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

SCHEDULE 14A

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

Filed by the Registrant \boxtimes Filed by a Party other than the Registrant o

Check the appropriate box:

- o Preliminary Proxy Statement
- o Confidential, for Use of the Commission Only (as permitted by Rule 14a-6(e)(2))
- ☑ Definitive Proxy Statement
- o Definitive Additional Materials
- o Soliciting Material Pursuant to Rule 14a-11(c) or Rule 14a-12

CYTORI THERAPEUTICS, 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
- o Fee computed on table below per Exchange Act Rules 14a-6(i)(4) 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:
 - (4) Proposed maximum aggregate value of transaction:
 - (5) Total fee paid:
- o Fee paid previously with preliminary materials.
- o 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:



NOTICE OF SPECIAL MEETING OF STOCKHOLDERS TO BE HELD ON January 6, 2015

CYTORI THERAPEUTICS, INC Headquarters 3020 CALLAN RD SAN DIEGO, CALIFORNIA 92121 Meeting Location CYTORI THERAPEUTICS, INC. 3020 CALLAN RD SAN DIEGO, CALIFORNIA 92121

Dear Cytori Therapeutics, Inc. Stockholder:

You are cordially invited to attend a special meeting of the stockholders (the "Special Meeting") of Cytori Therapeutics, Inc. (the "Company"). The Special Meeting will be held on January 6, 2015, commencing at 9:00 a.m., San Diego local time, at the Company's headquarters, located at 3020 Callan Road, San Diego, California 92121.

To vote online, please see the instructions on the accompanying proxy card. The items of business for the meeting are:

- Approval of an Amendment to our Amended and Restated Certificate of Incorporation to increase the number of authorized shares of common stock from 145,000,000 shares to 290,000,000 shares;
- Approval, pursuant to NASDAQ Marketplace Rules 5635(b) and 5635(d), of the issuance of shares of common stock upon conversion of our Series A 3.6% Convertible Preferred Stock and exercise of warrants to purchase shares of our common stock;
- Approval of an adjournment of the Special Meeting, if necessary or appropriate, to permit solicitation of additional proxies in favor of the above proposals; and
- Approval to transact such other business properly brought before the meeting or any adjustments or postponements thereof.

We have attached a Proxy Statement that contains more information about these items and the meeting. Only stockholders that own stock at the close of business on November 12, 2014, the record date, can vote at the meeting. A list of our stockholders entitled to vote will be available for inspection by any stockholder at our offices in San Diego, during normal business hours for ten business days prior to the meeting. This list will also be available during the meeting.

As permitted by rules adopted by the U.S. Securities and Exchange Commission, we are using the Internet as our primary means of furnishing proxy materials to our stockholders. We will send our stockholders a notice with instructions for accessing the proxy materials and voting electronically over the Internet or by telephone. The notice also provides information on how stockholders may request paper copies of our proxy materials. For those stockholders who elect to receive their proxy materials in the mail, please review the Proxy Statement and Annual Report and vote using the enclosed proxy card.

We hope that you will find it convenient to attend the meeting in person. Whether or not you expect to attend, please vote electronically over the Internet or by telephone, or if you receive a proxy card in the mail, by mailing the completed proxy card to the Company to ensure your representation at the meeting and the presence of a quorum. If you decide to attend the meeting and wish to change your proxy vote, you may do so by voting in person at the meeting. If your shares are held in the name of a bank or broker, however, you must obtain a legal proxy from the bank or broker to attend the meeting and vote in person.

By Order of the Board of Directors,

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MARC H. HEDRICK President & Chief Executive Officer

San Diego, California, USA November 24, 2014

YOUR VOTE IS IMPORTANT!

ALL STOCKHOLDERS ARE INVITED TO ATTEND THE SPECIAL MEETING IN PERSON. WHETHER OR NOT YOU PLAN TO ATTEND THE MEETING, WE ENCOURAGE YOU TO READ THIS PROXY STATEMENT AND SUBMIT YOUR PROXY OR VOTING INSTRUCTIONS AS SOON AS POSSIBLE. THIS WILL ENSURE THE PRESENCE OF A QUORUM AT THE MEETING. FOR SPECIFIC INSTRUCTIONS ON HOW TO VOTE YOUR SHARES, PLEASE REFER TO THE INSTRUCTIONS ON THE NOTICE OF INTERNET AVAILABILITY OF PROXY MATERIALS (THE "NOTICE") YOU RECEIVED IN THE MAIL, THE QUESTION "WHAT DIFFERENT METHODS CAN I USE TO VOTE?" IN THIS PROXY STATEMENT, OR, IF YOU REQUESTED PRINTED PROXY MATERIALS, YOUR ENCLOSED PROXY CARD. IF YOU ATTEND THE MEETING, YOU MAY VOTE IN PERSON IF YOU WISH TO DO SO EVEN IF YOU HAVE PREVIOUSLY SUBMITTED YOUR PROXY OR VOTING INSTRUCTIONS.

> Cytori Therapeutics, Inc. 3020 Callan Road San Diego, CA 92121 (858) 458-0900

PROXY STATEMENT

IMPORTANT NOTICE REGARDING THE AVAILABILITY OF PROXY MATERIALS FOR THE STOCKHOLDER MEETING TO BE HELD ON January 6, 2015

This Proxy Statement is available at www.proxyvote.com.

Cytori Therapeutics, Inc. 3020 Callan Road San Diego, CA 92121 (858) 458-0900

PROXY STATEMENT

SPECIAL MEETING OF STOCKHOLDERS

This Proxy Statement is being furnished in connection with the solicitation of proxies by and on behalf of our Board of Directors to be used at our Special Meeting of stockholders to be held on **January 6, 2015** at 9:00 a.m., San Diego local time, and at any postponement of the Special Meeting, for the purposes set forth in the accompanying notice of Special Meeting.

We have fixed the close of business on November 12, 2014 as the record date for the determination of the stockholders entitled to notice of and to vote at the Special Meeting. Only holders of record of shares of our Common Stock on that date are entitled to notice of and to vote at the Special Meeting.

Questions and Answers about the Meeting and Voting

1. What is the purpose of the Special Meeting and why has this Proxy Statement been provided to me?

A Proxy Statement is a document that the U.S. Securities and Exchange Commission ("SEC") regulations require us to give you when we ask you to sign a proxy card with regard to voting on proposals at the Special Meeting. Among other things, a Proxy Statement describes those proposals and provides information about us. Our Board of Directors is soliciting your proxy to vote at the Special Meeting and at any postponement of the Special Meeting. The Special Meeting will be held at our corporate headquarters, located at 3020 Callan Road, San Diego, CA 92121. We will use the proxies received in connection with proposals to:

- Approval of an Amendment to our Amended and Restated Certificate of Incorporation to increase the number of authorized shares of common stock from 145,000,000 shares to 290,000,000 shares;
- Approval, pursuant to NASDAQ Marketplace Rules 5635(b) and 5635(d), of the issuance of shares of common stock upon conversion of our Series A 3.6% Convertible Preferred Stock and exercise of warrants to purchase shares of our common stock;
- Approval of an adjournment of the Special Meeting, if necessary or appropriate, to permit solicitation of additional proxies in favor of the above proposals; and
- Approval to transact such other business properly brought before the meeting or any adjustments or postponements thereof.
- 2. Why did I receive a notice in the mail regarding Internet availability of proxy materials this year instead of a full set of proxy materials?

We are now providing access to our proxy materials on the Internet. Some stockholders (those who hold in "street name") will not receive printed copies of the proxy materials unless requested. Instead, these stockholders will receive a Notice of Internet Availability of Proxy Materials that will instruct you as to how you may access and review the proxy materials on the Internet. The Notice explains how you may vote your proxy. If you received a Notice by mail and would like to receive a printed copy of our proxy materials, you should follow the instructions for requesting printed materials included in the Notice.

3. Why are we seeking stockholder approval to amend our Amended and Restated Certificate of Corporation and the issuance of shares of Common Stock upon conversion of our Series A 3.6% Convertible Preferred Stock and upon exercise of certain of our warrants?

As more fully described in the description of Proposal 1 and Proposal 2, in October 2014, we entered into a Securities Purchase Agreement (the "Purchase Agreement") with certain institutional investors pursuant to which we agreed to sell a total of 13,500 units (the "Units") for a purchase price of \$1,000 per Unit, with each Unit consisting of one share of the Company's Series A 3.6% Convertible Preferred Stock (the "Preferred Stock"), which shall be convertible into shares (the "Conversion Shares) of the Company's Common Stock, par value of \$0.001 per share ("Common Stock"), with a conversion price of \$0.52, and warrants (the "October Warrants") to purchase up to a number of shares of Common Stock equal to 100% of the Conversion Shares (the "Warrant Shares") under the shares of Preferred Stock, in a registered direct offering (the "Offering"). Each October Warrant will have an exercise price of \$0.5771 per share. The Preferred Stock will convert into shares of our Common Stock, subject to certain exercise limitations based upon stockholder approval.

Currently, we do not have a sufficient number of shares of our Common Stock authorized for issuance to cover the conversion of all Preferred Stock and exercise of the October Warrants. Therefore, we are asking that our stockholders approve an amendment to increase the number of authorized shares of Common Stock from 145,000,000 shares to 290,000,000 shares for the purpose of allowing the Preferred Stock to be converted into Common Stock, allowing the exercise of the outstanding warrants to purchase Common Stock and for other general corporate purposes, including, but not limited to, possible future stock splits, financing transactions, strategic transactions and potential acquisitions.

In addition, our Common Stock is listed on The NASDAQ Global Market ("NASDAQ"), and we are subject to the NASDAQ rules and regulations. NASDAQ Marketplace Rule 5635(d) requires stockholder approval prior to the issuance of securities in connection with a transaction (other than a public offering) involving the sale, issuance or potential issuance by us of Common Stock (or securities convertible into or exercisable for Common Stock) equal to 20% or more of the Common Stock or 20% or more of the voting power outstanding before the issuance for less than the greater of book or market value of the stock.

Initially, the Preferred Stock is convertible into 25,961,541 shares of our Common Stock, subject to certain adjustments to the conversion price of the Preferred Stock. The October Warrants are initially exercisable into 25,961,541 shares of our Common Stock at an exercise price of \$0.5771 per share,

subject to certain adjustments to the exercise price of the October Warrants. Also, as part of the Offering, we agreed to reset the exercise price for any outstanding warrants to purchase Common Stock that were issued by us on September 10, 2014 (the "September Warrants" and collectively, with the October Warrants, the "Warrants") and held by any of the purchasers in the Offering to \$0.5771, which is the same exercise price of the October Warrants.

Accordingly, we may be required to issue 20% or more of our Common Stock for less than the market value of our Common Stock upon the conversion of our Preferred Stock or upon exercise of the Warrants. This calculation is based on the current number of shares of our Common Stock outstanding and commitments to potentially issue additional shares of our Common Stock, as more fully described in the Proposal 1 and Proposal 2 descriptions. Therefore, we are asking our stockholders to approve the issuance of 20% or more of our outstanding Common Stock in accordance with the NASDAQ Marketplace Rule 5635(d).

4. What will be the consequences to us if stockholder approval of Proposal No. 1 and Proposal No. 2 is not obtained?

With respect to the Preferred Stock, the Preferred Stock will not be convertible into our Common Stock, and we will be required to continue to pay dividends on the Preferred Stock and be subject to redemption obligations requiring us to pay cash to redeem the outstanding Preferred Stock. If stockholder approval is not obtained on or before April 8, 2015, each holder of the Preferred Stock will have the right to require us to either (i) redeem all of the Preferred Stock then held by such holder for a redemption price, in shares of Common Stock or (ii) increase the dividend rate on all of the outstanding Preferred Stock held by such holder to 18% per annum thereafter. In addition, we would be limited to enter into any agreement to issue or sell Common Stock or securities that would entitle the holder to obtain Common Stock and we would further be limited to authorizing or creating any class of stock ranking as to dividends senior to, or otherwise pari passu with, the Preferred Stock. Moreover, until thirty days after we obtain stockholder approval, unless the holders of 67% in stated value of the outstanding Preferred Stock shall have otherwise given prior written consent, we would not be able to (i) incur or guarantee any indebtedness for borrowed money except for limited exceptions; (ii) create, incur or assume any liens of any kind, on or with respect to our property or assets except for limited exceptions; (iii) amend our charter documents in any manner that materially and adversely affect any rights of the holders of the Preferred Stock; (iv) repay, repurchase or otherwise acquire more than a de minimis number of shares of our Common Stock or Common Stock equivalents, or junior securities except for in limited circumstances; (v) pay cash dividends or distributions on junior securities; and (vi) enter into any material transaction with any affiliates of ours, unless made on an arm's-length basis and expressly approved by a majority of the disinterested directors.

With respect to the Warrants, the Warrants will continue to remain outstanding and include certain adjustments to the exercise price, including customary antidilution rights.

5. What is a proxy?

A proxy is your legal designation of another person to vote the stock you own. That designee is referred to as a proxy holder. Designation of a particular proxy holder can be effected by completion of a written proxy card, or by voting via the Internet or by telephone. Our President, Chief Executive Officer and Director, Marc H. Hedrick, M.D. and our VP of Finance and Chief Financial Officer, Tiago Girao, have each been designated as the proxy holders for the Special Meeting.

6. What is the difference between a stockholder of record and a beneficial owner who holds stock in street name?

You are a stockholder of record, or a "registered holder", if your shares are registered in your own name through our transfer agent. You are a beneficial owner of our stock in street name if you hold your shares through a broker, bank or other third party institution (in this situation, the banks, brokers, etc. are the stockholders of record). The vast majority of our stockholders are represented on our share register in the name of a bank, broker or other third party institution and not in their own name. If you have elected to hold your shares in certificate form, your name will appear directly on our register as a stockholder of record.

7. What different methods can I use to vote?

If you are a registered holder and you are viewing this proxy over the Internet, you may vote electronically over the Internet. For those stockholders who receive a paper proxy in the mail, you may also vote electronically over the Internet or by telephone or by completing and mailing the proxy card provided. The website identified in our Notice of Internet Availability of Proxy Materials provides specific instructions on how to vote electronically over the Internet. Those stockholders who receive a paper proxy by mail, and who elect to vote by mail, should complete and return the mailed proxy card in the prepaid and addressed envelope that was enclosed with the proxy materials.

If you are the beneficial owner of stock in street name, that is, your shares are held in the name of a brokerage firm, bank or other nominee, you will receive instructions from your broker, bank or other nominee that must be followed in order for you to vote your shares. Your broker will be sending you a Notice of Internet Availability which contains instructions on how to access the website and to vote your shares. If, however, you have elected to receive paper copies of our proxy materials from your brokerage firm, bank or other nominee, you will receive a voting instruction form. Please complete and return the enclosed voting instruction form in the addressed, postage paid envelope provided.

Stockholders who have previously elected to access our proxy materials and annual report electronically over the Internet will continue to receive an email, referred to in this Proxy Statement as an email notice, with information on how to access the proxy information and voting instructions.

Only proxy cards and voting instruction forms that have been signed, dated and timely returned and only proxies that have been timely voted electronically or by telephone will be counted in the quorum and voted. *The Internet and telephone voting facilities will close at 11:59 p.m. Eastern Time, January 5, 2015.*

Stockholders who vote over the Internet or by telephone need not return a proxy card or voting instruction form by mail, but may incur costs, such as usage charges, from telephone companies or Internet service providers.

You may also vote your shares in person at the Special Meeting. If you are a registered holder, you may request a ballot at the Special Meeting. If your shares are held in street name and you wish to vote in person at the meeting, you must obtain a proxy issued in your name from your broker, bank or other nominee and bring it with you to the Special Meeting. We recommend that you vote your shares in advance as described above so that your vote will be counted if you later decide not to attend the Special Meeting.

If you receive more than one Notice of Internet Availability of Proxy Materials, email notice, proxy card or voting instruction form because your shares are held in multiple accounts or registered in different names or addresses, please vote your shares held in *each account* to ensure that all of your shares will be voted.

8. What is the record date and what does it mean?

The record date for the Special Meeting is November 12, 2014. The record date is established by our Board of Directors as required by Delaware General Corporation law. Owners of our Common Stock at the close of business on the record date are entitled to receive notice of the meeting and to vote at the meeting and any postponements of the meeting.

9. How many votes may I cast? How many shares are eligible to be voted?

You may cast one vote for every share of our Common Stock that you owned on the record date. As of the record date, November 12, 2014, there were 92,449,197 shares of Common Stock outstanding, each of which is entitled to one vote.

10. How can I change my vote?

You may revoke your proxy and change your vote at any time before the final vote at the meeting. You can revoke a proxy by giving written notice or revocation to our corporate secretary, following the Internet voting instructions, delivering a later dated proxy, or voting in person at the meeting. However, your attendance at the Special Meeting will not automatically revoke your proxy unless you vote again at the meeting or specifically request in writing that your proxy be revoked.

11. How are abstentions and broker non-votes counted?

Abstentions and broker non-votes will be counted as present for purposes of determining a quorum. An abstention occurs when a stockholder withholds his or her vote by checking the "abstain" box on the proxy card or (if present and voting at the meeting) a ballot.

A broker non-vote occurs when a broker, bank, or other stockholder of record, in nominee name or otherwise, exercising fiduciary powers, submits a proxy for the Special Meeting, but does not vote on a particular proposal because that holder does not have discretionary voting power with respect to that proposal and has not received voting instructions from the beneficial owner. Under the rules that govern brokers who are voting with respect to shares held in street name, brokers have the discretion to vote those shares on routine matters, but not on non-routine matters. Non-routine matters include the approval of the Amendment to the Company's Amended and Restated Certificate of Incorporation, approval of the issuance of shares of common stock upon conversion of our Series A 3.6% Convertible Preferred Stock and exercise of warrants to purchase shares of our common stock, and approval of an adjournment of the Special Meeting, if necessary or appropriate, to permit solicitation of additional proxies in favor of the above proposals.

12. What are my voting choices when voting to approve the amendment to the Company's Amended and Restated Certificate of Incorporation?

In voting on the approval of the amendment to our Amended and Restated Certificate of Incorporation to increase the authorized shares of Common Stock from 145,000,000 to 290,000,000, stockholders may vote in favor of the approval or against the approval, or may abstain from voting on the approval of the amendment. The affirmative vote of a majority of the shares of Common Stock issued and outstanding is required to approve this proposal. As a result, any shares not voted (whether by abstention or otherwise) will have the same effect as a vote "AGAINST" this proposal.

The Board recommends a vote "FOR" the amendment of the Company's Amended and Restated Certificate of Incorporation.

13. What are my voting choices when voting to approve, pursuant to NASDAQ Marketplace Rule 5635(b), the issuance of shares of Common Stock upon conversion of our Series A 3.6% Convertible Preferred Stock and exercise of warrants to purchase shares of Common Stock?

In voting on the approval, pursuant to NASDAQ Marketplace Rules 5635(b) and 5635(d), of the issuance of shares of Common Stock upon conversion of our Series A 3.6% Convertible Preferred Stock and exercise of warrants to purchase shares of Common Stock, stockholders may vote in favor of the approval or against the approval, or may abstain from voting on the approval of the issuance. The affirmative vote of the holders of a majority of the stock having voting power present in person or represented by proxy is required to approve this proposal. Abstentions are considered present and entitled to vote with respect to this proposal and will, therefore, be treated as votes against this proposal. Broker non-votes will have no direct effect on this proposal.

The Board recommends a vote "FOR" the issuance of shares of Common Stock upon conversion of our Series A 3.6% Convertible Preferred Stock and exercise of warrants to purchase shares of Common Stock.

14. What are my voting choices when voting to approve an adjournment of the Special Meeting, if necessary or appropriate, to permit solicitation of additional proxies in favor of the above proposals?

In voting on the approval of an adjournment of the Special Meeting, if necessary or appropriate, to permit solicitation of additional proxies in favor of the above proposals, stockholders may vote in favor of the approval or against the approval, or may abstain from voting on the approval. The affirmative vote of the holders of a majority of the stock having voting power present in person or represented by proxy is required to approve this proposal. Abstentions are considered present and entitled to vote with respect to this proposal and will, therefore, be treated as votes against this proposal. Broker non-votes will have no direct effect on this proposal.

The Board recommends a vote "FOR" the approval of an adjournment of the Special Meeting, if necessary or appropriate, to permit solicitation of additional proxies in favor of Proposal 1 and Proposal 2.

15. *How will a proxy get voted?*

If you properly complete and return a proxy card or vote by Internet or by telephone, the designated proxy holders will vote your shares as you have directed. If you sign a proxy card but do not make specific choices or if you vote by Internet or telephone but do not make specific choices, the designated proxy holders will vote your shares as recommended by the Board of Directors as follows:

- "FOR" approval of the Amendment to the Company's Amended and Restated Certificate of Incorporation
- "FOR" approval, pursuant to NASDAQ Marketplace Rules 5635(b) and 5635(d), of the issuance of shares of Common Stock upon conversion of our Series A 3.6% Convertible Preferred Stock and exercise of warrants to purchase shares of Common Stock
- "FOR" the approval of an adjournment of the Special Meeting, if necessary or appropriate, to permit solicitation of additional proxies in favor of the above proposals.
- "FOR" for approval to transact such other business properly brought before the meeting or any adjustments or postponements thereof.

16. Who pays for the solicitation of proxies?

We pay the entire cost of the solicitation of proxies. This includes preparation, assembly, printing, and mailing of the Notice of Internet Availability, this Proxy Statement and any other information we send to stockholders. We may supplement our efforts to solicit your proxy in the following ways:

- We may contact you using the telephone or electronic communication;
- Our directors, officers, or other regular employees may contact you personally; or
- We may hire agents for the sole purpose of contacting you regarding your proxy.

We have retained Morrow & Co., LLC, located at 470 West Avenue, Stamford, Connecticut, 06902 to assist us with the solicitation of proxies for a fee of \$7,500 plus expenses. We will not pay directors, officers, or other regular employees any additional compensation for their efforts to supplement our proxy solicitation. We anticipate banks, brokerage houses and other custodians, nominees, and fiduciaries will forward soliciting material to the beneficial owners of shares of Common Stock entitled to vote at the Special Meeting and that we will reimburse those persons for their out-of-pocket expenses incurred in this connection.

17. What constitutes a quorum?

In order for business to be conducted at the Special Meeting, a quorum must be present. A quorum exists when at least 33 ¹/₃ % of the holders of shares of Common Stock issued, outstanding and entitled to vote are represented at the meeting. Shares of Common Stock represented in person or by proxy (including broker non-votes and shares that abstain or do not vote with respect to one or more of the matters to be voted upon) will be counted for the purpose of determining whether a quorum exists.

18. Will representatives of the Company's independent registered public accounting firm for the current and most recently completed fiscal year be at the meeting?

A representative of KPMG LLP, our independent registered public accounting firm for the current and most recently completed fiscal year, is not expected to be present at the Special Meeting and will therefore be unable to make a statement or respond to questions.

19. Where can I find the voting results of the Special Meeting?

We will publish the final voting results in a current report on Form 8-K, which we expect to file with the SEC within four business days of the Special Meeting. If the final voting results are unavailable in time to file a current report on Form 8-K with the SEC within four business days after the Special Meeting, we intend to file a Form 8-K to disclose the preliminary results and, within four business days after the final results are known, we will file an additional current report on Form 8-K with the SEC to disclose the final voting results.

PROPOSAL 1

APPROVAL OF AN AMENDMENT TO OUR AMENDED AND RESTATED CERTIFICATE OF INCORPORATION TO INCREASE THE NUMBER OF AUTHORIZED SHARES OF COMMON STOCK FROM 145,000,000 TO 290,000,000

Background

In October 2014, we entered into the Purchase Agreement pursuant to which we agreed to sell a total of 13,500 Unit, with each Unit consisting of one share of the Preferred Stock, which shall be convertible into shares of Common Stock, with a conversion price of \$0.52, and Warrants to purchase up to a number of shares of Common Stock equal to 100% of the Conversion Shares under the shares of Preferred Stock, in the Offering. Each Warrant will have an exercise price of \$0.5771 per share. The Preferred Stock will convert into shares of our Common Stock, subject to certain exercise limitations based upon stockholder approval.

Currently, we do not have a sufficient number of shares of Common Stock authorized for issuance to cover the conversion of all Preferred Stock and exercise of Warrants, including any potential adjustments to the conversion price of such Preferred Stock and exercise prices of such Warrants. Article IV of our Amended and Restated Certificate of Incorporation, as amended (the "Certificate"), currently authorizes us to issue a total of 145,000,000 shares of Common Stock. On October 31, 2014, the Board unanimously approved an amendment to the Certificate (the "Amendment") to authorize an additional 145,000,000 shares of Common Stock thereby increasing the aggregate amount of authorized shares of our Common Stock to be 290,000,000 shares, subject to stockholder approval, for the purpose of allowing the Preferred Stock to be converted into Common Stock, allowing the exercise of the Warrants to purchase Common Stock and for other general corporate purposes, including, but not limited to, possible future stock splits, financing transactions, strategic transactions and potential acquisitions.

The Board has unanimously determined that the Amendment is advisable and in the best interests of the Company and our stockholders, and recommends that our stockholders approve the Amendment. In accordance with the General Corporation Law of the State of Delaware, we are hereby seeking approval of the Amendment by our stockholders.

Proposed Amendment

The Board is proposing the Amendment, in substantially the form proposed below, to increase the number of authorized shares of our Common Stock from 145,000,000 shares to 290,000,000 shares. Of the 145,000,000 shares of Common Stock currently authorized by the Certificate, as of November 3, 2014, 92,449,197 shares are issued and outstanding, 10,247,139 shares are reserved for issuance upon exercise of outstanding options and vesting of Restricted Stock Awards, 34,958,008 shares reserved for exercise of outstanding warrants, and 3,975,000 shares are reserved for future issuance under existing equity incentive plans. Therefore, we are currently limited to the issuance of 3,370,656 shares of Common Stock.

Other than the proposed increase in the number of authorized shares of Common Stock, the Amendment is not intended to modify the rights of existing stockholders in any material respect.

Regarding the authorized capital structure of the Company, the first paragraph of Article IV of the Certificate currently provides as follows:

"This Corporation is authorized to issue two classes of stock to be designated, respectively, 'Common Stock' and 'Preferred Stock.' The total number of shares which the Corporation is authorized to issue is One Hundred Fifty Million (150,000,000) shares, One Hundred Forty Five Million (145,000,000) shares of which shall be Common Stock (the 'Common Stock') and Five Million (5,000,000) shares of which shall be Preferred Stock ('Preferred Stock'). The Common Stock and Preferred Stock shall each have a par value of \$0.001 per share."

The Company's Board of Directors has approved the following amendment to Article IV, subject to approval of such amendment by the stockholders of the Company at the Special Meeting, as specified below:

The first paragraph of Article IV is to be deleted in its entirety and be replaced by the following paragraph:

"This Corporation is authorized to issue two classes of stock to be designated, respectively, 'Common Stock' and 'Preferred Stock.' The total number of shares which the Corporation is authorized to issue is Two Hundred Ninety-Five Million (295,000,000) shares, Two Hundred Ninety Million (290,000,000) shares of which shall be Common Stock (the 'Common Stock') and Five Million (5,000,000) shares of which shall be Preferred Stock shall each have a par value of \$0.001 per share."

Reasons for the Amendment

The Board believes the Amendment is advisable and in the best interests of the Company and our stockholders for the purpose of allowing the Preferred Stock to be converted into Common Stock, allowing the exercise of the Warrants to purchase Common Stock and for other general corporate purposes, including, but not limited to, possible future stock splits, financing transactions, strategic transactions and potential acquisitions. The Board believes the proposed Amendment is advisable in order to maintain flexibility in today's competitive and changing environment.

As discussed under "Potential Effects of the Amendment" below, additional shares could be issued to oppose a hostile takeover attempt or delay or prevent changes in control of the Company or could be reserved as part of an anti-takeover strategy or in connection with a stockholder rights plan. The additional authorized shares would also provide us with increased financing and capital raising flexibility and could be used for other business and financial purposes that the Board deems are in the Company's best interest, including the acquisition of other companies, businesses or products in exchange for Common Stock, attraction and retention of employees through the issuance of additional securities under our equity incentive plans, implementation of stock splits and issuance of dividends in the future and delay or prevent changes in control of the Company. Without an increase in the number of authorized shares of Common Stock, the Company may be constrained in its ability to raise capital, should the need arise, and may lose important business opportunities, including to competitors, which could adversely affect our financial performance and growth.

In addition to the reasons discussed above, the additional authorized shares of Common Stock would enable us to act quickly in response to capital raising and other corporate opportunities that may arise (as described above), in most cases without the necessity of holding a special stockholders' meeting

and obtaining further stockholder approval before the issuance of Common Stock could proceed, except as may be required by applicable law or the rules of the NASDAQ Stock Market or any other stock exchange on which our securities may be listed. Frequently, opportunities arise that require prompt action, and it is the belief of the Board that the delay necessitated for stockholder approval of a specific issuance could be to the detriment of the Company and its stockholders.

In determining the size of the proposed authorized share increase, the Board considered a number of factors, including the number of shares issuable upon conversion of the Preferred Stock and exercise of the Warrants, the potential that over a number of years the Board may determine to effect one or more stock splits (in the form of stock dividends), that over a number of years the Company may potentially need additional shares in connection with future equity transactions, acquisitions or other strategic transactions.

Although at present the Board has no other plans to issue the additional shares of Common Stock, the Board believes it would be prudent and advisable to have those shares available to provide additional flexibility regarding the potential use of shares of Common Stock for business and financial purposes in the future. The additional shares could be used for various purposes without further stockholder approval. These purposes may include: raising capital; providing equity incentives to employees, officers or directors; establishing strategic relationships with other companies; expanding our business or product lines through the acquisition of other businesses or products; and other purposes. We review and evaluate potential capital raising activities, transactions and other corporate opportunities and potential anti-takeover strategies on an ongoing basis to determine if any such actions would be in the best interests of the Company and our stockholders.

Rights of Additional Authorized Shares

The additional authorized shares of Common Stock, if and when issued, would be part of the existing class of Common Stock and would have the same rights and privileges as the shares of Common Stock currently outstanding. Stockholders do not have preemptive rights with respect to our Common Stock. Therefore, should the Board determine to issue additional shares of Common Stock, existing stockholders would not have any preferential rights to purchase such shares in order to maintain their proportionate ownership thereof.

Potential Effects of the Amendment

The increase in the number of authorized shares of Common Stock will not have any immediate effect on the rights of our existing stockholders. The Board will have the authority to issue the additional shares of Common Stock without requiring future stockholder approval of such issuances, except as may be required by applicable law or rules of the NASDAQ Stock Market or any other stock exchange on which our securities may be listed. The adoption of the Amendment would not have any immediate dilutive effect on the proportionate voting power or other rights of existing stockholders. Any issuance of shares of our Common Stock would not affect the rights of our stockholders except for effects incidental to increasing the number of shares of Common Stock outstanding. Incidental effects of the increase in the outstanding number of shares of Common Stock may include dilution of the earnings per share and voting rights of current holders of Common Stock.

The authorization of additional shares of Common Stock could have an anti-takeover effect, in that the additional shares could be issued to oppose a hostile takeover attempt or delay or prevent changes in control of the Company or could be reserved as part of an anti-takeover strategy or in connection with a stockholder rights plan. For example, without further stockholder approval, the Board could sell shares of our Common Stock in a private transaction to purchasers who would oppose a takeover attempt or favor our current Board. Although this proposal to increase the number of authorized shares of Common Stock has not been prompted by any current or threatened hostile takeover attempt, stockholders should be aware that approval of this proposal could facilitate future attempts by the Company to oppose changes in control of the Company and to perpetuate our then-current management, including the opposition of transactions in which the stockholders might otherwise receive a premium for their shares over then-current market prices. At the present time, our Board has no intention to use these additional shares for anti-takeover purposes.

Although we have no immediate plans to do so, we could use the additional authorized shares of Common Stock for potential strategic transactions, including, among other things, acquisitions, strategic partnerships, joint ventures, restructurings, divestitures, business combinations and investments. We cannot provide assurances that any such transactions would be consummated on favorable terms or at all, that they would enhance stockholder value or that they would not adversely affect our business or the trading price of our Common Stock. Any such transactions may require us to incur non-recurring or other charges and may pose significant integration challenges and/or management and business disruptions, any of which could materially and adversely affect our business and financial results.

Consequences of Not Approving this Proposal

With respect to the Preferred Stock, the Preferred Stock will not be convertible into our Common Stock, and we will be required to continue to pay dividends on the Preferred Stock and be subject to redemption obligations requiring us to pay cash to redeem the outstanding Preferred Stock. If stockholder approval is not obtained on or before April 8, 2015, each holder of the Preferred Stock will have the right to require us to either (i) redeem all of the Preferred Stock then held by such holder for a redemption price, in shares of Common Stock or (ii) increase the dividend rate on all of the outstanding Preferred Stock held by such holder to 18% per annum thereafter. In addition, we would be limited to enter into any agreement to issue or sell Common Stock or securities that would entitle the holder to obtain Common Stock and we would further be limited to authorizing or creating any class of stock ranking as to dividends senior to, or otherwise pari passu with, the Preferred Stock. Moreover, until thirty days after we obtain stockholder approval, unless the holders of 67% in stated value of the outstanding Preferred Stock shall have otherwise given prior written consent, we would not be able to (i) incur or guarantee any indebtedness for borrowed money except for limited exceptions; (ii) create, incur or assume any liens of any kind, on or with respect to our property or assets except for limited exceptions; (ii) amend our charter documents in any manner that materially and adversely affect any rights of the holders of the Preferred Stock; (iv) repay, repurchase or otherwise acquire more than a de minimis number of shares of our Common Stock or Common Stock equivalents, or junior securities except for in limited circumstances; (v) pay cash dividends or distributions on junior securities; and (vi) enter into any material transaction with any affiliates of ours, unless made on an arm's-length basis and expressly approved by a majority of the disinterested directors.

With respect to the Warrants, the Warrants will continue to remain outstanding and include certain adjustments to the exercise price, including customary anti-dilution rights.

Effectiveness of the Amendment and Required Vote

If the Amendment is approved by our stockholders, the Amendment will become effective upon its filing with the Delaware Secretary of State, which filing is expected to occur promptly after the Special Meeting. If the Amendment is not approved by our stockholders, the Certificate will not be amended and the number of authorized shares of Common Stock will remain unchanged. Our Board reserves the right, notwithstanding stockholder approval of the Amendment and without further action by our stockholders, not to proceed with the amendment at any time before the filing of the Certificate of Amendment.

Approval of the Amendment will require that the holders of the shares of our Common Stock issued and outstanding and entitled to vote on the matter, vote to approve the Amendment by a majority vote of all votes entitled to be cast. As a result, abstentions will have the effect of a vote "AGAINST" this proposal. Broker non votes will have no direct effect on this proposal.

YOUR BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS A VOTE "FOR" PROPOSAL 1.

PROPOSAL 2

APPROVAL, PURSUANT TO NASDAQ MARKETPLACE RULES 5635(B) AND 5635(D), OF THE ISSUANCE OF SHARES OF COMMON STOCK UPON CONVERSION OF OUR SERIES A 3.6% CONVERTIBLE PREFERRED STOCK AND EXERCISE OF WARRANTS TO PURCHASE SHARES OF COMMON STOCK

Background

On October 8, 2014, we entered into the Purchase Agreement with the Purchasers for the sale of a total of 13,500 Units for a purchase price of \$1,000 per Unit, with each Unit consisting of one share of the our Preferred Stock, which is convertible into shares of our Common Stock, with a conversion price of \$0.52, and Warrants to purchase up to 1,923.0771 shares of Common Stock, in the Offering. Each share of Preferred Stock will be convertible at the option of the holder at any time into the number of shares of Common Stock determined by dividing the \$1,000 stated value per share of the Preferred Stock by a conversion price of \$0.52 per share, subject to adjustment. Each Warrant has an exercise price of \$0.5771 per share, is exercisable six months after the date of issuance and expires five years from the date on which it is initially exercisable. The Preferred Stock and the Warrants were immediately separable and issued separately. We received net proceeds of approximately \$12.5 million from the Offering.

Pursuant to the terms of the Certificate of Designation and the Warrants, the number of Conversion Shares and Warrant Shares that may be acquired by any holder upon any conversion of the Preferred Stock or exercise of the Warrants will be limited to the extent necessary to ensure that, following such exercise (or other issuance), the total number of shares of Common Stock then beneficially owned by such holder and its affiliates and any other persons whose beneficial ownership of Common Stock would be aggregated with the holder's for purposes of Section 13(d) of the Exchange Act does not exceed 9.99% of the total number of issued and outstanding shares of Common Stock (including for such purpose the shares of Common Stock issuable upon such exercise). The holder may elect to decrease and subsequently increase this beneficial ownership limitation to any other percentage, but not in excess of 9.99% of the total number of issued and outstanding shares of Common Stock (including for such purpose the shares of Common Stock issuable upon such exercise), provided that any such increase will not be effective until 61 days after such written notice is delivered. If, at the time of exercise, there is no effective registration statement registering the issuance to the holder of the shares of Common Stock underlying the Warrant, the holder may exercise, in whole or in part, the warrant on a cashless basis. When exercised on a cashless basis, a portion of the warrant is cancelled in payment of the purchase price payable in respect of the number of shares of Common Stock purchasable upon such exercise. The Warrants also provide for certain adjustments to the exercise price of the Warrants based on stock dividends, stock splits and certain dilutive issuances and certain adverse U.S. Food and Drug Administration ("FDA") decisions. Since the issue date of the Warrants the FDA rendered a favorable decision and, as such, no adjustments to the exercise price of the Warrants shall be made as a result.

Initially, the Preferred Stock is convertible into 25,961,541 shares of our Common Stock, subject to certain adjustments to the conversion price of the Preferred Stock. The Warrants are initially exercisable into 25,961,541 shares of our Common Stock at an exercise price of \$0.5771 per share, subject to certain adjustments to the exercise price of the Warrants. Also, as part of the Offering, we agreed to reset the exercise price for any outstanding September Warrants held by any of the purchasers in the Offering to \$0.5771, which is the same exercise price of the newly issued Warrants.

In connection with the Offering, we agreed to seek approval from its stockholders (the "Stockholder Approval") as may be required (i) by the applicable rules and regulations of the Nasdaq Stock Market) with respect to the transactions contemplated by the Purchase Agreement, including the issuance of all of the Conversion Shares and Warrant Shares in excess of 19.99% of the issued and outstanding Common Stock of the Company on the Closing Date, including certain adjustments to the conversion price of the Preferred Stock and exercise of the Warrants as provided by the Purchase Agreement (the "Nasdaq Limitation"); and (ii) to approve an amendment to the Company's Certificate of Incorporation to increase its authorized shares of Common Stock (the "Authorized Share Increase").

Description of Preferred Stock

The rights, preferences and privileges of the Preferred Stock is set forth in a Certificate of Designation of Preferences, Rights and Limitations of Series A 3.6% Convertible Preferred Stock (the "Certificate of Designation"). The Certificate of Designation provides for certain voting rights, conversion rights and adjustments to the conversion price of the Preferred Stock based on stock dividends, stock splits and certain dilutive issuances and certain adverse FDA decisions. As stated above, the FDA rendered a favorable decision and, as such, no adjustment to the conversion price shall be made as a result. The Certificate of Designation also provides for certain dividend rights and redemption obligations, and it prohibits the Company from taking certain actions without approval from holders of at least 67% of the stated value of the Preferred Stock until the Stockholder Approval is obtained by the Company.

Conversion. Each share of Preferred Stock is convertible at the option of the holder at any time into the number of shares of our Common Stock determined by dividing the \$1,000 stated value per share of the Preferred Stock by a conversion price of \$0.52 per share. In the event that the FDA makes a decision that results in our inability to restart our ATHENA clinical trial without further material changes in the protocol or additional gathering of data resulting in a material delay to the restarting of such clinical trial, the conversion price of the Preferred Stock will be reduced to the lesser of (i) the then effective conversion price or (ii) 90% of the five day volume-weighted average price of share of our Common Stock for the five trading days immediately following the date of such FDA decision. Based on notification received from the FDA that the Company has provided additional information sufficient to support continuation of enrollment in the ATHENA clinical trial, the Company does not anticipate any adjustment to the conversion price of the Preferred Stock in connection with such FDA decision. In addition, the conversion price per share is subject to adjustment for stock dividends, distributions, subdivisions, combinations, or reclassifications, and for certain dilutive issuances. Subject to limited exceptions, a holder of the Preferred Stock does not have the right to convert any portion of the Preferred Stock to the extent that, after giving effect to the conversion, the holder, together with its affiliates, would beneficially own in excess of 9.99% of the number of shares of our Common Stock outstanding immediately after giving effect to its conversion.

Fundamental Transactions. In the event we effect certain mergers, consolidations, sales of substantially all of our assets, tender or exchange offers, reclassifications or share exchanges in which our Common Stock is effectively converted into or exchanged for other securities, cash or property, we consummate a business combination in which another person acquires 50% of the outstanding shares of our Common Stock, or any person or group becomes the beneficial owner of 50% of the aggregate ordinary voting power represented by our issued and outstanding Common Stock, then, upon any subsequent conversion of the Preferred Stock, the holders of the Preferred Stock will have the right to receive any shares of the acquiring corporation or other consideration it would have been entitled to receive if it had been a holder of the number of shares of Common Stock then issuable upon conversion in full of the Preferred Stock.

Dividends. Until the date of the Stockholder Approval, holders of the Preferred Stock will be entitled to receive cumulative dividends at the rate per share (as a percentage of the Stated Value per share) of 3.6% per annum payable quarterly on January 1, April 1, July 1, and October 1, in cash. Following the date of the Stockholder Approval, holders will be entitled to receive dividends on shares of Preferred Stock equal (on an as-if-converted-to-common-stock basis) to and in the same form as dividends actually paid on shares of the Common Stock when, as and if such dividends are paid.

Voting Rights. Except as otherwise provided in the certificate of designation or as otherwise required by law, the Preferred Stock has no voting rights.

Protective Provisions. As long as any shares of Preferred Stock are outstanding, we may not, without the affirmative vote of the holders of a majority of the then outstanding shares of the Preferred Stock, (i) alter or change adversely the powers, preferences or rights given to the Preferred Stock or alter or amend the certificate of designation, (ii) authorize or create any class of stock ranking as to redemption or distribution of assets upon a liquidation senior to, or otherwise pari passu with, the Preferred Stock or, until the date of the Stockholder Approval, authorize or create any class of stock ranking as to dividends senior to, or otherwise pari passu with, the Preferred Stock, (iii) amend our charter documents in any manner that adversely affects any rights of the holders, (iv) increase the number of authorized shares of Preferred Stock, or (v) enter into any agreement with respect to any of the foregoing. In addition, until 30 days after obtaining the Stockholder Approval, unless the holders of at least 67% in stated value of the then outstanding shares of Preferred Stock shall have otherwise given prior written consent, we may not directly or indirectly incur debt, incur liens, amend our charter documents, repurchase securities, pay dividends or enter into related party transactions.

Liquidation Preference. Upon our liquidation, dissolution or winding-up, whether voluntary or involuntary, holders of Preferred Stock be entitled to receive out of our assets, whether capital or surplus, an amount equal to the \$1,000 stated value per share, plus any accrued and unpaid dividends thereon and any other fees or liquidated damages then due and owing, for each share of Preferred Stock before any distribution or payment shall be made to the holders of any junior securities.

Redemption Rights. Until the Stockholder Approval is obtained and deemed effective, upon any of the following triggering events:

- we fail to timely deliver Common Stock upon conversion of the Preferred Stock, or we publicly announce such an intention;
- we fail to timely pay in full the amount of cash due pursuant to a buy-in;
- we breach (and do not timely cure) any covenant, agreement or warranty contained in securities purchase agreement, certificate of designation or warrant;
- we redeem more than a de minimis number of junior securities;
- we are party to a change of control transaction approved by our board of directors; or
- we are subject to a voluntary bankruptcy event,

then each holder of Preferred Stock will have the right to require us to redeem all of the Preferred Stock then held by such Holder for a cash amount (the Redemption Amount) equal to the greater of (i) 130% of the \$1,000 stated value per share and (ii) the product of (x) the volume-weighted average price per share of Common Stock on the trading day immediately preceding the date of the triggering event and (y) the \$1,000 stated value divided by the then conversion price, (b) all accrued but unpaid dividends thereon and (c) all liquidated damages and other costs, expenses or amounts due in respect of the Preferred Stock.

In addition, until the Stockholder Approval is obtained and deemed effective, upon any of the following triggering events:

- we fail to provide a registration statement or usable prospectus that permits us to issue the shares of Common Stock upon conversion of the Preferred Stock;
- we fail to have available a sufficient number of authorized and unreserved shares of Common Stock to issue upon conversion;
- we are party to a change of control transaction not approved by our board of directors;
- we are subject to an involuntary bankruptcy event;
- our Common Stock is not listed or quoted on a trading market for more than five trading days;
- we are subject to any monetary judgment, writ or similar final process for more than \$150,000;
- we are not able to electronically transfer shares of Common Stock through the Depository Trust Corporation or another established clearing corporation or are subject to a "chill";
- the amendment to our certificate of incorporation to increase our authorized shares of Common Stock has not occurred on or before April 7, 2015; or
- any breach of the agreements delivered to the initial holders at the closing under the securities purchase agreement,

then each holder of Preferred Stock has the right to require us (i) to redeem all of the Preferred Stock then held by such Holder for 75% of the Redemption Amount or (ii) to increase the dividend rate on all of the outstanding Preferred Stock held by such holder to 18% per annum.

Rights to Participate in Future Financings. Until the 18-month anniversary of the date of the Stockholder Approval, if we issue any Common Stock (or equivalents) for cash consideration, indebtedness or a combination of units thereof, each investor in this offering (and its successors and assigns) will have

the right to participate in up to an amount of the equal to 50% of the subsequent financing on the same terms, conditions and price provided for in the subsequent financing.

Description of October Warrants

Exercisability. Each October Warrant is exercisable at any time and from time to time after the date that is six months from the date of issuance and will expire five years from the date it first becomes exercisable. The October Warrant will be exercisable, at the option of each holder, in whole or in part by delivering to us a duly executed exercise notice and payment in full for the number of shares of our Common Stock purchased upon such exercise, except in the case of a cashless exercise as discussed below.

Cashless Exercise. If at the time of exercise there is no effective registration statement registering, or the prospectus contained therein is not available for issuance of, the shares issuable upon exercise of the October Warrant, the holder may exercise the warrant on a cashless basis. When exercised on a cashless basis, a portion of the warrant is cancelled in payment of the purchase price payable in respect of the number of shares of our Common Stock purchasable upon such exercise.

Exercise Price. Each October Warrant represents the right to purchase up to 1,923.0771 shares of Common Stock at an exercise price of \$0.5771 per share. In the event that the FDA makes a decision that results in our inability to restart our ATHENA clinical trial without further material changes in the protocol or additional gathering of data resulting in a material delay to the restarting of such clinical trial, the exercise price of the warrants will be reduced to the lesser of (i) the then effective exercise price or (ii) 90% of the five day volume-weighted average price of share of our Common Stock for the five trading days immediately following the date of such FDA decision. Based on notification received from the FDA that the Company has provided additional information sufficient to support continuation of enrollment in the ATHENA clinical trial, the Company does not anticipate any adjustment to the exercise price of the October Warrants in connection with such FDA decision. In addition, the exercise price per share is subject to adjustment for stock dividends, distributions, subdivisions, combinations, or reclassifications, and for certain dilutive issuances. Subject to limited exceptions, a holder of warrants will not have the right to exercise any portion of the warrant to the extent that, after giving effect to the exercise, the holder, together with its affiliates, would beneficially own in excess of 9.99% of the number of shares of our Common Stock outstanding immediately after giving effect to its exercise.

Fundamental Transactions. In the event we effect certain mergers, consolidations, sales of substantially all of our assets, tender or exchange offers, reclassification or share exchange in which our Common Stock is effectively converted into or exchanged for other securities, cash or property, we consummate a business combination in which another person acquires 50% of the outstanding shares of our Common Stock, or any person or group becomes the beneficial owner of 50% of the aggregate ordinary voting power represented by our issued and outstanding Common Stock, then, upon any subsequent exercise of the warrants, the holders of warrants will have the right to receive any shares of the acquiring corporation or other consideration it would have been entitled to receive if it had been a holder of the number of shares of Common Stock then issuable upon exercise in full of the warrants. If such a transaction (1) is an all cash transaction, (2) is a "Rule 13e-3 transaction" as defined in Rule 13e-3 under the Exchange Act, or (3) involves a person or entity not traded on a national securities exchange, we or the successor entity will, at the holder's option, purchase the October Warrant from the holder for an amount of cash equal to the Black-Scholes value of the remaining unexercised portion of the October Warrant on the date of the consummation of the transaction.

Transferability. Subject to applicable laws and restrictions, a holder may transfer an October Warrant upon surrender of the warrant to us with a completed and signed assignment in the form attached to the warrant. The transferring holder will be responsible for any tax that liability that may arise as a result of the transfer.

Exchange Listing. There is no established public trading market for the warrants, and we do not expect a market to develop. In addition, we do not intend to apply for listing of the warrants on any securities exchange or recognized trading system.

Rights as Stockholder. Except as set forth in the October Warrant, the holder of such warrant, solely in such holder's capacity as a holder of the warrant, will not be entitled to vote, to receive dividends, or to any of the other rights of our stockholders.

Amendments and Waivers. The provisions of each October Warrant may be modified or amended or the provisions thereof waived with the written consent of us and the holder.

The information provided herein contains summaries of the Purchase Agreement, the Certificate of Designation and the Warrants and is qualified in its entirety by reference to the Purchase Agreement, the Certificate of Designation and the Warrants, each of which is attached to this proxy statement as Exhibits A, B and C, respectively, and each of which is incorporated herein by reference.

Why We Need Stockholder Approval

Our Common Stock is listed on NASDAQ, and we are subject to the NASDAQ rules and regulations. NASDAQ Marketplace Rule 5635(b) (the "NASDAQ Change of Control Rule") requires stockholder approval prior to an issuance of securities that will result in a change of control of a listed company, which for purposes of the NASDAQ Change of Control Rule is generally deemed to occur when an investor or group acquires or has the right to acquire 20% or more of the outstanding Common Stock or voting power, and such ownership or voting power is the largest ownership position. NASDAQ Marketplace Rule 5635(d) requires stockholder approval prior to the issuance of securities in connection with a transaction (other than a public offering) involving the sale, issuance or potential issuance by us of Common Stock (or securities convertible into or exercisable for Common Stock) equal to 20% or more of the Common Stock or 20% or more of the voting power outstanding before the issuance for less than the greater of book or market value of the stock.

Initially, the Preferred Stock is convertible into 25,961,541 shares of our Common Stock, subject to certain adjustments to the conversion price of the Preferred Stock. The October Warrants are initially exercisable into 25,961,541 shares of our Common Stock at an exercise price of \$0.5771 per share, subject to certain adjustments to the exercise price of the October Warrants. Also, as part of the Offering, we agreed to reset the exercise price for any outstanding September Warrants held by any of the Purchasers in the Offering to \$0.5771, which is the same exercise price of the newly issued Warrants. In addition, we agreed to seek Stockholder Approval as may be required by the applicable rules and regulations of the Nasdaq Stock Market) with respect to the transactions contemplated by the Purchase Agreement, including the Nasdaq Limitation. Accordingly, this Special Meeting is being called to obtain the Stockholder Approval.

Consequences of Not Approving this Proposal

With respect to the Preferred Stock, the Preferred Stock will not be convertible into our Common Stock, and we will be required to continue to pay dividends on the Preferred Stock and be subject to redemption obligations requiring us to pay cash to redeem the outstanding Preferred Stock. If stockholder approval is not obtained on or before April 8, 2015, each holder of the Preferred Stock will have the right to require us to either (i) redeem all of the Preferred Stock then held by such holder for a redemption price, in shares of Common Stock or (ii) increase the dividend rate on all of the outstanding Preferred Stock held by such holder to 18% per annum thereafter. In addition, we would be limited to enter into any agreement to issue or sell Common Stock or securities that would entitle the holder to obtain Common Stock and we would further be limited to authorizing or creating any class of stock ranking as to dividends senior to, or otherwise pari passu with, the Preferred Stock. Moreover, until thirty days after we obtain stockholder approval, unless the holders of 67% in stated value of the outstanding Preferred Stock shall have otherwise given prior written consent, we would not be able to (i) incur or guarantee any indebtedness for borrowed money except for limited exceptions; (ii) create, incur or assume any liens of any kind, on or with respect to our property or assets except for limited exceptions; (ii) amend our charter documents in any manner that materially and adversely affect any rights of the holders of the Preferred Stock; (iv) repay, repurchase or otherwise acquire more than a de minimis number of shares of our Common Stock or Common Stock equivalents, or junior securities except for in limited circumstances; (v) pay cash dividends or distributions on junior securities; and (vi) enter into any material transaction with any affiliates of ours, unless made on an arm's-length basis and expressly approved by a majority of the disinterested directors.

With respect to the Warrants, the Warrants will continue to remain outstanding and include certain adjustments to the exercise price, including customary anti-dilution rights.

Required Vote and Board of Directors Recommendation

Approval of this proposal requires the affirmative vote of the holders of a majority of the stock having voting power present in person or represented by proxy. Abstentions are considered present and entitled to vote with respect to this proposal and will, therefore, be treated as votes against this proposal. Broker non-votes will have no direct effect on this proposal.

The Board believes that the above proposal is in the best interests of the Company and its stockholders for the reasons stated above.

YOUR BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS A VOTE "FOR" PROPOSAL 2.

PROPOSAL 3

APPROVAL OF ANY ADJOURNMENT OF THE SPECIAL MEETING, IF NECESSARY OR APPROPRIATE, TO PERMIT SOLICITATION OF ADDITIONAL PROXIES IN FAVOR OF PROPOSAL 1 OR PROPOSAL 2

The Board seeks your approval to adjourn the Special Meeting, if necessary or appropriate, to permit the solicitation of additional proxies in favor of Proposal 1 or Proposal 2. If it is necessary to adjourn the Special Meeting, and the adjournment is for a period of less than 30 days, no notice of the time or place of the reconvened meeting will be given to our stockholders, other than an announcement made at the Special Meeting.

YOUR BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS A VOTE "FOR" PROPOSAL 3.

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following table sets forth information regarding ownership of our Common Stock as of November 3, 2014 (or earlier date for information based on filings with the SEC) by (a) each person known to us to own more than 5% of the outstanding shares of our Common Stock, (b) each director and nominee for director, (c) our President and Chief Executive Officer, VP of Finance and Chief Financial Officer and each other executive officer named in the compensation tables appearing later in this Proxy Statement and (d) all directors and executive officers as a group. The information in this table is based solely on statements in filings with the SEC or other reliable information. A total of 92,449,197 shares of our Common Stock were issued and outstanding as of November 3, 2014.

Number of Charge of

Name and Address of Beneficial Owner ⁽¹⁾	Number of Shares of Common Stock Owned ⁽²⁾	Number of Shares of Common Stock Subject to Options/Warrants Exercisable Within 60 Days ⁽³⁾	Total Number of Shares of Common Stock Beneficially Owned ⁽⁴⁾	Percent Ownership
Principal Stockholders				
Sabby Healthcare Volatility Master Fund, Ltd. ⁽⁵⁾ c/o Ogier Fiduciary Services (Cayman) Limited 89 Nexus Way, Camana Bay Grand Caymen KY1-9007 Cayman Island	7,193,857	-	7,193,857	7.78%
Sabby Volatility Warrant Master Fund, Ltd. ⁽⁶⁾ c/o Ogier Fiduciary Services (Cayman) Limited 89 Nexus Way, Camana Bay Grand Caymen KY1-9007 Cayman Island	6,108,793	-	6,108,793	6.61%
Kian Thiam Lim ⁽⁷⁾ Level 12, 2 Queen Street Melbourne, Victoria 3000,Australia	8,000,000	-	8,000,000	8.65%
BlackRock, Inc. ⁽⁸⁾ 40 East 52 nd Street New York, NY 10022	4,241,408	-	4,241,408	4.59%
Olympus Corporation ⁽⁹⁾ Shinjuku Monolith, 3-1 Nishi- Shinjuku 2-Chome, Shinjuku-ku, Tokyo 163-0914, Japan	3,973,043	-	3,973,043	4.30%
Directors and Named Executive Officers Marc H. Hedrick, MD	518,711	751.070	1,270,689	1.37%
Tiago Girao	510,711	751,978	1,270,009	1.57%
Christopher J. Calhoun ⁽¹⁰⁾	154,975	1,120,207	1,275,182	1.38%
Mark E. Saad ⁽¹¹⁾	138,430	459,270	597,700	*
Steven Kesten, M.D.	-	95,687	95,687	*
Clyde W. Shores	38,458	194,947	233,405	*
David M. Rickey	356,625	147,240	503,865	*
Gail K. Naughton	-	-	-	*
E. Carmack Holmes, MD	43,501	184,115	227,616	*
Paul W. Hawran	87,710	209,115	296,825	*
Richard J. Hawkins	26,185	134,115	160,300	*
Gary A. Lyons	-	-	-	*
Tommy Thompson	45,150	50,115	95,265	*
All executive officers and directors as a group (13)	1,409,745	3,346,789	4,753,534	5.14%

* Represents beneficial ownership of less than one percent (1%) of the outstanding shares as of November 3, 2014.

(1) Unless otherwise indicated, the address of each of the named individuals is c/o Cytori Therapeutics, Inc., 3020 Callan Road, San Diego, CA 92121.

- (2) Unless otherwise indicated, represents shares of outstanding Common Stock owned by the named parties as of November 3, 2014.
- (3) Shares of Common Stock subject to stock options or warrants currently exercisable or exercisable within 60 days of November 3, 2014 are deemed to be outstanding for computing the percentage ownership of the person holding such options and the percentage ownership of any group of which the holder is a member, but are not deemed outstanding for computing the percentage of any other person.
- (4) The amounts and percentages of Common Stock beneficially owned are reported on the basis of regulations of the Securities and Exchange Commission governing the determination of beneficial ownership of securities. Under the rules of the Commission, a person is deemed to be a "beneficial owner" of a security if that person has or shares "voting power," which includes the power to vote or to direct the voting of such security, or "investment power," which includes the power to dispose of or to direct the disposition of such security. A person is also deemed to be a beneficial owner of any securities for which that person has a right to acquire beneficial ownership within 60 days.
- (5) Information reported is based on a Schedule 13G as filed with the Securities and Exchange Commission on October 15, 2014. According to the Schedule 13G, Sabby Healthcare Volatility Master Fund, Ltd. has (i) sole power to vote or to direct the vote of 7,193,857 shares; and (ii) sole power to dispose or to direct the disposition of 7,193,857 shares.

- (6) Information reported is based on a Schedule 13G as filed with the Securities and Exchange Commission on October 15, 2014. According to the Schedule 13G, Sabby Volatility Warrant Master Fund, Ltd. has (i) sole power to vote or to direct the vote of 6,108,793 shares; and (ii) sole power to dispose or to direct the disposition of 6,108,793 shares.
- (7) Information reported is based on a Schedule 13D as filed with the Securities and Exchange Commission on February 28, 2014. According to the Schedule 13D, Kian Thiam Lim. has (i) sole power to vote or to direct the vote of 8,000,000 shares; and (ii) sole power to dispose or to direct the disposition of 8,000,000 shares.
- (8) Information reported is based on a Schedule 13G/A as filed with the Securities and Exchange Commission on January 28, 2014. According to the Schedule 13G/A, BlackRock, Inc. has (i) sole power to vote or to direct the vote of 4,128,230 shares; and (ii) sole power to dispose or to direct the disposition of 4,241,408 shares.
- (9) Information reported is based on a Schedule 13D/A as filed with the Securities and Exchange Commission on September 16, 2014. According to the Schedule 13D/A, Olympus Corporation has (i) sole power to vote or to direct the vote of 3,973,043 shares; and (ii) sole power to dispose or to direct the disposition of 3,973,043 shares.
- (10) Mr. Calhoun resigned as Chief Executive Officer effective April 2, 2014. Mr. Calhoun resigned as a director effective, July 1, 2014.
- (11) Mr. Saad resigned as Chief Financial Officer effective August 11, 2014.

WHERE YOU CAN FIND ADDITIONAL INFORMATION

We file annual, quarterly and current reports, proxy statements and other information with the SEC. You may read and copy any reports, statements and other information filed by us at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. Please call (800) SEC-0330 for further information on the Public Reference Room. The SEC maintains an Internet website that contains reports, proxy and information statements and other information regarding issuers, including us, that file electronically with the SEC. The address for the SEC's website is http://www.sec.gov.

We make available, free of charge, through our investor relations website, our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, statements of changes in beneficial ownership of securities and amendments to those reports and statements as soon as reasonably practicable after they are filed with the SEC. The address for our website is www.cytori.com. The contents on our website are not part of this proxy statement, and the reference to our website does not constitute incorporation by reference into this proxy statement of the information contained at that site.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to incorporate by reference the information we file with it, which means that we can disclose important information to you by referring you to another document that we have filed separately with the SEC. You should read the information incorporated by reference because it is an important part of this proxy statement. We incorporate by reference the following information or documents that we have filed with the SEC (excluding those portions of any Form 8-K that are not deemed "filed" pursuant to the General Instructions of Form 8-K):

- Our Annual Report on Form 10-K for the year ended December 31, 2013, filed with the SEC on March 14, 2014, as amended by our Form 10-K/A filed with the SEC on April 30, 2014 (File No. 001-34375);
- Our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2014 June 30, 2014, and September 30, 2014, filed with the SEC on May 12, 2014, August 11, 2014, and November 6, 2014, respectively (File No. 001-34375);
- Our Current Reports on Form 8-K filed with the SEC on February 4, 2014, April 2, 2014, May 6, 2014, May 12, 2014, May 16, 2014, May 30, 2014, June 12, 2014, July 2, 2014, July 21, 2014, August 4, 2014, August 5, 2014, August 11, 2014, August 19, 2014, September 8, 2014, September 19, 2014, September 30, 2014, October 8, 2014 and October 21, 2014 (File No. 001-34375), October 28, 2014, October 31, 2014, and November 6, 2014; and
- The description of our Common Stock contained in our registration statement on Form 10/A filed with the SEC on July 16, 2001 (File No. 000-32501).

All reports and other documents we subsequently file pursuant to Section 13(a), 13(c), 14 or 15(d) of the Exchange Act prior to the termination of this offering, including all such documents we may file with the SEC after the date of the initial registration statement and prior to the effectiveness of the registration statement, but excluding any information furnished to, rather than filed with, the SEC, will also be incorporated by reference into this proxy statement and deemed to be part of this proxy statement from the date of the filing of such reports and documents.

We will provide without charge to each person, including any beneficial owner, to whom this proxy statement is delivered, upon written or oral request, a copy of any or all documents that are incorporated by reference into this proxy statement, but not delivered with the proxy statement, other than exhibits to such documents unless such exhibits are specifically incorporated by reference into the documents that this proxy statement incorporates. You should direct written requests to: Cytori Therapeutics, Inc., 3020 Callan Road, San Diego, CA 92121, Attn: Investor Relations, or you may call us at (858) 458-0900.

OTHER MATTERS

As of the time of preparation of this Proxy Statement, neither the Board nor management intends to bring before the meeting any business other than the matters referred to in the Notice of Special Meeting and this Proxy Statement. If any other business should properly come before the meeting, or any adjournment or postponement thereof, the persons named in the proxy will vote on such matters according to their best judgment.

Stockholders Sharing the Same Address

In accordance with notices previously sent to many stockholders who hold their shares through a bank, broker or other holder of record (a "street-name stockholder") and share a single address, only one Notice of Availability of Proxy Materials is being delivered to that address unless contrary instructions from any stockholder at that address were received. This practice, known as "householding," is intended to reduce the Company's printing and postage costs. However, any such street-name stockholder residing at the same address who wishes to receive a separate copy of this Proxy Statement or accompanying Annual Report to Stockholders may request a copy by contacting the bank, broker or other holder of record, or the Company by telephone at: (858) 458-0900. The voting instruction sent to a street-name stockholder should provide information on how to request (1) householding of future Company materials or (2) separate materials if only one set of documents is being sent to a household. If it does not, a stockholder who would like to make one of these requests should contact the Company as indicated above.

Stockholder Proposals for the 2015 Meeting

Stockholders interested in submitting a proposal for consideration at our 2015 Annual Meeting must do so by sending such proposal to our Corporate Secretary at Cytori Therapeutics, Inc., 3020 Callan Road, San Diego, CA 92121, Attention: Corporate Secretary. Under the SEC's proxy rules, the deadline for submission of proposals to be included in our proxy materials for the 2015 Annual Meeting is February 16, 2015. Accordingly, in order for a stockholder proposal to be considered for inclusion in our proxy materials for the 2015 Annual Meeting, any such stockholder proposal must be received by our Corporate Secretary on or before February 16, 2015 and comply with the procedures and requirements set forth in Rule 14a-8 under the Securities Exchange Act of 1934, as well as the applicable requirements of our bylaws. Any stockholder proposal received after February 16, 2015 will be considered untimely, and will not be included in our proxy materials.

In addition, stockholders interested in submitting a proposal outside of Rule 14a-8 must properly submit such a proposal in accordance with our bylaws. Our bylaws require advance notice of business to be brought before a stockholders' meeting, including nominations of persons for election as directors. To be timely, notice to our Corporate Secretary must be received at our principal executive offices not less than 120 days prior to the anniversary date of the preceding year's proxy statement and must contain specified information concerning the matters to be brought before such meeting and concerning the stockholder proposing such matters. Therefore, to be presented at our 2015 Annual Meeting, such a proposal must be received by the Company no later than February 16, 2015; provided, however, that in the event we hold the 2015 Annual Meeting of stockholders more than 30 days before or after the one-year anniversary date of the Special Meeting, a proposal must be received by the Company a reasonable time before the proxy solicitation is made.

MISCELLANEOUS

Our Board of Directors knows of no other business to be presented at our Special Meeting. If other matters properly come before our Special Meeting, it is intended that the proxies in the accompanying form will be voted thereon in accordance with the judgment of the person or persons holding such proxies.

By Order of the Board of Directors,

Mar Hahre

MARC H. HEDRICK President & Chief Executive Office



C/O COMPUTERSHARE 250 ROYALL STREET CANTON, MA 02021

VOTE BY INTERNET - www.proxyvote.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 web site and follow the instructions to obtain your records and to create an electronic voting instruction form.

VOTE BY PHONE - 1-800-690-6903

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 Vote Processing, c/o Broadridge, 51 Mercedes Way, Edgewood, NY 11717.

TO VOTE, MARK BLOCKS BELOW 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.

The	e Board of Directors recommends you vote FOR proposals 1, 2 and 3.			
1.	To approve an Amendment to our Amended and Restated Certificate of Incorporation to increase the number of authorized shares of common stock from 145,000,000 shares to 290,000,000 shares.	For o	Against o	Abstain o
2.	To approve, pursuant to NASDAQ Marketplace Rules 5635(b) and 5635(d), the issuance of shares of common stock upon conversion of our Series A 3.6% Convertible Preferred Stock and exercise of warrants to purchase shares of our common stock.	0	0	0
3.	To approve an adjournment of the Special Meeting, if necessary or appropriate, to permit solicitation of additional proxies in favor of the above proposals.	0	0	0

NOTE: Such other business properly brought before the meeting or any adjustments or postponements thereof.

Please sign exactly as your name(s) appear(s) hereon. When signing as attorney, executor, administrator, or other fiduciary, please give full title as such. Joint owners should each sign personally. All holders must sign. If a corporation or partnership, please sign in full corporate or partnership name by authorized officer.

Signature	[PLI	EASE	SIGN	WITHIN	BOX]	

Date:

Signature (Joint Owners)

Date:

Important Notice Regarding the Availability of Proxy Materials for the Special Meeting: The Notice & Proxy Statement is/are available at <u>www.proxyvote.com</u>.

CYTORI THERAPEUTICS, INC. PROXY SOLICITED BY THE BOARD OF DIRECTORS FOR THE SPECIAL MEETING OF STOCKHOLDERS TO BE HELD ON January 6, 2015

The undersigned hereby appoints Marc H. Hedrick, MD and Tiago Girao, or either of them, as proxy holders each with full power of substitution, to appear on behalf and to vote all shares of common stock of Cytori Therapeutics, Inc. (the "Company") that the undersigned is entitled to vote at the Special Meeting of Stockholders of the Company to be held on January 6, 2015 and at any postponement thereof.

When properly executed, this proxy will be voted as directed. If properly executed and no instructions are specified, this proxy will be voted FOR the approval of Proposal 1, FOR the approval of Proposal 2, and FOR the approval of Proposal 3 and at the discretion of the proxies with respect to such other business as may properly come before the meeting.

This proxy, when properly executed, will be voted in the manner directed herein. If no such direction is made, this proxy will be voted in accordance with the Board of Director's recommendations.

PLEASE COMPLETE, DATE AND SIGN THIS PROXY AND RETURN IT IN THE ACCOMPANYING ENVELOPE.

Continued and to be signed on reverse side