regarding said provisions. Each of the Company and the Investor is advised that federal or state public policy as interpreted by the courts in certain jurisdictions may be contrary to certain of the provisions of this Section 7.3, and each of the Company and the Investor hereby expressly waives and relinquishes any right or ability to assert such public policy as a defense to a claim under this Section 7.3 and further agrees not to attempt to assert any such defense.

(e) *Contribution.* If a claim for indemnification under Section 7.3(a) or 7.3(b) is unavailable to an indemnified party, in lieu of indemnifying such indemnified party, shall contribute to the amount paid or payable by such indemnified party as a result of such losses, claims, damages, liabilities or expenses, in such proportion as is appropriate to reflect the relative fault of the indemnifying party and indemnified party in connection with the actions, statements or omissions that resulted in such losses, claims, damages, liabilities or expenses as well as any other relevant equitable considerations. The relative fault of such indemnifying party and indemnified party shall be determined by reference to, among other things, whether any action in question, including any untrue or alleged untrue statement of a material fact or omission or alleged omission of a material fact, has been taken or made by, or relates to information supplied by, such indemnifying party or indemnified party, and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such action, statement or omission. The amount paid or payable by a party as a result of any losses, claims, damages, liabilities or expenses shall be deemed to include any reasonable attorneys' or other reasonable fees or expenses incurred by such party in connection with any proceeding to the extent such party would have been indemnified for such fees or expenses if the indemnification provided for in this Section 7.3 was available to such party in accordance with its terms. The parties hereto agree that it would not be just and equitable if contribution pursuant to this Section 7.3(e) were determined by pro rata allocation or by any other method of allocation that does not take into account the equitable considerations referred to in the immediately preceding paragraph. Notwithstanding the provisions of this Section 7.3(e), the Investor shall not be required to contribute, in the aggregate, any amount in excess of the amount by which the proceeds actually received by such Investor from the sale of the Registrable Securities subject to the proceeding exceeds the amount of any damages that the Investor has otherwise been required to pay by reason of such untrue or alleged untrue statement or omission or alleged omission, except in the case of fraud or intentional misrepresentation by the Investor.

(f) The Company and the Investor agree that the Investor and each other Holder will suffer damages if the Registration Statement is not declared effective by the SEC on or prior to the Required Effective Date. The Company and the Investor further agree that it would not be feasible to ascertain the extent of such damages with precision. Accordingly, if the Registration Statement is not declared effective by the SEC on or prior to the Required Effective Date, the Company shall pay as liquidated damages for such failure and not as a penalty (the “**Liquidated Damages**”) to each Holder an amount equal to one percent (1%) of the total purchase price paid by the applicable Investor pursuant to this Agreement for the Registrable Securities then held by such Holder that have not been sold under a registration statement or pursuant to Rule 144 for each 30 day period after or the Required Effective Date, pro rated for any period less than 30 days, following or the Required Effective Date, until the Registration Statement has been declared effective by the SEC. Payments to be made pursuant to this Section 7.3(f) shall be due and payable in cash to a Holder immediately upon demand of such Holder. Furthermore, after the effectiveness of the Registration Statement, if the Holder shall be unable or prohibited from selling Shares and Warrant Shares under the Registration Statement other than as a result of a Suspension of not more than thirty (30) days in any 365 day period and if the Holder is unable during this period to sell Shares and Warrant Shares under Rule 144 or an exemption from registration, then the Company shall pay as Liquidated Damages to the Holder an amount equal to one percent (1%) of the total purchase price paid by the applicable Investor pursuant to this Agreement for the Registrable Securities then held by such Holder that have not been sold under a registration statement or pursuant to Rule 144 for each 30 day period in which such inability to sell is in effect or a Suspension is in effect that exceeds the maximum allowed period for a Suspension or Suspensions, but not including any day on which a Suspension is lifted, pro rated in each case for any period less than 30 days. For purposes of this Section 7.3, a Suspension shall be deemed lifted on the date that notice that the Suspension has been lifted is delivered to the Holder pursuant to Section 9 of this Agreement. Notwithstanding the foregoing provisions, in no event shall the Company be obligated to pay any Liquidated Damages to more than one Holder in respect of the same Shares or Warrant Shares for the same period of time. The parties agree that the Liquidated Damages represent a reasonable estimate on the part of the parties, as of the date of this Agreement, of the amount of damages that may be incurred by the Holder if the Registration Statement has not been declared effective by the SEC on or prior to the Required Effective Date, or if a Suspension exceeds the maximum allowed period.

7.4 Termination of Conditions and Obligations. The conditions precedent imposed by Section 5 or this Section 7 upon the transferability of the Shares and Warrant Shares shall cease and terminate as to any particular number of the Shares upon the earliest to occur of (i) the sale of the Shares and Warrant Shares pursuant to the Registration Statement or (ii) the sale of the Shares and Warrant Shares pursuant to Rule 144 under the Securities Act and in one transaction in accordance with the volume limitations contained in Rule 144(e)(1)(i) under the Securities Act, if applicable, or at such time as an opinion of counsel satisfactory in form and substance to the Company shall have been rendered to the effect that such conditions are not necessary in order to comply with the Securities Act.

7.5 Information Available. As long as any Investor owns the Shares or Warrant Shares and the Company is subject to the filing requirements of the Exchange Act, the Company covenants to timely file (or obtain extensions in respect thereof and file within the applicable grace period) all reports required to be filed by the Company after the date hereof pursuant to the Exchange Act. So long as the Registration Statement is effective covering the resale of Shares owned by the Investor, the Company will furnish to the Investor upon such Investor’s request and at no cost to the Investor:

- (a) as soon as practicable after available (but in the case of the Company’s Annual Report to Stockholders, concurrently with delivery to its shareholders generally) one copy of (i) its Annual Report to Stockholders (which Annual Report shall contain financial statements audited in accordance with U.S. generally accepted accounting principles by a national firm of certified public accountants), (ii) if not included in substance in the Annual Report to Stockholders, upon the request of the Investor, its Annual Report on Form 10-K, (iii) upon the request of the Investor, its Quarterly Reports on Form 10-Q, (iv) upon the request of the Investor, its Current Reports on Form 8-K, and (v) a full copy of the particular Registration Statement covering the Shares and Warrant Shares (the foregoing, in each case, excluding exhibits);

(b) all exhibits excluded by the parenthetical to subparagraph (a)(v) of this Section 7.5; and

(c) upon the reasonable request of the Investor, a reasonable number of copies of the prospectuses and supplements thereto to supply to any other party requiring such prospectuses and supplements; and the Company, upon the reasonable request of the Investor, will meet with the Investor or a representative thereof at the Company's headquarters to discuss information relevant for disclosure in the Registration Statement covering the Shares and Warrant Shares; *provided*, that the Company shall disclose any confidential information to the Investor only if the Investor has requested such information in writing and shall have entered into a confidentiality agreement with the Company in form and substance reasonably satisfactory to the Company with respect thereto.

7.6 Company Registration.

(a) Whenever the Company proposes to register any of its securities in an underwritten public offering, other than a registration pursuant to Section 7.1, and the registration form to be filed may be used for the registration or qualification for distribution of Registrable Securities, the Company will give prompt written notice to the Investor and all other Holders of its intention to effect such a registration (but in no event less than ten days prior to the anticipated filing date) and will include in such registration all Registrable Securities with respect to which the Company has received written requests for inclusion therein within ten business days after the date of the Company's notice (a "**Piggyback Registration**"). Any such person that has made such a written request may withdraw its Registrable Securities from such Piggyback Registration by giving written notice to the Company and the managing underwriter, if any, on or before the fifth business day prior to the planned effective date of such Piggyback Registration. The Company may terminate or withdraw any registration under this Section 7.6 prior to the effectiveness of such registration, whether or not such Investor or any other Holders have elected to include Registrable Securities in such registration.

(b) The right of such Investor and all other Investors to registration pursuant to Section 7.6(a) will be conditioned upon such persons' participation in such underwriting and the inclusion of such person's Registrable Securities in the underwriting, and each such person will (together with the Company and the other persons distributing their securities through such underwriting) enter into an underwriting agreement in customary form with the underwriter or underwriters selected for such underwriting by the Company. If any participating person disapproves of the terms of the underwriting, such person may elect to withdraw therefrom by written notice to the Company, the managing underwriter and such Investor.

(c) If a Piggyback Registration relates to an underwritten primary offering on behalf of the Company, and the managing underwriters advise the Company that in their reasonable opinion the number of securities requested to be included in such registration exceeds the number which can be sold without adversely affecting the marketability of such offering (including an adverse effect on the per share offering price), the Company will include in such registration or prospectus only such number of securities that in the reasonable opinion of such underwriters can be sold without adversely affecting the marketability of the offering (including an adverse effect on the per share offering price), which securities will be so included in the following order of priority: (i) first, the securities the Company proposes to sell, (ii) second, Registrable Securities of each Holder and registrable securities of other investors in the Company to the extent such shares are subject to piggyback registration rights pursuant to the Company's Investor Rights Agreement dated as of June 30, 1999, as amended (the "**Investor Rights Agreement**") on a pro-rata basis, subject to the terms of this Agreement and the Investor Rights Agreement, and (iii) third, any other securities of the Company that have been requested to be sold.

7.7 Form S-3 Registration. The Investor may request the Company in writing to file a registration statement on Form S-3 (or any successor form to Form S-3, or any comparable form for registration) for a public offering of Registrable Securities for which the reasonably anticipated aggregate price to the public, net of expenses, would exceed U.S. \$20,000,000. Upon receipt of such a request, the Company shall use commercially reasonable efforts to engage underwriters to sell the Registrable Securities on a best efforts basis and shall pay out-of-pocket expenses (including registration fees and fees of counsel and auditors, but excluding underwriters' commission which shall be paid from the proceeds of such underwritten offering) related to such registration and offering.

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Section 8. *Appointment of Director.* The Company hereby covenants to OrbiMed that upon the earlier of the Second Closing and sixty (60) days after the First Closing, the Company shall appoint one (1) individual nominated by OrbiMed and approved by the Company (such approval not to be unreasonably withheld) to the vacant seat on the Company's Board of Directors. The Investor hereby acknowledges and consents that (a) a designee of OrbiMed will be appointed to the Company's Board of Directors and (b) certain other Investors are affiliated with members of the Company's Board of Directors.

Section 9. *Broker's Fee.* Each of the Investor and the Company agrees to indemnify the other party against any claim for fees by any broker or finder employed by the indemnifying party in connection with the sale of the Shares and Warrant Shares to the Investor. Each of the parties hereto hereby represents that, on the basis of any actions and agreements by it, there are no brokers or finders entitled to compensation in connection with the sale of the Shares and Warrant Shares to the Investor.

Section 10. *Expenses.* Each of the parties hereto shall be responsible for the costs, fees and expenses incurred by it in connection with the negotiation of this Agreement and the transactions contemplated thereby; provided that the Company agrees to reimburse OrbiMed for its reasonable costs, fees and expenses (including, but not limited to, reasonable legal fees and expenses) up to a maximum of \$50,000. The Company shall be responsible for any registration fees payable to the SEC in connection with the issuance of the Warrants or otherwise in connection with the transactions contemplated by this Agreement.

Section 11. *Notices.* All notices, requests, consents and other communications hereunder shall be in writing, shall be mailed (A) if within the United States by first-class registered or certified airmail, or nationally recognized overnight express courier, postage prepaid, or by facsimile or electronic mail, or (B) if delivered from outside the United States, by International Federal Express (or other recognized international express courier) or facsimile, and shall be deemed given (i) if delivered by first-class registered or certified mail, three business days after so mailed, (ii) if delivered by nationally recognized overnight carrier, one business day after so mailed, (iii) if delivered by International Federal Express (or other recognized international express courier), two business days after so mailed, or (iv) if delivered by facsimile or electronic mail, upon electronic confirmation of receipt and shall be delivered as addressed as follows:

if to the Company, to:

NxStage Medical, Inc.
439 S. Union St., 5th Floor
Lawrence, MA 01843
Phone: (978) 687-4700
Fax: (978) 687-4825
Attn: Winifred Swan
Email: wswan@nxstage.com

With a copy to:

O'Melveny & Myers LLP
2765 Sand Hill Road
Menlo Park, CA 94025
Fax: (650) 473-2601
Attn: Sam Zucker

if to the Investor, to:

Fax:
Attn:

With a copy to: _____

Fax:
Attn:

Section 12. Changes. No provision of this Agreement may be waived, modified or amended except pursuant to an instrument in writing signed by the Company and the Investor.

Section 13. Headings. The headings of the various sections of this Agreement have been inserted for convenience of reference only and shall not be deemed to be part of this Agreement.

Section 14. Severability. In case any provision contained in this Agreement should be invalid, illegal or unenforceable in any respect, the validity, legality and enforceability of the remaining provisions contained herein shall not in any way be affected or impaired thereby.

Section 15. Governing Law; Jurisdiction. This Agreement shall be governed by and construed in accordance with the laws of the State of New York without giving effect to the principles of conflicts of law. Any legal suit, action or proceeding arising out of or based upon this Agreement or the transactions contemplated hereby ("**Related Proceedings**") may be instituted in the federal courts of the United States of America located in New York, New York (collectively, the "**Specified Courts**"), and each party irrevocably submits to the non-exclusive jurisdiction of such Specified Courts of such courts in any such suit, action or proceeding. Service of any process, summons, notice or document by mail to such party's address set forth above shall be effective service of process for any suit, action or other proceeding brought in any such court. The parties irrevocably and unconditionally waive any objection to the laying of venue of any suit, action or other proceeding in the Specified Courts and irrevocably and unconditionally waive and agree not to plead or claim in any such court that any such suit, action or other proceeding brought in any such court has been brought in an inconvenient forum. With respect to any Related Proceeding, each party irrevocably waives, to the fullest extent permitted by applicable law, all immunity (whether on the basis of sovereignty or otherwise) from jurisdiction, service of process, attachment (both before and after judgment) and execution to which it might otherwise be entitled in the Specified Courts or any other court of competent jurisdiction.

Section 16. Counterparts. This Agreement may be executed in two (2) or more counterparts, each of which shall constitute an original, but all of which, when taken together, shall constitute but one instrument, and shall become effective when one or more counterparts have been signed by each party hereto and delivered to the other parties. Facsimile signatures shall be deemed original signatures.

Section 17. Entire Agreement. This Agreement and the instruments referenced herein contain the entire understanding of the parties with respect to the matters covered herein and therein and, except as specifically set forth herein or therein, neither the Company nor the Investor makes any representation, warranty, covenant or undertaking with respect to such matters. This Agreement supersedes all prior agreements and understandings among the parties hereto with respect to the subject matter hereof. As it relates to OrbiMed only, the parties agree that the obligations of OrbiMed under paragraph 9 of the letter agreement between the Company and the Investor dated April 17, 2008 shall be terminated upon the First Closing; provided that, as of the date of the First Closing, OrbiMed shall be subject to the Company's existing Insider Trading Policy as if OrbiMed were controlled by a director of the Company.

Section 18. Specific Performance. The Company acknowledges and agrees that the Investor would suffer irreparable damage if any of the provisions of this Agreement were not performed in accordance with their specific terms and that any breach of this Agreement by the Company could not be adequately compensated in all cases by monetary damages alone. Accordingly, in addition to any other right or remedy to which the Investor may be entitled, at law or in equity, it shall be entitled to enforce any provision of this

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Agreement by a decree of specific performance and to temporary, preliminary and permanent injunctive relief to prevent breaches or threatened breaches of any of the provisions of this Agreement, without posting any bond or other undertaking.

Section 19. Third Party Beneficiaries. This Agreement is intended for the benefit of the parties hereto and their respective permitted successors and assigns, and is not for the benefit of, nor may any provision hereof be enforced by, any other person.

Section 20. Successors and Assigns. This Agreement is binding upon and inures to the benefit of the parties and their successors and assigns. The Company may assign, after the Closing, this Agreement or any rights or obligations hereunder in connection with a merger, consolidation, sale of all or substantially all of the Company's assets or sale of 50% or more of the outstanding equity securities of the Company without the prior written consent of the Investor, and the Investor may not assign this Agreement or any rights or obligations hereunder except as provided in Section 7.2 hereof.

Section 21. Further Assurances. Each party will do and perform, or cause to be done and performed, all such further acts and things, and will execute and deliver all other agreements, certificates, instruments and documents, as another party may reasonably request in order to carry out the intent and accomplish the purposes of this Agreement and the consummation of the transactions contemplated hereby.

Section 22. No Strict Construction. The language used in this Agreement is deemed to be the language chosen by the parties to express their mutual intent, and no rules of strict construction will be applied against any party.

Section 23. Publicity. Each party hereto shall have the right to approve before issuance any press release or any other public statements with respect to the transactions contemplated by this Agreement.

[Remainder of page intentionally blank]

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IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed by their duly authorized representatives as of the day and year first above written.

NXSTAGE MEDICAL, INC.

By: _____
Name:
Title:

Number of Shares to be purchased by Investor:

Number of Shares underlying the Warrant to be purchased by Investor:

Price Per Share:

\$

Aggregate Purchase price for Shares and the Warrant to be purchased by Investor:

\$

Print or Type:

Name of Investor:

Name of Individual representing Investor:

Title of Individual representing Investor:

Signature by:

Signature of Individual representing
Investor (if an Institution): _____

Address:

Telephone:

Facsimile:

Annex B

FORM OF WARRANT

THIS WARRANT AND THE SHARES OF COMMON STOCK TO BE ISSUED UPON EXERCISE HEREOF HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR ANY STATE SECURITIES LAWS. NO SALE OR DISPOSITION MAY BE EFFECTED WITHOUT (I) AN EFFECTIVE REGISTRATION STATEMENT RELATED THERETO, (II) AN OPINION OF COUNSEL OR OTHER EVIDENCE, REASONABLY SATISFACTORY TO THE COMPANY, THAT SUCH REGISTRATION IS NOT REQUIRED, (III) RECEIPT OF NO-ACTION LETTERS FROM THE APPROPRIATE GOVERNMENTAL AUTHORITIES OR (IV) OTHERWISE COMPLYING WITH THE PROVISIONS OF SECTION 7 OF THIS WARRANT.

NXSTAGE MEDICAL, INC.

WARRANT TO PURCHASE SHARES
OF COMMON STOCK

Warrant No. W-[]

THIS CERTIFIES THAT, for value received, and its assigns are entitled to subscribe for and purchase shares (as adjusted pursuant to Section 4 hereof, the "Shares") of the fully paid and nonassessable common stock, par value \$0.001 per share ("Common Stock"), of NxStage Medical, Inc., a Delaware corporation (the "Company"), at the price of \$5.50 per share (such price and such other price as shall result, from time to time, from the adjustments specified in Section 4 hereof is herein referred to as the "Warrant Price"), subject to the provisions and upon the terms and conditions set forth herein and in the Securities Purchase Agreement, dated as of even date herewith, by and between the Company and the initial holder of this Warrant. As used herein, the term "Date of Grant" means , 2008. As used herein, the term "Warrant" shall be deemed to include any warrants issued in exchange or upon transfer or partial exercise of this Warrant unless the context clearly requires otherwise.

1. Term. (a) The purchase right represented by this Warrant is exercisable, in whole or in part, at any time and from time to time from the Date of Grant through the earlier of (i) , 2013 or (ii) the consummation of any of the following transactions: (A) the sale, lease, exchange, conveyance or other disposition of all or substantially all of the Company's property or business or (B) its merger into or consolidation with any other corporation (other than a wholly-owned subsidiary of the Company) or (C) any transaction (including a merger or other reorganization) or series of related transactions, in which more than 50% of the voting power of the Company is disposed of (each event described in the foregoing clauses (A) to (C) being a "Change of Control Event"), provided that the Company shall give the holder reasonably prior written notice of the proposed consummation of such Change of Control Event to permit the holder to exercise the rights under this Warrant.

(b) If a Change of Control Event occurs, the Company shall promptly pay to the holder of this Warrant an amount calculated in accordance with the Black-Scholes Option Pricing formula set forth in Appendix A hereto. Such payment shall be made (i) in cash from the Company to the holder of the Warrant upon the occurrence of a Change of Control Event and upon the shareholders of the Company receiving cash from the third party acquirer of the Company at the closing of the transaction, (ii) in shares of Common Stock of the Company (with the value of each share of Common Stock of the Company being determined according to SCorp in Appendix A hereto) in the event that the Change of Control Event results in the shareholders of the Company receiving shares in the third party acquirer or another entity at the closing of the transaction, or (iii) in the event that the shareholders of the Company receive both cash and shares upon the occurrence of a Change of Control Event at the closing of the transaction, shall be also be made in both cash and shares in the same proportion as the consideration received by the shareholders of the Company.

2. *Method of Exercise; Payment; Issuance of New Warrant.*

(a) Subject to Section 1 hereof, the purchase right represented by this Warrant may be exercised by the holder hereof, in whole or in part and from time to time, at the election of the holder hereof, by the surrender of this Warrant (with the notice of exercise substantially in the form attached hereto as [Exhibit A](#) duly completed and executed) at the principal office of the Company and by the payment to the Company, by certified or bank check, or by wire transfer to an account designated by the Company (a "[Wire Transfer](#)") of an amount equal to the then applicable Warrant Price multiplied by the number of Shares then being purchased. The person or persons in whose name(s) any certificate(s) representing the Shares shall be issuable upon exercise of this Warrant shall be deemed to have become the holder(s) of record of, and shall be treated for all purposes as the record holder(s) of, the Shares represented thereby (and such Shares shall be deemed to have been issued) immediately prior to the close of business on the date or dates upon which this Warrant is exercised. As soon as practicable after the exercise of this Warrant and in any event within three trading days thereafter, upon the terms and subject to the conditions of this Warrant, the Company at its expense will cause to be issued in the name of and delivered to the holder, or as the holder may direct to a broker or other persons, a certificate or certificates for the number of Shares to which the holder shall be entitled on such exercise, in such denominations as may be requested by the holder. In lieu of delivering physical certificates for the Shares issuable upon any exercise of this Warrant, provided the Company's transfer agent is participating in the Depository Trust Company ("DTC") Fast Automated Securities Transfer ("FAST") program, and that any legend upon the certificates for the Shares shall have been removed pursuant to Section 7 below, upon request of the holder, the Company shall use commercially reasonable efforts to cause its transfer agent electronically to transmit such Shares by crediting the account of the holder's broker with DTC through its Deposit Withdrawal Agent Commission system (provided that the same time limitations herein as for stock certificates shall apply).

(b) [On and after the Required Effective Date of the Registration Statement (as defined in the Securities Purchase Agreement) through the Term of this Warrant], in lieu of exercising this Warrant for cash, the holder may elect to receive shares equal to the value of this Warrant (or the portion thereof being exercised) by surrender of this Warrant at the principal office of the Company together with notice of such election substantially in the form attached hereto as [Exhibit A](#) duly completed and executed ("[Net Exercise](#)"). The Company shall issue to a holder who Net Exercises a number of Shares computed using the following formula:

$$X = \frac{Y(A-B)}{A}$$

Where

X = The number of Shares to be issued to the holder.

Y = The number of Shares purchasable under this Warrant or, if only a portion of the Warrant is being exercised, the portion of the Warrant being cancelled (at the date of such calculation).

A = The fair market value of one (1) Share (at the date of such calculation).

B = The Warrant Price (as adjusted to the date of such calculation (the "Determination Date")).

For purposes of this Section 2, the fair market value of a Warrant Share shall mean: the Volume Weighted Average Price (VWAP) of the Company's common stock for the 10 consecutive Trading Days ending on the date immediately preceding the date of the Exercise Notice, or if the VWAP cannot be calculated for a security on a particular date, the fair market value shall be mutually determined by the Company and the holder of this Warrant. All such determinations to be appropriately adjusted for any stock dividend, stock split, stock combination or other similar transaction during the applicable calculation period.

"VWAP" means, for any security as of any date, an average price calculated by adding up the dollars traded for every transaction (price multiplied by number of shares traded) and then dividing by the total shares traded for the day for such security on the NASDAQ Global Market, as reported by Bloomberg, or, if the NASDAQ Global Market begins to operate on an extended hours basis and does not designate the closing bid

price or the closing trade price, as the case may be, then the last bid price or the last trade price, respectively, of such security prior to 4:00:00 p.m., New York time, as reported by Bloomberg, or, if the NASDAQ Global Market is not the principal securities exchange or trading market for such security, the VWAP of such security on the principal securities exchange or trading market where such security is listed or traded as reported by Bloomberg, or if the foregoing do not apply, the VWAP, of such security in the over-the-counter market on the electronic bulletin board for such security as reported by Bloomberg, or, if no price is reported for such security by Bloomberg, the average of the bid prices, or the ask prices, respectively, of any market makers for such security as reported in the "pink sheets" by Pink Sheets LLC (formerly the National Quotation Bureau, Inc.).

"*Trading Day*" means any day on which the Common Stock are traded on the Principal Market, or, if the Principal Market is not the principal trading market for the Common Stock, then on the principal securities exchange or securities market on which the Common Stock are then traded; provided that "Trading Day" shall not include any day on which the Common Stock are scheduled to trade on such exchange or market for less than 4.5 hours or any day that the Common Stock are suspended from trading during the final hour of trading on such exchange or market (or if such exchange or market does not designate in advance the closing time of trading on such exchange or market, then during the hour ending at 4:00:00 p.m., New York time).

If there is no public market for the Common Stock, the fair market value shall be the price per Share that the Company could obtain from a willing buyer for Shares sold by the Company from authorized but unissued Shares, as such prices shall be determined in good faith by the Company's Board of Directors.

(c) In the event that this Warrant is exercised pursuant to this Section 2 in connection with the consummation of the Company's sale of its Common Stock or other securities pursuant to a registration statement under the Securities Act of 1933, as amended (other than a registration statement relating either to sale of securities to employees of the Company pursuant to its stock option, stock purchase or similar plan or a Rule 145 transaction) ("Public Offering"), the fair market value per Share shall be the per share offering price to the public of the Public Offering.

3. Stock Fully Paid; Reservation of Shares. All Shares that may be issued upon the exercise of the rights represented by this Warrant will, upon issuance pursuant to the terms and conditions herein, be fully paid and nonassessable, and free from all taxes, liens and charges with respect to the issue thereof. During the period within which the rights represented by this Warrant may be exercised, the Company will at all times have authorized, and reserved for the purpose of the issue upon exercise of the purchase rights evidenced by this Warrant, a sufficient number of shares of its Common Stock to provide for the exercise of the rights represented by this Warrant.

4. Adjustment of Warrant Price and Number of Shares. The number and kind of securities purchasable upon the exercise of this Warrant and the Warrant Price shall be subject to adjustment from time to time upon the occurrence of certain events, as follows:

(a) Reclassification or Merger. In case of any reclassification or change of securities of the class issuable upon exercise of this Warrant (other than a change in par value, or from par value to no par value, or from no par value to par value, or as a result of a subdivision or combination), or in case of any merger of the Company with or into another corporation (other than a merger with another corporation in which the Company is the acquiring and the surviving corporation and which does not result in any reclassification or change of outstanding securities issuable upon exercise of this Warrant), or in case of any sale of all or substantially all of the assets of the Company, then any such transaction shall not be consummated unless the Company, or such successor or purchasing corporation, as the case may be, shall have or shall have agreed to in writing to duly execute and deliver to the holder of this Warrant a new Warrant (in form and substance satisfactory to the holder of this Warrant), or the Company shall make appropriate provision without the issuance of a new Warrant, so that the holder of this Warrant shall have the right to receive upon exercise of this Warrant, at a total purchase price not to exceed that payable upon the exercise of the unexercised portion of this Warrant, and in lieu of the shares of Common Stock theretofore issuable upon exercise of this Warrant, the kind and amount of shares of stock, other

securities, money and property receivable upon such reclassification, change or merger by a holder of the number of shares of Common Stock then purchasable under this Warrant. Such new Warrant shall provide for adjustments that shall be as nearly equivalent as may be practicable to the adjustments provided for in this Section 4. The provisions of this subparagraph (a) shall similarly apply to successive reclassifications, changes, mergers and transfers.

(b) Subdivision or Combination of Shares. If the Company at any time while this Warrant remains outstanding and unexpired shall subdivide or combine its outstanding shares of Common Stock, the Warrant Price shall be proportionately decreased and the number of Shares issuable hereunder shall be proportionately increased in the case of a subdivision or the Warrant Price shall be proportionately increased and the number of Shares issuable hereunder shall be proportionately decreased in the case of a combination.

(c) Stock Dividends and Other Distributions. If the Company at any time while this Warrant is outstanding and unexpired shall pay a dividend or make a distribution to all of its stockholders with respect to its Common Stock payable in Common Stock, then the Warrant Price shall be adjusted, from and after the date of determination of stockholders entitled to receive such dividend or distribution, to that price determined by multiplying the Warrant Price in effect immediately prior to such date of determination by a fraction (A) the numerator of which shall be the total number of shares of Common Stock outstanding immediately prior to such dividend or distribution, and (B) the denominator of which shall be the total number of shares of Common Stock outstanding immediately after such dividend or distribution.

(d) Milestone Adjustment. Upon the announcement of the Company's earnings for the fourth quarter and year ended December 31, 2008, the Warrant Price shall be adjusted automatically to either (i) \$3.00 per share, if the number of ESRD patients prescribed to receive therapy using the NxStage System One is less than 3,100 as reported in the Company Reports on December 31, 2008, or (ii) \$6.50 per share, if the number of ESRD patients prescribed to receive therapy using the NxStage System is more than 3,500 as reported in the Company Reports on December 31, 2008. Any adjustment to the Warrant Price required by the preceding sentence shall be subject to any additional adjustment to such Warrant Price required due to the prior occurrence of any of the events set forth in clauses (a) to (c) and (e) of this Section 4.

(e) Adjustment of Number of Shares. Upon each adjustment in the Warrant Price, the number of Shares purchasable hereunder shall be adjusted, to the nearest whole share, to the product obtained by multiplying the number of Shares purchasable immediately prior to such adjustment in the Warrant Price by a fraction, the numerator of which shall be the Warrant Price immediately prior to such adjustment and the denominator of which shall be the Warrant Price immediately thereafter.

5. Notice of Adjustments. Whenever the Warrant Price or the number of Shares purchasable hereunder shall be adjusted pursuant to Section 4 hereof, the Company shall make a certificate signed by its chief executive officer, chief financial officer or any vice president setting forth, in reasonable detail, the event requiring the adjustment, the amount of the adjustment, the method by which such adjustment was calculated, and the Warrant Price and the number of Shares purchasable hereunder after giving effect to such adjustment, and shall cause copies of such certificate to be mailed (without regard to Section 13 hereof, by first class mail, postage prepaid) to the holder of this Warrant at such holder's last known address.

6. Fractional Shares. No fractional shares of Common Stock will be issued in connection with any exercise hereunder, but in lieu of such fractional shares the Company shall make a cash payment therefor based on the fair market value of the Common Stock on the date of exercise as reasonably determined in good faith by the Company's Board of Directors.

7. Compliance with Securities Act; Disposition of Warrant or Shares of Common Stock.

(a) Compliance with Securities Act. The holder of this Warrant, by acceptance hereof, agrees that this Warrant, and the Shares to be issued upon exercise hereof, are being acquired for investment and that such

holder will not offer, sell or otherwise dispose of this Warrant, or any Shares except under circumstances which will not result in a violation of the Securities Act of 1933, as amended (the "Act") or any applicable state securities laws. Upon exercise of this Warrant, unless the Shares being acquired are registered under the Act and any applicable state securities laws or an exemption from such registration is available, the holder hereof shall confirm in writing that the Shares so purchased are being acquired for investment and not with a view toward distribution or resale in violation of the Act and shall confirm such other matters related thereto as may be reasonably requested by the Company. This Warrant and all Shares issued upon exercise of this Warrant (unless registered under the Act and any applicable state securities laws) shall be stamped or imprinted with a legend in substantially the following form:

"THE SECURITIES EVIDENCED HEREBY HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR ANY STATE SECURITIES LAWS. NO SALE OR DISPOSITION MAY BE EFFECTED WITHOUT (I) AN EFFECTIVE REGISTRATION STATEMENT RELATED THERETO, (II) AN OPINION OF COUNSEL OR OTHER EVIDENCE, REASONABLY SATISFACTORY TO THE COMPANY, THAT SUCH REGISTRATION IS NOT REQUIRED, (III) RECEIPT OF NO-ACTION LETTERS FROM THE APPROPRIATE GOVERNMENTAL AUTHORITIES, OR (IV) OTHERWISE COMPLYING WITH THE PROVISIONS OF SECTION 7 OF THE WARRANT UNDER WHICH THESE SECURITIES WERE ISSUED, DIRECTLY OR INDIRECTLY."

Said legend shall be removed by the Company, upon the request of a holder, at such time as the restrictions on the transfer of the applicable security shall have terminated. For the avoidance of doubt, the holder acknowledges that the Shares issued upon exercise of the Warrant at any time will be unregistered securities, subject to the rights of such holder to have the Shares registered as provided in Section 9 below.

In addition, in connection with the issuance of this Warrant, the holder specifically represents to the Company by acceptance of this Warrant as follows:

(1) The holder is aware of the Company's business affairs and financial condition, and has acquired information about the Company sufficient to reach an informed and knowledgeable decision to acquire this Warrant. The holder is acquiring this Warrant for its own account for investment purposes only and not with a view to, or for the resale in connection with, any "distribution" thereof in violation of the Act.

(2) The holder understands that this Warrant has not been registered under the Act in reliance upon a specific exemption therefrom, which exemption depends upon, among other things, the bona fide nature of the holder's investment intent as expressed herein.

(3) The holder further understands that this Warrant must be held indefinitely unless subsequently registered under the Act and qualified under any applicable state securities laws, or unless exemptions from registration and qualification are otherwise available. The holder is aware of the provisions of Rule 144, promulgated under the Act.

(4) The holder is an "accredited investor" as such term is defined in Rule 501 of Regulation D promulgated under the Act.

(b) *Disposition of Warrant or Shares.* Subject to compliance with any applicable securities laws and conditions set forth in this Section 7(b), this Warrant and all rights hereunder are transferable, in whole or in part, upon surrender of this Warrant at the principal office of the Company, together with a written assignment of this Warrant in form and substance reasonably acceptable to the Company and the holder. Upon such surrender, the Company shall execute and deliver a new Warrant or Warrants in the name of the assignee(s) in the denomination specified in such instrument of assignment, and shall issue to the assignor a new Warrant and this Warrant shall be promptly cancelled. A Warrant, if properly assigned, may be exercised by a new holder for the purchase of Shares without having a new Warrant issued. With respect to any offer, sale or other disposition of this Warrant or any Shares acquired pursuant to the exercise of this Warrant prior to registration of such Warrant or Shares, the holder hereof agrees to give written notice to the Company prior thereto, describing briefly the manner thereof, together with a written opinion of such holder's counsel, or other evidence satisfactory to the Company, to the effect that such offer, sale or other disposition may be effected

without registration or qualification (under the Act as then in effect or any federal or state securities law then in effect) of this Warrant or the Shares and indicating whether or not under the Act certificates for this Warrant or the Shares to be sold or otherwise disposed of require any restrictive legend as to applicable restrictions on transferability in order to ensure compliance with such law. Upon receiving such written notice and reasonably satisfactory opinion or other evidence, the Company, as promptly as practicable but no later than one (1) business day after receipt of the written notice, shall notify such holder that such holder may sell or otherwise dispose of this Warrant or such Shares, all in accordance with the terms of the notice delivered to the Company. If a determination has been made pursuant to this Section 7(b) that the opinion of counsel for the holder or other evidence is not reasonably satisfactory to the Company, the Company shall so notify the holder promptly with details thereof after such determination has been made. Notwithstanding the foregoing, this Warrant or such Shares may, as to such federal laws, be offered, sold or otherwise disposed of in accordance with Rule 144 or 144A under the Act, provided that the Company shall have been furnished with such information as the Company may reasonably request to provide a reasonable assurance that the provisions of Rule 144 or 144A have been satisfied. Each certificate representing this Warrant or the Shares thus transferred (except a transfer pursuant to Rule 144) shall bear a legend as to the applicable restrictions on transferability in order to ensure compliance with such laws, unless in the aforesaid opinion of counsel for the holder, such legend is not required in order to ensure compliance with such laws. The Company may issue stop transfer instructions to its transfer agent in connection with such restrictions.

(c) Applicability of Restrictions. Neither any restrictions of any legend described in this Warrant nor the requirements of Section 7(b) above shall apply to any transfer or grant of a security interest in, this Warrant (or the shares of Common Stock obtainable upon exercise thereof) or any part hereof (i) to a partner of the holder if the holder is a partnership or to a member of the holder if the holder is a limited liability company, (ii) to a partnership of which the holder is a partner or a limited liability company of which the holder is a member, (iii) to another investment vehicle controlled or advised by the same manager or one of its affiliates in the case of any collective investment vehicle or similar holder, or (iv) to any affiliate of the holder if the holder is a corporation; provided, however, in any such transfer, if applicable, the transferee shall on the Company's request agree in writing to be bound by the terms of this Warrant as if an original holder hereof.

8. Rights as Stockholders. No holder of this Warrant, as such, shall be entitled to vote or receive dividends or be deemed the holder of Common Stock or any other securities which may at any time be issuable on the exercise hereof for any purpose, nor shall anything contained herein be construed to confer upon the holder of this Warrant, as such, any of the rights of a stockholder of the Company or any right to vote for the election of directors or upon any matter submitted to stockholders at any meeting thereof, or to receive notice of meetings, or to receive dividends or subscription rights or otherwise until this Warrant shall have been exercised and the Shares purchasable upon the exercise hereof shall have become deliverable, as provided herein.

9. Registration Rights. The Company grants registration rights to the holder of this Warrant for any shares of Common Stock of the Company obtained upon exercise hereof as set forth in the Securities Purchase Agreement.

10. Modification and Waiver. This Warrant and any provision hereof may be changed, waived, discharged or terminated only by an instrument in writing signed by the party against which enforcement of the same is sought.

11. Notices. All notices, requests, consents and other communications hereunder shall be in writing, shall be mailed (A) if within the United States by first-class registered or certified airmail, or nationally recognized overnight express courier, postage prepaid, or by facsimile or electronic mail, or (B) if delivered from outside the United States, by International Federal Express (or other recognized international express courier) or facsimile, and shall be deemed given (i) if delivered by first-class registered or certified mail, three business days after so mailed, (ii) if delivered by nationally recognized overnight carrier, one business day after so mailed, (iii) if delivered by International Federal Express (or other recognized international express

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courier), two business days after so mailed, or (iv) if delivered by facsimile or electronic mail, upon electronic confirmation of receipt and shall be delivered as addressed as follows:

if to the Company, to:
NxStage Medical, Inc.
439 S. Union St., 5th Floor
Lawrence, MA 01843
Phone: (978) 687-4700
Fax: (978) 687-4825
Attn: Winifred Swan
Email: wswan@nxstage.com

With a copy to:
O'Melveny & Myers LLP
2765 Sand Hill Road
Menlo Park, CA 94025
Fax: (650) 473-2601
Attn: Sam Zucker

if to the holder, at its address as shown on the books of the Company.

12. Binding Effect on Successors. This Warrant shall be binding upon any corporation succeeding the Company by merger, consolidation or acquisition of all or substantially all of the Company's assets, and all of the obligations of the Company relating to the Shares issuable upon the exercise or conversion of this Warrant shall survive the exercise, conversion and termination of this Warrant and all of the covenants and agreements of the Company shall inure to the benefit of the successors and assigns of the holder hereof.

13. Lost Warrants or Stock Certificates. The Company covenants to the holder hereof that, upon receipt of evidence reasonably satisfactory to the Company of the loss, theft, destruction or mutilation of this Warrant or any stock certificate and, in the case of any such loss, theft or destruction, upon receipt of an indemnity reasonably satisfactory to the Company, or in the case of any such mutilation upon surrender and cancellation of such Warrant or stock certificate, the Company will make and deliver a new Warrant or stock certificate, of like tenor, in lieu of the lost, stolen, destroyed or mutilated Warrant or stock certificate.

14. Descriptive Headings. The descriptive headings of the several paragraphs of this Warrant are inserted for convenience only and do not constitute a part of this Warrant. The language in this Warrant shall be construed as to its fair meaning without regard to which party drafted this Warrant.

15. Governing Law. This Warrant shall be construed and enforced in accordance with, and the rights of the parties shall be governed by, the laws of the State of Delaware.

16. Survival of Representations, Warranties and Agreements. All representations and warranties of the Company and the holder hereof contained herein shall survive the Date of Grant, the exercise or conversion of this Warrant (or any part hereof) or the termination or expiration of rights hereunder. All agreements of the Company and the holder hereof contained herein shall survive indefinitely until, by their respective terms, they are no longer operative.

17. Remedies. In case any one or more of the covenants and agreements contained in this Warrant shall have been breached, the holders hereof (in the case of a breach by the Company), or the Company (in the case of a breach by a holder), may proceed to protect and enforce their or its rights either by suit in equity and/or by action at law, including, but not limited to, an action for damages as a result of any such breach and/or an action for specific performance of any such covenant or agreement contained in this Warrant.

18. No Impairment of Rights. The Company will not, by amendment of its certificate of incorporation or through any other means, avoid or seek to avoid the observance or performance of any of the terms of this Warrant, but will at all times in good faith assist in the carrying out of all such terms and in the taking of all

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such action as may be necessary or appropriate in order to protect the rights of the holder of this Warrant against impairment.

19. *Severability.* Whenever possible, each provision of this Warrant shall be interpreted in such a manner as to be valid, legal and enforceable under all applicable laws and regulations. If, however, any provision of this Warrant shall be invalid, illegal or unenforceable under any such law or regulation in any jurisdiction, it shall, as to such jurisdiction, be deemed modified to conform to the minimum requirements of such law or regulation, or, if for any reason it is not deemed to be so modified, it shall be invalid, illegal or unenforceable only to the extent of such invalidity, illegality or limitation on enforceability without affecting the remaining provisions of this Warrant or the validity, legality or enforceability of such provision in any other jurisdiction.

20. *Entire Agreement. Modification.* This Warrant constitutes the entire agreement between the parties pertaining to the subject matter contained in it and supersedes all prior and contemporaneous agreements, representations, and undertakings of the parties, whether oral or written, with respect to such subject matter.

[Remainder of page intentionally left blank]

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IN WITNESS WHEREOF, the parties have executed this Warrant as of the date first written above.

NXSTAGE MEDICAL, INC.

By:

Name:

Title:

Address: 439 S. Union St., 5th Floor
Lawrence, MA 01843

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Notice of Exercise

1. The undersigned hereby:

- elects to purchase _____ shares of Common Stock of the Company pursuant to the terms of the attached Warrant, and tenders herewith payment of the purchase price of such _____ shares in full.
- elects to exercise its issuance rights pursuant to Section 2(b) of the attached Warrant with respect to shares of Common Stock of the Company.

2. Please issue a certificate or certificates representing said shares in the name of the undersigned or in such other name or names as are specified below:

(Name)

(Address)

3. The undersigned represents that the aforesaid shares are being acquired for the account of the undersigned for investment and not with a view to, or for resale in connection with, the distribution thereof and that the undersigned has no present intention of distributing or reselling such shares, all except as in compliance with applicable securities laws.

(Signature)

Dated:

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Black Scholes Option Pricing formula to be used when calculating the value of the Warrant shall be:

CCorp multiplied by the number of Shares for which the Warrant could have been exercised immediately prior to the occurrence of the Change of Control Event, where:

$$CCorp = SCorp - \lambda (TCorp - tCorp)N(d1) - KCorp e^{-r(TCorp - tCorp)}N(d2)$$

CCorp = value of the Warrant

SCorp = price of Company stock as determined by reference to the average of the closing prices on the Nasdaq National Market or other securities exchange upon which the Company's stock may then be traded over the 20-day period ending three trading days prior to the closing of the Change of the Control Event, or the average of the closing bid or sale prices (whichever is applicable) in the over-the-counter market over the 20-day period ending three trading days prior to the closing of the Change of Control Event, if the Company's stock is then actively traded in the over-the-counter market, or the then most recently completed financing if the Company's stock is not then traded on a securities exchange or system or in the over-the-counter market.

TCorp = expiration date of the Warrant

tCorp = date of public announcement of Change of Control Event

TCorp-tCorp = time until the Warrant would have expired, but for the occurrence of the Change of Control Event, expressed in years

σ = volatility = the annualized standard deviation of daily log-returns (using a 262-day annualization factor) of the Company's stock price on Nasdaq National Market or other securities exchange upon which the Company's stock may then be traded over a 20-day trading period, determined by the holder of the Warrant, that is within the 100-day trading period ending on the trading day immediately after the public announcement of the Change of Control Event, or the annualized standard deviation of daily-log returns (using a 262-day annualization factor) of the closing bid or sale prices (whichever is applicable) in the over-the-counter market over a 20-day trading period, determined by the holder of Warrant, that is within the 100-day trading period ending on the trading day immediately after the public announcement of the Change in Control Event if the Company's stock is then actively traded in the over-the-counter market, or 0.6 (or 60%) if the Company's stock is not then traded on a securities exchange or system or in the over-the-counter market.

N = cumulative normal distribution function

$$d1 = (\ln(SCorp/KCorp) + (r - \lambda + \sigma^2/2)(TCorp - tCorp)) / (\sigma \sqrt{TCorp - tCorp})$$

ln = natural logarithm

λ = dividend rate of the Company for the most recent 12-month period at the time of closing of the Change of Control Event.

KCorp = strike price of warrant

r = annual yield, as reported by Bloomberg at time tCorp, of the United States Treasury security measuring the nearest time TCorp

$$d2 = d1 - \sigma \sqrt{TCorp - tCorp}$$

Annex C

FORM OF VOTING AGREEMENT
VOTING AGREEMENT

This VOTING AGREEMENT, dated as of May 22, 2008 (the "Agreement") is by and between the undersigned stockholder (the "Stockholder") of the Company (as hereinafter defined) and NxStage Medical, Inc., a Delaware corporation ("Company").

WHEREAS, as of the date hereof, the Stockholder owns of record and beneficially (as determined in accordance with Rule 13d-3 promulgated under the Securities Exchange Act of 1934, as amended) the number of shares of capital stock of the Company set forth on the signature page hereto (such shares, or any other voting or equity of securities of the Company hereafter acquired by the Stockholder prior to the termination of this Agreement, being referred to herein collectively as the "Shares");

WHEREAS, the Company, the Stockholder and certain other investors (the "Investors") in the Company have entered into certain Securities Purchase Agreements, each dated as of May 22, 2008 (collectively, the "Purchase Agreements"), pursuant to which, upon the terms and subject to the conditions thereof, the Investors will purchase (collectively in two or more closings) shares of common stock of Company and warrants to purchase shares of common stock of the Company (the "PIPE Transactions"); and

WHEREAS, as a condition to the willingness of Company to enter into the PIPE Transactions, Company has required that the Stockholder agree, and in order to induce Company to enter into the PIPE Transactions, the Stockholder is willing to agree to vote in favor of the PIPE Transactions upon the terms and subject to the conditions set forth herein.

NOW, THEREFORE, in consideration of the foregoing and the mutual covenants and agreements contained herein, and intending to be legally bound hereby, the parties hereby agree as follows:

Section 1. Voting of Shares.

(a) Voting. The Stockholder covenants and agrees that until the termination of this Agreement in accordance with the terms hereof, at any meeting of the stockholders of the Company, however called with respect to any of the following, and in any action by written consent of the stockholders of the Company with respect to any of the following, the Stockholder will vote, or cause to be voted, all of his, her or its respective Shares (i) in favor of any matter that could reasonably be expected to facilitate the PIPE Transactions, and (ii) against any matter that could reasonably be expected to hinder, impede or delay the consummation of the PIPE Transactions.

(b) Irrevocable Proxy.

(i) The Stockholder hereby irrevocably grants to and appoints, and hereby authorizes and empowers, Company, and any individual designated in writing by it, and each of them individually, as the Stockholder's sole and exclusive proxy and attorney-in-fact (with full power of substitution and resubstitution), for and in the Stockholder's name, place and stead, to vote and exercise all voting and related rights (to the fullest extent that the Stockholder is entitled to do so) with respect to his, her or its Shares at any meeting of the stockholders of the Company called, and in every written consent in lieu of such meeting, with respect to any of the matters specified in, and in accordance and consistent with, this Section 1. The Stockholder may vote the Shares on all other matters not contemplated by this Section 1.

(ii) The Stockholder understands and acknowledges that Company is entering into the PIPE Transactions in reliance upon the Stockholder's execution and delivery of this Agreement. The Stockholder hereby affirms that the irrevocable proxy set forth in this Section 1(b) constitutes an inducement for Company to enter into the PIPE Transactions, is given in connection with the execution of the Purchase Agreement between the Stockholder and the Company dated as of the date hereof, and is given to secure the performance of the duties of the Stockholder under such Purchase Agreement. Except as otherwise provided for herein, the Stockholder hereby (i) affirms that the irrevocable proxy is coupled with an interest and may under no circumstances be revoked, (ii) ratifies and confirms all that the proxies appointed hereunder may lawfully do or cause to be

done by virtue hereof and (iii) affirms that such irrevocable proxy is executed and intended to be irrevocable in accordance with the provisions of Section 212(e) of the Delaware General Corporation Law.

(iii) Upon the execution of this Agreement by the Stockholder, the Stockholder hereby revokes any and all prior proxies or powers of attorney given by the Stockholder with respect to the Shares. The Stockholder acknowledges and agrees that no subsequent proxies with respect to such Shares shall be given, and if given, shall not be effective. All authority conferred herein shall survive the death or incapacity of the Stockholder and any obligation of the Stockholder hereunder shall be binding upon the heirs, personal representatives, successors and assigns of the Stockholder. Notwithstanding any other provisions of this Agreement, the irrevocable proxy granted hereunder shall automatically terminate upon the Expiration Date (as defined in Section 4).

Section 2. Transfer of Shares.

(a) Until the consummation of all of the PIPE Transactions or unless the transferee agrees to be bound by the terms of this Agreement, the Stockholder covenants and agrees that the Stockholder will not directly or indirectly, (i) sell, assign, transfer (including by merger, testamentary disposition, interspousal disposition pursuant to a domestic relations proceeding or otherwise by operation of law), pledge, encumber or otherwise dispose of any of the Shares, (ii) deposit any of the Shares into a voting trust or enter into a voting agreement or arrangement with respect to the Shares or grant any proxy or power of attorney with respect thereto which is inconsistent with this Agreement or (iii) enter into any contract, option or other arrangement or undertaking with respect to the direct or indirect sale, assignment, transfer (including by merger, testamentary disposition, interspousal disposition pursuant to a domestic relations proceeding or otherwise by operation of law) or other disposition of any Shares.

(b) The Company shall not recognize the transfer of any Shares in violation of the transfer restrictions set forth in Section 2(a) of this Agreement.

Section 3. Representations and Warranties of the Stockholder. The Stockholder hereby represents and warrants to the Company with respect to the Stockholder and its, his or her ownership of the Shares as follows:

(a) Ownership of Shares. The Stockholder owns of record and beneficially all of the Shares set forth on the signature page hereto and has good and marketable title to such Shares, free and clear of any claims, liens, encumbrances and security interests whatsoever, other than liens under applicable law or as expressly provided in this Agreement. The Stockholder owns no equity interest in the Company other than the Shares as set forth on the signature page hereto. The Stockholder has sole voting power (or shared voting power solely with its affiliates), without restrictions, with respect to all of the Shares.

(b) Power Binding Agreement. The Stockholder has the legal capacity and all requisite power and authority to enter into and perform all of its, his or her obligations under this Agreement. This Agreement has been duly and validly executed and delivered by the Stockholder and constitutes a valid and binding obligation of the Stockholder, enforceable against the Stockholder in accordance with its terms.

Section 4. Termination. This Agreement shall terminate upon the Expiration Date; provided, however, that no such termination shall relieve any party of liability for a willful breach hereof prior to termination. As used herein, "Expiration Date" shall mean the earlier to occur of (i) the consummation of all of the PIPE Transactions, (ii) the one (1) year anniversary of the date hereof, and (iii) the date the Purchase Agreement between the Company and affiliates of OrbiMed Advisors, LLC is terminated in accordance with the terms thereof.

Section 5. Specific Performance. The parties hereto agree that irreparable damage would occur in the event any provision of this Agreement was not performed in accordance with the terms hereof and that the parties shall be entitled to specific performance of the terms hereof, in addition to any other remedy at law or in equity.

Section 6. Additional Documents. Stockholders hereby covenants and agrees to execute and deliver any additional documents necessary or desirable, in the reasonable opinion of Company and the Stockholder, as the case may be, to carry out the intent of this Agreement.

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Section 7. *Miscellaneous.*

(a) *Entire Agreement.* This Agreement constitutes the entire agreement between the parties hereto with respect to the subject matter hereof and supersedes all prior agreements and understandings, both written and oral, between the parties with respect thereto. This Agreement may not be amended, modified or rescinded except by an instrument in writing signed by each of the parties hereto. Nothing contained in this Agreement shall be construed to limit or effect in any way any voting, trading or other rights of any entity (whether affiliated with the Stockholder or otherwise) that is not explicitly a party to this Agreement or a substantially identical version of this Agreement.

(b) *Severability.* If any term or other provision of this Agreement is invalid, illegal or incapable of being enforced by any rule of law, or public policy, all other conditions and provisions of this Agreement shall nevertheless remain in full force and effect. Upon such determination that any term or other provision is invalid, illegal or incapable of being enforced, the parties hereto shall negotiate in good faith to modify this Agreement so as to effect the original intent of the parties as closely as possible to the fullest extent permitted by applicable law in a mutually acceptable manner in order that the terms of this Agreement remain as originally contemplated to the fullest extent possible.

(c) *Governing Law.* This Agreement shall be governed by and construed in accordance with the internal laws of the State of Delaware without giving effect to any choice or conflict of law provision or rule (whether of the State of Delaware or any other jurisdiction) that would cause the application of laws of any jurisdictions other than those of the State of Delaware.

(d) *Counterparts.* This Agreement may be executed in two or more counterparts, each of which shall be deemed an original but all of which together shall constitute one and the same instrument. This Agreement may be executed by facsimile signature.

(e) *Notices.*

All notices, requests, consents and other communications hereunder shall be in writing, shall be mailed (A) if within the United States by first-class registered or certified airmail, or nationally recognized overnight express courier, postage prepaid, or by facsimile or electronic mail, or (B) if delivered from outside the United States, by International Federal Express (or other recognized international express courier) or facsimile, and shall be deemed given (i) if delivered by first-class registered or certified mail, three business days after so mailed, (ii) if delivered by nationally recognized overnight carrier, one business day after so mailed, (iii) if delivered by International Federal Express (or other recognized international express courier), two business days after so mailed, or (iv) if delivered by facsimile or electronic mail, upon electronic confirmation of receipt and shall be delivered as addressed as follows:

if to the Company, to:
NxStage Medical, Inc.
439 S. Union St., 5th Floor
Lawrence, MA 01843
Phone: (978) 687-4700
Fax: (978) 687-4825
Attn: Winifred Swan
Email: wswan@nxstage.com

With a copy to:
O'Melveny & Myers LLP
2765 Sand Hill Road
Menlo Park, CA 94025
Fax: (650) 473-2601
Attn: Sam Zucker

if to the Stockholder, at its address as shown on the books of the Company.

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(f) Assignment. This Agreement shall not be assigned by operation of law or otherwise; provided, however, that Company may assign any or all of its rights and obligations under this Agreement to any wholly-owned subsidiary of Company, but no such assignment shall relieve Company of its obligations hereunder if such assignee does not perform such obligations.

(g) Legal Counsel. Stockholder acknowledges that he, she or it has been advised to, and has had the opportunity to consult with his, her or its personal attorney prior to entering into this Agreement. Stockholder further acknowledges that attorneys for the Company represent the Company and do not represent Stockholder or any of the stockholders of the Company in connection with the this Agreement or any of the transactions contemplated hereby.

(h) Agreement Negotiated. Stockholder acknowledges that he, she or it has been advised to, and has had the opportunity to, consult with his, her or its personal attorney prior to entering into this Agreement. As a consequence, Stockholder does not believe or intend that any laws or rules relating to the interpretation of contracts against the drafter of any particular clause should be applied in this case and therefore waive its effects.

(i) Interpretation. When reference is made in this Agreement to an Article or a Section, such reference shall be to an Article or Section of this Agreement, unless otherwise indicated. The headings contained in this Agreement are for convenience of reference only and shall not affect in any way the meaning or interpretation of this Agreement. The language used in this Agreement shall be deemed to be the language chosen by the parties hereto to express their mutual intent, and no rule of strict construction shall be applied against any party. Whenever the context may require, any pronouns used in this Agreement shall include the corresponding masculine, feminine or neuter forms, and the singular form of nouns and pronouns shall include the plural, and vice versa. Any reference to any federal, state, local or foreign statute or law shall be deemed also to refer to all rules and regulations promulgated thereunder, unless the context requires otherwise. Whenever the words "include," "includes" or "including" are used in this Agreement, they shall be deemed to be followed by the words "without limitation." No summary of this Agreement prepared by the parties shall affect in any way the meaning or interpretation of this Agreement.

(j) Submission to Jurisdiction. Each of the parties to this Agreement (i) submits to the jurisdiction of any state or federal court sitting in New York, New York in any action or proceeding arising out of or relating to this Agreement or any of the transactions contemplated by this Agreement, (ii) agrees that all claims in respect of such action or proceeding may be heard and determined in any such court, and (iii) agrees not to bring any action or proceeding arising out of or relating to this Agreement or any of the transactions contemplated by this Agreement in any other court. Each of the parties hereto waives any defense of inconvenient forum to the maintenance of any action or proceeding so brought and waives any bond, surety or other security that might be required of any other party with respect thereto. Any party hereto may make service on another party by sending or delivering a copy of the process to the party to be served at the address and in the manner provided for the giving of notices in Section 7(e). Nothing in this Section 7(j), however, shall affect the right of any party to serve legal process in any other manner permitted by law.

(k) WAIVER OF JURY TRIAL. EACH OF THE PARTIES HERETO HEREBY IRREVOCABLY WAIVES ALL RIGHTS TO TRIAL BY JURY IN ANY ACTION, PROCEEDING OR COUNTERCLAIM (WHETHER BASED ON CONTRACT, TORT OR OTHERWISE) ARISING OUT OF OR RELATING TO THIS AGREEMENT OR THE TRANSACTIONS CONTEMPLATED HEREBY OR THE ACTIONS OF THE COMPANY OR THE STOCKHOLDER IN THE NEGOTIATION, ADMINISTRATION, PERFORMANCE AND ENFORCEMENT OF THIS AGREEMENT.

IN WITNESS WHEREOF, each of the parties hereto has caused this Agreement to be signed individually or by its respective duly authorized officer as of the date first written above.

NXSTAGE MEDICAL, INC.

By: _____
Name: _____
Title: _____

STOCKHOLDER:

By: _____
Name: _____
Title: _____

Stock Certificate Number	Number of Shares of Common Stock Represented Thereby
_____	_____

**THIS PROXY IS SOLICITED ON BEHALF OF THE BOARD OF DIRECTORS
NXSTAGE MEDICAL, INC.
SPECIAL MEETING OF STOCKHOLDERS
, 2008**

Those signing on the reverse side, revoking any prior proxies, hereby appoint(s) Robert S. Brown and Winifred L. Swan, or each of them, with full power of substitution, as proxies for those signing on the reverse side to act and vote at the Special Meeting of Stockholders of NxStage Medical, Inc. and at any adjournments thereof as indicated upon all matters referred to on the reverse side and described in the Proxy Statement for the Special Meeting, and, in their discretion, upon any other matters which may properly come before the Special Meeting.

THIS PROXY, WHEN PROPERLY EXECUTED, WILL BE VOTED AS DIRECTED BY THE UNDERSIGNED STOCKHOLDER.

Please sign this proxy exactly as your name appears hereon. Joint owners should each sign personally. Trustees and other fiduciaries should indicate the capacity in which they sign. If a corporation or partnership, this signature should be that of an authorized officer who should state his or her title.

**UNLESS YOU INTEND TO VOTE YOUR SHARES BY INTERNET OR
TELEPHONE, PLEASE MARK, SIGN, DATE, AND RETURN THIS PROXY CARD
PROMPTLY IN ENCLOSED REPLY ENVELOPE**

ADDRESS CHANGES/COMMENTS?

(If you noted any address changes/comments above, please mark corresponding box on other side)

CONTINUED AND TO BE SIGNED ON REVERSE SIDE

NXSTAGE
439 SOUTH UNION ST., 5th FLR
LAWRENCE, MA 01843
ATTN: INVESTOR RELATIONS

VOTE BY INTERNET www.investorvote.com. Use the Internet to transmit your voting instructions and for electronic delivery of information up until 11:59 p.m. Eastern Time the day before the cut-off date or meeting date. Have your proxy card in hand when you access the website and follow the instructions to obtain your records and to create an electronic voting instruction form

VOTE BY PHONE 1-800-652-VOTE (8683)
Use any touch-tone telephone to transmit your voting instructions up until 11:59 p.m. Eastern Time the day before the cut-off date or meeting date. Have your proxy card in hand when you call and then follow the instructions

VOTE BY MAIL
Mark, sign and date your proxy card and return it in the postage-paid envelope we have provided or return it to NxStage Medical, Inc., c/o Computershare Investor Services, PO Box 43010, Providence, RI 02940-3010

TO VOTE, MARK BLOCKS IN BLUE OR
BLACK INK AS FOLLOWS

KEEP THIS PORTION FOR YOUR RECORDS

**DETACH AND RETURN THIS PORTION ONLY
THIS PROXY CARD IS VALID ONLY WHEN SIGNED AND DATED.**

- | | FOR | AGAINST | ABSTAIN |
|---|--------------------------|--------------------------|--------------------------|
| | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 1. To approve the issuance and sale of 4,000,000 shares of our common stock, at \$4.50 per share, and warrants exercisable for 800,000 shares of our common stock, at an initial exercise price of \$5.50 per share, to certain investors, including investors who are affiliates, either directly or through affiliates, of NxStage, among them a member of our board of directors, in exchange for aggregate gross proceeds NxStage of \$18 million at the second closing of our private placement of securities. | | | |
| 2. To transact such other business as may properly come before the meeting, including any adjournment or postponement thereof | | | |

For address changes/comments, please check this box and write them on the back where indicated

Signature: _____	Date: _____
Signature: _____	Date: _____