

STEMCELLS INC
Form DEF 14A
May 17, 2011

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**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
SCHEDULE 14A
(RULE 14a-101)
INFORMATION REQUIRED IN PROXY STATEMENT
SCHEDULE 14A INFORMATION
Proxy Statement Pursuant to Section 14(a) of the Securities
Exchange Act of 1934 (Amendment No.)**

Filed by the Registrant

Filed by a Party other than the Registrant

Check the appropriate box:

Preliminary Proxy Statement

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

Definitive Proxy Statement

Definitive Additional Materials

Soliciting Material Pursuant to §240.14a-12

STEMCELLS, INC.

(Name of Registrant as Specified In Its Charter)

(Name of Person(s) Filing Proxy Statement, if other than the Registrant)

Payment of Filing Fee (Check the appropriate box):

No fee required.

Fee computed on table below per Exchange Act Rules 14a-6(i)(4) and 0-11.

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

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

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

(4) Proposed maximum aggregate value of transaction:

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**STEMCELLS, INC.
3155 Porter Drive
Palo Alto, California 94304**

**NOTICE OF ANNUAL MEETING OF STOCKHOLDERS
To be Held on June 30, 2011**

To the Stockholders of STEMCELLS, INC.

Notice is hereby given that the Annual Meeting of Stockholders of StemCells, Inc. (StemCells or the company) will be held on Thursday, June 30, 2011, at 2 p.m., local time, at 3155 Porter Drive, Palo Alto, California 94304 for the following purposes:

1. to elect the two Class II directors named in the accompanying proxy materials to serve until the 2014 Annual Meeting of Stockholders;
2. to consider and vote upon a proposal to ratify the selection of Grant Thornton LLP as independent public accountants for the company for the fiscal year ending December 31, 2011;
3. to conduct an advisory vote on executive compensation;
4. to conduct an advisory vote on the frequency of future advisory votes on executive compensation;
5. to approve an amendment to the company s certificate of incorporation to effect a reverse stock split of the company s issued and outstanding common stock, as further described in Proposal Number 5; and
6. to transact any and all other business that may properly come before the meeting.

The Board of Directors has fixed the close of business on May 11, 2011, as the record date for determining those stockholders who are entitled to notice of, and to vote at, the annual meeting of stockholders and any postponements or adjournments thereof. The stock transfer books will not be closed between the record date and the date of the meeting.

Representation of at least a majority of all outstanding shares of common stock of StemCells is required to constitute a quorum. Accordingly, it is important that your shares be represented at the meeting. This year, we are again taking advantage of Securities and Exchange Commission rules that allow issuers to furnish proxy materials to their stockholders on the Internet. We believe these rules allow us to provide our stockholders with the information they need, while lowering the costs of delivery and reducing the environmental impact of our Annual Meeting.

Please read the proxy materials carefully. All stockholders are invited to attend the Annual Meeting. Your vote is important, and we appreciate your cooperation in considering and acting on the matters presented.

By Order of the Board of Directors,

Kenneth B. Stratton, J.D.
Secretary

May 16, 2011
Palo Alto, California

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PROXY STATEMENT
ANNUAL MEETING OF STOCKHOLDERS
OF
STEMCELLS, INC.

The accompanying proxy is solicited on behalf of the Board of Directors of StemCells, Inc. (the "company") for use at its annual meeting of stockholders (the "Annual Meeting") to be held on Thursday, June 30, 2011, at 2 p.m., local time, at the company's headquarters at 3155 Porter Drive, Palo Alto, California 94304. The company will bear the cost of solicitation of proxies. Directors, officers and employees of the company may solicit proxies by telephone, facsimile or in person for no additional compensation. The company will reimburse banks, brokerage firms, proxy solicitors, and other custodians, nominees and fiduciaries for reasonable expenses incurred by them in sending proxy materials to the beneficial owners of shares.

The Board of Directors has fixed the close of business on Wednesday, May 11, 2011, as the record date for determining stockholders entitled to notice of, and to vote at, the Annual Meeting or at any postponement or adjournment thereof. There were 137,840,194 shares of our common stock, \$.01 par value, outstanding on May 11, 2011, each of which is entitled to one vote for each share on the matters to be voted upon.

Stockholders are being asked to vote on five proposals at the company's 2011 Annual Meeting. The proposals to be voted on and related recommendations from the Board of Directors are as follows:

Proposal Number 1 To elect the two director nominees named in this Proxy Statement to serve as Class II directors on the Board until our 2014 annual meeting of stockholders or until that person's successor is duly elected and qualified. The Board of Directors recommends that you vote **FOR** each of the nominees.

Proposal Number 2 To ratify the appointment of Grant Thornton LLP as the company's independent registered public accounting firm for the fiscal year ending December 31, 2011. The Board of Directors recommends that you vote **FOR** this proposal.

Proposal Number 3 To hold an advisory vote on executive compensation as disclosed in this Proxy Statement. The Board of Directors recommends that you vote **FOR** this proposal.

Proposal Number 4 To hold an advisory vote on the frequency of holding future advisory votes on executive compensation. The Board of Directors recommends that you vote for every **3 YEARS** in support of a triennial advisory vote on executive compensation.

Proposal Number 5 To approve an amendment to the company's certificate of incorporation, as further described in Proposal Number 5, to effect a reverse stock split of the company's issued and outstanding common stock and decrease the number of authorized shares of common stock to 75,000,000 and to authorize the Board of Directors to effect this amendment to the certificate of incorporation, within the Board's discretion, at any time within four months after the date stockholder approval for the reverse stock split is obtained, with the exact exchange ratio and timing of the reverse stock split (if at all) to be determined at the discretion of the Board of Directors (the "Reverse Stock Split"). The Board of Directors recommends that you vote **FOR** this proposal.

In the election of directors, which is Proposal Number 1, you may vote **FOR** both of the nominees or your vote may be **WITHHELD** with respect to one or more of the nominees. For each of Proposal Number 2, Proposal Number 3 and Proposal Number 5, you may vote **FOR**, vote **AGAINST** or **ABSTAIN**. If you **ABSTAIN** as to Proposal Number 2

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Proposal Number 3, the abstention will have no effect. If you ABSTAIN as to Proposal Number 5, the abstention has the same effect as a vote AGAINST the proposal. For Proposal Number 4, you may vote for every 1 YEAR, 2 YEARS, or 3 THREE YEARS, or ABSTAIN.

Shares of our common stock represented by proxies in the form enclosed that are properly executed and returned to us and not revoked will be voted as specified in the proxy by the stockholder. In the absence of contrary instructions, or in instances where no specifications are made, the shares will be voted:

(i) FOR the election as directors of the nominees as described herein under Proposal Number 1 Election of Directors;

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(ii) FOR ratification of the selection of accountants as described herein under Proposal Number 2 Ratification of Selection of Independent Public Accountants;

(iii) FOR the advisory resolution to approve the compensation of the company's named executive officers as described herein under Proposal Number 3 Advisory Vote on Executive Officer Compensation;

(iv) FOR every 3 YEARS for the advisory resolution to set the frequency with which executive compensation will be subject to future advisory stockholder votes as described herein under Proposal Number 4 Advisory Vote on the Frequency of Future Executive Compensation Advisory Votes;

(v) FOR the proposal to approve the Reverse Stock Split, as described herein under Proposal 5 Approval of Amendment to the Company's Certificate of Incorporation to Effect a Reverse Stock Split; and

(vi) in the discretion of the named proxies as to any other matter that may properly come before the Annual Meeting.

Any stockholder signing and delivering a proxy may revoke it at any time before it is voted by delivering to the company's corporate secretary a written revocation or a duly executed proxy bearing a date later than the date of the proxy being revoked. Any stockholder attending the Annual Meeting in person may revoke his, her or its proxy and vote his, her or its shares at the Annual Meeting.

Our 2011 Proxy Materials are Available on the Internet. This year we have again elected to provide access to our proxy materials over the Internet in accordance with rules adopted by the Securities and Exchange Commission. Accordingly, we are sending a Notice of Internet Availability of Proxy Materials (the Notice) to our stockholders of record and beneficial owners, which will instruct them as to how they may access and review all of the proxy materials on the Internet and how they may submit their proxy on the Internet. Any stockholder wishing to receive a paper copy of our proxy materials can request them from us by following the instructions found in the Notice for requesting such materials, or by calling 1 (800) 579-1639. Requests for a paper copy of our proxy materials should be made on or before June 16, 2011 to facilitate timely delivery.

How to vote shares at our 2011 Annual Meeting.

This year company stockholders may cast their vote in any of the following ways:

Vote by Internet. Any stockholder can vote over the Internet at www.proxyvote.com by following the instructions on the Notice or proxy card. Internet voting facilities for stockholders of record will be available 24 hours a day and will close at 11:59 p.m. (EDT) on June 29, 2011.

Vote by Phone. Any stockholder can vote by phone by following the instructions on the proxy card and calling 1 (800) 690-6903 up until 11:59 p.m. (EDT) on June 29, 2011.

Vote by Mail. Any stockholder that receives proxy materials by mail can vote by mail by signing, dating and mailing the enclosed proxy card in the postage-paid envelope provided. If the envelope is missing, such a stockholder can mail the completed proxy card or voting instruction card to Vote Processing, c/o Broadridge, 51 Mercedes Way, Edgewood, NY 11717. The completed card must be received no later than June 29, 2011.

Voting at the Annual Meeting. All company stockholders are invited to attend the Annual Meeting in person. Any stockholder that attends the meeting in person may deliver a completed proxy card in person or vote by completing a ballot, which will be available at the meeting. However, each stockholder intending to vote in person at the Annual Meeting should note that if his, her or its shares are held in the name of a bank, broker or other nominee, such

stockholder must obtain a legal proxy, executed in his, her or its favor, from the holder of record to be able to vote at the Annual Meeting. Stockholders should allow enough time prior to the Annual Meeting to obtain this proxy from the holder of record, if needed.

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The shares voted electronically or represented by the proxy cards received, properly marked, dated, signed and not revoked, will be voted at the Annual Meeting.

QUORUM, REQUIRED VOTES AND METHOD OF TABULATION

Consistent with Delaware law and the company's amended and restated by-laws, a majority of the votes entitled to be cast on a particular matter, present in person or represented by proxy, constitutes a quorum as to such matter. The company will appoint one or more election inspectors for the meeting to count votes cast by proxy or in person at the Annual Meeting.

What vote is required to approve each item?

Election of directors by stockholders, which is Proposal Number 1, will be determined by a plurality of the votes cast by the stockholders entitled to vote at the election that are either present in person or represented by proxy.

For Proposal Number 2, the affirmative **FOR** vote is required by the holders of a majority of the shares present at the Annual Meeting in person or by proxy and voting. Abstentions will have no effect on the outcome of this proposal.

For Proposal Number 3, the affirmative **FOR** vote of the holders of a majority of the shares present at the Annual Meeting in person or by proxy and voting is necessary to approve, on an advisory basis, the compensation of our named executive officers. Because your vote is advisory, it will not be binding on the company, the Board or the Compensation Committee of the Board. However, the Board and the Compensation Committee will review the voting results and take them into consideration when making future decisions about executive compensation. Abstentions will have no effect on the outcome of this proposal.

For Proposal Number 4, the alternative receiving the greatest number of votes will be the frequency that stockholders approve. Because your vote is advisory, it will not be binding on the company, the Board or the Compensation Committee of the Board. However, the Board will review the voting results and take them into consideration when determining the frequency of future non-binding advisory votes on the compensation of our named executive officers. Abstentions will have no effect on the outcome of this proposal.

Proposal Number 5 requires the affirmative **FOR** vote of the holders of a majority of the company's shares of common stock issued and outstanding. Abstentions have the same effect as a vote **AGAINST** the matter.

If you hold shares beneficially in street name and do not provide your broker or nominee with voting instructions, your shares may constitute broker non-votes. Generally, broker non-votes occur on a matter when a broker is not permitted to vote on that matter without instructions from the beneficial owner and instructions are not given. If you hold shares beneficially in street name and do not vote your shares, your broker or nominee can vote your shares at its discretion only on Proposal Number 2. In tabulating the voting result for any proposal for which the required vote is based on the number of shares present, shares that constitute broker non-votes are not considered entitled to vote on that proposal. However, for proposals for which the required vote is based on the number of shares of common stock issued and outstanding, broker non-votes have the same effect as a vote **AGAINST** the proposal. Thus, broker non-votes will not affect the outcome of Proposal Number 1 through Proposal Number 4, but will affect the outcome of Proposal Number 5.

Management does not know of any matters to be presented at this Annual Meeting other than those set forth in this proxy statement and in the notice accompanying this proxy statement. If other matters should properly come before the meeting, the proxy holders will vote such matters in their discretion. Any stockholder has the right to revoke his, her or its proxy at any time until it is voted.

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The following table shows the number of shares of our common stock beneficially owned, as of April 1, 2011, by (i) each of our directors, (ii) each of our named executive officers, (iii) all of our directors and executive officers as a group, and (iv) all those known by us to be a beneficial owner of more than 5% of the company's common stock. In general, beneficial ownership refers to shares that an individual or entity has the power to vote or dispose of, and any rights to acquire common stock that are currently exercisable or will become exercisable within 60 days of April 1, 2011. Unless otherwise indicated, we believe that each person named below, based on information furnished by such owners, holds sole investment and voting power with respect to such shares, subject to community property laws where applicable. We calculated percentage ownership in accordance with the rules of the SEC. The percentage of common stock beneficially owned is based on 137,743,512 shares outstanding as of April 1, 2011. In addition shares issuable pursuant to options, restricted stock units or other convertible securities that may be acquired within 60 days of April 1, 2011 are deemed to be issued and outstanding and have been treated as outstanding in calculating and determining the beneficial ownership and percentage ownership of those persons possessing those securities, but not for any other individuals.

| Name and Address of Beneficial Owner* | Amount and Nature of of Beneficial Ownership | Percentage of Class Beneficially Owned |
|---|---|---|
| Directors and Named Executive Officers | | |
| Eric Bjerkholt(1) | 80,000 | ** |
| Stewart Craig(2) | 176,766 | ** |
| R. Scott Greer | 50,000 | ** |
| Ricardo Levy(3) | 122,165 | ** |
| Martin McGlynn(4) | 1,924,616 | 1.36% |
| Roger Perlmutter(5) | 149,724 | ** |
| John Schwartz(6) | 100,000 | ** |
| Ken Stratton(7) | 230,590 | ** |
| Ann Tsukamoto(8) | 851,524 | ** |
| Irving Weissman(9) | 729,819 | ** |
| Rodney Young(10) | 881,301 | ** |
| All directors and executive officers as a group | 5,296,509 | 3.73% |
| 5% Stockholders | | |
| BlackRock Inc.(11) | 7,244,754 | 5.11% |

* The address of all directors and executive officers listed in the table is c/o StemCells, Inc., 3155 Porter Drive, Palo Alto, California 94304.

** Less than one percent.

(1) Includes 70,000 shares issuable upon exercise of stock options exercisable within 60 days.

(2) Includes 83,333 shares issuable upon exercise of stock options exercisable within 60 days. Includes 8,330 shares included in Dr. Craig's 401(k) plan.

- (3) Includes 122,165 shares issuable upon exercise of stock options exercisable within 60 days.
- (4) Includes 1,909,677 shares issuable upon exercise of 1,851,011 stock options and vesting of 58,666 restricted stock units, exercisable or vesting within 60 days. Includes 41,941 shares included in Mr. McGlynn's 401(k) plan.
- (5) Includes 143,503 shares issuable upon exercise of stock options exercisable within 60 days.
- (6) Includes 133,000 shares issuable upon exercise of stock options exercisable within 60 days and 15,000 restricted stock units.

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- (7) Includes 153,957 shares issuable upon exercise of 130,624 stock options and 23,333 restricted stock units, exercisable or vesting within 60 days. Includes 10,181 shares included in Mr. Stratton's 401(k) plan.
- (8) Includes 639,475 shares issuable upon exercise of 616,142 stock options and 23,333 restricted stock units, exercisable or vesting within 60 days. Includes 44,836 shares included in Dr. Tsukamoto's 401(k) plan. Includes a total of 22,834 shares held in trusts for the benefit of Dr. Tsukamoto and her family members, including 4,000 shares owned by Dr. Tsukamoto's parents as to which she disclaims beneficial ownership.
- (9) Includes 220,292 shares issuable upon exercise of stock options exercisable within 60 days. Includes 14,511 shares held in trust for Dr. Weissman's children as to which he disclaims beneficial ownership.
- (10) Includes 730,622 shares issuable upon exercise of 673,956 stock options and vesting of 56,666 restricted stock units, exercisable or vesting within 60 days. Includes 12,911 shares included in Mr. Young's 401(k) plan.
- (11) According to a Schedule 13G filed on January 29, 2011 and subsequently amended on February 8, 2011, by BlackRock, Inc., BlackRock may be deemed to beneficially own all shares listed in the table, and has sole dispositive and voting power with respect to all shares listed in the table. The address of the principal place of business of BlackRock is 40 East 52nd Street, New York, NY 10022.

INFORMATION CONCERNING DIRECTORS OF THE COMPANY

Board of Directors

We currently have seven directors serving on our Board of Directors. Since June 2010, our Board has been composed of Drs. Ricardo Levy, Roger Perlmutter, John Schwartz, and Irving Weissman and Messrs. Eric Bjerkholt, Scott Greer and Martin McGlynn. The following table shows the names, ages, principal occupations, and public company board memberships for the last five years of our directors, as of April 1, 2011:

| | | |
|---------------------|----|--|
| Eric Bjerkholt | 51 | Eric Bjerkholt was elected to the Board of Directors in March 2004. He is Senior Vice President, Corporate Development and Finance, and Chief Financial Officer of Sunesis Pharmaceuticals, Inc. From 2004 to 2007, he served as Senior Vice President and Chief Financial Officer of Sunesis. Mr. Bjerkholt is a member of the board of directors of Round Table Pizza, Inc. |
| R. Scott Greer | 52 | Scott Greer was appointed to the Board of Directors in June 2010. He is currently a principal and managing director of Numenor Ventures LLC, which he founded in 2002 to provide funding and strategic advisory services to early stage enterprises. Mr. Greer currently serves as Chairman of Ablexis and Acologix, both development stage biotechnology companies, and is also on the board of Nektar Therapeutics and BAROnova. |
| Ricardo Levy, Ph.D. | 66 | Ricardo Levy, Ph.D. was elected to the Board of Directors in September 2001. He currently serves as a director on the boards of a number of private companies as well as the board of Accelrys, Inc., a public company focused on |

Martin McGlynn

molecular modeling and simulation software for both life and materials science research.

64 Martin McGlynn was elected to the Board of Directors in February 2001. He is President and Chief Executive Officer of the company, a position he has held since January 2001.

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|-------------------------------|----|---|
| Roger Perlmutter, M.D., Ph.D. | 58 | Roger Perlmutter, M.D., Ph.D., was elected to the Board of Directors in December 2000. He is Executive Vice President, Research and Development, of Amgen, Inc., a position he has held since January 2001. |
| John Schwartz, Ph.D. | 76 | John Schwartz, Ph.D., was elected to the Board of Directors in December 1998 and was elected Chairman of the Board at the same time. He is currently President of Quantum Strategies Management Company. |
| Irving Weissman, M.D. | 71 | Irving Weissman, M.D., was elected to the Board of Directors in September 1997. He is the Virginia and Daniel K. Ludwig Professor of Cancer Research, Professor of Pathology and Professor of Developmental Biology at Stanford University. |

Because we have a classified board, with each of our directors serving a staggered three-year term, only two of our directors are standing for reelection at our 2011 Annual Meeting. The following table shows the composition of the three classes of our Board:

Class I Directors (terms scheduled to expire in 2013):

Eric Bjerkholt
 R. Scott Greer
 John Schwartz, Ph.D.

Class II Directors (terms scheduled to expire in 2011, but nominated to stand for reelection at our 2011 Annual Meeting):

Ricardo Levy, Ph.D.
 Irving Weissman, M.D.

Class III Directors (terms scheduled to expire in 2012):

Martin McGlynn
 Roger Perlmutter, M.D., Ph.D.

The independent members of our Board, as determined by the Board of Directors in accordance with the existing Nasdaq Listing rules, are Messrs. Bjerkholt and Greer and Drs. Levy, Perlmutter and Schwartz. The Board of Directors held four regular meetings and two special meetings during the fiscal year ended December 31, 2010. Each of the directors attended more than 75% of the meetings of the Board of Directors and of the committees on which he served.

For many years the roles of chairman and chief executive officer at the company have been separated. We believe that this is appropriate under current circumstances, because it allows management to make the operating decisions necessary to manage the business, while helping to maintain Board independence so that it can provide an effective oversight function. We feel that this has provided an appropriate balance of operational focus, flexibility and oversight. Our independent directors meet at regularly scheduled executive sessions without members of management.

Board Committees

Presently, the Board has four standing committees – the Compensation and Stock Option Committee (the Compensation Committee), the Corporate Governance and Nominating Committee (the Corporate Governance Committee), the Strategic Transactions Committee, and the Audit Committee – as well as a single-member committee established under the company’s 2001, 2004 and 2006 equity incentive plans. The Board created the Strategic Transactions Committee in March 2009 as an *ad hoc* committee with direction to consult with management and advise the full Board on various corporate initiatives, such as the acquisition of substantially

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all of the operating assets of Stem Cell Sciences plc, which the company completed in April 2009. In June 2010, however, the Board reconstituted the Strategic Transactions Committee, which Mr. Greer currently chairs, as a standing committee of the Board. All members of the Compensation Committee, the Corporate Governance Committee and the Audit Committee are, and are required by the charters of the respective committees to be, independent as determined under Nasdaq Listing rules.

Compensation Committee. Prior to June 2010, the Compensation Committee included Dr. Schwartz and Mr. Bjerkholt. In June 2010, Dr. Levy joined the Compensation Committee as its third member. The Compensation Committee held three meetings during the fiscal year ended December 31, 2010. The Compensation Committee makes recommendations to our Board and management concerning salaries in general, determines executive compensation and, except to the extent that such decisions have been delegated to, and made by, the single-member committee, approves incentive compensation for our employees and consultants. The Compensation Committee acts pursuant to a written charter which is available through our website at www.stemcellsinc.com.

Corporate Governance Committee. The Corporate Governance Committee is composed of Drs. Levy, Perlmutter and Schwartz. The Corporate Governance Committee did not hold any meetings in 2010; however, it held a meeting in March 2011 as well as informal discussions in 2010 to discuss a slate of actual and potential nominees to the Board of Directors. The committee oversees nominations to the Board and considers the experience, ability and character of potential nominees to serve as directors, as well as particular skills or knowledge that may be desirable in light of the company's position at any time. From time to time, the committee has engaged the services of a paid search firm to help the committee identify potential nominees to the Board. The Company's Governance Committee and Board seek to nominate and appoint candidates to the Board who have significant business experience, technical expertise or personal attributes, or a combination of these, sufficient to suggest, in the Board's judgment, that the candidate would have the ability to help direct the affairs of the company and enhance the Board as a whole. The Committee may identify potential candidates through any reliable means available, including recommendations of past or current members of the Board from their knowledge of the industry and of the company. The Committee also considers past service on the Board or on the board of directors of other publicly traded or technology focused companies. The committee has not adopted a formulaic approach to evaluating potential nominees to the Board; it does not have a formal policy concerning diversity, for example. Rather, the committee weighs and considers the experience, expertise, intellect, and judgment of potential nominees irrespective of their race, gender, age, religion, or other personal characteristics. The committee often looks for nominees that can bring new skill sets or diverse business perspectives. Potential candidates recommended by security holders will be considered as provided in the company's Policy Regarding Shareholder Candidates for Nomination as a Director, which sets forth the procedures and conditions for such recommendations. This policy is available through our website at www.stemcellsinc.com. The Corporate Governance Committee operates pursuant to a written charter, a copy of which is also available through our website at www.stemcellsinc.com. The members of the Corporate Governance Committee approved the nomination of the Class II directors standing for reelection at the Annual Meeting.

Audit Committee. The Audit Committee is composed of Mr. Bjerkholt and Drs. Schwartz and Levy. The Audit Committee held five meetings during the fiscal year ended December 31, 2010. The primary function of the Audit Committee is to assist our Board in fulfilling its oversight responsibilities. The committee does this primarily by reviewing our financial reports and other financial information as well as the company's systems of internal controls regarding finance, accounting, legal compliance, and ethics that management and the Board have established. The committee also assesses our auditing, accounting and financial processes more generally. The Audit Committee meets quarterly, and at such other times as it finds necessary. It recommends to our Board the appointment of a firm of independent auditors to audit the financial statements of the company and meets with such personnel of the company to review the scope and the results of the annual audit, the amount of audit fees, the company's internal accounting controls, the company's financial statements contained in this proxy statement and other related matters. Each of the members of the Audit Committee is independent, and the Board has determined that Mr. Bjerkholt is an audit

committee financial expert, as defined in SEC rules. The Audit Committee acts pursuant to a written charter which is available through our website at www.stemcellsinc.com.

Strategic Transactions Committee. The Strategic Transactions Committee is composed of Messrs. Bjerkholt, Greer and McGlynn and Dr. Levy. The Strategic Transactions Committee held three meetings during the fiscal year

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ended December 31, 2010. The Committee was created at the suggestion of our Chief Executive Officer in March 2009 to provide advice and direction, on an *ad hoc* basis, on a range of strategic initiatives being considered at the time, such as the acquisition of substantially all of the operating assets of Stem Cell Sciences plc. The Committee does not have a formal charter. However, the Board of Directors has authorized the Committee to be available to advise, consult and participate with management, as requested by the company's Chief Executive Officer, with respect to the identification, implementation, evaluation, and negotiation of potential strategic corporate transactions, with the exception of financings. Since June 2010, the Strategic Transactions Committee has been the Board's fourth standing committee, and as such it routinely provides recommendations both to management and to the full Board with regard to such matters as the Committee may deem advisable.

The following table shows the members of our four standing Board committees:

| Director | Independent | Audit Committee | Compensation Committee | Corporate Governance Committee | Strategic Transactions Committee |
|-------------------------------|--------------------|------------------------|-------------------------------|---------------------------------------|---|
| Eric Bjerkholt | Yes | Chair | ü | | ü |
| R. Scott Greer | Yes | | | | Chair |
| Ricardo Levy, Ph.D. | Yes | ü | ü | Chair | ü |
| Martin McGlynn | No | | | | ü |
| Roger Perlmutter, M.D., Ph.D. | Yes | | | ü | |
| John Schwartz, Ph.D. | Yes | ü | Chair | ü | |
| Irving Weissman, M.D. | No | | | | |

Director Oversight and Qualifications

While management is responsible for the day-to-day management of the risks the company faces, the Board, as a whole and through its committees, has responsibility for the oversight of risk management. An important part of risk management is not only understanding the risks facing the company and what steps management is taking to manage those risks, but also understanding what level of risk is appropriate for the company. In support of this oversight function, the Board receives regular reports from our Chief Executive Officer and members of senior management on operational, financial, legal, and regulatory issues and risks. The Audit Committee additionally is charged under its charter with oversight of financial risk, including the company's internal controls, and it receives regular reports from management, the company's internal auditors and the company's independent auditors. The Chairman of the Board and independent members of the Board work together to provide strong, independent oversight of the company's management and affairs through its standing committees and, when necessary, special meetings of directors.

We believe each of our directors brings valuable skills, experience, judgment, and perspectives to our company. The Board took the following qualifications into consideration, among other things, when nominating or appointing our current directors:

Eric Bjerkholt

Mr. Bjerkholt is a financial expert and currently serves as the Senior Vice President and Chief Financial Officer of Sunesis Pharmaceuticals, Inc., a biopharmaceutical company. His business experience spans approximately 20 years, during which time he founded a nutraceutical company and worked as an investment banker. Mr. Bjerkholt currently serves on the board of directors of

Round Table Pizza. We believe Mr. Bjerkholt's qualifications to serve on our Board of Directors include his considerable financial and business experience, especially in the life sciences industry. Mr. Bjerkholt has served on our Board for over seven years.

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R. Scott Greer

Mr. Greer was appointed to our Board in June 2010. He is a financial expert with over 25 years of experience in the life sciences industry. He was founder, CEO and Chairman of Abgenix, Inc., a biotechnology company he took public in 1998 and then sold to Amgen in 2006. Mr. Greer currently serves as Chairman of Ablexis and Acologix, both development stage biotechnology companies, and is also on the boards of Nektar Therapeutics and BAROnova. We believe Mr. Greer's qualifications to serve on our Board include his more than 25 years of experience in the life sciences industry.

Ricardo Levy, PhD

Dr. Levy has over 30 years of experience leading technology companies in both North and South America. In 1974, he cofounded Catalytica, Inc., a manufacturing technology and energy systems company, and served as CEO from 1991 until the company was sold in 2000. Dr. Levy currently serves as director of Accerlys Inc. (formerly Pharmacopeia, Inc.) and NovoDynamics, Inc. We believe his qualifications to serve on our Board of Directors include his more than 30 years of business experience. Dr. Levy has served on our Board for over nine years.

Martin McGlynn

Mr. McGlynn has been our President and Chief Executive Officer since January 2001. He has held management positions of increasing responsibility in several countries for more than 30 years. Prior to joining our company, Mr. McGlynn was President and Chief Executive Officer of Pharmadign, Inc., a privately held company in the fields of inflammation and genetic immunization. Prior to this, he was President and General Manager of Abbott Canada Ltd. and President of Anaquest, Inc., a company focused on anesthesia and acute care pharmaceuticals. We believe Mr. McGlynn's qualifications to serve on our Board of Directors include his significant managerial experience in our industry and his intimate knowledge of our operations as a result of his day to day leadership as our President and Chief Executive Officer. Mr. McGlynn has served on our Board for over ten years.

Roger Perlmutter, MD, PhD

Dr. Perlmutter is the Executive Vice President of Research and Development of Amgen, Inc., a world leading biotechnology company, a position he has held for approximately ten years. Prior to joining Amgen, he held scientific leadership positions of increasing responsibility at Merck. He also worked as a researcher and administrator at the University of Washington. We believe Dr. Perlmutter's pharmaceutical industry experience brings an important industry perspective to the Board. We believe his qualifications to serve on our Board of Directors include his experience in both business and academic research, including his pharmaceutical industry experience. Dr. Perlmutter has served on our Board for over ten years.

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John Schwartz, PhD

Dr. Schwartz has over 40 years of business and legal experience, including several years spent in the 1990s as President and Chief Executive Officer of Systemix, Inc., a cell-based therapeutics company which was acquired by Novartis in 1997. Before joining Systemix as its Senior Vice President and General Counsel in 1993, Dr. Schwartz served as the Vice President and General Counsel of Stanford University. He currently runs a registered investment advisor firm called Quantum Strategies Management Company. We believe Dr. Schwartz's qualifications to serve on our Board of Directors include his over 40 years of business and legal experience in our industry as well as his significant experience working at Stanford University. Dr. Schwartz has served on our Board for over 13 years.

Irving Weissman, MD

Dr. Weissman has been a leader in the stem cell field for over 20 years. He is a professor at Stanford University and serves as the director of the Stanford Institute for Stem Cell Biology and Regenerative Medicine. He co-founded Systemix in 1988 and Cellerant Therapeutics, Inc., a hematopoietic stem cell development company, in 2001. He is a member of several scientific advisory boards and national science institutes, including the National Academy of Science, the American Academy of Arts and Science, and the Institute of Medicine of the National Academy of Sciences. We believe Dr. Weissman's qualifications to serve on our Board of Directors include the fact that he has been a leader in stem cell research for over 20 years as well as his substantial business experience in our industry. Dr. Weissman has served on our Board for over 13 years and serves as the chairman of our Scientific Advisory Board.

Stockholders who wish to communicate with our Board of Directors or with a particular director may send a letter to our corporate secretary at the following address: StemCells, Inc., 3155 Porter Drive, Palo Alto, California 94304 (c/o Legal Department). Any communication should clearly specify that it is intended to be made to the entire Board or to one or more particular director(s). Our corporate secretary will review all such correspondence and forward to our Board a summary of all such correspondence and copies of all correspondence that, in the opinion of the secretary, deals with the functions of the Board or committees thereof or that he otherwise determines requires their attention. The secretary maintains a log of all correspondence received by us that is addressed to members of the Board, and any director may at any time review and request copies of any such correspondence.

Concerns relating to accounting, internal controls or auditing matters will immediately be brought to the attention of the chairman of the Audit Committee and handled in accordance with established procedures, which are set out in the Audit Committee's Policy on Receipt, Retention and Treatment of Complaints Regarding Accounting, Internal Controls and Auditing Matters. A copy of this policy is available through our website at www.stemcellsinc.com.

Executive Officers

Following are the name, age and other information for our named executive officers, as of April 1, 2011. All company officers have been elected to serve until their successors are elected and qualified or until their earlier resignation or removal.

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| | | |
|---|-----------|--|
| <p>Martin McGlynn, President and Chief Executive Officer</p> | <p>64</p> | <p>Martin McGlynn joined the company in January 2001, when he was appointed President and Chief Executive Officer of the company and of its wholly-owned subsidiaries. Mr. McGlynn was elected to the Board of Directors in February 2001.</p> |
| <p>Ann Tsukamoto, Ph.D. Executive Vice President, Research and Development</p> | <p>58</p> | <p>Ann Tsukamoto, Ph.D., joined the company in November 1997 as Senior Director of Scientific Operations; was appointed Vice President, Scientific Operations in June 1998; Vice President, Research and Development in February 2002; and Chief Operating Officer, with responsibility for the company's research and development efforts, in November 2006. In October 2008, Dr. Tsukamoto was appointed Executive Vice President, Research and Development, with responsibility for the company's scientific and clinical development programs. Dr. Tsukamoto is married to one of our outside directors.</p> |
| <p>Rodney Young, Chief Financial Officer and Vice President, Finance and Administration</p> | <p>48</p> | <p>Rodney Young joined the company in September 2005 as Chief Financial Officer and Vice President, Finance. In November 2006 he became CFO and Vice President, Finance and Administration. He is responsible for functions that include Finance, Information Technology and Investor Relations. From 2003 to 2005, Mr. Young was Chief Financial Officer and a director of Extropy Pharmaceuticals, Inc., a private biopharmaceutical company focused on developing drugs for pediatric indications.</p> |
| <p>Stewart Craig, Ph.D. Senior Vice President, Development and Operations</p> | <p>49</p> | <p>Stewart Craig, Ph.D., joined the company in September 2008 with responsibilities for Development, Manufacturing, Regulatory, Quality Systems, and Facilities. From 2005 to 2008, Dr. Craig was Chief Technology Officer and Vice President of Progenitor Cell Therapy, a contract services provider for research, development, manufacture, and commercialization of cell-based therapies, prior to which he has held executive positions at Xcyte Therapies, Osiris Therapeutics and SyStemix.</p> |
| <p>Ken Stratton, J.D. General Counsel</p> | <p>42</p> | <p>Ken Stratton, J.D., joined the company in February 2007 as General Counsel, with responsibility for corporate compliance and legal affairs. In March 2008, he assumed responsibility for the Human Resources function. Prior to joining StemCells, Mr. Stratton served as Deputy General Counsel for Threshold Pharmaceuticals and as Senior Legal Counsel for Medtronic, Inc.'s Vascular business unit.</p> |

Section 16(a) Beneficial Ownership Reporting Compliance

Section 16(a) of the Securities Exchange Act of 1934, as amended (the Exchange Act), requires our executive officers, directors, and persons who own more than 10% of a registered class of our equity securities, to file with the SEC

reports of ownership of our securities and changes in reported ownership. Executive officers, directors and greater than 10% beneficial owners are required by SEC rules to furnish us with copies of all Section 16(a) reports they file.

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Based solely on a review of the copies of such forms furnished to us, or written representations from the reporting persons that no Form 5 was required, we believe that, during the fiscal year ended December 31, 2010, all Section 16(a) filing requirements applicable to our officers, directors and greater than 10% beneficial owners have been met.

Code of Business Conduct and Ethics

We have adopted a Code of Ethics and Conduct that applies to all of our directors, officers, employees, and consultants. A copy of our code of ethics is posted on our website at www.stemcellsin.com. We intend to disclose any substantive amendment or waivers to this code on our website. There were no substantive amendments or waivers to this code in 2010.

EXECUTIVE COMPENSATION

Compensation Discussion and Analysis

We structure our compensation programs to attract and retain talented employees and reward them for helping us achieve our short-term and long-term goals. We intend for our compensation programs to be equitable and competitive when measured against those offered by companies against whom we compete for high-level scientific and executive personnel. We also intend for them to link pay to both company and individual performance.

In seeking to accomplish these objectives, we follow a compensation strategy designed, ultimately, to reward increasing stockholder value. However, because achievement of our principle mission—the research, development and commercialization of stem cell therapeutics and related tools and technologies for academia and industry—is a long, expensive and challenging process, we often set individual compensation by using surrogate endpoints to gauge employee contributions towards building sustained stockholder value, such as:

the achievement of stated corporate goals adopted from time to time by the Board;

the leadership an executive officer has shown in inspiring and marshalling excellent performances in his or her direct reports;

the anticipation, identification and successful disposition of issues and problems that, if not addressed timely and effectively, might have a deleterious effect on the company; and

the speed and effectiveness with which an executive officer discovers, assesses and, where appropriate, pursues promising opportunities for the company.

Compensation elements. We, like most biotechnology companies, use a combination of base salary, bonuses and equity awards to compensate our employees, including our executive officers. As a small company—we have approximately 60 employees in total and only five executive officers—we feel that having so few people in each job classification and level makes it inefficient to establish a formulaic allocation of total compensation among its various elements; we rely, instead, on our experience and judgment.

In exercising this judgment, we periodically collect and review information (i) from third party market reports such as the *Radford Biotechnology Survey Executive Report*; and (ii) from the proxy statements of other similar biotechnology companies, especially those operating in the San Francisco Bay Area, as well as those pursuing cell-based therapeutics.¹ In the case of the executive officers who report directly to the chief executive officer, we also carefully consider the recommendations of the chief executive officer when setting compensation. We integrate all of

this information with our evaluation of the individual performance of each of our executive officers.

¹ In 2009, for example, we collected executive compensation information from the recent SEC filings of Aastrom Biosciences, Inc.; Affymax, Inc.; ARYx Therapeutics, Inc.; Athersys, Inc.; Cerus Corporation; Cytokinetics, Incorporated; Cytori Therapeutics, Inc.; Dynavax Technologies Corporation; Geron Corporation; InterMune, Inc.; MAP Pharmaceuticals, Inc.; Medivation, Inc.; Neuralstem, Inc.; Osiris Therapeutics, Inc.; and Sangamo Biosciences, Inc.

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While we believe our officers and other employees are outstanding, we realize that the company is not yet profitable and that it is still in a relatively early stage of development. We therefore generally prefer to target our compensation practices so that our employees' base salaries, bonuses, equity compensation, and benefits all fall close to the 50th percentile paid by comparable companies for similar positions. Actual compensation may fall slightly above or below these targets, however, because of any number of factors such as general economic conditions, market competition for specific jobs, personal performance, and the need for internal equities within the company. For example, we have recently paid many of our employees, including some of our executive officers, at below the 50th percentile because of the global recession and the crisis in the financial markets. At the same time, however, we have paid many of our employees, including some of our executive officers, at above the 50th percentile because of highly competitive demand for workers with their unique skill sets.

Interaction of compensation elements. The basic compensation elements—base salary, bonuses and equity awards—are, as noted, standard in our industry. Though not set independently of one other, we use each element as a portion of total compensation because we believe we would not otherwise be competitive and because we feel that together they are the proper components of a balanced compensation package:

base salary is compensation for current efforts;

bonuses, whether in cash or equity, are typically paid for achievements in meeting stated corporate goals; and

equity awards are inducements to remain with the company and to build future value.

On occasion, we have considered our employee compensation programs, including our executive compensation programs, and the effect they may have on company risk. We have concluded that our employee compensation programs are simple and straight-forward and consistent with those of similarly situated research and development companies. In determining that our compensation policies and practices do not present risks that are likely to have a material adverse effect on our business, our directors have, from time to time, discussed with management the various pay practices used to compensate our employees at both the executive and non-executive levels. These inquiries have included discussions about our three primary components of compensation, namely base compensation, cash bonuses and equity incentive compensation.

Our Board of Directors has also periodically considered how bonus awards are determined and calculated by the company, noting that all bonuses are awarded entirely at the discretion of our Board after taking into consideration the progress of our company's programs. Based on its review, our Board has concluded that our cash bonus program properly aligns compensation with our overall goals, all of which are designed to have a positive impact on our business.

In addition, our Board has periodically examined our equity compensation practices, noting that we typically grant customary equity awards that vest over many years after the date of grant. We believe discretionary equity compensation that vest over multiple years does not encourage short-term or high-risk opportunistic behavior and instead aligns our employees' interests with the long-term interests of our stockholders by encouraging activities intended to build long-term value for the Company.

For these reasons, we have concluded that our employee compensation programs are designed with the appropriate balance of risk and reward in relation to our company's overall business strategy and do not incentivize executives or other employees to take unnecessary or excessive risks. As a result, we believe that risks arising from our employee compensation policies and practices are not reasonably likely to have a material adverse effect on the company.

Other compensation elements and benefits. We offer all employees various health and welfare benefit plans. Our executive officers may participate in these on the same terms as other employees. We do not have a pension plan nor do we use non-qualified deferred compensation.²We offer our U.S. employees (again, including executive officers on the same terms as others) a 401(k) defined contribution plan, and match employee contributions on a 1:2 basis (i.e., \$1 contribution by the company for every \$2 contribution made by the employee) up to a maximum of 3%

² Accordingly, we omit tables showing pension benefits and non-qualified deferred compensation.

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of the employee's salary, subject to legal limitations. At this time, our 401(k) match is made in the form of shares of common stock in the company. We offer our U.K. employees a tax preferred pension scheme, and match employee contributions on a 1:1 basis up to a maximum of 12% of the employee's salary.

Compensation of Named Executive Officers

Base salary compensation; target bonuses. We consider base salary to be a critical component of our executive officers' overall compensation packages. We intend the salaries of our executive officers to reflect their actual responsibilities and job scope. We also endeavor to set base compensation levels so that their salaries are competitive with salaries paid by comparable companies to employees with similar experience, taking into account the cost of living in the San Francisco Bay Area. However, as of late, we have been paying heightened attention to continuing weakness in the global financial markets as well as the company's need to carefully manage its cash resources. As a result, the last company-wide salary increase was in March 2007. Instead, we have made occasional adjustments to the salaries of certain employees to address perceived below market anomalies, address specific retention concerns or reward special contributions made to the company. As described below, we changed the base compensation paid to certain of our executive officers in both 2009 and 2010.

In addition to base salary, each full-time employee of the company, including each of our named executive officers, is given a personal target bonus (calculated as a percentage of base salary), based upon factors such as seniority, job title and the existing targets of co-workers with comparable job responsibilities within the company. Bonuses at the company are discretionary and awarded by the Board in its sole discretion. But when bonuses are awarded, we use the personal target of each employee to calculate his or her bonus amount.

With these various principles in mind, we recently took the following actions with respect to the base compensation and bonus targets of our executive officers.

From March 2007 through 2008, we maintained the annual base salary of Mr. McGlynn at \$385,000, plus a housing and transportation allowance. Effective January 2009, however, we eliminated Mr. McGlynn's housing and transportation allowance of approximately \$200,000 per year and increased Mr. McGlynn's annual base salary by \$140,000, from \$385,000 to \$525,000, and began providing him a car allowance in the amount of \$10,000 per year. The net effect of these changes was a decrease in Mr. McGlynn's base compensation of approximately 11% for 2009. There have been no changes to Mr. McGlynn's base compensation since this time. Concurrent with these changes, we increased Mr. McGlynn's target bonus from 40 percent to 55 percent of his base salary, beginning with the 2009 fiscal year, to reflect the Board's view that Mr. McGlynn's leadership is a major factor in the achievement of the company's corporate goals and to further align his compensation to corporate success.

From March 2007 through 2009, we maintained the annual base salary of Mr. Young at \$275,000. In January 2010, however, we increased Mr. Young's annual base salary to \$325,000 in recognition of contributions made on behalf of the company and job scope. In January 2010, we also increased Mr. Young's target bonus rate from 25% to 30% of his base salary, beginning with the 2010 fiscal year, to further align his compensation to corporate success. In February 2011, we increased Mr. Young's target bonus rate from 30% to 40% of his base salary.

Since March 2007, we have maintained the annual base salary of Dr. Tsukamoto at \$300,000. In January 2010, however, we increased Dr. Tsukamoto's target bonus from 25% to 30% of her base salary, beginning with the 2010 fiscal year, to further align her compensation to corporate success. In February 2011, we increased Dr. Tsukamoto's target bonus rate from 30% to 40% of her base salary.

Dr. Craig joined the company in September 2008, with an annual base salary of \$275,000 and a target bonus rate of 25% of his base salary. In January 2010, however, we increased Dr. Craig's target bonus from 25% to 30% of his base

salary, beginning with the 2010 fiscal year, to further align his compensation to corporate success. In February 2011, we increased Dr. Craig's target bonus rate from 30% to 40% of his base salary.

Mr. Stratton joined the company in February 2007, with an annual base salary of \$220,000 and a target bonus rate of 20% of his base salary. In February 2008, however, we increased Mr. Stratton's annual base salary to \$250,000 in recognition of contributions made on behalf of the company and because he had assumed additional responsibilities in early 2008. In January 2010, we increased Mr. Stratton's annual base salary to \$275,000 in recognition of contributions made on behalf of the company and job scope. In January 2010, we also increased

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Mr. Stratton's target bonus rate from 20% to 30% of his base salary, beginning with the 2010 fiscal year, to further align his compensation to corporate success. In February 2011, we increased Mr. Stratton's target bonus rate from 30% to 40% of his base salary.

The base compensation and target bonus information presented above can be summarized as follows:

| | Year Ended 12/31/08 | Year Ended 12/31/09 | Year Ended 12/31/10 | As of 04/01/11 |
|----------|--|--|--|--|
| | Base Compensation/ Target Bonus | Base Compensation/ Target Bonus | Base Compensation/ Target Bonus | Base Compensation/ Target Bonus |
| CEO | \$ 585,000/40%(1) | \$ 525,000/55% | \$ 525,000/55% | \$ 525,000/55% |
| CFO | \$ 275,000/25% | \$ 275,000/25% | \$ 325,000/30% | \$ 325,000/40% |
| EVP, R&D | \$ 300,000/25% | \$ 300,000/25% | \$ 300,000/30% | \$ 300,000/40% |
| SVP, D&O | \$ 275,000/25% | \$ 275,000/25% | \$ 275,000/30% | \$ 275,000/40% |
| GC | \$ 250,000/20% | \$ 250,000/20% | \$ 275,000/30% | \$ 275,000/40% |

- (1) Consisting of \$385,000 base salary and approximately \$200,000 in housing, transportation and insurance benefits, which were eliminated in January 2009 and which were not used to calculate Mr. McGlynn's bonus for fiscal year 2008.

Bonus compensation. We view periodic bonuses, whether paid in cash or equity, as an important element of compensation for several reasons. Bonuses help align individual employee efforts with overall corporate strategies and objectives. Bonuses also help us manage salary expense, while still allowing us to reward successes. By using discretionary bonuses as part of the compensation mix, we have greater flexibility in managing the timing and amounts of compensation.

Over the past few years, we have awarded bonuses on an annual basis after considering, among other things, the company's accomplishments against stated corporate goals adopted by the Board, the company's financial position, the status of its development programs, clinical progress and corporate development activities, and general economic factors. This has necessarily involved a subjective assessment by the Compensation Committee of corporate performance and market conditions each year.

The process of establishing our corporate goals over the past few years has been a lengthy one. For each fiscal year, our executive officers have presented the Compensation Committee of the Board with approximately five to ten proposed corporate goals, each often consisting of multiple sub-parts. Management has usually presented its recommended corporate goals to the Compensation Committee concurrent with our proposed corporate budgets for the following fiscal year. Goals have been designed to be challenging, so that one would not expect consistent achievement of all of them. Typically these goals have included some preclinical and clinical goals for our HuCNS-SC cell product candidate, financing and corporate development goals, goals related to advancement in cell manufacturing practices, and goals related to advancement of our Liver Program. While all these goals have been considered important, and we have used a cross-functional and balanced approach to setting them, we have typically prioritized our goals by assigning relative weightings to each of them, with all of them together adding up to 100%. However, by design, no one goal has ever accounted for a majority of the relative weightings.

After receiving management's recommended goals, members of the Compensation Committee typically review them with our executive officers and oftentimes provide suggestions for additional goals or changes to the recommended goals. After our executive officers and directors have completed this iterative process, which has often taken several

weeks, the Compensation Committee adopts revised corporate goals consistent with the foregoing principles and recommends the updated corporate goals to the full Board for consideration and approval.

Thereafter, during each fiscal year, our executive officers have used the Board-approved corporate goals as a management tool, for example to coordinate activities, motivate personnel and help prioritize the use of company resources. The executive officers have sometimes referred back to the corporate goals when providing business updates to the Board, similar to management's reference back to an approved annual budget.

Recently, at the end of each fiscal year, our Chief Executive Officer has presented the Compensation Committee with his assessments of corporate performance against the Board-approved corporate goals, together with a summary of any important factors that weighed in his assessments, which he has provided as context.

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Because our corporate goals have not been formulaic or quantitative in nature (we have not had a corporate goal tied to specific stock price, revenues or expenses, for example), our CEO's assessments have been largely qualitative in nature. Along with these assessments, our CEO has provided a percentage score for each goal reflecting the degree to which each goal was or was not, in his judgment, achieved during the year.

The Compensation Committee has usually considered these percentage scores as well as our Chief Executive Officer's commentary about corporate performance and more general assessments of the state of our business when determining whether to award employees a company-wide corporate bonus in any given year, and if so how much of the available bonus pool to award. However, the Compensation Committee members have used their own judgment to determine the size of any bonus award, if any. Therefore, there has been no direct correlation between the aggregate percentage score given to any year's corporate goals by our CEO and the ultimate bonus payout. In any given year, the Board may grant more than 100% of the bonus pool for the year. The Board may also grant less than 100% of the bonus pool even if all of the corporate goals have been achieved. While the Compensation Committee and the Board as a whole use the corporate goals as a measure of success, the amount of any bonus grant, as well as how and when it will be paid, is completely within the Board's sole discretion.

With these various principles in mind, we recently took the following actions with respect to corporate bonuses for 2010.

In January 2011, as part of its annual year-end review of performance, the Compensation Committee (with input from the Chief Executive Officer and other Board members) considered, among other things, significant company performance accomplishments in 2010, the company's successes measured against its 2010 corporate goals, the degree of difficulty in achieving these goals, as well as other events and circumstances that affected performance. The 2010 goals, as approved by our Board, consisted generally of the following: (i) progress in our CNS Program, including activities aimed at initiating clinical trials of our HuCNS-SC proprietary cell-based product in multiple therapeutic indications; (ii) progress in our Liver Program; (iii) successful fundraising efforts; (iv) successful corporate development activities; and (v) advancement of our scientific development programs.

Highlights of the 2010 accomplishments taken into account by the Compensation Committee in determining the overall company performance included:

Therapeutic Product Development

In February 2010, the first patient in a Phase I trial of our HuCNS-SC human neural stem cells in Pelizaeus-Merzbacher Disease (PMD) was enrolled and dosed at UCSF Benioff Children's Hospital, marking the first time that neural stem cells have been transplanted as a potential treatment for a myelination disorder. In February 2011, the fourth and final patient in this trial was enrolled and transplanted with our HuCNS-SC cells. We expect to report results of this trial in early 2012.

In August 2010, we published new preclinical data demonstrating that our proprietary human neural stem cells restore lost motor function in mice with chronic spinal cord injury. This is the first published study to show that human neural stem cells can restore mobility even when administered at time points beyond the acute phase of trauma, suggesting the prospect of treating a much broader population of injured patients than previously demonstrated. The paper was published in the international peer-reviewed journal *PLoS ONE*.

In October 2010, we initiated a Phase Ib clinical trial of our HuCNS-SC cells in neuronal ceroid lipofuscinosis (NCL, also often referred to as Batten disease). The goal of the Phase Ib trial was to enroll six patients with less advanced stages of the disease than those who participated in our Phase I NCL trial. This Phase Ib trial was discontinued by the company in April 2011 for lack of enrollment.

In December 2010, we received authorization from Swissmedic, the Swiss regulatory agency, to initiate a Phase I/II clinical trial in Switzerland of our HuCNS-SC cells in chronic spinal cord injury. The trial is designed to assess both safety and preliminary efficacy in patients with varying degrees of paralysis who are three to 12 months post-injury, and will enroll patients in different cohorts based upon the severity of injury.

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Tools and Technologies Programs

In January 2010, we launched GS1-R™, the first commercially available cell culture medium to enable the derivation, maintenance and growth of true (germline competent) rat embryonic stem cells. GS1-R is expected to have significant utility in the creation of genetically engineered rat models of human disease for use in academic, medical and pharmaceutical research.

In February 2010, we launched GS2-M™, a new cell culture medium that enables the derivation and long-term maintenance of true mouse induced pluripotent stem (iPS) cells. GS2-M has been shown to increase the efficiency of reprogramming pre-iPS cells to derive fully pluripotent stem cells, and to maintain mouse iPS cells in a pluripotent state in long-term culture.

In June 2010, published independent research demonstrated that our GS2-M cell culture media formulation enhances the pluripotency of human embryonic stem and induced pluripotent stem (iPS) cells. Our GS2-M medium has already been shown to enable the derivation and long-term maintenance of mouse iPS cells. With this new application of GS2-M, researchers may now be able to significantly advance human pluripotent stem cell research.

In October 2010, we launched NDiff® N2, a defined serum-free cell culture supplement that has demonstrated utility for the *in vitro* neural differentiation of mouse embryonic stem cells, and a range of other applications, including the derivation, maintenance and expansion of neural stem cells and the differentiation of human and mouse neural stem cells into functional neurons.

In December 2010, we launched STEM101™, STEM121™ and STEM123™, three new antibody reagents that significantly improve the visualization of human cells, including human stem cells and their progeny. These high potency antibody reagents, which expand the range of our SC Proven portfolio of research products, provide tools for the detection, tracking and characterization of human cells both *in vitro* and *in vivo* when transplanted into animal models of human diseases.

In January 2011, we launched STEM24™ and STEM133™, two new antibody reagents that have utility for the detection of a range of different human cell types.

Intellectual Property and Licensing Activities

In March 2010, the United Kingdom (UK) Intellectual Property Office granted us patent number GB2451523 with broad claims covering true (germline competent) rat stem cells and genetically engineered rats derived from these cells. The patented technology is expected to have significant utility to academic and pharmaceutical industry researchers by enabling them to create novel rat models for the study of human diseases.

In August 2010, independent researchers used our technology to achieve the first genetically engineered rat derived from rat embryonic stem cells. This breakthrough work, published in the international peer-reviewed journal *Nature*, makes possible the types of genetic manipulations previously only possible in mice. Both mice and rats are used as animal models of human disease; however certain aspects of the rat's physiology, behavior, and metabolism are closer to the human, making rats the preferred species for drug development and studying human disease.

Financing and Other Business-related Activities

In June 2010, we raised gross proceeds of \$6,055,000 through the sale of 7,000,000 shares of common stock to an institutional investor at a price of \$0.865 per share. No warrants were issued in this transaction.

In October 2010, we were awarded cash grants totaling \$978,000 for projects related to our CNS and Liver programs. These grants were certified under the federal government's Qualifying Therapeutic Discovery Project (QTDP) program, which was created as part of the Patient Protection and Affordable Care Act of 2010. All four project applications submitted by us were approved, and we received the entire grant amounts in December 2010.

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In January 2011, we raised gross proceeds of \$10,000,000 through the sale of 10,000,000 shares of common stock to selected institutional investors at a price of \$1.00 per share.

Following this review, the Compensation Committee awarded a discretionary bonus equal to 90% of the available bonus pool, based upon the committee members' assessments of market conditions, corporate risks, company successes in 2010, including the successful regulatory authorization for a spinal cord study of HuCNS-SC cells in Switzerland, historic employee compensation practices more generally, and our market comparables, among other things, including the committee members' qualitative assessments of the Company's performance in 2010 measured against its 2010 corporate goals. The bonuses were calculated using each employee's annual base salary as of January 1, 2010, and paid in February 2011.

Accordingly, in February 2011, the company paid Mr. McGlynn a 2010 bonus in the amount of \$259,875, because on January 1, 2010 his base salary and target bonus were, respectively, \$525,000 and 55%. The company paid Mr. Young a 2010 bonus in the amount of \$87,750, because on January 1, 2010 his base salary and target bonus were, respectively, \$325,000 and 30%, and the company paid Dr. Tsukamoto a 2010 bonus in the amount of \$81,000, because on January 1, 2010 her base salary and target bonus were, respectively, \$300,000 and 30%. The company also paid Dr. Craig and Mr. Stratton each a 2010 bonus in the amount of \$74,250, because on January 1, 2010 their base salary and target bonus were, respectively, \$275,000 and 30%.

Equity Compensation general practices. We believe that equity compensation awards are an important component of our overall compensation policy because equity compensation can provide strong inducement to remain with the company and to build future stockholder value. In order to achieve these objectives, we believe that equity compensation awards need to be structured to provide both meaningful value and a meaningful opportunity to realize that value. Accordingly, from time to time, we have considered several forms of equity compensation awards, including stock options, stock appreciation rights, restricted stock, and restricted stock units, because each of these have certain advantages and disadvantages relative to the others with respect to how they might reward effort and success and how they might help us retain high contributors.

Generally speaking, over the years, we have used stock options as the most common equity compensation instrument. However, since 2006 we have granted our named executive officers a mixture of options, restricted stock units and stock appreciation rights, as described below, because we feel each of these forms of equity has unique and important features for employee retention and for incentivizing the executive officers to build a profitable and sustainable business. We have typically granted company-wide equity awards to full-time employees once every year or two. In addition, we have typically granted stock option awards to newly hired employees, effective as of their date of hire, and occasionally to existing employees upon their promotion. Both on-hire awards to non-executive officers and awards upon the promotion of current employees are usually made by either Mr. McGlynn, acting as the Board's single-member committee, or by the Compensation Committee. Awards to executive officers are made by either the Compensation Committee or by the full Board. Company-wide awards have usually been made at either a regularly scheduled Board or Compensation Committee meeting.

Unless otherwise specifically noted in the tables herein, all option awards:

to our employees, including our executive officers, are intended to be qualified incentive stock options (ISOs) to the fullest extent permitted by law;

have an exercise price set at the closing market price of our common stock on the grant date, or on an adjacent market trading date if the market on which we are listed (currently the Nasdaq Global Market) is not open on the grant date; and

vest over four years, with one-fourth of the shares included in any grant vesting on the first anniversary of the grant and the remainder vesting 1/48th per month thereafter, always provided that the grantee remains in the company's employ on the vesting dates. These awards are time-vesting and do not depend on performance factors.

With these various principles in mind, we recently took the following actions with respect to equity compensation.

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In early 2009, consistent with our practice of reviewing equity incentives on a periodic basis, we evaluated the equity awards held by the company's employees in order to evaluate the retention value these past awards likely provided. We noted that a number of key employees continued to hold predominantly unexercisable options with a strike price more than 200% the company's recent trading price. Furthermore, our review of market trends indicated that biotechnology companies with volatile trading prices were using restricted stock units with increasing regularity. We also continued to believe the retention benefit of equity compensation would be enhanced by awarding a mixture of both options and restricted stock units. The Compensation Committee therefore determined to award equity grants to the company's employees, including those working for its U.K. subsidiaries and the company's named executive officers. Specifically, in May 2009, after a review of the market and company-specific information described above, the Compensation Committee approved a company-wide award to employees of 1,046,400 restricted stock units and options to purchase up to 1,055,800 shares of common stock, in the aggregate. All of the restricted stock units awarded at this time have four-year vesting, with one-fourth vesting on each of the first four anniversaries following the grant date. All of the options awarded at this time will vest one-fourth on the first anniversary following the grant and then 1/48th each month thereafter, in keeping with the company's standard practices. In this award, our named executive officers received, in the aggregate, 741,333 restricted stock units and options to purchase up to 278,000 shares of common stock. The Compensation Committee decided to defer the equity grant award to Dr. Craig, consisting of 93,333 restricted stock units and 35,000 options, until his one-year anniversary of hire in September 2009. The Compensation Committee also approved the grant of up to 750,000 stock options to employees working for our Stem Cell Sciences (UK) Ltd. and Stem Cell Sciences Holdings Limited subsidiaries, which we awarded in 2010 because of foreign tax considerations.

In June 2010, after a review of the market and company-specific information described above, the Compensation Committee approved a company-wide award to employees of 1,900,000 restricted stock units and options to purchase up to 1,845,000 shares of common stock, in the aggregate. Of particular importance, the Compensation Committee noted that a majority of the stock options issued to employees had strike prices significantly below the current market price of the company's stock and were therefore of limited retention value. All of the restricted stock units awarded at this time have four-year vesting, with one-fourth vesting on each of the first four anniversaries following the grant date, except for the restricted stock units granted to Mr. McGlynn and Dr. Tsukamoto, each of which has three-year vesting, with one-third vesting on each of the first three anniversaries following the grant date. All of the options awarded at this time will vest one-fourth on the first anniversary following the grant and then 1/48th each month thereafter, in keeping with the company's standard practices. In this June 2010 grant, our named executive officers received, in the aggregate, 2,500,000 restricted stock units and options to purchase up to 2,650,000 shares of common stock. In September 2010, Mr. McGlynn voluntarily surrendered his rights and interests in 200,000 restricted stock units from this June 2010 grant in order to bring his grant into accordance with the provisions of the company's equity incentive plan under which the grant was made.

In January 2011, we awarded Mr. McGlynn 200,000 additional restricted stock units in recognition of his service and importance to the company's long-term goals.

The following table summarizes the restricted stock units awarded to our named executive officers in March 2008, May 2009, June 2010, and January 2011:

| Name & Principal Position | Number of Restricted Stock Units Granted | | | |
|--|--|----------|--------------|--------------|
| | March 2008 | May 2009 | June 2010 | January 2011 |
| Martin McGlynn President and CEO | 412,500 | 234,667 | 1,000,000(1) | 200,000 |
| Ann Tsukamoto, Ph.D. Executive VP, Research & Development | 206,250 | 93,333 | 700,000 | |

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| | | | |
|--|---------|-----------|---------|
| Rodney Young CFO | 206,250 | 226,667 | 200,000 |
| Stewart Craig, Ph.D. SVP, Development & Operations | (2) | 99,333(3) | 200,000 |
| Ken Stratton, J.D. General Counsel | 82,500 | 93,333 | 200,000 |

- (1) Mr. McGlynn was granted 1,200,000 restricted stock units in June 2010, however, he voluntarily surrendered 200,000 of these in September 2010 in order to bring his grant into accordance with the provisions of the company's equity incentive plan under which the grant was made.

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(2) Dr. Craig joined the company after the relevant grant date.

(3) Granted on Dr. Craig's one-year anniversary of employment, September 15, 2009.

We may grant additional options, restricted stock units or other equity compensation to current employees, including our executive officers, in 2011.

Employment, Severance and Change-in-Control Agreements

Employment agreements. Mr. McGlynn joined the company as our president and chief executive officer on January 15, 2001. Under the terms of an employment agreement between Mr. McGlynn and the company, dated January 2, 2001, as amended, Mr. McGlynn received an initial annual base salary of \$275,000 per year, reviewable annually by the Board of Directors, and a bonus, in the Board's sole discretion, of up to 25% of his base salary. Over time, however, we have increased Mr. McGlynn's base salary and target bonus so that they are, respectively, \$525,000 and 55% of his base salary. Pursuant to his January 2001 employment agreement, we granted Mr. McGlynn an option to purchase 400,000 shares of our common stock with an exercise price equal to the fair market value of the common stock on the initial date of his employment, one-fourth to vest on the first anniversary of his employment and the remaining three-fourths to vest in equal monthly installments during his second through fourth years of employment. These options remained unexercised and expired in 2011. The employment agreement also provided that the Board could, in its sole discretion, grant Mr. McGlynn a bonus option to purchase up to an additional 25,000 shares, which it did. These options also remained unexercised and expired in 2011. We also agreed to pay Mr. McGlynn a \$50,000 relocation bonus and to reimburse him for relocation expenses, and have done so. Since January 2009, we have been paying Mr. McGlynn an annual car allowance of \$10,000.

Dr. Tsukamoto joined the company in November 1997 and has served as our executive vice president of research and development since September 2008. Under the terms of an employment agreement between Dr. Tsukamoto and the company, dated February 2, 1998, Dr. Tsukamoto received an annual base salary of \$130,000 per year and a discretionary target bonus of up to 10% of her base salary. Over time, however, we have increased her base salary and target bonus so that they are, respectively, \$300,000 and 40% of her base salary. Also pursuant to her employment agreement, we provide Dr. Tsukamoto with \$750,000 of term life insurance on an annual basis during her employment.

Mr. Young joined the company in September 2005 as our chief financial officer and vice president of finance. Under the terms of his agreement with the company, dated August 16, 2005, Mr. Young received an initial annual base salary of \$250,000 per year, with a target bonus of up to 25% of his base salary. Over time, however, we have increased Mr. Young's base salary and target bonus so that they are, respectively, \$325,000 and 40% of his base salary. Pursuant to his August 2005 employment agreement, we granted Mr. Young an option to purchase 450,000 shares of our common stock. This option will vest over 48 months; with one-fourth of the shares vesting on the first anniversary of the date on which Mr. Young's employment began and with the remaining shares vesting, subject to his continued employment by the company, at the rate of 1/48th per month on the last day of each month during the ensuing 36 months. In addition, the employment agreement provided for an option grant on the first anniversary of his employment to acquire an additional 25,000 shares of our common stock. The grant of 25,000 shares was duly made, and will vest in the same manner as his earlier option grant over 48 months, subject to Mr. Young's continued employment by the company.

Dr. Craig joined the company in September 2008 as our senior vice president of development and operations. Under the terms of his agreement with the company, dated July 24, 2008, Dr. Craig has received an annual base salary of \$275,000 per year, with a target bonus of up to 25% of his base salary. Over time, however, we have increased

Dr. Craig's target bonus so that it is 40% of his base salary. Pursuant to Dr. Craig's July 2008 employment agreement, we granted him an option to purchase 200,000 shares of our common stock. This option will vest over 48 months, with one-fourth of the shares vesting on the first anniversary of the date on which Dr. Craig's employment began and with the remaining shares vesting, subject to his continued employment by the company, at the rate of 1/48th per month on the last day of each month during the ensuing 36 months.

Mr. Stratton joined the company in February 2007 as our general counsel. Under the terms of his agreement with the company, dated February 2, 2007, Mr. Stratton initially received an annual base salary of \$220,000 per year, with a target bonus of up to 20% of his base salary. Over time, however, we have increased Mr. Stratton's base

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salary and target bonus so that they are, respectively, \$275,000 and 40% of his base salary. Pursuant to Mr. Stratton's February 2007 employment agreement, we granted him an option to purchase 150,000 shares of our common stock. This option will vest over 48 months, with one-fourth of the shares vesting on the first anniversary of the date on which Mr. Stratton's employment began and with the remaining shares vesting, subject to his continued employment by the company, at the rate of 1/48th per month on the last day of each month during the ensuing 36 months.

Severance arrangements. Each of our executive officers has entered into a severance agreement with the company under which he or she would receive payments upon termination of his or her employment by us without cause³ or consequent to a change of control or, in the case of Mr. McGlynn, by virtue of disability.

In the case of Mr. McGlynn, upon termination without cause, we would continue to pay his salary and provide benefits for one year, at the base wage rate then in effect. If the termination of Mr. McGlynn's employment were associated with a change of control, the company would pay (in a lump sum) (i) two years of his salary and the reasonably projected cost of healthcare benefits, (ii) a bonus with respect to the termination year at 25% of the base salary, pro-rated for the portion of the year served, and (iii) a tax gross up for his continued healthcare benefits. In addition, all unvested stock options would vest and all stock options would be exercisable for two years after termination. If Mr. McGlynn's employment were terminated on account of disability, we would continue to pay his salary for up to six months (or until he obtained other employment or became eligible for disability income under a company plan, if sooner).

In the case of Dr. Tsukamoto, upon involuntary termination without cause whether or not associated with a change of control, we would continue to pay Dr. Tsukamoto's salary and provide benefits for twelve months, at the rate then in effect. Dr. Tsukamoto's agreement provides that if the termination were associated with a change of control, any unvested options granted pursuant to the company's 1992 Equity Incentive Plan would vest upon termination; however, none of these options are still outstanding.

In the case of Mr. Young, upon involuntary termination without cause, we would continue to pay his salary and provide benefits for six months, at the rate then in effect. If the termination were associated with a change of control, we would continue to pay Mr. Young's salary and provide benefits (including his share of COBRA, grossing up for the tax effects, if any) for twelve months; in this event, any unvested options and any other stock awards held by him would vest upon termination.

In the case of Dr. Craig, upon involuntary termination without cause, whether or not associated with a change of control, we would continue to pay his salary and provide benefits for six months, at the rate then in effect.

In the case of Mr. Stratton, upon involuntary termination without cause, we would continue to pay his salary and provide benefits for six months, at the rate then in effect. If the termination were associated with a change of control, we would continue to pay Mr. Stratton's salary and provide benefits for twelve months; in this event, any unvested options and any other stock awards held by him would vest upon termination.

If we terminate the employment of any executive officer for cause, or if the officer resigns without good cause, he or she would not be entitled to any severance or other benefits.

³ Or termination by the executive officer for good reason, as defined in their respective agreements.

Table of Contents**Potential Payments Upon Termination or Change-in-Control**

The following table displays the value of what the executive officers would have received from us had their employment been terminated on December 31, 2010:

| Officer | Salary | Bonus | Health | Accelerated Vesting of Options and Restricted Stock Units* | Total |
|-------------------------------|---------------|--------------|---------------|---|--------------|
| Martin McGlynn | | | | | |
| Terminated without cause | \$ 525,000 | | \$ 24,835 | | \$ 549,835 |
| Terminated, change of control | \$ 1,050,000 | \$ 131,250 | \$ 91,556(1) | | \$ 1,272,806 |
| Disability(2) | \$ 262,500 | | | | \$ 262,500 |
| Ann Tsukamoto, Ph.D. | | | | | |
| Terminated without cause | \$ 300,000 | | \$ 14,301 | | \$ 314,301 |
| Terminated, change of control | \$ 300,000 | | \$ 14,301 | \$ 1,119,750(3) | \$ 1,434,051 |
| Rodney Young | | | | | |
| Terminated without cause | \$ 162,500 | | \$ 7,879 | | \$ 170,379 |
| Terminated, change of control | \$ 325,000 | | \$ 15,758 | \$ 688,750(3) | \$ 1,009,308 |
| Stewart Craig, Ph.D. | | | | | |
| Terminated without cause | \$ 137,500 | | \$ 9,006 | | \$ 146,506 |
| Terminated, change of control | \$ 137,500 | | \$ 9,006 | \$ 322,800(3) | \$ 469,306 |
| Ken Stratton, J.D. | | | | | |
| Terminated without cause | \$ 137,500 | | \$ 8,224 | | \$ 145,724 |
| Terminated, change of control | \$ 275,000 | | \$ 16,448 | \$ 408,900(3) | \$ 700,348 |

* Value shown represents the difference between the closing market price of our stock on December 31, 2010 of \$1.08 per share and the applicable exercise price of each grant.

- (1) Includes tax gross-up on 2 years of healthcare costs.
- (2) Payments stop before 6 months if individual obtains other full-time employment or qualifies for payments under any disability income plan provided by the company.
- (3) All unvested options and restricted stock units issued under the applicable equity incentive plans vest upon a change of control under the terms of those plans.

Compensation Committee and Stock Option Report

The Compensation and Stock Option Committee has reviewed and discussed the Compensation Discussion and Analysis required by Item 402(b) of SEC Regulation S-K with management. Based on this review and these discussions, the Compensation Committee has recommended to the Board of Directors that the Compensation Discussion and Analysis be included in the company's proxy statement for 2011.

COMPENSATION AND STOCK OPTION COMMITTEE

John Schwartz, Ph.D., Chairman
Eric Bjerkholt
Ricardo Levy, Ph.D.

Notwithstanding anything to the contrary set forth in any of our previous filings under the Securities Act of 1933, as amended, or the Exchange Act that incorporate future filings, in whole or in part, the foregoing Compensation and Stock Option Committee Report shall not be incorporated by reference into any such filings.

Table of Contents**Executive Officer Compensation Tables**

The following tables set forth information with respect to the compensation of our executive officers for the fiscal years ended December 31, 2010, 2009 and 2008.

Because the Stock awards and Option awards column reflects the dollar amounts recognized as compensation expense for financial statement reporting purposes in accordance with U.S. GAAP, these imputed values include amounts from awards granted from 2003 through 2010.

Summary Compensation Table

| Name and Principal Position | Year | Salary (\$)(1) | Bonus (\$)(2) | Stock Awards (\$)(3) | Option Awards (\$)(3) | All Other Compensation (\$)(4) | Total (\$) |
|--|-------------|---------------------------|--------------------------|-------------------------------------|--------------------------------------|---|-----------------------|
| Martin McGlynn President and CEO | 2010 | 525,000 | 259,875 | 1,050,000 | 260,970 | 43,467 | 2,139,312 |
| | 2009 | 540,885 | 202,125 | 410,667 | 132,079 | 38,626 | 1,324,382 |
| | 2008 | 385,000 | 77,000 | 519,750 | | 229,221 | 1,210,971 |
| Ann Tsukamoto, Ph.D. EVP, Research and Development | 2010 | 300,000 | 81,000 | 714,000 | 169,020 | 24,627 | 1,288,647 |
| | 2009 | 311,538 | 52,500 | 163,333 | 52,532 | 22,338 | 602,241 |
| | 2008 | 300,000 | 37,500 | 259,875 | | 21,591 | 618,966 |
| Rodney Young CFO and VP, Finance and Administration | 2010 | 325,192 | 87,750 | 204,000 | 42,255 | 24,333 | 683,530 |
| | 2009 | 285,577 | 48,125 | 396,667 | 127,577 | 24,435 | 882,381 |
| | 2008 | 275,000 | 34,375 | 259,875 | | 21,765 | 591,015 |
| Stewart Craig, Ph.D. Senior VP, Development and Operations | 2010 | 275,000 | 74,250 | 204,000 | 84,510 | 26,736 | 664,496 |
| | 2009 | 285,577 | 48,125 | 159,599 | 50,712 | 23,629 | 567,642 |
| | 2008 | 74,038 | 10,077 | | 186,460 | 5,187 | 275,762 |
| Ken Stratton, J.D. General Counsel | 2010 | 275,096 | 74,250 | 204,000 | 42,255 | 25,713 | 621,314 |
| | 2009 | 259,615 | 35,000 | 163,333 | 52,532 | 25,166 | 535,646 |
| | 2008 | 244,962 | 47,000 | 103,950 | | 22,794 | 418,706 |

- (1) We pay salaries on a bi-weekly basis. There were 27 pay periods in 2010.
- (2) Each employee's target bonus is based on his or her salary as of January 1 of the year to which it applies. For 2010, the Board awarded 90% of the target bonus for all company employees. For further description of the non-equity incentive plan see the discussion in our Compensation Discussion and Analysis and Compensation of Named Executive Officers, above.
- (3) Amounts shown represent the full grant date value of the option awards granted in each year as computed in accordance with FASB ASC Topic 718. Assumptions used in the calculation of these amounts are included in Note 10, Stock-Based Compensation in our Form 10-K for the period ended December 31, 2010, filed with the SEC on March 11, 2011.

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(4) The amounts shown in the All Other Compensation column for 2010 include the following:

| Name and Principal Position | Employer Match on Defined Contribution | Transportation Allowance (\$) | Employee Health and Welfare Benefit Plans (\$)(b) | Total All Other Compensation |
|---|--|-------------------------------|---|------------------------------|
| | Plans (\$)(a) | | | |
| Martin McGlynn President and CEO | 7,350 | 10,000 | 26,117 | 43,467 |
| Ann Tsukamoto, Ph.D. EVP, Research and Development | 7,350 | | 17,277(c) | 24,627 |
| Rodney Young CFO and VP, Finance and Administration | 7,350 | | 16,973 | 24,323 |
| Stewart Craig, Ph.D. Senior VP, Development and Operations | 7,350 | | 19,386 | 26,736 |
| Ken Stratton, J.D. General Counsel | 7,350 | | 18,363 | 25,713 |

(a) Under a 401(k) plan, which is open to substantially all of our employees, we make matching contributions in the form of company common stock based on each participant's voluntary salary deferrals, subject to plan and legal limits. We match participant contributions on a 1:2 basis up to a maximum of 3% of the employee's salary. Registered stock is valued and transferred to the employee's 401(k) account at the end of calendar each quarter.

(b) We offer all employees various health and welfare benefit plans. Our executive officers may participate in these on the same terms as other employees.

(c) Includes life insurance benefit of \$1,180.

Grants of Plan-Based Awards

The following table shows grants of plan-based equity awards made to our named executive officers during the fiscal year ended December 31, 2010:

| Name & Principal Position | Grant Date | All Other Stock Awards: Number of Shares of Stock or Units #(1) | All Other Option Awards: Number of Securities Underlying Options #(2) | Exercise or Base Price of Option Awards (\$/share) | Grant Date Fair Value of Option Awards (\$) |
|-------------------------------------|------------|---|---|--|---|
| Martin McGlynn President and CEO | 6/25/10 | 1,000,000(3) | | | \$ 1,050,000 |
| Ann Tsukamoto, Ph.D. | 6/25/10 | | 300,000 | \$ 1.05 | \$ 260,970 |
| | 6/1/10 | 700,000 | | | \$ 714,000 |

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|--|--------|---------|---------|---------|------------|
| EVP, Research and Development | 6/1/10 | | 200,000 | \$ 1.02 | \$ 169,020 |
| Rodney Young | 6/1/10 | 200,000 | | | \$ 204,000 |
| CFO and VP, Finance and Administration | 6/1/10 | | 50,000 | \$ 1.02 | \$ 42,255 |
| Stewart Craig, Ph.D. | 6/1/10 | 200,000 | | | \$ 204,000 |
| Senior VP, Development and Operations | 6/1/10 | | 100,000 | \$ 1.02 | \$ 84,510 |
| Ken Stratton, J.D. | 6/1/10 | 200,000 | | | \$ 204,000 |
| General Counsel | 6/1/10 | | 50,000 | \$ 1.02 | \$ 42,255 |

- (1) Restricted stock units granted in 2010 to our named executive officers were made pursuant to our 2006 equity incentive plan. The restricted stock units granted to Mr. McGlynn and Dr. Tsukamoto vest over a three-year period from the date of grant: one-third of the award will vest on each grant date anniversary over the following

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three years. The restricted stock units granted to the other named executive officers vest over a four-year period from the date of grant: one-fourth of the award will vest on each grant date anniversary over the following four years.

- (2) The options granted in 2010 to our named executive officers were made pursuant to our 2006 equity incentive plan. Generally, stock options granted to employees have a maximum term of 10 years, and vest over a four year period from the date of grant: 25% vest at the end of the first year, and 75% vest monthly in equal increments over the remaining three years. We may grant options with different vesting terms from time to time. However, the options granted in 2010 to our named executive officer have our standard vesting terms. Unless an employee's termination of service is due to retirement, disability or death, upon termination of service, any unexercised vested options will be forfeited at the end of three months or the expiration of the option, whichever is earlier.
- (3) Mr. McGlynn received a grant of 1,200,000 restricted stock units on June 25, 2010; however, in accordance with the company's equity compensation policies, Mr. McGlynn voluntarily rescinded 200,000 of these restricted stock units on September 21, 2010.

Table of Contents**Outstanding Equity Awards at Fiscal 2010 Year-End**

The following tables show equity awards held by our named executive officers as of December 31, 2010:

| Name | Option Grant Date | Option Awards | | Option Exercise Price (\$/sh)(1) | Option Expiration Date |
|---|-------------------|--|--|----------------------------------|------------------------|
| | | Number of Securities Underlying Unexercised Options (#) Exercisable(1) | Number of Securities Underlying Unexercised Options (#) Unexercisable(1) | | |
| Martin McGlynn President and CEO | 1/15/2001 | 400,000 | | \$ 2.88 | 1/15/2011 |
| | 10/2/2001 | 75,000 | | \$ 2.09 | 10/2/2011 |
| | 2/12/2002 | 25,000 | | \$ 2.96 | 2/12/2012 |
| | 5/2/2002 | 25,000 | | \$ 2.01 | 5/2/2012 |
| | 9/2/2004 | 350,000 | | \$ 1.53 | 9/2/2014 |
| | 7/21/2006 | 672,665 | | \$ 2.00 | 7/21/2016 |
| | 8/23/2007 | 375,000 | 75,000 | \$ 2.21 | 8/23/2017 |
| | 5/15/2009 | 34,833 | 53,167 | \$ 1.75 | 5/15/2019 |
| | 6/25/2010 | | 300,000 | \$ 1.05 | 6/25/2020 |
| Ann Tsukamoto, Ph.D. EVP, Research and Development | 6/26/2001(2) | 12,000 | | \$ 3.10 | 6/26/2011 |
| | 10/22/2001 | 30,000 | | \$ 2.62 | 10/22/2011 |
| | 10/7/2002 | 60,000 | | \$ 0.61 | 10/7/2012 |
| | 9/3/2004 | 225,000 | | \$ 1.53 | 9/3/2014 |
| | 7/21/2006 | 184,976 | | \$ 2.00 | 7/21/2016 |
| | 8/23/2007 | 125,000 | 25,000 | \$ 2.21 | 8/23/2017 |
| | 5/15/2009 | 13,854 | 21,146 | \$ 1.75 | 5/15/2019 |
| | 6/1/2010 | | 200,000 | \$ 1.02 | 6/1/2020 |
| Rodney Young CFO and VP, Finance and Administration | 9/6/2005 | 450,000 | | \$ 5.43 | 9/6/2015 |
| | 7/21/2006 | 80,000 | | \$ 2.00 | 7/21/2016 |
| | 9/6/2006 | 25,000 | | \$ 2.28 | 9/6/2016 |
| | 8/23/2007 | 125,000 | 25,000 | \$ 2.21 | 8/23/2017 |
| | 5/15/2009 | 33,645 | 51,355 | \$ 1.75 | 5/15/2019 |
| | 6/1/2010 | | 50,000 | \$ 1.02 | 6/1/2020 |
| Stewart Craig, Ph.D. Senior VP, Development and Operations | 09/15/2008 | 112,500 | 87,500 | \$ 1.12 | 9/15/2018 |
| | 9/15/2009 | 24,063 | 10,937 | \$ 1.71 | 9/15/2019 |
| | 6/1/2010 | | 100,000 | \$ 1.02 | 6/1/2020 |
| Ken Stratton, J.D. General Counsel | 02/28/2007 | 143,750 | 6,250 | \$ 2.62 | 02/28/2017 |
| | 5/15/2009 | 13,854 | 21,146 | \$ 1.75 | 5/15/2019 |
| | 6/1/2010 | | 50,000 | \$ 1.02 | 6/1/2020 |

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| Name | Date of Award | Stock Awards | |
|---|---------------|--|---|
| | | Number of Securities Underlying Restricted Stock Units That Have Not Vested (3) # | Market Value of Securities of Restricted Stock Units That Have Not Vested (4) \$ |
| Martin McGlynn President and CEO | 3/10/2008 | 75,000 | \$ 81,000 |
| | 5/15/2009 | 176,001 | \$ 190,081 |
| | 6/25/2010 | 1,000,000 | \$ 1,080,000 |
| Ann Tsukamoto, Ph.D. EVP, Research and Development | 3/10/2008 | 68,750 | \$ 74,250 |
| | 5/15/2009 | 70,000 | \$ 75,600 |
| | 6/1/2010 | 700,000 | \$ 756,000 |
| Rodney Young CFO and VP, Finance and Administration | 3/10/2008 | 68,750 | \$ 74,250 |
| | 5/15/2009 | 170,001 | \$ 183,601 |
| | 6/1/2010 | 200,000 | \$ 216,000 |
| Stewart Craig, Ph.D. Senior VP, Development and Operations | 9/15/2009 | 70,000 | \$ 75,600 |
| | 6/1/2010 | 200,000 | \$ 216,000 |
| Ken Stratton, J.D. General Counsel | 3/10/2008 | 27,500 | \$ 29,700 |
| | 5/15/2009 | 70,000 | \$ 75,600 |
| | 6/1/2010 | 200,000 | \$ 216,000 |

- (1) Unless otherwise noted, options are granted at the close of market price on the grant date (or on an adjacent market trading day if the Nasdaq Global Market is closed on the grant date). They vest over a period of four years as follows: one-fourth of the option vests on the first anniversary of the grant date and 1/48th of the original grant vests each additional month of service.
- (2) This was one of eight non-qualified, performance-based options granted by the Compensation Committee on June 26, 2001 to employees who had been given year-long goals in January 2001. The exercise price was set at \$3.10, which the committee determined to be approximately equal to the average market price during January 2001. The grants vested on December 31, 2001 to the extent that the individual goals had been achieved by the respective employees. It was determined that 12,000 of the 12,500 shares originally covered by the option issued to Dr. Tsukamoto had been earned, and the remaining 500 shares were cancelled. In accordance with APB 25, the company recorded \$19,375 of compensation expense in 2001 in respect of this award.
- (3) Restricted stock units granted under our 2006 Equity Incentive Plan. These restricted stock units vest ratably over a three to four-year period on each grant date anniversary.
- (4) Based on the per share closing market price of \$1.08 for our common stock on December 31, 2010.

| Stock Awards | |
|------------------------------|----------------|
| Number of Shares Acquired on | Value Realized |

| Name | Vesting (#) | on Vesting (\$)(1) |
|---|--------------------|---------------------------|
| Martin McGlynn President and CEO | 196,166(2) | 231,696 |
| Ann Tsukamoto, Ph.D EVP, Research and Development | 92,083(3) | 109,308 |
| Rodney Young CFO and VP, Finance and Administration | 125,416(4) | 145,641 |
| Stewart Craig, Ph.D. Senior VP, Development and Operations | 23,333(5) | 18,666 |
| Ken Stratton, J.D. General Counsel | 50,833(6) | 58,983 |

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- (1) Calculated as the aggregate market value on the date of vesting of the shares with respect to which restrictions lapsed during 2010 (calculated before payment of any applicable withholding or other income taxes).
- (2) Mr. McGlynn was granted: (i) 412,500 restricted stock units on March 10, 2008, 137,500 of which vested on March 10, 2010, when the market price of our common stock per share was \$1.22; and (ii) 234,667 restricted stock units on May 15, 2009, 58,666 of which vested on May 15, 2010, when the market price per share of our common stock was \$1.09.
- (3) Dr. Tsukamoto was granted: (i) 206,250 restricted stock units on March 10, 2008, 68,750 of which vested on March 10, 2010, when the market price per share of our common stock was \$1.22; and (ii) 93,333 restricted stock units on May 15, 2009, 23,333 of which vested on May 15, 2010, when the market price per share of our common stock was \$1.09.
- (4) Mr. Young was granted: (i) 206,250 restricted stock units on March 10, 2008, 68,750 of which vested on March 10, 2010, when the market price per share of our common stock was \$1.22; and (ii) 226,667 restricted stock units on May 15, 2009, 56,666 of which vested on May 15, 2010, when the market price per share of our common stock was \$1.09.
- (5) Mr. Craig was granted 93,333 restricted stock units on September 15, 2009, 23,333 of which vested on September 15, 2010, when the market price per share of our common stock was \$0.80.
- (6) Mr. Stratton was granted: (i) 82,500 restricted stock units on March 10, 2008, 27,500 of which vested on March 10, 2010, when the market price per share of our common stock was \$1.22; and (ii) 93,333 restricted stock units on May 15, 2009, 23,333 of which vested on May 15, 2010, when the market price per share of our common stock was \$1.09.

Director Compensation

Cash Compensation. Prior to December 2009, non-employee directors received quarterly retainers for Board service in the amount of \$4,500 (\$8,750 for the Chairman of the Board). Each of the chairs of the standing committees also received quarterly stipends of either \$1,000 (Audit Committee) or \$500 (Compensation and Corporate Governance Committees). Non-employee directors also received \$1,500 for each board meeting attended in person or by videoconference and \$1,000 for each standing committee meeting attended in person or by videoconference, plus \$500 for each board or committee meeting attended by phone. The non-employee directors serving on the Strategic Transactions Committee received \$1,200 per meeting attended in person or by videoconference, plus \$500 for each meeting attended by phone, but the chair of the Strategic Transactions Committee did not receive a quarterly stipend. All dollar amounts were paid in cash.

In early 2009, however, management began a review of our director compensation practices. We wanted to assess whether we were being responsive to market dynamics, as we had not adjusted director compensation for almost five years. We obtained and reviewed, among other things, the *2009 Radford Board of Directors Compensation Analysis Level 2, Life Sciences Edition*, which provided us with a broad survey of director compensation paid by publicly traded life science companies in the United States. We also benchmarked our compensation practices against compensation information from other publicly traded companies in the stem cell field.⁴ From this information, we determined that the median (i.e., 50th percentile) cash compensation paid by comparable companies tended to be approximately 40% higher than that paid by the company and that the average initial equity grants awarded by comparable companies tended to be approximately 25% higher.

Therefore, in both June and December 2009, management presented to the Board a series of recommendations to change both the cash and equity compensation paid to our non-employee directors. The Board considered in particular the market comparables collected by management. In recognition of the fact that the company's director compensation fell significantly below the average compensation paid by market comparables, the Board approved the recommended changes to the cash-based and equity compensation paid to the company's non-employee directors.

⁴ In 2009 we collected director compensation information from the recent SEC filings of Aastrom Biosciences, Inc.; Athersys, Inc.; Cytori Therapeutics, Inc.; Geron Corporation; Neuralstem, Inc.; and Osiris Therapeutics, Inc.

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Since December 2009, non-employee directors have received quarterly retainers for Board service in the amount of \$6,250 (\$12,500 for the Chairman of the Board). The chairs of the standing committees have received quarterly stipends of either \$2,500 (Audit Committee) or \$1,250 (Compensation Committee, Corporate Governance Committee and, since it became a standing committee in June 2010, the Strategic Transactions Committee). Non-employee directors have also received \$2,000 for each board meeting attended in person or by videoconference and \$1,000 for each board meeting attended by phone, as well as \$1,000 for each standing committee meeting attended in person or by videoconference and \$500 for each committee meeting attended by phone. All these dollar amounts have been paid in cash, and we expect that this will remain the case for the foreseeable future. However, in March 2011, the Board unanimously approved a sub-plan under our 2006 Amended and Restated Equity Incentive Plan, permitting directors to elect to receive all or a portion of their board fees in the form of company common stock.

Directors are reimbursed for their expenses in attending meetings of the Board and meetings of committees of the Board.

Equity Compensation. Prior to June 2009, non-employee directors received an initial option to purchase 20,000 shares upon appointment to the Board, with one-third of these option shares vesting on each of the first three anniversaries following the grant. Following appointment, each non-employee director received an option to purchase 10,000 shares upon each anniversary of his or her appointment, vesting one year after issuance, with each exercisable at the fair market value of the stock on the date of the respective grant.

In June 2009, however, the Board adopted management's recommendation to award non-employee directors with annual equity grants paid in restricted stock units rather than common stock options. The Board's decision to change the annual grants followed several months of deliberation by the company's management and Compensation Committee, which considered among other things equity compensation practices at various comparable companies, as described above, outside reports, the company's trading history, and market trends, such as the growing use of restricted stock units as director compensation by comparable companies. Each of the annual grants from June 2009 until June 2010 was for 10,000 restricted stock units, vesting on the first anniversary of the grant.

Then, in December 2009 and June 2010, the Board approved further changes proposed by management to the equity compensation practices for non-employee directors. Among other changes, the Board approved management's recommendation to award newly appointed directors an initial grant of restricted stock units rather than options. Presently, newly appointed non-employee directors will receive an initial grant upon their first appointment to the Board of 150,000 restricted stock units, with one third of this grant vesting on each of the three anniversaries following the grant. Thereafter, each non-employee director, other than the Chairman of the Board, is to receive an annual grant on each anniversary of his or her appointment to the Board in the form of 10,000 restricted stock units, vesting on the first anniversary of the grant. In addition, the Board determined that the Chairman of the Board is to receive an annual grant of 15,000 restricted stock units, vesting on the first anniversary of the grant. Each of the annual grants since June 2010 has been for 10,000 restricted stock units (15,000 for the Chairman), vesting on the first anniversary of the grant.

Table of Contents**Director Compensation Table**

The following table summarizes cash-based and equity compensation information for our non-employee directors, including annual Board and committee retainer fees and meeting attendance fees, for the year ended December 31, 2010:

| Name | Fees Earned | | | Total (\$) |
|-------------------------------|----------------------------|----------------------------|-----------------------------------|---------------|
| | or Paid in Cash (\$) | Stock Awards (\$)(1) | All Other Compensation (\$) | |
| Eric Bjerkholt | 51,500(2) | 11,800(3) | | 63,300 |
| R. Scott Greer | 27,000(4) | 151,500(5) | | 178,500 |
| Ricardo Levy, Ph.D. | 48,000(6) | 7,700(7) | | 55,700 |
| Roger Perlmutter, M.D., Ph.D. | 33,000(8) | 10,700(9) | | 43,700 |
| John Schwartz, Ph.D. | 73,000(10) | 17,550(11) | | 90,550 |
| Irving Weissman, M.D. | 35,000(12) | 8,100(13) | 50,000(14) | 93,100 |

- (1) The amounts shown in this column represent the full grant date fair value of restricted stock unit grants in 2010 as computed in accordance with FASB ASC Topic 718. Assumptions used in the calculation of these amounts are included in Note 10, Stock-Based Compensation in our Form 10-K for the period ended December 31, 2010, filed with the SEC on March 11, 2011.
- (2) Includes an annual retainer of \$25,000, a fee for Mr. Bjerkholt's role on the Audit Committee of \$10,000, and additional fees of \$16,500 for Board and committee meetings attended. Also includes \$13,750 earned in 2010 but paid in 2011.
- (3) Mr. Bjerkholt was granted 10,000 restricted stock units on March 1, 2010, vesting on the one year anniversary of the grant. As of December 31, 2010, he had stock options and restricted stock units outstanding for the purchase of 80,000 shares of common stock, in the aggregate.
- (4) Includes an annual retainer of \$25,000, a fee for Mr. Greer's role on the Strategic Transactions Committee of \$5,000, and additional fees of \$9,500 for Board and committee meetings attended. Also includes \$11,000 earned in 2010 but paid in 2011.
- (5) Mr. Greer was granted 150,000 restricted stock units on June 3, 2010, with one third vesting on each of the three anniversaries after the grant. As of December 31, 2010, he did not have any options outstanding for the purchase of common stock.
- (6) Includes an annual retainer of \$25,000, a fee for Dr. Levy's role on the Corporate Governance Committee of \$5,000, and additional fees of \$18,000 for Board and committee meetings attended. Also includes \$12,500 earned in 2010 but paid in 2011.
- (7) Dr. Levy was granted 10,000 restricted stock units on September 26, 2010, vesting on the one year anniversary of the grant. As of December 31, 2010, Dr. Levy had stock options and restricted stock units outstanding for the purchase of 142,165 shares of common stock, in the aggregate.

- (8) Includes an annual retainer of \$25,000, and additional fees of \$8,000 for Board and committee meetings attended. Also includes \$9,250 earned in 2010 but paid in 2011.
- (9) Dr. Perlmutter was granted an 10,000 restricted stock units on December 14, 2010, vesting on the one year anniversary of the grant. As of December 31, 2010, Dr. Perlmutter had stock options and restricted stock units outstanding for the purchase of 163,503 shares of common stock, in the aggregate.
- (10) Includes an annual retainer of \$50,000, a fee for Dr. Schwartz's role on the Compensation Committee of \$5,000, and additional fees of \$18,000 for Board and committee meetings attended. Also includes \$17,750 earned in 2010 but paid in 2011.

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- (11) Dr. Schwartz was granted 15,000 restricted stock units on April 18, 2010, vesting on the one year anniversary of the grant. As of December 31, 2010, Dr. Schwartz had stock options and restricted stock units outstanding for the purchase of 148,000 shares of common stock, in the aggregate.
- (12) Includes an annual retainer of \$25,000 and additional fees of \$10,000 for Board and committee meetings attended. Also includes \$9,250 earned in 2010 but paid in 2011.
- (13) Dr. Weissman was granted 10,000 restricted stock units on October 1, 2010, vesting on the one year anniversary of the grant. As of December 31, 2010, Dr. Weissman had stock options and restricted stock units outstanding for the purchase of 216,827 shares of common stock, in the aggregate.
- (14) Dr. Weissman receives \$50,000 per year for his services as a consultant and as the chairman of our Scientific Advisory Board.

CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

Related parties can include any of our directors or executive officers, certain of our stockholders and their immediate family members. Each year, we prepare and require our directors and executive 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. This helps us identify potential conflicts 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 as a whole. Our code of ethics requires all directors, officers and employees who may have a potential or apparent conflict of interest to immediately notify our general counsel, who serves as our compliance officer. In addition, the Corporate Governance Committee of the Board of Directors is responsible for considering and reporting to the Board any questions of possible conflicts of interest of Board members. Our code of ethics further requires pre-clearance before any employee, officer or director engages in any personal or business activity that may raise concerns about conflict, potential conflict or apparent conflict of interest. Copies of our code of ethics and the Corporate Governance Committee charter are posted on the corporate governance section of our website at www.stemcellsinc.com.

In evaluating related party transactions and potential conflicts of interest, our compliance officer and independent directors apply the same standards of good faith and fiduciary duty they apply to their general responsibilities. They will approve a related party transaction only when, in their good faith judgment, the transaction is in the best interest of the company.

Dr. Weissman, a member of the Board of Directors, was retained in September 1997 to serve as a consultant to us. Pursuant to his consulting agreement, Dr. Weissman provides consulting services to us and serves on our Scientific Advisory Board. In return, we pay Dr. Weissman \$50,000 per year for his services. We also agreed to nominate Dr. Weissman for a position on the Board of Directors, and he agreed to serve if elected. Since October 1, 2000, he has been compensated for this service in the same manner and amount as other non-employee members of the Board. The consulting agreement with Dr. Weissman contains confidentiality, non-competition, and assignment of invention provisions and is for a term of fifteen years, subject to earlier termination by either party.

PRINCIPAL ACCOUNTING FEES AND SERVICES

Audit and Tax Fees

The Board of Directors, upon the recommendation of the Audit Committee, has selected the independent accounting firm of Grant Thornton LLP to audit the accounts of the company for the year ending December 31, 2011.

The Audit Committee considered the tax compliance services provided by Grant Thornton LLP, concluded that provision of such services is compatible with maintaining the independence of the independent accountants, and approved the provision by Grant Thornton LLP of tax compliance services with respect to the year ending December 31, 2010.

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The Audit Committee received the following information concerning the fees of the independent accountants for the years ended December 31, 2009 and 2010, has considered whether the provision of these services is compatible with independence of the independent accountants, and concluded that it is:

| | Year Ended | |
|---------------|-------------------|-----------------|
| | 12/31/10 | 12/31/09 |
| Audit fees(1) | \$ 422,867 | \$ 446,023 |
| Tax fees | \$ 61,097 | \$ 27,820 |

- (1) Audit fees represents fees for the integrated audit of our annual consolidated financial statements and reviews of the interim consolidated financial statements, and review of audit-related SEC filings; also includes fees related to issuing comfort letter(s) in 2009 and 2010.

Audit and tax fees include administrative overhead charges and reimbursement for out-of-pocket expenses.

Pre-Approval Policies and Procedures

The Audit Committee has adopted policies and procedures for pre-approving all services (audit and non-audit) performed by our independent auditors. In accordance with such policies and procedures, the Audit Committee is required to pre-approve all audit and non-audit services to be performed by the independent auditors in order to assure that the provision of such services is in accordance with the rules and regulations of the SEC and does not impair the auditors' independence. Under the policy, pre-approval is generally provided up to one year and any pre-approval is detailed as to the particular service or category of services and is subject to a specific budget. In addition, the Audit Committee may pre-approve additional services on a case-by-case basis. During 2010 and 2009, all services performed by our independent auditors were pre-approved.

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REPORT OF THE AUDIT COMMITTEE

The Audit Committee oversees our accounting and financial reporting processes and the audits of our financial statements on behalf of the Board, and selects an independent public accounting firm to perform these audits. Management has the primary responsibility for establishing and maintaining adequate internal control over financial reporting, preparing the financial statements, and establishing and maintaining adequate controls over public reporting. Our independent registered public accounting firm for fiscal 2010, Grant Thornton LLP, had responsibility for conducting an audit of our annual financial statements in accordance with the standards of the Public Company Accounting Oversight Board (United States) and expressing an opinion on the conformity of those audited financial statements with generally accepted accounting principles.

The Audit Committee oversaw the independent public accounting firm's qualifications and independence, as well as its performance. The Audit Committee assisted the Board in overseeing the preparation of the company's financial statements, the company's compliance with legal and regulatory requirements, and the performance of the company's internal audit function. The Audit Committee met with personnel of the company and Grant Thornton LLP to review the scope and the results of the annual audit, the amount of audit fees, the company's internal accounting controls, the company's financial statements contained in the company's Annual Report to Stockholders and other related matters.

The Audit Committee has reviewed and discussed with management the financial statements for fiscal year 2010 audited by Grant Thornton LLP, as well as management's report on internal control over financial reporting, using the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in Internal Control - Integrated Framework. The Audit Committee has discussed with Grant Thornton LLP various matters related to the financial statements, including those matters required to be discussed by SAS 114 (The Auditor's Communication with Those Charged with Governance). The Audit Committee has also discussed with Grant Thornton LLP its report on internal control over financial reporting, has received the written disclosures and the letter from Grant Thornton LLP required by Public Company Accounting Oversight Board (PCAOB) Ethics and Independence Rule 3526, *Communication with Audit Committees Concerning Independence* (Rule 3526), and has discussed with Grant Thornton LLP its independence.

Based upon such review and discussions, the Audit Committee recommended to the Board of Directors, and the Board approved the recommendation, that the audited financial statements be included in the company's Annual Report on Form 10-K for the fiscal year ending December 31, 2010 for filing with the SEC.

AUDIT COMMITTEE

Eric Bjerkholt, Chairman
Ricardo Levy, Ph.D.
John Schwartz, Ph.D.

Table of Contents**PROPOSAL NUMBER 1****Election of Directors**

The number of directors is currently fixed at seven. Both our restated certificate of incorporation, as amended to date, and our amended and restated by-laws provide for the classification of the Board of Directors into three classes (Class I, Class II and Class III), as nearly equal in number as possible, with the term of office of one class expiring each year. Unless otherwise instructed, the enclosed proxy will be voted to elect the nominees named below, who are now Class II directors, as Class II directors for a term of three years expiring at the 2014 Annual Meeting of Stockholders and until their successors are duly elected and qualified. Both Class II director nominees have been recommended by the company because of their past experience serving on the company's Board of Directors, the breadth of their business expertise, sound judgment, and demonstrated leadership, among other things. In prior years, the Class I and Class III directors were nominated for appointment to the Board for similar reasons. Proxies cannot be voted for a greater number of persons than the number of nominees named below. It is expected that the nominees will be able to serve, but if any are unable to serve, the proxy will be voted for a substitute nominee or nominees designated by the Board of Directors.

The nominees for election as Class II directors are as follows:

NOMINEES FOR ELECTION AS CLASS II DIRECTORS TERMS TO EXPIRE 2014

| Name | Principal Occupation | Age* | Position |
|-----------------------|--------------------------------------|-------------|-----------------|
| Ricardo Levy, Ph.D. | Lead Director, Renegy Holdings, Inc. | 66 | Director |
| Irving Weissman, M.D. | Professor, Stanford University | 71 | Director |

* Ages are as of April 1, 2011.

Ricardo Levy, Ph.D. was elected to the company's Board of Directors in September 2001. He most recently served as Lead Director of Renegy Holdings, the successor of Catalytica Energy Systems, Inc., an environmental emissions solutions provider. Prior to his role with Renegy Holdings, Dr. Levy served as Chairman of the Board of Catalytica Energy Systems from 1995, when the company was formed as a subsidiary of Catalytica, Inc., until October 2007 when the company merged to form Renegy. Dr. Levy was a founder of Catalytica, Inc. in 1974, serving as Chief Operating Officer from 1974 until 1991, and President and Chief Executive Officer until December 2000, when Catalytica, Inc. and its subsidiary Catalytica Pharmaceuticals, Inc. were sold to DSM N.V. Before founding Catalytica, Inc., Dr. Levy was a founding member of Exxon's chemical physics research team, and prior to that served as Chief Executive Officer of Sudamericana C.A. in Quito, Ecuador. He continues to serve as Special Advisor to the Board of Directors of Renegy Holdings, and also as a member of the Board of Directors of Accelrys Inc. (formerly Pharmacopeia, Inc.) and NovoDynamics, Inc., a private company focused on advanced image discovery. Dr. Levy holds Bachelor of Science and PhD degrees in Chemical Engineering from Stanford University, and a Master of Science Degree from Princeton University.

Irving Weissman, M.D. was elected to the Board of Directors of the company in September 1997 and has served as the chairman of the company's Scientific Advisory Board since that time. Irving L. Weissman is Professor of Pathology and Developmental Biology at Stanford University, Director of the Stanford Institute for Stem Cell Biology and Regenerative Medicine and Director of the Stanford Ludwig Center for Cancer Stem Cell Research. Among his many scientific achievements, Dr. Weissman's laboratory was the first to discover the mammalian stem cell and the

hematopoietic (blood-forming) stem cell. Dr. Weissman was also responsible for the formation of three stem cell companies: SyStemix, Inc., StemCells, Inc., and Cellerant, Inc. He is a member of the Board of Directors and the Scientific Advisory Board of StemCells. Professor Weissman received his B.S. from Montana State College in 1961 and an M.D. from Stanford University in 1965. During medical school he conducted research on thymus cell migration for nine months with Sir James Gowans at Oxford University, England. He was a postdoctoral fellow in Dr. H. S. Kaplan's laboratory at Stanford University from 1965-1967, and was appointed as a Research Associate in the Department of Radiology upon completion of the fellowship. He was appointed Assistant Professor of Pathology, Stanford School of Medicine in 1969, Associate Professor in 1974, and Professor in 1981. He was an Investigator of the Howard Hughes Medical Institute from 1990-1992. He was the Karel Beekhuis Professor of Cancer Biology from 1987 until 2005 and the Chair of the Immunology Program, a degree-granting program from

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1986-2001. In 2002 he became Director of the Stanford Cancer/Stem Cell Institute, which was split into the Stanford Institute of Stem Cell Biology and Regenerative Medicine, and the Stanford Cancer Center in 2003; Weissman was Director of both, and was principal investigator on the successful NCI Cancer Center grant. He stepped down as Cancer Center Director in 2008, but remains director of the Stem Cell Institute. In May 2005, he was named the Virginia and D. K. Ludwig Professor for Clinical Investigation in Cancer Research. Professor Weissman is an elected member of the National Academy of Sciences (1989-present), the Institute of Medicine at the National Academy (2002-present), the American Academy of Arts and Sciences (1990-present), The American Association for the Advancement of Science (1990), the American Academy of Microbiology (1997-present), and the American Philosophical Society (2008-Present), and also served as President of the International Society of Stem Cell Research (ISSCR) from 2009 to 2010. Professor Weissman has received numerous awards for his many achievements throughout his career.

THE BOARD OF DIRECTORS RECOMMENDS THAT STOCKHOLDERS VOTE FOR THE ELECTION OF THE NOMINEES DESCRIBED ABOVE.

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PROPOSAL NUMBER 2

Ratification of Selection of Independent Public Accountants

The company is asking the stockholders to ratify the selection of Grant Thornton LLP as the company's independent public accountants for the fiscal year ending December 31, 2011. The affirmative vote of the holders of a majority of the shares represented and voting at the Annual Meeting will be required to ratify the selection of Grant Thornton LLP.

In the event the stockholders fail to ratify the appointment, the Audit Committee of the Board of Directors will consider it as a direction to select other auditors for the subsequent year. Even if the selection is ratified, the Audit Committee of the Board at its discretion could decide to terminate the engagement of Grant Thornton LLP and engage another firm at any time if the Audit Committee determines that such a change would be necessary or desirable in the best interests of the company and its stockholders.

A representative of Grant Thornton LLP is expected to attend the Annual Meeting and is not expected to make a statement, but will be available to respond to appropriate questions and may make a statement if such representative desires to do so.

THE BOARD OF DIRECTORS RECOMMENDS THAT STOCKHOLDERS VOTE FOR THE PROPOSAL TO RATIFY THE SELECTION OF GRANT THORNTON LLP AS THE COMPANY'S INDEPENDENT PUBLIC ACCOUNTANTS FOR THE FISCAL YEAR ENDING DECEMBER 31, 2011.

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PROPOSAL NUMBER 3

Advisory Vote on Executive Officer Compensation

Say on Pay Vote

The Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 enables our stockholders to cast an advisory vote at the Annual Meeting to approve the compensation of our named executive officers as disclosed in the Executive Compensation section of this proxy statement, including the Compensation Discussion and Analysis (the CD&A), and the related tables and narrative. The vote on this resolution is not intended to address any specific element of compensation; rather the vote relates to the compensation of our named executive officers generally, as described in this proxy statement. Stockholders are urged to read carefully the CD&A and other information in the Executive Compensation section of this proxy statement before casting their vote.

At this year's Annual Meeting, the company is also giving stockholders the opportunity to express a preference as to how often such say on pay advisory votes should be conducted in the future. The Board believes that these advisory votes are an important means of obtaining feedback from our stockholders about executive compensation, which is set by the Compensation Committee and the independent directors and is designed to link pay with performance. Although these votes are non-binding, our Board of Directors and Compensation Committee value the opinions of our stockholders and will consider the outcome of these votes when making future compensation decisions affecting our executive officers.

Our Compensation Philosophy

The key elements of our compensation programs, which are described at length in the CD&A, can be summarized as follows:

We seek to link pay to performance in a manner that promotes the company's long-term success. We structure our compensation programs to attract and retain talented employees and reward them for helping us achieve our short-term and long-term goals. We intend for our compensation programs to be equitable and competitive when measured against those offered by companies against whom we compete for high-level scientific and executive personnel. We also intend for them to link pay to both company and individual performance.

In seeking to accomplish our objectives and commitment to good corporate governance, we follow a compensation strategy designed, ultimately, to reward increasing stockholder value. However, because achievement of our principle mission—the research, development and commercialization of stem cell therapeutics and related tools and technologies for academia and industry—is a long, expensive and challenging process, we often set individual compensation by using surrogate endpoints to gauge employee contributions towards building sustained stockholder value, such as the achievement of stated corporate goals adopted from time to time by the Board and the speed and effectiveness with which an executive officer discovers, assesses and, where appropriate, pursues promising opportunities for the company.

We use customary compensation components. We, like most biotechnology companies, use a combination of base salary, bonuses and equity awards to compensate our employees, including our executive officers:

base salary is compensation for current efforts;

bonuses, whether in cash or equity, are typically paid for achievements in meeting stated corporate goals; and

equity awards are inducements to remain with the company and to build future value.

We are a small company and principally focused on advancing our HuCNS-SC therapeutic candidate through clinical development. We therefore do not employ compensation practices that we feel are better managed by larger companies or earnings driven companies, such as employee stock purchase plans, annual compensation benchmarking, and defined benefit pension plans.

We target the 50% percentile. While we believe our officers and other employees are outstanding, we realize that the company is not yet profitable and that it is still in a relatively early stage of development. We therefore

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generally prefer to target our compensation practices so that our employees' base salaries, bonuses, equity compensation, and benefits all fall close to the 50th percentile paid by comparable companies for similar positions. We also endeavor to set base compensation levels so that their salaries are competitive with salaries paid by comparable companies to employees with similar experience, taking into account the cost of living in the San Francisco Bay Area. However, as of late, we have been paying heightened attention to the global recession and the company's need to carefully manage its cash resources.

We try to minimize risk and opportunistic behavior. On occasion, we have considered our employee compensation programs, including our executive compensation programs, and the effect they may have on company risk. We believe our compensation practices are simple and straight-forward and consistent with those of similarly situated research and development companies. We believe further that our bonus and equity grant practices are well designed to reduce the likelihood of short-term profiting at the expense of the company's long-term interests. All bonuses are awarded entirely at the discretion of our Board, for example, after taking into consideration the progress of our company's programs and long-term prospects. We do not make formulaic bonus payments, such as bonuses driven by our financial reports, which we feel helps guard the company against opportunistic financial reporting. Instead, we believe our cash bonus program properly aligns compensation with the achievement of our overall operational goals, all of which are designed to have a positive impact on our business. With regard to equity compensation, which is customary in our industry, we typically grant equity awards that vest over many years after the date of grant. We believe discretionary equity compensation that vests over multiple years does not encourage short-term or high-risk opportunistic behavior and instead aligns our employees' interests with the long-term interests of our stockholders by encouraging activities intended to build company long-term value. We also believe that equity compensation awards are an important component of our overall compensation policy because equity compensation can provide strong inducement to remain with the company and to build future stockholder value. For all these reasons, we have concluded that our employee compensation programs are designed with the appropriate balance of risk and reward in relation to our company's overall business strategy and do not incentivize executives or other employees to take unnecessary or excessive risks.

Further details concerning how we implement our philosophy and goals, and how we apply the above principles to our compensation program, are provided in the CD&A.

Directors' Recommendation

The Compensation Committee and the Board of Directors believe that the information provided in our CD&A demonstrates that our executive compensation programs align our executives' compensation with the company's short-term and long-term performance and provides the compensation and incentives needed to attract, motivate and retain key executives who are crucial to the company's long-term success. Accordingly, the following resolution will be submitted for a stockholder advisory vote at the 2011 Annual Meeting:

RESOLVED, that the stockholders of StemCells, Inc. (the company) approve, on an advisory basis, the compensation of the company's named executive officers, as disclosed pursuant to Item 402 of Securities and Exchange Commission Regulation S-K, including the Compensation Discussion and Analysis, the compensation tables and narrative disclosures.

THE BOARD OF DIRECTORS RECOMMENDS THAT STOCKHOLDERS VOTE FOR THE ADVISORY RESOLUTION TO APPROVE THE COMPENSATION OF THE COMPANY'S NAMED EXECUTIVE OFFICERS AS PRESENTED IN ITS PROXY STATEMENT.

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PROPOSAL NUMBER 4

Advisory Vote on the Frequency of Future Executive Compensation Advisory Votes

In addition to seeking our stockholders' advisory vote on the compensation of our named executive officers, we are asking our stockholders to express a preference as to how frequently future advisory votes on executive compensation should take place. Although the frequency vote is non-binding, the Compensation Committee and the Board appreciate receiving stockholder input and will review the results of the vote. The stockholder vote under this proposal is not to approve the Board's recommendation but is instead a direct advisory vote on the particular frequency at which each stockholder would like future advisory votes on executive officer compensation to be conducted. You may cast your vote on your preferred voting frequency by choosing the option of every 1 YEAR, 2 YEARS, or 3 YEARS, or you may abstain from voting on this Proposal Number 4.

After careful consideration of this proposal, our Board of Directors has determined that an advisory vote on executive compensation that occurs triennially, meaning every 3 YEARS, would be the most appropriate alternative for the company, and therefore our Board recommends that you vote for a three-year interval for the advisory vote on executive compensation.

The Board believes that triennial votes provide assurance that the Board and the Compensation Committee remain accountable for executive compensation decisions on a frequent basis, but permit a more long-term approach to evaluating our executive compensation programs.

We believe our compensation decisions must reflect long-term strategic goals and avoid excessive focus on short-term financial results or short-term stock price fluctuations. Given the company's lengthy product development cycles, our focus on long-term performance and the three- or four-year vesting periods for our long-term incentive compensation, we believe that a triennial vote on executive compensation will enable stockholders to provide the most constructive feedback on our executive compensation policies and program. Conversely, the Board believes that a more frequent vote could encourage stockholders and the company to take a short-term view of both executive compensation and company performance.

A three-year cycle for voting on executive compensation would also enable us to implement any appropriate changes to our executive compensation program and understand the effects of those changes prior to the next advisory vote. The Board believes that advisory votes more frequent than three years would make it more difficult to analyze the results of prior votes in a comprehensive and timely manner, thereby limiting the depth and completeness with which we can react and respond to any stockholder concerns.

Directors' Recommendation

While our Board believes a triennial advisory vote on executive compensation is consistent with our corporate governance and executive compensation philosophy, policies and practices, we understand that our stockholders may have different views as to what is the best approach for the company, and we look forward to hearing from our stockholders on this proposal.

THE BOARD OF DIRECTORS RECOMMENDS THAT STOCKHOLDERS SELECT EVERY 3 YEARS ON THE PROPOSAL CONCERNING THE FREQUENCY OF FUTURE ADVISORY VOTES ON EXECUTIVE COMPENSATION.

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PROPOSAL NUMBER 5

**Approval of Amendment to the Company's
Certificate of Incorporation to Effect a Reverse Stock Split**

General

Our Board of Directors has unanimously adopted a resolution approving, declaring advisable and recommending to the stockholders for their approval a proposal to amend the company's restated certificate of incorporation to (1) effect a reverse stock split of the company's issued and outstanding common stock at any whole number ratio between, and inclusive of, one for seven and one for eleven (the Reverse Stock Split) and (2) decrease the number of authorized shares of common stock to 75,000,000 (collectively with the Reverse Stock Split, the Amendment). Approval of this Proposal Number 5 will grant the Board of Directors the authority, without further action by the stockholders, to carry out the Amendment to the company's certificate of incorporation at any time within four months after the date stockholder approval for the Amendment is obtained, with the exact exchange ratio and timing of the Amendment (if at all) to be determined at the discretion of the Board of Directors. Our Board's decision whether or not (and when) to effect the Amendment (and at what whole number ratio to effect the Reverse Stock Split) will be based on a number of factors, including market conditions, existing and anticipated trading prices for our common stock and the continued listing requirements of the NASDAQ Global Market.

A sample form of the certificate of amendment relating to this Proposal Number 5, which we would file with the Secretary of State of the State of Delaware to carry out the Amendment to our certificate of incorporation, is attached to this proxy statement as Schedule 1.

Rationale for a Reverse Stock Split

Our common stock trades on the NASDAQ Global Market, which we believe helps support and maintain stock liquidity and company recognition for our stockholders. Companies listed on the NASDAQ Global Market, however, are subject to various rules and requirements imposed by the NASDAQ Stock Market which must be satisfied in order to continue having their stock listed on the exchange (these are called the NASDAQ's continued listing standards). One of these standards is the minimum bid price requirement, which requires that the bid price of the stock of listed companies be at least \$1.00 per share. A listed company risks being delisted and removed from the NASDAQ Global Market if the closing bid price of its stock remains below \$1.00 per share for an extended period of time.

The closing bid price of our common stock has been below \$1.00 per share since January 19, 2011. On March 3, 2011, we received a delisting determination letter from the NASDAQ Stock Market indicating that we were at risk of delisting because we have not been in compliance with the minimum bid price standard set forth in NASDAQ Marketplace Rule 5550(a)(2). We believe we meet the NASDAQ's other continued listing standards. We therefore believe we can regain compliance with the minimum bid price requirement and remain listed on the NASDAQ Global Market if the closing bid price of our common stock were to reach \$1.00 or higher for a minimum of ten consecutive trading days at any time prior to August 30, 2011.

Companies facing the risk of delisting for failing to satisfy the minimum bid price requirement have several alternatives available to them in order to regain compliance. The most common solution is to effect a reverse stock split in order to increase the trading price to above \$1.00 per share for at least ten consecutive trading days.

All other things being equal, a reverse stock split by a publicly traded company reduces the number of shares outstanding but leaves the market capitalization of the company the same, which increases the price per share of the

company's stock. Put another way, after a reverse stock split, the enterprise value of the company is spread over fewer shares and so the per share price of the stock will be higher. As an example, a hypothetical company with a market value of \$50 million and 100 million shares outstanding would have a trading price of \$0.50 per share (\$50 million divided by 100 million), while the same company with only 25 million shares outstanding would have a trading price of \$2.00 per share (\$50 million divided by 25 million).

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We are asking stockholders to approve this Proposal Number 5 because we believe a reverse stock split will result in a higher price per share for outstanding shares of our common stock. This, we believe, could provide a number of potential advantages. We describe each of these below.

Potential Advantages from a Reverse Stock Split

Potential Advantage #1 Maintain NASDAQ Global Market Listing. We believe that having our common stock delisted from the NASDAQ Global Market would be undesirable for our stockholders and potentially bad for our business. Among other things, being delisted could reduce the liquidity of our common stock. We also deem valuable our ticker symbol, which is easily recognized as STEM and which we could lose if we were delisted by the NASDAQ Global Market. Also, being listed on the NASDAQ Global Market carries with it certain prestige and we feel it improves the recognition of our company.

While no assurances can be given, our Board believes that a reverse stock split, at a whole number exchange ratio ranging from one for seven (every seven shares outstanding would be combined into one share) to one for eleven (every eleven shares outstanding would be combined into one share), would result in an increase in the company's price per share, and thereby help the company meet the \$1.00 per share minimum bid price requirement. While the company's stock price could trade above \$1.00 on its own accord over the next few months, our Board believes that it is in the company's best interests and in the interests of our stockholders to seek approval of the proposed Amendment to effect the Reverse Stock Split, so that we can regain compliance even if the company's stock trading price does not increase above \$1.00 per share by August 30, 2011, the end of our compliance period. Even if our common stock's closing bid price were to satisfy the minimum closing bid price requirements prior to approval of this Proposal Number 5, we may still effect the Amendment if our stockholders approve this Proposal and our Board of Directors determines that effecting the Reverse Stock Split would be in the best interests of the company and its stockholders.

Potential Advantage #2 Facilitate Potential Future Financings. By preserving our NASDAQ Global Market listing, we can continue to consider and pursue a wide range of future financing options to support our ongoing clinical development programs. To move our products through the clinical, regulatory and reimbursement processes, we will need to raise additional money. We believe being listed on a national securities exchange, such as the NASDAQ Global Market, is valued highly by many long-term investors such as large institutions. A listing on a national securities exchange also has the potential to create better liquidity and reduce volatility for buying and selling shares of our stock, which benefits our current and future stockholders.

Potential Advantage #3 Increase Our Common Stock Price to a Level More Appealing for Investors. We believe that the Reverse Stock Split could enhance the appeal of our common stock to the financial community, including institutional investors, and the general investing public. We believe that a number of institutional investors and investment funds are reluctant to invest in lower priced securities and that brokerage firms may be reluctant to recommend lower priced stock to their clients, which may be due in part to a perception that lower-priced securities are less promising as investments, are less liquid in the event that an investor wishes to sell his, her or its shares, or are less likely to be followed by institutional securities research firms. We believe that the reduction in the number of issued and outstanding shares of our common stock caused by the Reverse Stock Split, together with the anticipated increased stock price immediately following and resulting from the Reverse Stock Split, may encourage further interest and trading in our common stock and thus possibly promote greater liquidity for our stockholders, thereby resulting in a broader market for our common stock than that which currently exists.

Certain Risks Associated with the Reverse Stock Split

The proposed Reverse Stock Split carries with it several significant risks.

We cannot assure you, for example, that the market price per share of our common stock after the Reverse Stock Split will rise or remain constant in proportion to the reduction in the number of shares of common stock outstanding before the Reverse Stock Split. For example, using the closing price of our common stock on April 1, 2011 of \$0.92 per share as an example, if our Board of Directors were to implement the Reverse Stock Split at a one for seven ratio, we cannot assure you that the post-split market price of our common stock would be or would remain

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at a price of seven times greater than \$0.92, or \$6.44 (\$0.92 x 7). In many cases, the market price of a company's shares declines after a reverse stock split. Thus, while our stock price might meet the continued listing requirements for the NASDAQ Global Market initially, we cannot assure you that it would continue to do so.

The market price of our common stock will also be based on our performance and other factors, some of which are unrelated to the number of shares outstanding. If the Reverse Stock Split is effected and the market price of our common stock declines, the percentage decline as an absolute number and as a percentage of our overall market capitalization may be greater than would occur in the absence of a Reverse Stock Split. Furthermore, the liquidity of our common stock could be adversely affected by the reduced number of shares that would be outstanding after the Reverse Stock Split.

We also cannot assure you that the Reverse Stock Split will result in per share stock prices that will attract additional investors or increase analyst coverage.

Failure to carry out the Reverse Stock Split also carries several significant risks, however. For example, if our stockholders do not approve the Reverse Stock Split, the company could be delisted from the NASDAQ Global Market, thereby potentially decreasing the liquidity of our stock and hurting our stock's market price.

Principal Effects of the Amendment

Text of the Amendment to our certificate of incorporation. If the stockholders approve this Proposal Number 5 to authorize our Board of Directors to implement the Amendment and our Board of Directors decides to implement the Amendment, we will amend Section THREE of our restated certificate of incorporation to add substantially the following paragraph at the end thereof:

Effective at 5:00 p.m. Pacific Time the date of filing of the Certificate of Amendment with the State of Delaware (the Effective Time), each [seven] ... [eleven] shares of Common Stock issued and outstanding immediately prior to the Effective Time, without further action, will be combined into and automatically become one share of issued and outstanding Common Stock of the Corporation. The Corporation will not issue fractional shares on account of the foregoing Reverse Stock Split; all shares that are held by a stockholder as of the Reverse Split Effective Time shall be aggregated and each fractional share resulting from the Reverse Stock Split after giving effect to such aggregation shall be rounded up to the nearest whole number.

Immediately following the Effective Time, the total number of shares of capital stock which the Corporation shall have the authority to issue shall be 76,000,000 shares, consisting of (i) 75,000,000 shares of Common Stock and (ii) 1,000,000 shares of Undesignated Preferred Stock.

Specifically, to carry out the Amendment, we would file with the Secretary of State for the State of Delaware a certificate of amendment in substantially the form attached as Schedule 1. Stockholders are encouraged to review this carefully as it would modify the capitalization of the company upon filing.

Effective increase in the number of shares authorized for issuance. Because the ratio at which the authorized capital stock would be decreased is less than the ratio at which the issued and outstanding shares would be decreased, there will be a greater proportion of shares available for issuance following the Amendment. We believe this effective increase in the number of shares authorized but unissued is important to the future growth of the company because we will need to raise significant additional funds in order to advance the company's various development programs, including the continued clinical testing of its HuCNS-SC[®] product candidate (purified human neural stem cells). These additional shares available for issuance may be used to raise money to fund the company's working capital and other corporate needs, for future acquisitions of assets, programs or businesses, and for other corporate purposes.

Adoption of the Amendment, which would effectively increase the number of authorized shares, would not have any immediate effect on the proportionate voting power or other rights of the existing stockholders. However, upon issuance, any additional shares of authorized common stock issued after the amendment to the restated certificate of incorporation is effected would have rights identical to the currently outstanding shares of common stock.

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To the extent that the additional authorized shares of capital stock are issued in the future, they may decrease the voting rights of existing stockholders and, depending on the price at which they are issued, could be economically dilutive to existing stockholders and have a negative effect on the market price of the common stock. Current stockholders have no preemptive or similar rights, which means that current stockholders do not have a prior right to purchase any new issue of capital stock in order to maintain their proportionate ownership of the company.

The company could also use the additional shares of capital stock for potential strategic transactions including, among other things, acquisitions, spin-offs, strategic partnerships, joint ventures, restructurings, divestitures, business combinations, and investments, although the company has no present plans to do so. The company cannot provide assurances that any such transactions will be consummated on favorable terms or at all, that they will enhance stockholder value or that they will not adversely affect the company's business or the trading price of our stock. However, we believe the effective increase in the company's authorized capital will be important to preserving the company's ability to opportunistically acquire assets and technologies to grow our business; a vote against this proposal could therefore hurt our ability to grow our business and complete our existing product development efforts.

Management is unaware of any specific effort to obtain control of the company, and has no present intention of using the proposed effective increase in the number of authorized shares of common stock as an anti-takeover device. However, the company's authorized, but unissued, capital stock could be used to make an attempt to effect a change in control more difficult.

Neither Delaware law, the company's restated certificate of incorporation, nor the Company's amended and restated by-laws provides for appraisal or other similar rights for dissenting stockholders in connection with this proposal. Accordingly, the company's stockholders will have no right to dissent and obtain payment for their shares.

Reverse Stock Split ratio and resulting share numbers. The Reverse Stock Split will be effected simultaneously for all of our then-existing common stock (the "Old Shares") and the exchange ratio will be the same for all of our shares of issued and outstanding common stock. The Reverse Stock Split will affect all of our stockholders uniformly and will not affect any stockholder's percentage ownership interests in us, except to the extent that the Reverse Stock Split results in any of our stockholders owning a fractional share. Shares of common stock issued pursuant to the Reverse Stock Split (the "New Shares") will remain fully paid and nonassessable. The Reverse Stock Split will not affect our continuing to be subject to the periodic reporting requirements of the Securities Exchange Act of 1934, as amended.

The information in the following table, which summarizes the possible effect of the Reverse Stock Split, is based on the following issued and outstanding equity, as of April 1, 2011: (i) 137,743,512 shares of common stock issued and outstanding; (ii) options outstanding to acquire up to 13,840,851 shares of common stock, and (iii) warrants outstanding to acquire up to 14,382,828 shares of common stock.

| | Common Stock Outstanding after the Reverse Stock Split(1) | Warrant and Option Shares Reserved after the Reverse Stock Split | Common Stock Authorized after the Reverse Stock Split | Post-Split Common Stock Authorized but Unissued and Unreserved after the Reverse Stock Split(1) |
|--|--|---|--|--|
| Split Ratio for Issued and Outstanding Shares | | | | |

| | | | | |
|----------|------------|-----------|------------|------------|
| 1 for 7 | 19,677,645 | 4,031,954 | 75,000,000 | 51,290,401 |
| 1 for 8 | 17,217,939 | 3,527,960 | 75,000,000 | 54,254,101 |
| 1 for 9 | 15,304,835 | 3,135,964 | 75,000,000 | 56,559,201 |
| 1 for 10 | 13,774,351 | 2,822,368 | 75,000,000 | 58,403,281 |
| 1 for 11 | 12,522,137 | 2,565,789 | 75,000,000 | 59,912,074 |

(1) The actual number of shares of common stock outstanding after the Reverse Stock Split may be higher depending on the number of fractional shares that are rounded up. As of April 1, 2011, the company had approximately 85 million authorized but unissued and available shares of common stock.

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Procedure for Effecting Reverse Stock Split and Exchange of Stock Certificates

If this Proposal Number 5 is approved by our stockholders and if our Board of Directors concludes that the Amendment is in the best interests of the company and its stockholders on a date within four months after stockholder approval is obtained, our Board of Directors will cause the Reverse Stock Split to be implemented at the whole number ratio between one for seven and one for eleven as selected by our Board of Directors in its sole discretion. We will file the Certificate of Amendment with the Delaware Secretary of State at such time as our Board of Directors has determined the appropriate effective time for the Amendment, including the Reverse Stock Split. Our Board of Directors may delay effecting the Amendment without resoliciting stockholder approval to any time within four months after the date stockholder approval is obtained (if at all). The Amendment will become effective on the date the Certificate of Amendment is filed with the Delaware Secretary of State (the Effective Date). Beginning on the Effective Date, each certificate representing Old Shares will be deemed for all corporate purposes to evidence ownership of New Shares.

As soon as practicable after the Effective Date, stockholders will be notified that the Reverse Stock Split has been effected. We will retain an exchange agent (the Exchange Agent) for purposes of implementing the exchange of stock certificates. Holders of Old Shares will be asked to surrender to the Exchange Agent certificates representing Old Shares in exchange for certificates representing New Shares in accordance with the procedures to be set forth in a letter of transmittal to be sent by us. No new certificates will be issued to a stockholder until such stockholder has surrendered such stockholder's outstanding certificate(s) together with the properly completed and executed letter of transmittal to the Exchange Agent. Any Old Shares submitted for transfer, whether pursuant to a sale or other disposition, or otherwise, will automatically be exchanged for New Shares. **STOCKHOLDERS SHOULD NOT DESTROY ANY STOCK CERTIFICATES AND SHOULD NOT SUBMIT ANY CERTIFICATES UNTIL REQUESTED TO DO SO.**

Fractional Shares

No fractional shares will be issued in connection with the Reverse Stock Split. Stockholders of record who otherwise would be entitled to receive fractional shares, will be entitled to rounding up of their fractional share to the nearest whole share.

Effect on Options, Warrants and Other Securities

All outstanding options, warrants and other securities entitling their holders to purchase shares of our common stock would be adjusted as a result of the Reverse Stock Split, as required by the terms of each security. In particular, the conversion ratio for each security would be reduced, and the exercise price, if applicable, would be increased, in accordance with the terms of each security and based on the exchange ratio implemented in the Reverse Stock Split.

Accounting Matters

The Amendment will not affect the common stock capital account on our balance sheet. As of the Split Effective Time, the stated capital on our balance sheet attributable to our common stock will be reduced proportionately based on the selected exchange ratio, and the additional paid-in capital account will be credited with the amount by which the stated capital is reduced. In future financial statements, we will restate net income or loss per share and other per share amounts for periods ending before the Reverse Stock Split to give retroactive effect to the Reverse Stock Split. The per share net income or loss and net book value of our common stock will be increased because there will be fewer shares of our common stock outstanding.

Discretionary Authority of the Board of Directors to Abandon Reverse Stock Split

The Board of Directors reserves the right to abandon the Amendment without further action by our stockholders at any time before the effectiveness of the filing with the Delaware Secretary of State of the Certificate of Amendment to the company's certificate of incorporation, even if the Reverse Stock Split has been authorized by our stockholders at the Annual Meeting. By voting in favor of the Reverse Stock Split, you are expressly also authorizing our Board of Directors to determine not to proceed with, and abandon, the Reverse Stock Split if it should so decide.

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No Dissenter's Rights

Under applicable Delaware law, our stockholders are not entitled to dissenter's rights with respect to the Reverse Stock Split, and we will not independently provide stockholders with any such right.

Directors' Recommendation

The affirmative vote of a majority of all issued and outstanding shares of common stock is required to approve the Reverse Stock Split at the Annual Meeting. If you abstain from voting on this proposal to approve the Reverse Stock Split, it will have the same effect as a vote AGAINST the proposal. Your vote is therefore extremely important.

THE BOARD OF DIRECTORS RECOMMENDS A VOTE FOR THE PROPOSAL TO AMEND THE COMPANY'S CERTIFICATE OF INCORPORATION TO EFFECT THE REVERSE STOCK SPLIT OF THE COMPANY'S ISSUED AND OUTSTANDING COMMON STOCK AND TO DECREASE THE NUMBER OF SHARES OF COMMON STOCK AUTHORIZED FOR ISSUANCE TO 75,000,000 AND TO AUTHORIZE THE COMPANY'S BOARD OF DIRECTORS TO EFFECT THE AMENDMENT.

Please Note: This proxy statement contains forward looking statements within the meaning of Section 27A of the Securities Act and Section 21E of the Securities Exchange Act that involve substantial risks and uncertainties. Such statements include, without limitation, all statements as to expectation or belief and statements as to the future trading price and liquidity of our common stock, whether traded on the NASDAQ Global Market or otherwise; our future results of operations; our ability to satisfy all the listing requirements of NASDAQ; the prospect for analyst coverage; and the need for, and timing of, additional capital and capital expenditures. Our actual results may vary materially from those contained in such forward-looking statements because of risks to which we are subject, including the fact that uncertainties in our ability to obtain the capital resources needed to continue our current research and development operations and to conduct the research, preclinical development and clinical trials necessary for regulatory approvals; the uncertainty regarding our ability to obtain a corporate partner or partners, if needed, to support the development and commercialization of our potential cell-based therapeutics products; the uncertainty regarding the outcome of our clinical trials or studies we may conduct in the future; the uncertainty regarding the validity and enforceability of our issued patents; the uncertainty regarding whether any products that may be generated in our cell-based therapeutics programs will prove clinically safe and effective; the uncertainty regarding whether we will achieve significant revenue from product sales or become profitable; competition from third parties; intellectual property rights of third parties; litigation risks; and other risks to which we are subject. All forward-looking statements attributable to us or to persons acting on our behalf are expressly qualified in their entirety by the cautionary statements and risk factors set forth in "Risk Factors" in Part I, Item 1A of our Form 10-K for the fiscal year ended December 31, 2010.

OTHER MATTERS

Stockholder Proposals

Stockholders who wish to present proposals for inclusion in the company's proxy materials for the 2012 Annual Meeting of Stockholders may do so by following the procedures prescribed in Rule 14a-8 under the Exchange Act. To be eligible, the stockholder proposals must be received by our corporate secretary on or before December 1, 2011.

Stockholders who wish to make a proposal at the 2012 Annual Meeting of Stockholders, other than one that will be included in our proxy materials, must notify us no later than March 1, 2012 (see Rule 14a-4 under the Exchange Act). If a stockholder who wishes to present a proposal fails to notify us by March 1, 2012, the proxies that management solicits for the meeting will confer discretionary authority to vote on the stockholder's proposal if it is properly brought

before the meeting.

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Stockholder Nominations of Directors

Stockholders or groups of stockholders that, individually or as a group, have beneficially owned at least 5% of the company's common stock for at least one year prior to the date of such submission (the "Nominating Stockholder") may submit a candidate for nomination for election as a director at any annual meeting of stockholders in accordance with Board policy. The submission must be in writing and delivered to StemCells, Inc., Attn: Secretary, Board of Directors, 3155 Porter Drive, Palo Alto, California 94304, no later than on or about April 4, 2012 for nominees to be considered for nomination at the 2012 annual meeting. Submissions must include the name, address and number of shares of common stock beneficially owned by each participant in the Nominating Stockholder group, a representation that the Nominating Stockholder meets the requirements described in the Board policy and will continue to meet them through the date of the annual meeting, a description of all arrangements or understandings between or among the Nominating Stockholder group (or any participant in the Nominating Stockholder group) and the candidate or any other person or entity regarding the candidate, all information regarding the candidate that the company would be required to disclose in a proxy statement under SEC rules, including whether the candidate is independent or, if not, a description of the reasons why not, the consent of the candidate to serve as a director, and representations by the candidate regarding his or her performance of the duties of a director. Full details may be obtained from the secretary of the Board of Directors at the address above or on our website at www.stemcellsinc.com. The Corporate Governance Committee will consider and evaluate up to two candidates recommended in accordance with this policy in connection with any annual meeting. The Corporate Governance Committee will consider and evaluate candidates recommended by stockholders on the same basis as candidates recommended by other sources.

In addition, the company's by-laws provide that a stockholder entitled to vote for the election of directors at a meeting may nominate persons for election as directors by giving timely notice thereof in proper written form to the Secretary accompanied by a petition signed by at least 100 record holders of capital stock of the company representing in the aggregate 1% or more of the outstanding shares entitled to vote in the election of directors, which petition must show the class and number of shares held by each person. To be timely, such notice and petition must be received at the principal executive offices of the company not less than 60 days nor more than 90 days prior to the meeting, except if less than 70 days notice of the date of the meeting is given to stockholders, in which case the notice and petition must be received not later than the close of business on the tenth day following the day on which notice of the date of the meeting was mailed or public disclosure of such date was made. The requesting stockholder is required to provide information with respect to the nominee(s) for director similar to that described above, as more fully set forth in the company's by-laws.

Form 10-K

The company's Annual Report on Form 10-K for the fiscal year ended December 31, 2010, as filed with the SEC, is available without charge upon request by writing to StemCells, Inc. at 3155 Porter Drive, Palo Alto, California 94304, Attention: Investor Relations. A copy of this report is also available through our website at www.stemcellsinc.com or, alternatively, at www.sec.gov.

Householding of Proxy Materials

The SEC has adopted rules that permit companies and intermediaries such as brokers to satisfy delivery requirements for proxy statements with respect to two or more stockholders sharing the same address by delivering a single proxy statement addressed to those stockholders. This process, which is commonly referred to as "householding," potentially provides extra convenience for stockholders and cost savings for companies. The company and some brokers household proxy materials, delivering a single proxy statement to multiple stockholders sharing an address unless contrary instructions have been received from the affected stockholders. Once you have received notice from your broker or us that they or we will be householding materials to your address, householding will continue until you are

notified otherwise or until you revoke your consent. If, at any time, you no longer wish to participate in householding and would prefer to receive a separate proxy statement, or if you are receiving multiple copies of the proxy statement and wish to receive only one, please notify your broker if your shares are held in a brokerage account or us if you hold registered shares. You can notify us by sending a written request to StemCells, Inc., 3155 Porter Drive, Palo Alto, California 94304, Attention: Investor Relations.

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Other Business

The Board of Directors knows of no business that will come before the meeting for action except as described in the accompanying Notice of Meeting. However, as to any such business, the persons designated as proxies will have authority to act in their discretion.

By Order of the Board of Directors

Kenneth B. Stratton, J.D.
Secretary

May 16, 2011

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Schedule 1

**CERTIFICATE OF AMENDMENT TO THE
RESTATED CERTIFICATE OF INCORPORATION OF
STEMCELLS, INC.**

StemCells, Inc. (the Corporation), a corporation duly organized and existing under the General Corporation Law of the State of Delaware (the DGCL), hereby certifies that:

1. Upon the filing and effectiveness (the Effective Time) pursuant to the DGCL of this Certificate of Amendment of the Amended and Restated Certificate of Incorporation of the Corporation (the Charter), each [seven to eleven] shares of the Corporation's common stock, par value \$.001 per share, issued and outstanding immediately prior to the Effective Time (the Old Shares) shall automatically be combined into one validly issued, fully paid and non-assessable share of common stock without any further action by the Corporation or the holder thereof, subject to the treatment of fractional share interests as described below (the Reverse Stock Split). The Corporation shall not issue fractional shares in connection with the Reverse Stock Split. Holders of Old Shares who would otherwise be entitled to receive a fraction of a share on account of the Reverse Stock Split shall have their fractional share rounded up to the nearest whole number as of the Effective Time.

2. Upon the Effective Time, the first paragraph of section THREE of the Charter is hereby amended to read in its entirety as set forth below:

The total number of shares of stock that this Corporation shall have authority to issue is 76,000,000, consisting of 75,000,000 shares of Common Stock, with a par value of \$0.01 per share (the Common Stock), and 1,000,000 shares of Undesignated Preferred Stock with a par value of \$0.01 per share (the Undesignated Preferred Stock).

3. This Certificate of Amendment shall become effective on [], 2011 at 12:01 a.m. Eastern Time.

4. This Certificate of Amendment was duly adopted in accordance with Section 242 of the DGCL. The Board of Directors duly adopted resolutions setting forth and declaring advisable this Certificate of Amendment and directed that the proposed amendment be considered by the stockholders of the Corporation. A meeting of stockholders was duly called upon notice in accordance with Section 222 of the DGCL and held on June 30, 2011, at which meeting the necessary number of shares were voted in favor of the proposed amendment. The stockholders of the Corporation duly adopted this Certificate of Amendment.

5. The remaining provisions of the Restated Certificate of Incorporation, including without limitation the remaining provisions of section THREE, are not affected by the aforementioned amendment and remain in full force and are not affected by this Certificate of Amendment.

IN WITNESS WHEREOF, StemCells, Inc. has caused this Certificate of Amendment to be signed by its President and Chief Executive Officer, Martin M. McGlynn, and its corporate Secretary, Kenneth B. Stratton, on this [] day of [], 2011.

STEMCELLS, INC.

Martin M. McGlynn
President and Chief Executive Officer

Kenneth B. Stratton

Secretary

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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 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 Future PROXY MATERIALS

If you would like to reduce the costs incurred by our company in mailing proxy materials, you can consent to receiving all 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 proxy materials 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 meeting date. Have your proxy card in hand when you call and then follow the instructions.

VOTE BY MAIL

Mark, sign and date your proxy card and return it in the postage-paid envelope we have provided or return it to Vote Processing, c/o Broadridge, 51 Mercedes Way, Edgewood, NY 11717.

| NAME | CONTROL # à 000000000000 | | |
|---------------------------------------|---------------------------------|------------------------------|--|
| THE COMPANY NAME INC. - COMMON | SHARES | 123,456,789,012.12345 | |

THE COMPANY NAME INC. - CLASS A 123,456,789,012.12345
THE COMPANY NAME INC. - CLASS B 123,456,789,012.12345
THE COMPANY NAME INC. - CLASS C 123,456,789,012.12345
THE COMPANY NAME INC. - CLASS D 123,456,789,012.12345
THE COMPANY NAME INC. - CLASS E 123,456,789,012.12345
THE COMPANY NAME INC. - CLASS F 123,456,789,012.12345
THE COMPANY NAME INC. - 401 K 123,456,789,012.12345

PAGE 1 OF 2

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

KEEP THIS PORTION FOR YOUR RECORDS
DETACH AND RETURN THIS PORTION ONLY

THIS PROXY CARD IS VALID ONLY WHEN SIGNED AND DATED.

| | For All | Withhold All | For All Except | To withhold authority to vote for any individual nominee(s), mark For All Except and write the number(s) of the nominee(s) on the line below. |
|--|-----------------------|-----------------------|-----------------------|---|
| The Board of Directors recommends you vote FOR the following: | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |

1. Election of Directors Nominees

- 01 Ricardo Levy, Ph. D. 02 Irving Weissman, M.D.

The Board of Directors recommends you vote FOR proposals 2 and 3.

| | For | Against | Abstain |
|---|-----------------------|-----------------------|-----------------------|
| 2 To ratify the selection of Grant Thornton LLP as independent public accountants of the Company for the fiscal year ending December 31, 2011. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 3 Approval of a non-binding advisory vote of the compensation paid to Stemcells named executive officers. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

The Board of Directors recommends you vote 3 YEARS on the following proposal:

| | 1 year | 2 years | 3 years | Abstain |
|--|-----------------------|-----------------------|-----------------------|-----------------------|
| 4 Recommend, by non-binding vote, the frequency of future advisory votes on executive compensation. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

For address change/comments, mark here.
(see reverse for instructions)

0

The Board of Directors recommends you vote FOR the following proposal:

For Against Abstain

5 To approve an amendment to the company's certificate of incorporation, as described in the accompanying proxy statement, to effect a reverse stock split of the company's issued and outstanding common stock and decrease the number of authorized shares of common stock to 75,000,000 and to authorize the Board of Directors to effect this amendment to the certificate of incorporation, within the Board's discretion, at any time within four months after the date stockholder approval for the reverse stock split is obtained.

o o o

NOTE: In their discretion, upon such other matters that may properly come before the meeting or any postponements or adjournments thereof.

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

| | | | | | |
|---------------------------------------|------|--------------|--------------------------|------|--|
| Signature [PLEASE SIGN WITHIN BOX] | Date | JOB # | Signature (Joint Owners) | Date | SHARES CUSIP # SEQUENCE # |
|---------------------------------------|------|--------------|--------------------------|------|--|

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Important Notice Regarding the Availability of Proxy Materials for the Annual Meeting: The Notice & Proxy Statement, Form 10-K is/are available at The www.proxyvote.com.

**STEMCELLS, INC.
ANNUAL MEETING OF STOCKHOLDERS, JUNE 30, 2010
THIS PROXY IS SOLICITED ON BEHALF OF THE BOARD OF DIRECTORS**

The undersigned stockholder, by completing this card, hereby appoints Martin McGlynn and Kenneth Stratton, or either of them with power of substitution to each, proxies of the undersigned to vote at the Annual Meeting of Stockholders of StemCells, Inc. to be held on June 30, 2010 at 3155 Porter Drive, Palo Alto, California at 2:00 p.m., local time, or at any postponements or adjournments thereof, all of the shares of Common Stock, par value \$.01 per share, of StemCells, Inc. that the undersigned would be entitled to vote if personally present. The undersigned instructs such proxies or their substitutes to act on the following matter as specified by the undersigned, and to vote in such manner as they may determine on any other matter that may properly come before the meeting.

WHEN PROPERLY EXECUTED, THIS PROXY WILL BE VOTED AS DESIGNATED BY THE UNDERSIGNED. IF NO CHOICE IS SPECIFIED, THE PROXY WILL BE VOTED FOR EACH OF THE NOMINEES FOR DIRECTOR LISTED BELOW, IN FAVOR OF PROPOSALS 2, 3 and 5, AND FOR EVERY 3 YEARS WITH RESPECT TO PROPOSAL 4. IN THIER DISCRETION, THE PROXIES ARE ALSO AUTHORIZED TO VOTE UPON SUCH OTHER MATTERS AS MAY PROPERLY COME BEFORE THE MEETING AND ADJOURNMENT THEREOF.

Address change/comments:

(If you noted any Address Changes and/or Comments above, please mark corresponding box on the reverse side.)
(Continued and to be signed on reverse side)