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 ☒
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

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(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:

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(1) Amount Previously Paid:

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(3) Filing Party:

(4) Date Filed:

CYTORI THERAPEUTICS, INC.
3020 CALLAN ROAD
SAN DIEGO, CALIFORNIA 92121

NOTICE OF 2009 ANNUAL MEETING OF STOCKHOLDERS
TO BE HELD ON AUGUST 13, 2009

Dear Cytori Therapeutics, Inc. Stockholder:

You are cordially invited to attend the 2009 Annual Meeting of the stockholders of Cytori Therapeutics, Inc. The Annual Meeting will be held in the United States, at the Company's headquarters located at 3020 Callan Road, San Diego, California 92121 on August 13, 2009, commencing at 9:00 a.m., San Diego local time. I look forward to meeting with as many of our stockholders as possible.

The meeting will be webcast live for those who are unable to attend in person. To access the webcast of the meeting please visit our website at www.cytoritx.com and follow the link in our Investor Relations section. To place your vote over the Internet, please see the instructions on the accompanying proxy card.

At the meeting, you will be asked to elect our Board of Directors and to ratify our Audit Committee's selection of the independent registered public accounting firm. The Board of Directors recommends that you vote "FOR" these proposals. In addition, we will address any other business properly brought before the meeting.

We have attached a Proxy Statement that contains more information about these items and the meeting. Stockholders that own stock at the close of business on June 15, 2009, 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.

This year, in accordance with new 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. Accordingly, most stockholders will not receive paper copies of our proxy materials. We will instead 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. We believe this new rule will help us reduce the environmental impact and costs of printing and distributing paper copies and improve the speed and efficiency by which our stockholders can access these 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,

CHRISTOPHER J. CALHOUN
Chief Executive Officer

San Diego, California, USA
July 2, 2009

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

PROXY STATEMENT

2009 ANNUAL 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 Annual Meeting of stockholders to be held on August 13, 2009, and at any postponement of the Annual Meeting, for the purposes set forth in the accompanying notice of Annual Meeting. Our annual report for the year ended December 31, 2008 accompanies this Proxy Statement.

We have fixed the close of business on June 15, 2009 as the record date for the determination of the stockholders entitled to notice of and to vote at the Annual Meeting. Only holders of record of shares of our common stock on that date are entitled to notice of and to vote at the Annual Meeting. On April 15, 2009, there were 34,088,915 shares of our common stock outstanding.

Questions and Answers about the Meeting and Voting

1. What is a Proxy Statement 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 Annual Meeting. Among other things, a Proxy Statement describes those proposals and provides information about us. Our Board of Directors is soliciting the accompanying proxy to be used at the Annual Meeting and at any postponement of the Annual Meeting. The Annual Meeting will be held at our headquarters located at 3020 Callan Road, San Diego, California 92121. We will use the proxies received in connection with proposals to:

- Elect directors;
- Ratify the Audit Committee's selection of KPMG LLP as our independent registered public accounting firm for the 2009 fiscal year; and
- Transact any other business that is proposed in accordance with our by-laws before the Annual Meeting is finally adjourned.

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 over the Internet. On or about July 2, 2009, we mailed a Notice of Internet Availability of Proxy Materials to our stockholders of record and beneficial owners. The Notice explains how you may access the proxy materials on the Internet and 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. What is a proxy?

A proxy is your legal designation of another person to vote the stock you own. That other person is called a proxy holder. Designation of a particular proxy holder can be effected by completion of a written proxy card, such as the one accompanying this Proxy Statement. Our Chief Executive Officer and Member of the Board of Directors, Christopher J. Calhoun, and our President and Member of the Board of Directors, Marc H. Hedrick, M.D., have each been designated as the proxy holders for the Annual Meeting.

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

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. These stockholders are referred to as beneficial owners who hold their shares in street name. (In this situation, the banks, brokers, etc. are the stockholders of record.) If you have elected to hold your shares in certificate form, your name will appear directly on our register as a stockholder of record.

5. What different methods can I use to vote?

If you are a "registered holder," that is your shares are registered in your own name through our transfer agent, 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 your shares are held 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 record holder that must be followed for your record holder to vote your shares per your instructions. Your broker will be sending you a Notice of Internet Availability which contains instructions on how to access the website 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 will be counted in the quorum and voted. *The Internet and telephone voting facilities will close at 11:59 p.m. Eastern Time, August 12, 2009.*

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 Annual Meeting. If you are a registered holder, you may request a ballot at the Annual 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 the record holder (e.g., your broker) and bring it with you to the Annual 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 Annual 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.

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

The record date for the 2009 Annual Meeting is June 15, 2009. 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.

7. 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 Annual Meeting will not automatically revoke your proxy unless you vote again at the meeting or specifically request in writing that your proxy be revoked.

8. What are my voting choices when voting for director nominees, and what vote is needed to elect directors?

In voting on the election of director nominees to serve until the 2010 Annual Meeting, stockholders may vote in favor of each nominee, or may withhold votes as to each nominee. In addition, if any other candidates are properly nominated at the meeting, stockholders of record who attend the meeting could vote for the other candidates. Directors will be elected by a plurality. Stockholders are not entitled to cumulative voting rights with respect to the election of directors.

The Board recommends a vote "FOR" each of the director nominees identified in this proxy statement.

9. What are my voting choices when voting to ratify the selection of our independent registered public accounting firm?

In voting on the ratification of the selection of our independent registered public accounting firm, stockholders may vote in favor of the selection or against the selection, or may abstain from voting on the selection. The affirmative vote of a majority of the shares of common stock present or represented by proxy and voting at the meeting is required to approve this proposal. Abstentions have the same effect as votes against the proposal.

The Board recommends a vote "FOR" ratification.

10. How will a proxy get voted?

If you properly fill in and return the accompanying proxy card, the designated proxy holders (the individuals named on your proxy card) will vote your shares as you have directed. If you sign the proxy card but do not make specific choices, the designated proxy holders will vote your shares as recommended by the Board of Directors as follows:

- “**FOR**” the election of each listed nominee for director; and
- “**FOR**” ratification of KPMG LLP as our independent registered public accounting firm for the 2009 fiscal year.

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

Abstentions and broker non-votes will count toward establishing a quorum. Broker non-votes occur when brokers holding shares in street name for beneficial owners do not receive instructions from the beneficial owners about how to vote the shares. 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.

Because custodians will have discretionary voting authority with respect to election of directors and the ratification of the independent registered public accounting firm, broker non-votes will have no effect with respect to the election of directors or ratification of the appointment of the independent registered public accounting firm. The outcome of these proposals is determined by a majority of votes cast, and abstentions and broker non-votes will have no effect on the outcome because they are not counted as votes cast for or against the proposal.

12. 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.

If we hire soliciting agents, we will pay them a reasonable fee for their services. We will not pay directors, officers, or other regular employees any additional compensation for their efforts to supplement our proxy solicitation. We anticipate that 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 Annual Meeting and that we will reimburse those persons for their out-of-pocket expenses incurred in this connection.

13. What constitutes a quorum?

In order for business to be conducted at the Annual Meeting, a quorum must be present. A quorum exists when at least 33 ⅓ % 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.

14. How will voting on "any other business" be conducted?

Although we do not know of any business to be considered at the Annual Meeting other than the proposals described in this Proxy Statement, if any additional business is presented at the Annual Meeting, your signed proxy card gives authority to the designated proxy holders to vote on such matters at their discretion.

PROPOSAL #1. ELECTION OF DIRECTORS

The Board of Directors, upon recommendation of our Governance and Nominating Committee, has nominated the following persons listed below for election as directors. Effective upon the Annual Meeting, our Board of Directors will be composed of seven members. The names of the seven nominees for election as directors are set forth below (the ages shown are as of August 13, 2009). Each of the nominees is currently serving as a member of our Board of Directors. All directors are elected annually and serve a one-year term until the next Annual Meeting, or until their respective successors are duly elected. All of the nominees listed below are expected to serve as directors if they are elected. If any nominee should decline or be unable to accept such nomination or to serve as a director, an event which our Board of Directors does not now expect, our Board of Directors reserves the right to nominate another person or to vote to reduce the size of our Board of Directors. If another person is nominated, the proxy holders intend to vote the shares to which the proxy relates for the election of the person nominated by our Board of Directors.

For more information on nomination of directors, see “Director Nominations” below in the section entitled “Corporate Governance.”

The Board of Directors recommends a vote “FOR” the nominees named below:

Nominees and Business Experience

Name	Age	Position
Ronald D. Henriksen	70	Chairman of the Board of Directors
Christopher J. Calhoun	43	Chief Executive Officer and Director
Marc H. Hedrick, MD	46	President and Director
Richard J. Hawkins	60	Director
Paul W. Hawran	57	Director
E. Carmack Holmes, MD	71	Director
David M. Rickey	53	Director

Ronald D. Henriksen joined us as a Director in October 2002 and was appointed Chairman of the Board in April 2007. Mr. Henriksen was previously a board member of our predecessor, StemSource, Inc., and has more than 30 years of experience in healthcare, pharmaceutical, biotechnology and consulting and venture capital industries. He currently serves as Chief Investment Officer of Twilight Ventures, LLC, Chairman of the Board of Angel Learning, Inc., and President and board member of EndGenitor Technologies, Inc. In addition, he is on the Board of Directors of Semafore Pharmaceuticals and Biostorage Technologies, Inc. For more than 20 years, Mr. Henriksen held executive positions with Eli Lilly, where he served as Managing Director for Brazil, Mexico and Central America, and negotiated international contracts through Lilly Business Development. He earned a B.S. in Industrial Administration at Iowa State University and an M.B.A. with distinction from Harvard Business School. Mr. Henriksen also served as an officer for four years in the U.S. Navy.

Christopher J. Calhoun is a co-founder of the Company and has served as Chief Executive Officer and Director since 1997. Mr. Calhoun also served as our President from April 2002 to May 2005, and from 1996 to 1998. He is a co-inventor on multiple U.S. and international patents for medical devices and implant instrumentation, and was involved in research and management for the Plastic Surgery Bone Histology and Histometry Laboratory at the University of California, San Diego. Mr. Calhoun is a co-founder and Chairman of the Board of Leonardo MD, and previously served on the Board of Directors of our predecessor, StemSource, Inc. Mr. Calhoun earned a B.A. from the University of California, San Diego and an M.B.A from the University of Phoenix.

Marc H. Hedrick, M.D. was appointed President of the Company in May 2004, and joined us as Chief Scientific Officer, Medical Director and Director in October 2002. In December 2000, Dr. Hedrick co-founded and served as President and Chief Executive Officer of StemSource, Inc., a company specializing in stem cell research and development. He is a plastic surgeon, and is a former Associate Professor of Surgery and Pediatrics at the University of California, Los Angeles (UCLA). From 1998 until 2005, he directed the Laboratory of Regenerative Bioengineering and Repair for the Department of Surgery at UCLA. Dr. Hedrick earned his M.D. degree from University of Texas Southwestern Medical School, Dallas and an M.B.A. from UCLA Anderson School of Management.

Richard J. Hawkins joined us as a Director in December 2007. Since 2004, he has served as the Chairman and CEO of LabNow Inc., a diagnostic device company developing rapid, point-of-care, physician office-based diagnostic testing systems. Mr. Hawkins previously founded and guided the growth of Pharmaco, a clinical drug development services company, where he served as Chairman, President, and Chief Executive Officer. After selling Pharmaco, Mr. Hawkins founded id2, a pharmaceutical and biotechnology research management company; Sensus Drug Development Corporation, a biotechnology company that was sold to Pfizer; and Covance Biotechnology Services, Inc. Mr. Hawkins previously served on the Board of Directors of Synarc, Inc., and as Chairman of the Board for LoopOne, Inc. In addition to his role as Chairman of the Board for LabNow Inc., Mr. Hawkins also currently serves on the Board of Directors of SciClone Pharmaceuticals Inc. He served on the Presidential Advisory Committee for the Center for Nano and Molecular Science and Technology at the University of Texas in Austin, and was inducted into the Hall of Honor for the College of Natural Sciences at the University of Texas. Mr. Hawkins holds a B.S. in biology from Ohio University.

Paul W. Hawran joined us as a Director in February 2005. Mr. Hawran has been Chief Financial Officer of Sequenom, Inc., a genetics company, since April 2007. In addition, he served on the Board of Directors of Sequenom from August 2006 to February 2007. Mr. Hawran served as Executive Vice President and Chief Financial Officer of Neurocrine Biosciences, Inc. from January 2001 through September 2006, and as a Senior Advisor to Neurocrine from September 2006 through April 2007. Before that, he served as Senior Vice President and Chief Financial Officer of Neurocrine from 1996 to 2001 and as Vice President and Chief Financial Officer from 1993 to 1996. Mr. Hawran was employed by SmithKline Beecham (now Glaxo SmithKline) from July 1984 to May 1993, most recently as Vice President and Treasurer. Prior to joining SmithKline in 1984, he held various financial positions at Warner Communications (now Time Warner) involving corporate finance, financial planning and domestic and international budgeting and forecasting. Mr. Hawran earned a B.S. in finance from St. John's University and an M.S. in taxation from Seton Hall University. He is a Certified Public Accountant and is a member of the American Institute of Certified Public Accountants.

E. Carmack Holmes, M.D. joined us as a Director in August 2003. Dr. Holmes served as the Surgeon-in-Chief of the University of California Los Angeles (UCLA) Medical Center and held the position of William P. Longmire, Jr. Professor and Chairman, Department of Surgery, UCLA School of Medicine, from 1994 to 2004. He joined UCLA in 1973 and has held professorial positions in the Divisions of Cardiothoracic Surgery and Surgical Oncology for over 30 years. He served as Vice-Chairman for five years prior to holding the positions of Chairman and Surgeon-in-Chief for the past ten years. Dr. Holmes is the recipient of numerous awards and grants and professional memberships including the American Surgical Association, the American College of Surgeons and the Association for Academic Surgeons. He has authored 250 medical publications throughout his career and has been an internationally invited lecturer for over 25 years. His surgical training was conducted at Johns Hopkins University and the National Cancer Institute at the National Institutes of Health (NIH). Dr. Holmes graduated from Duke University and holds an M.D. from the University of North Carolina Medical School.

David M. Rickey has served as Director of the Company since November 1999. Mr. Rickey has been a principal of Rickey Enterprises, a family investment firm, since 2005. From 1996 to 2005, he was

President and Chief Executive Officer of Applied Micro Circuits Corporation, which provides high-performance, high-bandwidth silicon solutions for optical networks. Mr. Rickey also served as a Director and Chairman of the Board of Applied Micro Circuits Corporation and as a Director of AMI Semiconductor, Inc., and Netlist, Inc. He holds a B.S. from Marietta College, a B.S. from Columbia University and an M.S. from Stanford University.

YOUR BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS A VOTE "FOR" THE NOMINEES TO THE BOARD OF DIRECTORS.

PROPOSAL #2. RATIFICATION OF SELECTION OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Our Audit Committee has selected KPMG LLP ("KPMG") as our independent registered public accounting firm for the fiscal year ending December 31, 2009, and has further directed that we submit the selection of the independent registered public accounting firm for ratification by our stockholders at the Annual Meeting. KPMG was our independent registered public accounting firm for the fiscal year ended December 31, 2008. The selection of the independent registered public accounting firm is not required to be submitted for stockholder approval. However, if the stockholders do not ratify this selection, the Audit Committee will reconsider its selection of KPMG. Even if the selection is ratified, our Audit Committee may direct the appointment of a different independent accounting firm at any time during the year if the Audit Committee determines that the change would be in the Company's best interests.

Representatives of KPMG will be present at the Annual Meeting and will have an opportunity to make a statement if they desire to do so and will be available to respond to appropriate questions from stockholders.

Additional information concerning the Audit Committee and KPMG can be found in the "Audit Matters" section of this Proxy Statement.

YOUR BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS A VOTE "FOR" THE RATIFICATION OF THE SELECTION OF KPMG LLP AS OUR INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM FOR FISCAL YEAR 2009.

CORPORATE GOVERNANCE

The Board of Directors held six meetings and action was taken via unanimous written consent four times during 2008. The Audit Committee met five times and took action via unanimous written consent once; the Compensation Committee met two times and took action via unanimous written consent four times; the Governance and Nominating Committee met once and took action via unanimous written consent two times; the Special Pricing Committee met twice; and the Executive Committee took action via unanimous written consent four times.

Each member of the Board of Directors attended 75% or more of the aggregate of (i) the total number of Board meetings held during the period of such member's service and (ii) the total number of meetings of committees of the Board of Directors on which such member served, during the period of such member's service.

Board Independence

The Board of Directors has determined that Messrs. Henriksen, Hawkins, Hawran, Rickey, and Dr. Holmes are "independent" under the rules of the Nasdaq Stock Market. Under applicable SEC and the Nasdaq Global Market rules, the existence of certain "related person" transactions above certain thresholds between a director and the company are required to be disclosed and preclude a finding by the Board that the director is independent.

Board Committees

The Board of Directors has standing Audit, Compensation, Executive, and Governance and Nominating Committees. All members of the Compensation Committee, Audit Committee, and Governance and Nominating Committee are independent directors.

Compensation Committee.

The Compensation Committee consists of David M. Rickey (Chairman), Ronald D. Henriksen and Paul W. Hawran, each of whom is independent as defined by NASDAQ, a "Non-Employee Director" as defined by rule 16b-3(b)(3)(i) of the Securities Exchange Act of 1934, as amended, and an "outside director" as defined by Section 162(m) of the Internal Revenue Code of 1986, as amended. The Committee Chairman is responsible for setting the Committee's calendar and meeting agenda.

The Compensation Committee is responsible for developing and implementing compensation programs for our executive officers and other employees, subject only to the discretion of the full Board. More specifically, our Compensation Committee administers our Amended and Restated 1997 Stock Option and Stock Purchase Plan and 2004 Equity Incentive Plan, and our Executive Management Incentive Compensation Plan. This Committee establishes the compensation and benefits for our Chief Executive Officer and other executive officers, including annually reviewing the relationship between our performance and our compensation policies. In addition, this Committee reviews and advises the Board concerning regional and industry-wide compensation practices and trends in order to assess the adequacy of our executive compensation programs. The charter of the Compensation Committee has been established and approved by the Board of Directors, and a copy of the charter has been posted on our website at www.cytoritx.com.

The Compensation Committee has delegated to our CEO the authority to award stock option grants to non-executive employees from a pool of stock options set aside by the Committee from time to time. Any grant made from such pool to a non-executive employee may not exceed 16,000 shares and all of the grants shall have an exercise price equal to 100% of our Common Stock's fair market value on the grant date. We have a written policy that addresses the dates on which it is appropriate to grant such options. In addition, Mr. Calhoun:

- Makes recommendations to the Committee regarding the base salary, bonus and stock option award levels for our other executive officers; and

- Provides an annual recommendation to the Committee regarding overall Company performance objectives for the year and the individual performance objectives of each of our executive officers with respect to our Executive Management Incentive Compensation Plan, and reports to the Committee on the satisfaction of each such objective.

Mr. Calhoun attends some of the meetings of the Committee upon invitation, but does not participate in the executive sessions.

Audit Committee. Mr. Hawran (chairman), Mr. Henriksen, Mr. Hawkins and Mr. Rickey are the members of our Audit Committee. The Audit Committee is comprised solely of independent directors, as that term is defined by Rule 4200 of the Nasdaq Marketplace Rules. The Audit Committee selects our auditors, reviews the scope of the annual audit, approves the audit fees and non-audit fees to be paid to our auditors, and reviews our financial accounting controls with the staff and the auditors. The Board of Directors has determined that Mr. Hawran is an “audit committee financial expert” within the meaning of Item 407(d)(5) of SEC Regulation S-K. The charter of the Audit Committee has been established and approved by the Board of Directors, and a copy of the charter has been posted on our website at www.cytoritx.com.

Governance and Nominating Committee. Mr. Henriksen (chairman), Mr. Hawkins, Mr. Hawran and Dr. Holmes are the members of our Governance and Nominating Committee. The Governance and Nominating Committee is comprised solely of independent directors, as that term is defined by Rule 4200 of the Nasdaq Marketplace Rules. The Governance and Nominating Committee interviews, evaluates, nominates and recommends individuals for membership on the Board, evaluates the effectiveness of the Board, and recommends the structure, responsibility and composition of the committees of the Board. The committee is also responsible for recommending guidelines and policies for corporate governance for adoption by the Board, and for evaluating and making recommendations to the Board with respect to the compensation of the non-employee directors of the Board. The charter of the Governance and Nominating Committee has been established and approved by the Board of Directors, and a copy of the charter has been posted on our website at www.cytoritx.com.

Executive Committee. Mr. Henriksen (chairman), and Mr. Calhoun are the members of our Executive Committee. The Executive Committee evaluates and approves or rejects corporate expenditures equal to or greater than $250,000 up to a single transaction maximum of $1,000,000, with certain additional budgetary guidelines.

DIRECTOR NOMINATIONS

Criteria for Board Membership. In selecting candidates for appointment or re-election to the Board, the Governance and Nominating Committee considers the appropriate balance of experience, skills and characteristics required of the Board of Directors, and seeks to insure that at least a majority of the directors are independent under the rules of the Nasdaq Stock Market, and that members of the Company’s Audit Committee meet the financial literacy and sophistication requirements under the rules of the Nasdaq Stock Market, and at least one of them qualifies as an “audit committee financial expert” under the rules of the Securities and Exchange Commission. Nominees for director are selected on the basis of their relevance, depth and breadth of experience, reputation among our various constituencies and communities, integrity, ability to make independent analytical inquiries, understanding of the Company’s business environment, and willingness to devote adequate time to Board duties, but there are no other pre-established qualifications, qualities or skills at this time that any particular director nominee must possess.

Stockholder Nominees. The Governance and Nominating Committee is responsible for the consideration of any director candidates recommended by security holders, provided such nominations are made pursuant to the Company's Bylaws and applicable law. The Committee does not have a specific protocol with regard to the consideration of any director candidates recommended by security holders, because no such candidates have ever been proposed. However, any recommendations received from the security holders will be evaluated in the same manner that potential nominees suggested by Board members, management or other parties are evaluated. Any such nominations should be submitted to the Governance and Nominating Committee c/o the Secretary of the Company and should include the following information: (a) all information relating to such nominee that is required to be disclosed pursuant to Regulation 14A under the Securities Exchange Act of 1934 (including such person's written consent to being named in the proxy statement as a nominee and to serving as a director if elected); (b) the names and addresses of the stockholders making the nomination and the number of shares of the Company's common stock which are owned beneficially and of record by such stockholders; and (c) other appropriate biographical information and a statement as to the qualification of the nominee, and should be submitted no later than the deadlines described in the Bylaws of the Company and under the caption, "Stockholder Proposals for 2010 Annual Meeting" below.

STOCKHOLDER COMMUNICATION WITH THE BOARD

The Board of Directors has appointed Paul W. Hawran as Chairman of the Audit Committee. In addition, he is a member of the Governance and Nominating Committee and is responsible for facilitating compliance with our Code of Business Conduct and Ethics. Stockholders and other parties interested in communicating directly with Mr. Hawran or with the non-management directors as a group may do so by writing to Paul W. Hawran, 3020 Callan Road, San Diego, CA 92121, USA. If the communication so requests and Mr. Hawran determines that it is appropriate to do so, he will share the communication with the entire Board of Directors.

COMPENSATION COMMITTEE INTERLOCKS AND INSIDER PARTICIPATION

The Compensation Committee consists of Messrs. Rickey (Chair), Henriksen and Hawran, each of whom is an independent director, and none of whom is a current or former employee of the Company. During 2008, none of our executive officers served as a director or member of the Compensation Committee or any Board committee performing equivalent functions for another entity that has one or more executive officers serving on our Board of Directors.

CODE OF ETHICS

We have adopted a code of business conduct and ethics that applies to all officers and employees, including our principal executive officer, principal financial officer and controller. This code of business conduct and ethics has been posted on our website at www.cytoritx.com.

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following table sets forth information regarding ownership of our Common Stock as of April 15, 2009 (or earlier date for information based on filings with the Securities and Exchange Commission) by (a) each person known to us to own more than 5% of the outstanding shares of the Common Stock, (b) each director and nominee for director, (c) our Chief Executive Officer, 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 Securities and Exchange Commission (the "SEC") or other reliable information. A total of 34,088,915 shares of our common stock were issued and outstanding as of April 15, 2009.

Name and Address of Beneficial Owner [1]	Number of Shares of Common Stock Owned [2]	Number of Shares of Common Stock Subject to Options Exercisable Within 60 Days [3]	Total Number of Shares of Common Stock Beneficially Owned [4]	Percent Ownership
Olympus Corporation Shinjuku Monolith, 3-1 Nishi-Shinjuku 2-Chome Shinjuku-ku,Tokyo 163-0914, Japan	4,013,043	594,406	4,607,449	13.3%
Neil Gagnon [5] 1370 Avenue of the Americas,Suite 2400 New York, NY 10019	2,806,724	266,925	3,073,649	8.9%
Green Hospital Supply, Inc. 3-20-8 Kasuga Suita-City Osaka 565-0853, Japan	3,000,000	—	3,000,000	8.8%
Christopher J. Calhoun	120,000	1,001,872	1,121,872	3.2%
Marc H. Hedrick, MD	440,038	407,707	847,745	2.5%
Mark E. Saad	76,500	370,623	447,123	1.3%
Bruce A. Reuter	4,193	300,102	304,295	*
Seijiro N. Shirahama	8,700	257,915	266,615	*
David M. Rickey	168,558	99,374	267,932	*
Ronald D. Henriksen	23,161	238,542	261,703	*
E. Carmack Holmes, MD	15,161	184,374	199,535	*
Paul W. Hawran	—	114,374	114,374	*
Richard J. Hawkins	—	38,750	38,750	*
All executive officers and directors as a group (13)	865,511	3,285,737	4,151,248	11.1%

* Represents beneficial ownership of less than one percent (1%) of the outstanding shares as of April 15, 2009.

(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) Represents shares of outstanding common stock owned by the named parties as of April 15, 2009.

(3) Shares of common stock subject to stock options currently exercisable or exercisable within 60 days of April 15, 2009 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 February 18, 2009. According to the Schedule 13G, Mr. Gagnon has (i) sole power to vote or to direct the vote of 1,542,925 shares; (ii) shared power to vote or to direct the vote of 1,431,091 shares; (iii) sole power to dispose or to direct the disposition of 1,542,925 shares; and (iv) shared power to dispose or to direct the disposition of 1,530,724 shares. Mr. Gagnon is the managing member and the principal owner of Gagnon Securities LLC. In its role as investment manager to certain funds (the "Funds"), Gagnon Securities LLC shares investment and/or voting power with Mr. Gagnon over certain securities of the Company that are owned by the Funds and may be deemed to be the beneficial owner of these securities.

CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

Related Person Transactions

We consider Green Hospital Supply, Inc. ("GHS") to be a "related person" inasmuch as it is currently a holder of our securities covered by Item 403(a) of Regulation S-K.

<u>GHS Stock Purchase</u>

In February 2008, we entered into a Common Stock Purchase Agreement to sell 2,000,000 shares of common stock at $6.00 per share to GHS in a private placement. On February 29, 2008 we closed the first half of the private placement with GHS and received the initial $6,000,000, and on April 30, 2008 we closed the second half of the private placement with GHS and received the remaining $6,000,000.

<u>Other Transactions</u>

Change of Control Agreements. In January 2008, we entered into individual change of control agreements with Mr. Calhoun, Dr. Hedrick, and Mr. Saad (filed as Exhibits 10.52, 10.53, and 10.54 to our Annual Report on Form 10-K, as filed with the SEC on March 14, 2008). These agreements are described below in the "Compensation Discussion & Analysis".

Procedures for Approval of Related Person Transactions

The Governance and Nominating Committee of the Board of Directors is responsible for reviewing and approving the majority of material transactions with related persons. However, in certain cases, transactions have been approved by the full Board of Directors, the Audit Committee, or some other committee consisting of all independent directors, as the case may be. In general, transactions with holders of our securities covered by Item 403(a) of Regulation S-K will be reviewed and approved by our full Board of Directors, so long as none of our directors or executive officers or their family members have a material interest in such transaction. Related parties include any of our directors or executive officers, certain of our stockholders and their immediate family members. This obligation is set forth in writing in our Governance and Nominating Committee Charter. A copy of the Governance and Nominating Committee Charter is available at www.cytoritx.com under Investor Relations – Corporate Governance.

To identify related person transactions, each year we submit and require our directors and officers to complete Director and Officer Questionnaires identifying any transactions with us in which the officer or director or their family members have an interest. We review related person transactions due to the potential for a conflict of interest. A conflict of interest occurs when an individual's private interest interferes, or appears to interfere, in any way with the interests of the Company. Our Code of Business Conduct and Ethics requires all directors, officers and employees who may have a potential or apparent conflict of interest to immediately notify our Compliance Officer.

We expect our directors, officers and employees to act and make decisions that are in the Company's best interests and encourage them to avoid situations which present a conflict between our interests and their own personal interests. Our directors, officers and employees are prohibited from taking any action that may make it difficult for them to perform their duties, responsibilities and services to the Company in an objective and fair manner. Exceptions are only permitted in the reasonable discretion of the Board of Directors or the Corporate Governance and Nominating Committee, consistent with the best interests of the Company. In addition, we are strictly prohibited from extending personal loans to, or guaranteeing the personal obligations of, any director or officer.

SECTION 16(a) BENEFICIAL OWNERSHIP REPORTING COMPLIANCE

Section 16(a) of the Securities Exchange Act of 1934 requires our directors, executive officers, and persons or entities who own more than ten percent of our common stock, to file with the Securities and Exchange Commission reports of beneficial ownership and changes in beneficial ownership of our common stock. Those directors, officers, and stockholders are required by regulations to furnish us with copies of all forms they file under Section 16(a). Based solely upon a review of the copies of such reports furnished to us and written representations from such directors, officers, and stockholders, we believe that all such reports required to be filed during 2008 or prior fiscal years were filed on a timely basis, except in instances disclosed in our proxy statements for prior annual stockholders meetings.

COMPENSATION AND OTHER INFORMATION CONCERNING DIRECTORS AND EXECUTIVE OFFICERS

Biographical Information

The following table sets forth biographical information regarding our executive officers as of April 30, 2009 (the ages shown are as of August 13, 2009).

Name	Age	Position(s)
Christopher J. Calhoun	43	Chief Executive Officer
Marc H. Hedrick, MD	46	President
Mark E. Saad	39	Chief Financial Officer
Seijiro N. Shirahama	55	President — Asia Pacific
Bruce A. Reuter	60	Senior Vice President — International Sales, Marketing & Distribution
Douglas Arm, Ph.D.	40	Sr. Vice President — Operations
Alexander M. Milstein, MD	50	Vice President — Clinical Development
Kenneth K. Kleinhenz.	45	Vice President — Quality & Regulatory Affairs

See "Proposal No. 1 Election of Directors" for biographical information regarding Mr. Calhoun and Dr. Hedrick.

Mark E. Saad joined us as Chief Financial Officer in June 2004. Previously, Mr. Saad served as Chief Operating Officer of UBS, Healthcare Investment Banking, New York, where he was responsible for global investment banking operations. Upon joining UBS in 1999, Mr. Saad served as Director/Executive Director covering life sciences sectors - biotechnology and medical devices. Prior to joining UBS, he held the position of Financial Analyst/Associate with Salomon, Smith Barney, Healthcare Investment Banking, New York, where he managed public and private transactions. Mr. Saad holds a B.A. from Villanova University, Philadelphia, PA.

Bruce A. Reuter was appointed Senior Vice President – International Sales, Marketing & Distribution in November 2006. He had served as our Senior Vice President of Business Development from January 2004 to July 2006 and as Senior Vice President International Business from September 2002 to January 2004. From September 2001 to September 2002, he served as our Vice President and General Manager of Bone Fixation Products, and from January 2001 to September 2001, he served as Vice President - Market Development. Before joining us, from January 1990 to October 2000, Mr. Reuter served as the Vice President and Managing Director of Mentor Corporation, a multi-national marketer of medical devices. He holds a B.A. from the University of Rhode Island and an M.B.A. from Memphis State University (now known as University of Memphis).

Seijiro N. Shirahama was appointed President – Asia Pacific in November 2007. He had served as Senior Vice President – Asia Pacific since November 2006, and as Vice President – Asia Pacific, from September 2002 to November 2006. Prior to that, from May 1999 to August 2002, he was President of Touchmetrics K.K., a diagnostic ultrasound firm. He held executive positions with Bristol-Myers Squibb K.K. from April 1997 to October 1998, and from March 1995 until March 1997, was the General Manager for Baxter Biotech Group in Tokyo, Japan. Mr. Shirahama holds a B.A. from Kanagawa University in Yokohama, Japan and an M.A. from the University of San Francisco.

Douglas Arm, PhD was appointed Sr. Vice President, Operations in April 2009, and previously served as Vice President of Development – Regenerative Cell Technology since February 2005. Prior to joining us, Dr. Arm spent more than eight years at Interpore Cross International, the last several years as Director of Biologics Research. Before joining Interpore, he completed a post-doctoral fellowship with Dr. Arnold Caplan at the Skeletal Research Center at Case Western Reserve University, examining various aspects of mesenchymal stem cells. Dr. Arm earned his B.S. in Biomedical Engineering from Johns Hopkins University in 1990, followed by his Ph.D. in Bioengineering from the University of Washington in 1995.

Alexander M. Milstein, MD joined us as Vice President – Clinical Development in June 2005. Before joining us, Dr. Milstein held the position of Director of Clinical Research at Medtronic, Inc., and as Director of Clinical Research and Development from November 2004 through May 2005. From 2000 to 2003, he was employed by Guidant Corporation as Manager, Clinical Trials, where he developed and managed implementation of worldwide clinical development strategies for several device/drug combination cardiovascular products. Before joining Guidant, he was Manager of Clinical Operations at Acusphere, Inc., a specialty pharmaceutical company. Dr. Milstein earned his M.D. degree from Moscow Medical Institute No. 2 (Pirogov) in Moscow, Russia.

Kenneth K. Kleinhenz was appointed Vice President of Quality & Regulatory Affairs in November 2007. He had served as our Director of Regulatory Affairs since joining us in 1999. From September 1998 to June 1999, Mr. Kleinhenz was the Technical Director of IFM Manufacturing. He served as Chief Microbiologist for Becton Dickenson from June 1997 to September 1998, and as Manager of Quality Assurance and Regulatory Affairs at Pacific Pharmaceuticals from September 1993 to June 1997. Mr. Kleinhenz is a veteran of the United States Navy, where he served as a Clinical Microbiologist for six years at the Naval Hospital, San Diego. He earned his B.S. in Microbiology at the University of California, San Diego (UCSD) and his M.B.A. in Technology Management at the University of Phoenix.

Compensation Discussion and Analysis

Compensation Philosophy for the Named Executive Officers

In September of 2007, our Compensation Committee engaged J. Thelander Consulting to conduct a comprehensive review of our compensation program for our Chief Executive Officer, President, Chief Financial Officer and our next two most highly compensated executive officers, collectively, the "Named Executive Officers" (or "NEOs"), for the fiscal year 2008. Acting at the request of the Compensation Committee, and without obligation to or influence by any other Company representatives, Ms. Thelander:

- Evaluated our total executive compensation structure (base pay, bonus and equity) by reference to proxy statements and other public company information for the peer groups described below;

- Generated a report identifying market compensation practices our comparability to those practices for each executive position; and

- Made recommendations to the Committee regarding compensation strategies for the Company.

As a result of the analysis and discussion with the consultant, we determined to shift our compensation objectives slightly to the following:

- Focus on "pay for performance" - align executive compensation with the overall short and long-term company objectives and with individual functional objectives;

- Attract, motivate and retain key talent – remain competitive while attracting and retaining the executive talent required to successfully implement our business strategy; and

- Align the financial interests of our executives with those of our stockholders – place a significant amount of total direct compensation "at risk" dependent upon performance of the Company. Thus a large portion of the executive compensation is tied directly to the long-term and short-term performance goals of the Company and the value it creates for our stockholders.

In comparison to our historical NEO compensation objectives, this represents an increased emphasis on performance-based pay component, and compensation linked to value it created for our stockholders.

2008 NEO Compensation

Benchmarking

The Committee, working with Ms. Thelander, identified two peer groups of U.S. public companies and reviewed benchmark data from their most recently filed proxy statements. The first peer group selected consisted of companies similar in size to us, which we defined as having a market capitalization of $50 million - $350 million, and in our industry, which we broadly defined as the healthcare industry. This group consisted of: ViaCell, Inc., StemCells, Inc. GenVec, Inc., Artes Medical, Inc., Aastrom Biosciences, Inc., Sequenom Inc., and Cardium Therapeutics. The second group identified consisted of healthcare/biotechnology companies which were deemed similar to us without regard to market capitalization, but instead based on similarity in business focus. This group consisted of ViaCell, Inc., Orthovita, Inc., XTENT, Inc., Artes Medical, Inc., Aastrom Biosciences, Inc., Osteotech, Inc., Thermogenesis Corp., and Cardium Therapeutics. We believe that by using two peer groups, even though there is some overlap, we obtained a reasonable analysis of the competitive marketplace for our management talent and relevant compensation data.

The Committee reviewed the ranking of total compensation, consisting of base salary, bonus and value of annual equity grant, for the CEO position, the President/CFO (2^{nd} level executives), and the Sr. Vice President positions as compared to that of the peer groups. The Company's CEO and Sr. Vice Presidents' compensation ranked at or near the middle of the peer groups for those positions, while the President and CFO compensation ranked at or near the top in the ranking of 2^{nd} level executives. The Committee did not set a specific target or specific compensation based on this data, but also considered recommendations from management and Ms. Thelander, individual executive performance and compensation history. This benchmarking affected our determinations regarding base salaries, annual incentive bonuses, and long-term equity compensation as described below.

Base Salary

Our Compensation Committee establishes NEO salaries based upon each executive's responsibilities, overall performance, and compensation history, as well as a desire to maintain internal equity among our management group and among our executives and other non-executive employees, in addition to our budgetary guidelines, labor market conditions and recommendations from Mr. Calhoun (other than with respect to his own salary). In addition, base salary for each executive is benchmarked to the range of salaries for executives in similar positions at peer group companies, as described above. After consideration of all the data and input noted above in "*Benchmarking,"* the Committee determined that it was appropriate to move towards a more heavily weighted 'pay-for-performance" compensation philosophy and did not adjust 2008 base salary for Mr. Calhoun, Dr. Hedrick and Mr. Saad from 2007 levels.

In November 2007, Mr. Reuter was given a base salary increase from $210,000 to $230,000 and Mr. Shirahama was given a base salary increase from $235,000 to $260,000.

Executive Management Incentive Compensation Plan

Our Compensation Committee adopted the Cytori Therapeutics Executive Management Incentive Compensation Plan (EMIC) to increase the performance-based component of NEO compensation by linking NEO bonus payments to achievement of shorter-term performance goals. Target bonuses are reviewed annually and established as a percentage of the executive's base salary, generally based upon seniority of the officer and targeted at or near the median of the peer group data described above. Each year the Committee establishes corporate and individual objectives and respective target percentages, taking into account recommendations from Mr. Calhoun as it relates to executive positions other than the CEO. Our 2008 target bonus percentages remained as adjusted in late 2007, reflecting our shift in compensation objectives more toward "Pay for Performance". After fiscal year-end Mr. Calhoun provides the Committee with a written evaluation showing actual performance as compared to the objectives, and the Committee uses that information to determine what percentage of each NEO's bonus target will be paid out as a bonus for that year.

For 2008, the general Company objectives were determined by the Committee to weight as a possible maximum of 50% of the overall target bonus amounts, and those objectives were determined to be:

- Financial Objectives
  - Raise capital of targeted amount
  - Manage loss to prescribed level
  - Manage stock performance
  - Achieved prescribed cash balance and improved liquidity
  - Close a commercialization partnership
  - Achieve at least joint ownership of '231 patent

- Commercial and Operational Objectives
  - Initiate EU introduction for Celution and achieve target revenue
  - Initiate StemSource sales in Japan and install target number of cell banks

- Clinical and Regulatory Objectives
  - Achieve enrollment goals for clinical trials
  - Achieve expanded product claims in EU and regulatory filings in U.S.
  - Prepare and submit regulatory filings in various Asian countries

- Research and Development Objectives
  - Achieve improved manufacturing efficiency that results in lower cost of goods sold
  - Achieve key research objectives to support clinical priorities, partnerships and device development
  - Develop next generation prototype

The individual executives' objectives expanded upon their particular function in the overall Company objectives and were also weighted as 50% of the target bonus amount. Reflecting his overall responsibility for corporate performance, Mr. Calhoun's individual objectives were the same as the overall Company objectives.

The 2008 target bonus as a percentage of annual base salary remained as increased in 2007 to 50% for Mr. Calhoun; 40% for Dr. Hedrick and 35% for Mr. Saad. Mr. Reuter was given a target bonus increase from 20% to 25%, and Mr. Shirahama was given a target bonus increase from 20% to 25%.

Overall, we attempt to set the corporate and personal goals such that they are highly challenging yet attainable. Our corporate financial objectives are intended to be more difficult to achieve than our actual expected results, such that their attainment would require exceptional performance and dedication from our management team. However, as a result of the extreme financial market instability and the resulting challenging fiscal circumstances for the Company and based on the recommendation of our executive management team, the Board of Directors determined in its January 2009 session that it was in the best interests of the corporation that no bonuses under the 2008 EMIC Plan be paid to the management team, or throughout the rest of the organization.

Long-Term Equity Compensation

We designed our long-term equity grant program to further align the interests of our executives with those of our stockholders and to reward the executives' longer-term performance. The Committee determines individual option grant awards based on its judgment as to whether the complete compensation packages to our executives, including prior equity awards, are sufficient to retain and incentivize the executives and whether the grants balance long-term vs. short-term compensation. In particular, the Compensation Committee reviewed the benchmark information provided by Ms. Thelander comparing our equity compensation to executives to the peer groups. The Committee considered our overall performance as well as the individual performance of each NEO and the potential dilutive and overhang effect of the option grant awards as well as recommendations from Mr. Calhoun (other than with respect to his own option grants).

After this review, the Compensation Committee granted 85,000 stock options to Mr. Calhoun; 60,000 to Dr. Hedrick; 55,000 to Mr. Saad and Mr. Shirahama, and 30,000 to Mr. Reuter in January 2008. While these grants represent a relatively small increase over 2007 grants, given our increased focus on performance-based compensation, in future periods the Committee intends to shift NEO compensation to include more equity compensation as a percentage of total compensation. You can find more information regarding these grants by referring to our Grants of Plan-Based Awards table on page 22.

Our policy is to grant stock options to the executives only at a regularly-scheduled Compensation Committee meeting in the first quarter of the year, or as new-hire or promotion grants. All stock options are granted with an exercise price equal to 100% of grant-date common stock fair market value. The Compensation Committee meeting dates are not related to dates for release of Company information.

Personal Benefits and Perquisites

All of our executives are eligible to participate in our employee benefit plans, including medical, dental, vision, life insurance, short-term and long-term disability insurance, flexible spending accounts, and 401(k). These plans are available to all full-time employees. In keeping with our philosophy to provide total compensation that is competitive within in our industry we do offer limited personal benefits and perquisites to executive officers that include supplemental long-term disability insurance and a tax preparation fee allowance. We also provide a supplemental life insurance policy for Mr. Calhoun. During a portion of 2008 Dr. Hedrick and Mr. Reuter were relocated to Italy in connection with their work assignments. We provided benefits to them, such as cost-of-living allowance, temporary housing expenses including maintenance of their existing homes in the U.S., family travel expenses, and automobile reimbursement. You can find more information on the amounts paid for these perquisites in our Summary Compensation Table on page 21.

Company Acquisition / Post-Termination Compensation

On November 1, 2007 the Committee resolved, based upon recommendations from and discussions with J. Thelander Consulting, that the Company should enter into change of control agreements with Mr. Calhoun, Dr. Hedrick, and Mr. Saad. The Committee reviewed benchmarking information, prepared by Ms. Thelander, of the change of control and severance packages for executives of the peer group of healthcare/biotechnology companies which were deemed similar to us based on similarity in business focus, without regard to market capitalization. (See ”2008 NEO Compensation – Benchmarking” above on page 16 for a listing of those companies). The change of control terms approved by the Committee were generally consistent with those of the peer group and were implemented to enable the Company to stay competitive, as well as to retain key executives.

On January 31, 2008, we entered into individual change of control agreements (the “Agreements”) with Mr. Calhoun, Dr. Hedrick, and Mr. Saad (filed as Exhibits 10.52, 10.53, and 10.54 to our Annual Report on Form 10-K, as filed with the SEC on March 14, 2008). The Agreements will provide for certain severance benefits to be paid to each of these executives in the event of his involuntary termination without cause, or due to the executive’s resignation for good reason (including the Company’s material breach of its obligations, material reduction in duties, responsibilities, compensation or benefits, or relocation by more than 30 miles without prior consent), provided such termination or resignation occurs in connection with an acquisition of the Company. Upon such termination or resignation in the event of an acquisition, Mr. Calhoun would receive a lump sum payment of 18 times his monthly base salary, and 18 times his monthly COBRA payments, and Dr. Hedrick and Mr. Saad would each receive a lump sum payment of 12 times his monthly base salary, and 12 times his monthly COBRA payments. Notwithstanding the foregoing, these executives' employment may be terminated for cause (including extended disability, repudiation of the Agreement, conviction of a plea of no contest to certain crimes or misdemeanors, negligence that materially harms the company, failure to perform material duties without cure, drug or alcohol use that materially interferes with performance, and chronic unpermitted absence) without triggering an obligation for the Company to pay severance benefits under the Agreements.

In addition, under the Agreements, any unvested stock options granted to each of the above named executives would vest in full upon (1) the date of the executive's termination under the circumstances described above following entry into an acquisition agreement (subject to the actual consummation of the acquisition) or (2) consummation of an acquisition.

In all events, each executive's entitlement to the benefits described above is expressly conditioned upon his execution and delivery to the Company of an Agreement and General Release of claims, in the form to be attached to the Agreement.

The executives may voluntarily terminate their employment with the Company at any time. If they voluntarily terminate their employment, they will receive payment for any earned and unpaid base salary as of the date of such termination; accrued but unused vacation time; and benefits they are entitled to receive under benefit plans of the Company, less standard withholdings for tax and social security purposes, through the termination date.

Review of NEO Compensation for 2008/2009

In October of 2008, our Compensation Committee again evaluated our NEO compensation structure to establish base pay rates and target bonus percentages in connection with our Executive Management Incentive Compensation Plan (EMIC). The Committee considered compensation data including proxy statements from peer group of public companies similar in size to us, which we defined as having a market capitalization of $15 - $550 million, and in our industry, which we defined as stem cell or cell therapy companies traded on NASDAQ or the American Stock Exchange. The group consisted of Aastrom Biosciences; Athersys, Inc.; GenVec, Inc.; Geron; Isolagen; Osiris Therapeutics, StemCells, Inc. and Thermogenesis. The Committee also compared benchmark data for the 50th percentile base salary and target annual bonus in the 2008 Radford Biotechnology Executive Survey.

Despite this review, the Committee was informed by the executive management team of its recommendation that the Committee agree to freeze all salaries on a company wide basis at the 2008 level. The Committee agreed that the overall economic conditions in the United States and countries abroad made it imperative that the Company (which is not yet profitable) protect it's liquidity as much as possible. The Committee reviewed a number of plans to respond to the extraordinary financial situation and the Committee ultimately concluded that base salaries for 2009 should remain the same as the base salaries for 2008. The Committee also determined that no bonuses would be paid out under the 2008 EMIC Plan and that the 2009 EMIC Plan (including all potential bonuses thereunder) would be suspended until such time as the Committee determines that the financial conditions have become adequately stabilized. The Committee recognized that such actions could potentially result in the loss of some personnel and requested management to closely monitor the employees and the financial performance of the Company to quickly determine if further corrective measures must be taken.

In view of the company-wide base salary freeze for 2008/2009 (in addition to the base salary freeze for the CEO, President and CFO in 2007/2008); the elimination of all bonuses payable for 2008, and the suspension of the incentive bonus program for 2009, the Committee determined that an increase in equity incentives would be appropriate. It has been the Committee's purpose for the last few years to move more toward "pay for performance" in both the long term and short term compensation, and to better align the financial interests of the executives with those of our stockholders. Due to the fact that the cash bonus targets under the 2009 EMIC Plan have been suspended due to the financial crisis, a greater emphasis on the long-term equity based compensation (stock option grants) was determined to be in the best interests of the Company. Therefore, the Committee determined that the annual stock option grants to the NEO's would be significantly increased in 2009. Thus, the Committee granted 100,000 stock options to Mr. Calhoun; 75,000 to Dr. Hedrick; 70,000 to Mr. Saad; 65,000 to Mr. Shirahama, and 40,000 to Mr. Reuter.

Summary Compensation Table

The following table sets forth information concerning compensation earned for services rendered to us by the NEOs.

(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
Name and Principal Position	Year	Salary	Bonus[1]	Stock Awards	Option Awards[2]	Non-Equity Incentive Plan Comp. [3]	Change in Pension Value and NQ Deferred Comp.	All Other Comp-ensation	Total
Christopher J. Calhoun, Chief Executive Officer (PEO)	2008	$ 420,012$ 420,012	—	—	$ 256,339	—	—	$ 14,821[4]	$ 691,172
	2007	$ 395,002	—	—	$ 228,601	$ 172,200	—	$ 10,501[4]	$ 831,314
	2006		—	—	$ 250,952	$ 121,800	—	$ 18,588[4]	$ 786,342
Marc H. Hedrick, President	2008	$ 384,478	—	—	$ 180,645	—	—	$ 116,985[7]	$ 682,108
	2007	$ 372,312	—	—	$ 160,098	$ 124,100	—	—[5]	$ 656,510
	2006	$ 331,669	—	—	$ 170,767	$ 84,863	—	$ 13,764[6]	$ 601,063
Mark E. Saad, Chief Financial Officer (PFO)	2008	$ 350,015	—	—	$ 181,678	—	—	—[5]	$ 531,693
	2007	$ 350,015	—	—	$ 193,890	$ 99,225	—	—[5]	$ 643,130
	2006	$ 329,169	—	—	$ 232,433	$ 63,438	—	$ 10,838[7]	$ 635,878
Seijiro N. Shirahama, President – Asia Pacific	2008	$ 260,000	—	—	$ 161,854	—	—	—[5]	$ 421,854
	2007	$ 239,167	—	—	$ 151,606	$ 55,250	—	—[5]	$ 446,023
	2006	$ 214,810	—	—	$ 227,636	$ 36,425	—	—[5]	$ 478,871
Bruce A. Reuter, Sr. Vice President – Int'l Sales, Marketing & Distribution	2008	$ 254,830	—	—	$ 104,910	—	—	$ 91,991[8]	$ 451,731
	2007	$ 219,469	—	—	$ 81,780	$ 46,575	—	—[5]	$ 347,824
	2006	$ 210,001	—	—	$ 192,198	—	—	$ 10,274[8]	$ 412,473

(1) Column (d) is used to record non-equity discretionary (non-incentive based) bonuses made to our NEOs. We did not provide such bonuses in the fiscal years presented, therefore nothing is reflected in this column. Cash bonuses paid under our EMIC Plan are disclosed in column (g).

(2) This column represents the dollar amount recognized for financial statement reporting purposes during the fiscal years presented for the fair value of stock options granted to each of the named executives, in 2008 as well as prior fiscal years, in accordance with FAS 123R. Pursuant to the SEC rules, the amounts shown exclude the impact of estimated forfeitures related to service-based vesting conditions. For additional information on the valuation assumptions with respect to the 2008 grants, refer to note 16 of the financial statements in our Annual Report on Form 10-K, as filed with the SEC on March 13, 2009.

(3) The amounts in column (g) reflect the cash awards under the 2008 EMIC Plan, which is discussed in further detail in the CD&A under the heading "2008 NEO Compensation – *Executive Management Incentive Compensation Plan*."

(4) All Other Compensation for Mr. Calhoun for 2008 includes supplemental long-term disability insurance premiums ($9,591) and supplemental term life insurance premiums ($3,230), and a tax preparation fee allowance ($2,000). All Other Compensation for Mr. Calhoun for 2007 includes supplemental long-term disability insurance premiums ($4,058), supplemental term life insurance premiums ($3,494), a tax preparation fee allowance ($2,000), and airfare for Mr. Calhoun's spouse to attend the Company's offsite management conference ($949). All Other Compensation for Mr. Calhoun for 2006 includes supplemental long-term disability insurance premiums ($3,433), supplemental term life insurance premiums ($2,155), an automobile allowance ($11,000), and a tax preparation fee allowance ($2,000).

(5) Dollar value of the Named Executive Officer's perquisites and other personal benefits was less than $10,000 for the year reported.

(6) All Other Compensation for Dr. Hedrick for 2008 includes supplemental long-term disability insurance premiums ($9,035), a tax preparation fee allowance ($2,000), and foreign relocation reimbursement for temporary housing ($51,000), automobile cost reimbursement and personal and family travel expenses ($54,950). All Other Compensation for Dr. Hedrick for 2006 includes supplemental long-term disability insurance premiums ($1,764), an automobile allowance ($10,000), and a tax preparation fee allowance ($2,000).

(7) All Other Compensation for Mr. Saad for 2006 includes supplemental long-term disability insurance premiums ($838), an automobile allowance ($8,000), and a tax preparation fee allowance ($2,000).

(8) All Other Compensation for Mr. Reuter for 2008 includes supplemental long-term disability insurance premiums ($3,208), a tax preparation fee allowance ($2,000), and foreign relocation reimbursement for temporary housing and home maintenance ($76,443) and automobile cost reimbursement and personal and family travel expenses ($10,340). All Other Compensation for Mr. Reuter for 2006 includes supplemental long-term disability insurance premiums ($2,674), an automobile allowance ($5,600), and a tax preparation fee allowance ($2,000).

Grants of Plan-Based Awards

The following table sets forth information regarding grants of stock and option awards made to our Named Executive Officers during fiscal 2008:

(a)	(b)	(c-e)			(f-h)			(i)	(j)	(k)	(l)	(m)
		Potential 2008 Payouts Under Non-Equity Incentive Plan Awards			Estimated Future Payouts Under Equity Incentive Plan Awards			All Other Stock Awards: Number of Shares of Stock or Units	All Other Option Awards: Number of Securities Underlying Options	Exercise or Base Price of Option Awards	Market Price on Date of Grant	Full Grant Date Fair Value of Stock and Option Awards ($) (1)
Named Officers	**Grant Date**	**Thre-shold ($)**	**Target ($)**	**Ma xi-mum ($)**	**Thresh-old (#)**	**Tar-get (#)**	**Ma xi-mu m (#)**	**(#)**	**(#)**	**($/Sh)**	**($/Sh)**	
Christopher J. Calhoun, Chief Executive Officer	1/31/2008	–	$ 210,000	–	–	–	–	–	85,000	$5.14	$5.14	$ 231,692
Marc H. Hedrick, President	1/31/2008	–	$ 146,000	–	–	–	–	–	60,000	$5.14	$5.14	$ 163,548
Mark E. Saad, Chief Financial Officer	1/31/2008	–	$ 122,500	–	–	–	–	–	55,000	$5.14	$5.14	$ 149,919
Seijiro N. Shirahama, President – Asia Pacific	1/31/2008	–	$ 65,000	–	–	–	–	–	55,000	$5.14	$5.14	$ 149,919
Bruce A. Reuter, Sr. Vice President – Int’l Sales, Marketing & Distribution	1/31/2008	–	$ 57,500	–	–	–	–	–	30,000	$5.14	$5.14	$ 81,774

(1) Computed in accordance with FAS 123R. See note 16 of the financial statements in our Annual Report on Form 10-K, as filed with the SEC on March 13, 2009 regarding assumptions underlying valuation of equity awards.

Narrative Disclosure to Summary Compensation Table and Grants of Plan-Base Awards Table

The stock options granted to the NEOs during 2008 have an exercise price of $5.14, which was the closing sale price of the Company’s common stock on the Nasdaq Global Market on the date of grant. The option awards have a contractual term of 10 years and vest in equal monthly installments over a period of four years, subject to the NEO’s continued service to the Company.

Outstanding Equity Awards at Fiscal Year-End

The following table sets forth information regarding outstanding equity awards held by our Named Executive Officers as of December 31, 2008. All of such awards are stock options.

(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)
			Option Awards					Stock Awards		
Name	Option Grant Date (1)	Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Un-Exercisable (2)	Equity Incentive Plan Awards: Number of Securities Underlying Unexercised Unearned Options (#)	Option Exercise Price ($)	Option Expiration Date	Number of Shares or Units of Stock That Have Not Vested (#)	Market Value of Shares or Units of Stock That Have Not Vested ($)	Equity Incentive Plan Awards: Number of Unearned Shares, Units or Other Rights That Have Not Vested (#)	Equity Incentive Plan Awards: Market or Payout Value of Unearned Shares, Units or Other Rights That Have Not Vested ($)
Christopher J. Calhoun, Chief Executive Officer	1/1/2000	62,500	—	—	$3.00	1/1/2010	—	—	—	—
	1/3/2001	200,000	—	—	$7.06	1/3/2011	—	—	—	—
	2/8/2002	205,000	—	—	$3.09	2/8/2012	—	—	—	—
	1/28/2003	200,000	—	—	$4.40	1/28/2013	—	—	—	—
	6/2/2004	75,000	—	—	$4.16	6/2/2014	—	—	—	—
	2/2/2005	95,832	4,168	—	$3.12	2/2/2015	—	—	—	—
	1/24/2006	72,916	27,084	—	$7.04	1/24/2016	—	—	—	—
	2/26/2007	32,083	37,917	—	$5.44	2/26/2017	—	—	—	—
	1/31/2008	19,479	65,521	—	$5.14	1/31/2018	—	—	—	—
Marc H. Hedrick, President	11/14/2002	150,000	—	—	$4.15	11/14/2012	—	—	—	—
	1/28/2003	25,000	—	—	$4.40	1/28/2013	—	—	—	—
	6/2/2004	50,000	—	—	$4.16	6/2/2014	—	—	—	—
	2/2/2005	67,082	2,918	—	$3.12	2/2/2015	—	—	—	—
	1/24/2006	51,041	18,959	—	$7.04	1/24/2016	—	—	—	—
	2/26/2007	22,916	27,084	—	$5.44	2/26/2017	—	—	—	—
	1/31/2008	13,750	46,250	—	$5.14	1/31/2018	—	—	—	—
Mark E. Saad, Chief Financial Officer	6/21/2004	190,000	—	—	$4.12	6/21/2014	—	—	—	—
	2/2/2005	67,082	2,918	—	$3.12	2/2/2015	—	—	—	—
	1/24/2006	51,041	18,959	—	$7.04	1/24/2016	—	—	—	—
	2/26/2007	22,916	27,084	—	$5.44	2/26/2017	—	—	—	—
	1/31/2008	12,604	42,396	—	$5.14	1/31/2018	—	—	—	—
Seijiro N. Shirahama, President – Asia Pacific	10/28/2002	75,000	—	—	$4.14	10/28/2012	—	—	—	—
	6/2/2004	25,000	—	—	$4.16	6/2/2014	—	—	—	—
	2/2/2005	33,541	1,459	—	$3.12	2/2/2015	—	—	—	—
	12/8/2005	37,499	12,501	—	$6.86	12/8/2015	—	—	—	—
	1/24/2006	25,520	9,480	—	$7.04	1/24/2016	—	—	—	—
	2/26/2007	13,750	16,250	—	$5.44	2/26/2017	—	—	—	—
	11/15/2007	6,771	18,229	—	$5.35	11/15/2017	—	—	—	—
	1/31/2008	12,604	42,396	—	$5.14	1/31/2018	—	—	—	—
Bruce A. Reuter, Sr. Vice President – Int'l Sales, Marketing & Distribution	1/2/2001	100,000	—	—	$7.34	1/2/2011	—	—	—	—
	9/17/2001	35,000	—	—	$2.51	9/17/2011	—	—	—	—
	2/8/2002	30,000	—	—	$3.09	2/8/2012	—	—	—	—
	1/28/2003	29,895	—	—	$4.40	1/28/2013	—	—	—	—
	6/2/2004	13,020	—	—	$4.16	6/2/2014	—	—	—	—
	2/2/2005	12,396	—	—	$3.12	2/2/2015	—	—	—	—
	1/24/2006	4,375	—	—	$7.04	1/24/2016	—	—	—	—
	11/9/2006	36,458	33,542	—	$4.68	11/9/2016	—	—	—	—
	2/26/2007	13,750	16,250	—	$5.44	2/26/2017	—	—	—	—
	1/31/2008	6,875	23,125	—	$5.14	1/31/2018	—	—	—	—

(1) For a better understanding of this table, we have included an additional column showing the grant date of the stock options.

(2) Generally, awards issued under the 1997 or 2004 plans are subject to four-year vesting, and have a contractual term of 10 years. Awards presented in this table contain one of the following two vesting provisions:

- 25% of a granted award vests after one year of service, while an additional 1/48 of the award vests at the end of each month thereafter for 36 months, or

- 1/48 of the award vests at the end of each month over a four-year period.

Option Exercises and Stock Vested

The following table sets forth information regarding options exercised and shares of common stock acquired upon vesting by our Named Executive Officers during the fiscal ended December 31, 2008:

(a)	(b)	(c)	(d)	(e)
	Option Awards		Stock Awards	
Name	Number of Shares Acquired on Exercise (#)	Value Realized on Exercise ($)	Number of Shares Acquired on Vesting (#)	Value Realized on Vesting ($)
Christopher J. Calhoun, Chief Executive Officer	53,190	$471,010	—	—
Marc H. Hedrick, President	—	—	—	—
Mark E. Saad, Chief Financial Officer	—	—	—	—
Seijiro N. Shirahama, President – Asia Pacific	—	—	—	—
Bruce A. Reuter, Sr. Vice President – Int'l Sales, Marketing & Distribution	—	—	—	—

Pension Benefits

We did not have a pension plan nor did we provide pension benefits to our Named Executive Officers (or any other employees) during fiscal 2008.

Nonqualified Deferred Compensation

We did not permit compensation deferral by our Named Executive Officers (or any other employees) during fiscal 2008.

Potential Payments Upon Termination or Change In Control

On January 31, 2008, we entered into individual change of control agreements (the “Agreements”) with Mr. Calhoun, Dr. Hedrick, and Mr. Saad (filed as Exhibits 10.52, 10.53, and 10.54 to our Annual Report on Form 10-K, as filed with the SEC on March 14, 2008). The terms of the Agreements are described in detail in the section above titled, Compensation Discussion & Analysis - *Company Acquisition / Post-Termination Compensation*.

The following table describes the potential payments upon termination and/or a change in control of the Company for Mr. Calhoun, our CEO:

	Acquisition(2)	Forced Separation Due to Acquisition(3)
PAYMENTS DUE UPON ACQUISITION / TERMINATION(1):		
Cash Severance		
Base Salary(4)	$ —	$ 630,000
Benefits		
COBRA Premiums	—	$ 29,374
Long-Term Incentives		
Value of Accelerated Stock Options(5)	2,042	2,042
TOTAL VALUE	**$ 2,042**	**$ 661,416**

The following table describes the potential payments upon termination and/or a change in control of the Company for Dr. Hedrick, our President:

	Acquisition(2)	Forced Separation Due to Acquisition(3)
PAYMENTS DUE UPON ACQUISITION / TERMINATION(1):		
Cash Severance		
Base Salary(4)	$ —	$ 365,000
Benefits		
COBRA Premiums	—	19,582
Long-Term Incentives		
Value of Accelerated Stock Options(5)	1,430	1,430
TOTAL VALUE	**$ 1,430**	**$ 386,012**

The following table describes the potential payments upon termination and/or a change in control of the Company for Mr. Saad, our CFO:

	Acquisition[2]		Forced Separation Due to Acquisition[3]	
PAYMENTS DUE UPON ACQUISITION / TERMINATION[1]:				
Cash Severance				
Base Salary[4]	$	—	$	350,000
Benefits				
COBRA Premiums		—		19,582
Long-Term Incentives				
Value of Accelerated Stock Options[5]		1,430		1,430
TOTAL VALUE	**$**	**1,430**	**$**	**371,012**

(1) Assumes a triggering event occurred on December 31, 2008.

(2) Based on the occurrence of an acquisition of the Company, provided that the executive is at that time still in the service of the Company.

(3) Based on the occurrence of both actual or constructive termination without good cause in the context of an acquisition of the Company as described in detail in the section above titled, *Company Acquisition/Post-Termination Compensation*.

(4) Based on the executive's annual base salary on December 31, 2008, which was $420,000 for Mr. Calhoun; $365,000 for Dr. Hedrick; and $350,000 for Mr. Saad.

(5) Based on the difference between the aggregate exercise price of all accelerated in-the-money stock options and the aggregate market value of the underlying shares, calculated based on the per-share closing market price of our common stock on December 31, 2008, $3.61.

Director Compensation

The following table summarizes director compensation during fiscal year 2008.

(a) Director Name[1]	(b) Fees Earned or Paid in Cash[2] ($)	(c) Stock Awards ($)	(d) Option Awards[3][4] ($)	(e) Non-Equity Incentive Plan Compensation ($)	(f) Change in Pension Value and Nonqualified Deferred Compensation Earnings ($)	(g) All Other Compensation ($)	(h) Total ($)
Ronald D. Henriksen, Chairman	$ 65,500	–	$ 126,637	–	–	–	$ 192,137
Richard J. Hawkins	$ 34,500	–	$ 76,036	–	–	–	$ 110,536
Paul W. Hawran	$ 52,000	–	$ 121,420	–	–	–	$ 173,420
E. Carmack Holmes, MD	$ 30,500	–	$ 120,392	–	–	–	$ 150,892
David M. Rickey	$ 48,000	–	$ 120,392	–	–	–	$ 168,392

(1) Mr. Calhoun and Dr. Hedrick are not included in this table as they are employees of the Company and receive no extra compensation for their services as a Director. The compensation received by Mr. Calhoun and Dr. Hedrick as employees of the Company is shown in the Summary Compensation Table and the three stock-option-related tables above.

(2) In fiscal 2008, each non-employee director received a $5,000 quarterly retainer, a fee of $2,000 per quarterly meeting attended, and a fee of $2,000 per special meeting attended in person. Attendance of telephonic meetings was compensated at $500 per meeting. Compensation Committee members received $2,000 per meeting attended, Governance and Nominating Committee members received $2,000 per meeting attended, Audit Committee members received $2,000 per meeting attended, and Special Pricing Committee members received $500 per meeting attended. The Chairman of the Board received an additional annual stipend of $15,000, the Chairman of the Audit Committee received an additional annual stipend of $10,000, and the Chairmen of the Compensation Committee and the Governance and Nominating Committee each received an additional annual stipend of $7,500.

(3) Column (d) represents the dollar amount recognized for financial statement reporting purposes with respect to the 2008 fiscal year for the fair value of stock options previously granted to the directors, in 2008 as well as prior fiscal years, in accordance with FAS 123R. Pursuant to the SEC rules, the amounts shown exclude the impact of estimated forfeitures related to service-based vesting conditions. For additional information on the valuation assumptions with respect to the 2008 grants, refer to note 16 of the financial statements in our Annual Report on Form 10-K, as filed with the SEC on March 13, 2009.

(4) As of December 31, 2008, the following directors held options to purchase the respective number of shares of our common stock: Richard J. Hawkins 50,000; Paul W. Hawran 125,000; Ronald D. Henriksen 250,000; E. Carmack Holmes 195,000; David M. Rickey 110,000.

Narrative Disclosure to Summary Compensation Table and Grants of Plan-Based Awards Table

The stock options granted to the non-employee directors during 2008 have an exercise price of $5.14, which was the closing sale price of the Company's common stock on the Nasdaq Global Market on the date of grant. The option awards have a contractual term of 10 years and vest in equal monthly installments over a period of two years, subject to the director's continued service to the Company.

Equity Compensation Paid to Directors for Fiscal Year 2008

(a)	(b)	(c)	(d)	(e)	(f)	(g)
Director Name	**Grant Date**	**Option Awards (#)**	**Grant Date Fair Value of Option Awards ($)**	**Stock Awards (#)**	**Grant Date Fair Value of Stock Awards ($)**	**Total Value of Equity Awards for 2008 ($)**
Ronald D. Henriksen	1/31/2008	25,000	$ 68,145 (1)	–	–	$ 68,145
Richard J. Hawkins	–	–	– (2)	–	–	–
Paul W. Hawran	1/31/2008	20,000	$ 54,516 (1)	–	–	$ 54,516
E. Carmack Holmes, MD	1/31/2008	20,000	$ 54,516 (1)	–	–	$ 54,516
David M. Rickey	1/31/2008	20,000	$ 54,516 (1)	–	–	$ 54,516

(1) The grant date fair value of the option award granted was $2.73 per share.

(2) Mr. Hawkins was not granted stock options in 2008, as he received a grant upon his appointment to the Board in December 2007.

Equity Compensation Plan Information

The following table summarizes information, as of December 31, 2008, relating to our equity compensation plans pursuant to which grants of options, restricted stock or other rights to acquire shares may be granted from time to time.

Plan Category	Number of securities to be issued upon exercise of outstanding options, warrants and rights (a)	Weighted-average exercise price of outstanding options, warrants and rights (b)	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a)) (c)
Equity compensation plans approved by security holders[1]	3,810,395	$4.65	—
Equity compensation plans not approved by security holders[2]	2,118,312	$5.68	2,190,450
Total	5,928,707	$5.02	2,190,450

(1) The 1997 Stock Option and Stock Purchase Plan expired on October 22, 2007.

(2) The maximum number of shares shall be cumulatively increased on the first January 1 after the Effective Date, August 24, 2004, and each January 1 thereafter for 9 more years, by a number of shares equal to the lesser of (a) 2% of the number of shares issued and outstanding on the immediately preceding December 31, and (b) a number of shares set by the Board.

On August 24, 2004, the 2004 Equity Incentive Plan of MacroPore Biosurgery, Inc. (the “Plan”) became effective upon approval by our Board of Directors. (MacroPore Biosurgery, Inc. is our former corporate name.) The Plan is designed to provide our employees, directors and consultants the opportunity to purchase our common stock through non-qualified stock options, stock appreciation rights, restricted stock units, or restricted stock and cash awards. The Compensation Committee of the Board shall administer the Plan and determine the number of shares underlying each award, the vesting of such shares and other important terms of awards pursuant to the terms of the Plan. Awards may be granted under the Plan over a ten-year period and the Board has initially reserved 3,000,000 shares of common stock for issuance under the Plan. The maximum number of shares reserved for issuance under the Plan may be cumulatively increased (subject to Board discretion) on an annual basis beginning January 1, 2005, as provided in the footnote to the Equity Compensation Plan Information table.

REPORT OF THE COMPENSATION COMMITTEE

The Compensation Committee provided the following statement:

“The Compensation Committee has reviewed and discussed the Compensation Discussion and Analysis required by Item 402(b) of Regulation S-K with management. Based on these reviews and discussions, the Compensation Committee recommended to the Board of Directors that the Compensation Discussion and Analysis be included in the Company’s Annual Report on Form 10-K and in the annual meeting proxy statement on Schedule 14A.

Respectfully submitted,

Compensation Committee of the Board of Directors
David M. Rickey, Chair
Paul W. Hawran
Ronald D. Henriksen

April 30, 2009”

Notwithstanding anything to the contrary set forth in any of the Company's previous filings under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended, that incorporate future filings, including this Proxy Statement, in whole or in part, the foregoing Compensation Committee Report and the following Audit Committee Report and the Comparative Stock Performance Graph shall not be incorporated by reference into any such filings.

AUDIT MATTERS

Report of the Audit Committee

Under the guidance of a written charter adopted by the Board of Directors, the purpose of the Audit Committee is to oversee the accounting and financial reporting processes of the Company and audits of its financial statements. The responsibilities of the Audit Committee include appointing and providing for the compensation of the Company's registered public accounting firm. Each of the members of the Audit Committee meets the independence requirements of Nasdaq.

Management has primary responsibility for the system of internal controls over financial reporting, disclosure controls and procedures, and for preparing the Company's consolidated financial statements. The independent registered public accounting firm has the responsibility to express an opinion on the financial statements based on an audit conducted in accordance with generally accepted auditing standards.

In this context and in connection with the audited financial statements contained in the Company's Annual Report on Form 10-K, the Audit Committee provided the following report:

"The Audit Committee has reviewed and discussed the Company's audited financial statements for the year ended December 31, 2008 with the Company's management and the Company's independent registered public accounting firm, KPMG LLP ("KPMG"). The Audit Committee has discussed with KPMG the matters required to be discussed by Statement of Auditing Standards No. 61, Communication with Audit Committees, as amended. The Audit Committee has received the written disclosures and the letter from KPMG required by Public Company Accounting Oversight Board Rule 3526, Communication with Audit Committees Concerning Independence, discussed with the auditors their independence, and concluded that the non-audit services performed by KPMG are compatible with maintaining their independence.

Based upon the Audit Committee's review and discussions as noted above, the Audit Committee recommended to the Board of Directors that the Company's audited financial statements be included in the Company's Annual Report on Form 10-K for the year ended December 31, 2008 for filing with the Securities and Exchange Commission.

Respectfully submitted,

Audit Committee of the Board of Directors
Paul W. Hawran, Chair
Richard J. Hawkins
Ronald D. Henriksen
David M. Rickey

April 30, 2009"

Principal Accountant Fees and Services

The Audit Committee has appointed KMPG LLP as the Company's independent registered public accounting firm for the fiscal year ending December 31, 2009. The Audit Committee reviews and must pre-approve all audit and non-audit services performed by KPMG LLP as well as the fees charged by KPMG LLP for such services. No fees were approved under the Regulation S-X Rule 2.01(c)(7)(i)(C) exception to the pre-approval requirement. In its review of non-audit service fees, the Audit Committee considers, among other things, the possible impact of the performance of such services on the accounting firm's independence.

The following table shows the aggregate fees paid or accrued by the Company for the audit and other services provided by KPMG LLP for fiscal years ended December 31, 2008 and December 31, 2007.

	2008	2007
Audit fees (1)	$ 684,152	$ 630,746
Audit related fees (2)	—	—
Tax Fees (3)	—	$ 4,775
All other fees (4)	—	—
Total	$ 684,152	$ 635,521

(1) Audit fees consist of fees for professional services performed by KPMG LLP for the integrated audit of our annual financial statements (and internal control over financial reporting) included in our Form 10-K filing and review of financial statements included in our quarterly Form 10-Q filings, reviews of registration statements and issuances of consents, and services that are normally provided in connection with statutory and regulatory filings or engagements.

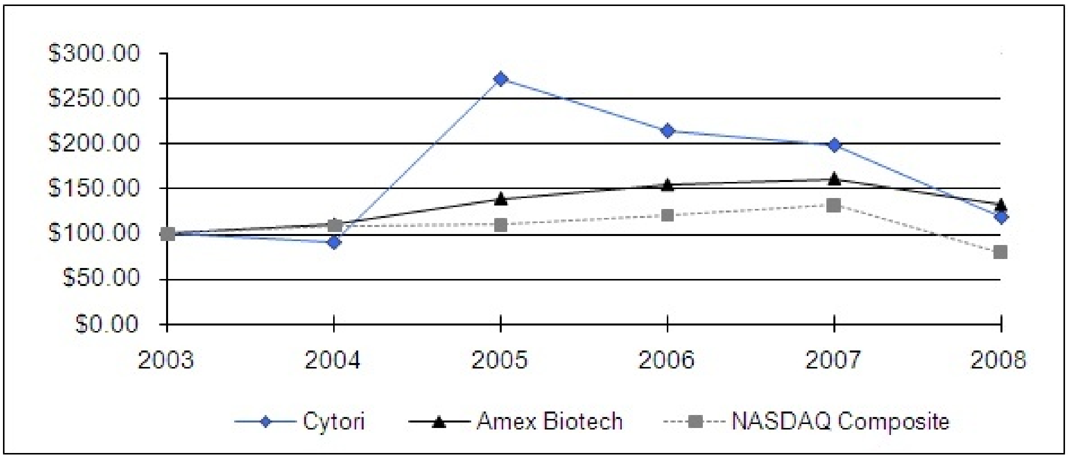
(2) Audit related fees consist of fees for assurance and related services performed by KPMG LLP that are reasonably related to the performance of the audit or review of our financial statements. No such fees were incurred in 2008 or 2007.

(3) Tax fees consist of fees for professional services performed by KPMG LLP with respect to tax compliance, tax advice and tax planning. In 2007, these fees were related to support services provided in connection with the transition of tax return preparation, tax advice and consultation, to another firm. No such fees were incurred in 2008.

(4) All other fees consist of fees for other permissible work performed by KPMG LLP that does not meet with the above category descriptions. No such fees were incurred in 2008 or 2007.

COMPARATIVE STOCK PERFORMANCE GRAPH

The following graph shows how (assuming reinvestment of all dividends) an initial investment of $100 in our common stock would have compared to an equal investment in the Nasdaq Composite Index and the Amex Biotechnology Index during the period from December 31, 2003, through December 31, 2008. The performance shown is not necessarily indicative of future price performance.



OTHER MATTERS

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 annual report and proxy statement 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 2010 Meeting

Stockholders are hereby notified that, if they intend to submit proposals for inclusion in our Proxy Statement and proxy for our 2010 Annual Meeting of stockholders, such proposals must be received by us no later than March 10, 2010 and must otherwise be in compliance with applicable Securities and Exchange Commission regulations. If our annual meeting date is substantially earlier or later in 2010 than in 2009, we have the right to change this deadline and give notice of the new deadline in a report filed with the Securities and Exchange Commission.

MISCELLANEOUS

Our Board of Directors knows of no other business to be presented at our Annual Meeting. If other matters properly come before our Annual 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,

CHRISTOPHER J. CALHOUN

Chief Executive Officer

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.

ELECTRONIC DELIVERY OF STOCKHOLDER COMMUNICATIONS
If you would like to reduce the costs incurred by Cytori Therapeutics, Inc. in mailing proxy materials, you can consent to receiving all current and future proxy statements, proxy cards and annual reports electronically via e-mail or the Internet. To sign up for electronic delivery, please follow the instructions above to vote using the Internet and, when prompted, indicate that you agree to receive or access stockholder communications electronically in future years.

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 Cytori Therapeutics, Inc., c/o Broadridge, 51 Mercedes Way, Edgewood, NY 11717.

TO VOTE, MARK BLOCKS BELOW IN BLUE OR BLACK INK AS FOLLOWS: CYTTH1 KEEP THIS PORTION FOR YOUR RECORDS

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

CYTORI THERAPEUTICS, INC.

Vote On Directors

1. **The Board of Directors recommends a vote FOR each of the listed director nominees.**	**For**	**Against**	**Abstain**
1a - Ronald D. Henriksen	o	o	o
1b - Christopher J. Calhoun	o	o	o
1c - Marc H. Hedrick, MD	o	o	o
1d - Richard J. Hawkins	o	o	o
1e - Paul W. Hawran	o	o	o
1f - E. Carmack Holmes, MD	o	o	o
1g - David M. Rickey	o	o	o

Vote On Proposal

The Board of Directors recommends a vote FOR the following proposal.	**For**	**Against**	**Abstain**
2. To ratify the selection of KPMG LLP as independent registered public accounting firm of Cytori for the fiscal year ending December 31, 2009.	o	o	o
3. By my signature below, I confer to the named proxies discretionary authority on any other business that may properly come before the Annual Meeting or any postponement of the Annual Meeting.	o	o	o

Please sign exactly as your name appears on this card. When signing as an attorney, executor, administrator, trustee or guardian, please give your full title. If shares are held jointly, each stockholder should sign.

Signature [PLEASE SIGN WITHIN BOX] Date Signature (Joint Owners) Date

Proxy - CYTORI THERAPEUTICS, INC.

PROXY SOLICITED BY THE BOARD OF DIRECTORS
FOR THE ANNUAL MEETING OF STOCKHOLDERS TO BE HELD ON AUGUST 13, 2009

The undersigned hereby appoints Christopher J. Calhoun and Marc H. Hedrick, MD, 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 Annual Meeting of Stockholders of the Company to be held on August 13, 2009, 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 election of the listed Nominees as Directors and FOR the ratification of the selection of KPMG LLP to function as the Company's Independent Registered Public Accounting firm.

PLEASE COMPLETE, DATE AND 0;SIGN THIS PROXY AND RETURN IT IN THE ACCOMPANYING ENVELOPE.