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

SCHEDULE 14A

Proxy Statement Pursuant to Section 14(a) of the Securities Exchange Act of 1934 (Amendment No.)

Filed by the Registrant 🛭 🗟	7
Filed by a Party other than	n the Registrant o
Check the appropriate box	ζ:

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

displays a currently valid OMB control number.

☑ Definitive Proxy Statement

SEC 1913 (02-02)

- o Definitive Additional Materials
- o 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. o Fee computed on table below per Exchange Act Rules 14a-6(i)(4) and 0-11.
1) Title of each class of securities to which transaction applies:
2) Aggregate number of securities to which transaction applies:
3) Per unit price or other underlying value of transaction computed pursuant to Exchange Act Rule 0-11 (set forth the amount on which the filing fee is calculated and state how it was determined):
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o Check box if any part of the fee is offset as provided by Exchange Act Rule 0-11(a)(2) and identify the filing for which the offsetting fee was paid previously. Identify the previous filing by registration statement number, or the Form or Schedule and the date of its filing.
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STEMCELLS, INC.

3155 Porter Drive Palo Alto, CA 94304

NOTICE OF ANNUAL MEETING OF STOCKHOLDERS To be Held on June 29, 2009

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 Monday, June 29, 2009, at 2 p.m., local time, at 3155 Porter Drive, Palo Alto, CA 94304 for the following purposes:

- 1. to elect the two Class III directors named in the accompanying proxy materials to serve until the 2012 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, 2009; and
 - 3. 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 Thursday, April 30, 2009, 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 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 the company appreciates your cooperation in considering and acting on the matters presented.

By Order of the Board of Directors,

Kenneth B. Stratton Secretary

(m)

April 30, 2009 Palo Alto, California

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 Monday, June 29, 2009, 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 has fixed the close of business on Thursday, April 30, 2009, 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 103,198,126 shares of our common stock, \$.01 par value, outstanding on April 30, 2009, each of which is entitled to one vote for each share on the matters to be voted upon.

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;"
- (ii) FOR ratification of the selection of accountants as described herein under "Proposal Number 2 Ratification of Selection of Independent Public Accountants;" and
 - (iii) 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 2009 Proxy Materials are Available on the Internet. This year we have 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.

How to vote shares at our 2009 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.

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 StemCells, Inc., c/o Broadridge, 51 Mercedes Way, Edgewood, NY 11717. The completed card must be received no later than June 28, 2009.

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.

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. 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 28, 2009.

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.

Election of directors by stockholders 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. The approval of the proposal to ratify the selection of accountants will require a majority of the votes properly cast to be affirmative.

The election inspectors will count shares represented by proxies that withhold authority to vote for a nominee for election as a director or that reflect abstentions and "broker non-votes" (i.e., shares represented at the meeting held by brokers or nominees as to which (i) instructions have not been received from the beneficial owners or persons entitled to vote and (ii) the broker or nominee does not have discretionary voting power on a particular matter) only as shares that are present and entitled to vote on the matter for purposes of determining the presence of a quorum, but neither abstentions nor broker non-votes have any effect on the outcome of voting on the election of directors or the selection of accountants.

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 before it is voted.

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The following table shows the number of shares of our common stock beneficially owned, as of April 1, 2009, by (i) each stockholder known by us to beneficially own more than 5% of our outstanding common stock, (ii) each of our directors, (iii) each of our named executive officers, and (iv) our directors and executive officers as a group. 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, 2009. 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, and that there are no other affiliations among the stockholders listed in the table. We calculated percentage ownership in accordance with the rules of the SEC using the total number of shares outstanding as of April 1, 2009, as well as shares deemed to be outstanding because of outstanding rights to acquire common stock that are currently exercisable or will be exercisable within 60 days of April 1, 2009.

Name and Address of Beneficial Owner*	Shares Beneficially <u>Owned</u>	Percentage of Class Owned
Eric H. Bjerkholt(1)	60,000	**
Ricardo Levy(2)	112,165	**
Martin McGlynn(3)	1,581,120	1.51%
Roger M. Perlmutter(4)	133,503	**
John J. Schwartz(5)	123,000	**
Ann Tsukamoto(6)	613,709	**
Irving Weissman(7)	849,107	**
Rodney K.B. Young(8)	558,695	**
Stewart Craig(9)	2,812	**
Kenneth Stratton(10)	94,322	**
All directors and executive officers as a group	4,128,423	3.93%

^{*} The address of all persons listed in the table is c/o StemCells, Inc., 3155 Porter Drive, Palo Alto, California 94304.

^{**} Less than 1%

- (1) Includes 60,000 shares issuable upon exercise of stock options exercisable within 60 days.
- (2) Includes 112,165 shares issuable upon exercise of stock options exercisable within 60 days.
- (3) Includes 1,548,345 shares issuable upon exercise of stock options exercisable within 60 days. Includes 32,775 shares included in Mr. McGlynn's 401(k) plan.
- (4) Includes 133,503 shares issuable upon exercise of stock options exercisable within 60 days.
- (5) Includes 123,000 shares issuable upon exercise of stock options exercisable within 60 days.
- (6) Includes 552,399 shares issuable upon exercise of stock options exercisable within 60 days. Includes 38,476 shares included in Dr. Tsukamoto's 401(k) plan.
- (7) Includes 210,292 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.
- (8) Includes 551,457 shares issuable upon exercise of stock options exercisable within 60 days. Includes 1,038 shares included in Mr. Young's 401(k).
- (9) Includes 2,812 shares included in Dr. Craig's 401(k) plan.
- (10) Includes 84,375 shares issuable upon exercise of stock options exercisable within 60 days. Includes 9,947 shares included in Mr. Stratton's 401(k).

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% stockholders are required by SEC rules to furnish us with copies of all Section 16(a) reports they file.

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, 2008, all Section 16(a) filing requirements applicable to our officers, directors and greater than 10% beneficial owners have been met, except that (i) two executive officers, Mr. Stratton and Dr. Craig, inadvertently failed to file their initial Form 3s in a timely manner, (ii) two executive officers, Mr. Stratton and Dr. Craig failed to timely file their Form 4s to report, respectively, the use of company shares to pay certain withholding taxes upon the exercise of RSUs and the issuance of options, and (iii) one Form 4, which reported an annual option grant, was filed on behalf of Dr. Weissman one day late.

INFORMATION CONCERNING DIRECTORS OF THE COMPANY

Board of Directors; Committees

We currently have six directors serving on our Board of Directors. Since July 2008, our Board has been composed of Drs. Ricardo Levy, Roger Perlmutter, John Schwartz, and Irving Weissman and Messrs. Eric Bjerkholt and Martin McGlynn. Because we have a classified board, with each of our directors serving a staggered three-year term, only two of our directors are expected to stand for reelection at our 2009 Annual Meeting. The following table shows the composition of the three classes of our Board:

Class I Directors (terms scheduled to expire in 2010):

Eric Bjerkholt John J. Schwartz, Ph.D.

Class II Directors (terms scheduled to expire in 2011):

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

Class III Directors (terms scheduled to expire in 2009, but standing for reelection at our Annual Meeting):

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

Below are the name, age and principal occupations for the last five years of each of the company's directors, as of April 1, 2009.

Eric H. Bjerkholt	49	Eric H. Bjerkholt was elected to the Board of Directors in March
		2004. Mr. Bjerkholt joined Sunesis Pharmaceuticals, Inc., in 2004 as
		Senior Vice President and Chief Financial Officer. Since February
		2007, he has served as Senior Vice President, Corporate
		Development and Finance, and Chief Financial Officer. From 2002
		to 2004, Mr. Bjerkholt was Senior Vice President and Chief
		Financial Officer at IntraBiotics Pharmaceuticals, Inc.
Ricardo B. Levy, Ph.D.	64	Ricardo B. Levy, Ph.D. was elected to the Board of Directors in
		September 2001. He currently serves on several boards of directors.
Martin M. McGlynn	62	Martin M. 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.
Roger Perlmutter, M.D., Ph.D.	56	Roger M. 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 J. Schwartz, Ph.D.	74	John J. 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.	69	Irving L. 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.

The independent members of our Board, as determined by the Board of Directors in accordance with the existing Nasdaq Marketplace rules, are Mr. Bjerkholt and Drs. Levy, Perlmutter and Schwartz. The Board of Directors held four regular meetings and five special meetings during the fiscal year ended December 31, 2008; the non-employee directors met in executive session at each of the regular meetings of the Board. Each of the directors attended more than 75% of the meetings of the Board of Directors and of the committees on which they served.

During 2008, the Board had three standing committees — the Compensation and Stock Option Committee (the "Compensation Committee"), the Corporate Governance and Nominating Committee (the "Corporate Governance Committee"), and the Audit Committee — as well as a single-member committee established under the company's 2001, 2004 and 2006 equity incentive plans. In addition, effective January 2009, the Board established an ad hoc committee called the Strategic Transactions Committee with direction to consult with management and advise the full Board on various corporate initiatives, such as the acquisition of substantially all of the operating assets of Stem Cell Sciences Plc, which the company completed on April 1, 2009. 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 Marketplace rules.

Since July 2008, the Compensation Committee has been composed of Dr. Schwartz and Mr. Bjerkholt. The Compensation Committee held two meetings in 2008 and has held four meetings in 2009. 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.

The Corporate Governance Committee is composed of Drs. Levy, Perlmutter and Schwartz. The Corporate Governance Committee held no meetings in 2008 and has held no meetings in 2009. It 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. The Corporate Governance Committee may identify potential candidates through any reliable means available, including identification by a search firm and recommendations of past or current members of the Board from their knowledge of the industry and of the company. 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 III directors standing for reelection at the Annual Meeting.

The Audit Committee is composed of Mr. Bjerkholt and Drs. Schwartz and Levy. The Audit Committee held four meetings in 2008 and has held one meeting in 2009. 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.

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

Director	Independent	Compensation Committee	Governance Committee	Audit <u>Committee</u>
Eric H. Bjerkholt	Yes	ü		Chair
Ricardo B. Levy, Ph.D.	Yes		Chair	ü
Martin M. McGlynn	No			
Roger Perlmutter, M.D., Ph.D.	Yes		ü	
John J. Schwartz, Ph.D.	Yes	Chair	ü	ü
Irving Weissman, M.D.	No			

Since January 2009, the members of our ad hoc Strategic Transactions Committee have been Messrs. Bjerkholt and McGlynn and Dr. Levy, serving as Chairman.

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 of Directors or to one or more particular director(s). Our corporate secretary will review all such correspondence and forward to our Board of Directors 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 of Directors 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 of Directors, 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.

Director Compensation

Non-employee directors receive quarterly retainers of \$4,500 (\$8,750 for the chairman) for Board service. The chairs of the standing committees also receive quarterly stipends of \$1,000 (Audit Committee) or \$500 (Compensation and Corporate Governance Committees). Non-employee directors also receive \$1,500 for each board meeting, and \$1,000 for each standing committee meeting, attended in person or by videoconference (\$500 for each meeting attended by telephone). The non-employee directors serving on the Strategic Transactions Committee receive \$1,200 per meeting attended in person (\$500 for each meeting attended by telephone), but the chair of the Strategic Transactions Committee does not receive a quarterly stipend. All dollar amounts are paid in cash. Non-employee directors receive an initial option to purchase 20,000 shares, with one third of these option shares vesting on each of the three anniversaries following the grant, and an option to purchase 10,000 shares upon each anniversary of their appointments, vesting one year after issuance, each exercisable at the fair market value of the stock on the date of the respective grant. Directors are reimbursed for their expenses in attending meetings of the Board of Directors and meetings of committees of the Board of Directors.

The following table summarizes compensation paid to our non-employee directors, including annual Board and committee retainer fees and meeting attendance fees, for the year ended December 31, 2008:

Name	Fees Earned or Paid in Cash (\$)	Stock Option Awards(1) (\$)	All Other Compensation (\$)	Total (\$)
Eric Bjerkholt	34,000(2)	14,670(3)	_	48,670
Ricardo Levy, Ph.D.	31,000(4)	14,847(5)	_	45,847
Roger Perlmutter, M.D., Ph.D.	26,000(6)	13,308(7)	_	39,308
John Schwartz, Ph.D.	51,000(8)	14,944(9)	_	65,944
Irving Weissman, M.D.	25,500(10)	14,238(11)	50,000(12)	89,738

⁽¹⁾ These amounts reflect expense recognized by us in 2008 for a portion of the current and prior year option awards to directors. Reference is made to Note 7 "Stock-Based Compensation" to the company's audited financial statements for the fiscal year ended December 31, 2008 included in the company's Annual Report on Form 10-K, which identifies assumptions made in the valuation of option awards in accordance with Financial Accounting Standards No. 123R (SFAS 123R). The company's stock-based compensation expense recognized under SFAS 123R reflects an estimated forfeiture rate of 13.23% in 2008. The values recognized in the "Option Awards" column above do not reflect such expected forfeitures. Since September 2004, each non-employee director is granted, after an initial grant of an option to purchase 20,000 shares upon appointment, with one third of these option shares vesting on each of the three anniversaries following the grant, and an option to purchase 10,000 shares upon each anniversary of their appointments, vesting one year after issuance. The exercise price is the closing price of the stock on the grant date or, if the Nasdaq Global market is not open on that date, the closing price on the last preceding market day. Prior to September 2004, each non-employee director was granted, after an initial grant of an option to purchase 20,000 shares upon appointment, an option for 15,000 shares upon each three-year re-election to the Board. Each of these options vested in equal portions over three years on the anniversaries of the respective grants.

- (2) Includes an annual retainer of \$18,000, a fee for Mr. Bjerkholt's role on the Audit Committee of \$4,000, and additional fees of \$12,000 for Board and committee meetings attended. Also includes \$9,000 earned in 2008 but paid in 2009.
- (3) Mr. Bjerkholt was granted an option to purchase 10,000 shares of common stock on March 1, 2008. The grant date fair value of this option computed in accordance with SFAS 123R was \$13,384. As of December 31, 2008, Mr. Bjerkholt had options outstanding for the purchase of 60,000 shares.
- (4) Includes an annual retainer of \$18,000, a fee for Dr. Levy's role on the Corporate Governance Committee of \$2,000, and additional fees of \$11,000 for Board and committee meetings attended. Also includes \$8,000 earned in 2008 but paid in 2009.
- (5) Dr. Levy was granted an option to purchase 10,000 shares of common stock on September 26, 2008. The grant date fair value of this option computed in accordance with SFAS 123R was \$8,990. As of December 31, 2008, Dr. Levy had options outstanding for the purchase of 122,165 shares.
- (6) Includes an annual retainer of \$18,000, and additional fees of \$8,000 for Board and committee meetings attended. Also includes \$7,000 earned in 2008 but paid in 2009.
- (7) Dr. Perlmutter was granted an option to purchase 10,000 shares of common stock on December 14, 2008. The grant date fair value of this option computed in accordance with SFAS 123R was \$9,648. As of December 31, 2008, Dr. Perlmutter had options outstanding for the purchase of 143,503 shares.
- (8) Includes an annual retainer of \$35,000, a fee for Dr. Schwartz's role on the Corporate Governance Committee of \$2,000, and additional fees of \$14,000 for Board and committee meetings attended. Also includes \$13,250 earned in 2008 but paid in 2009.
- (9) Dr. Schwartz was granted an option to purchase 10,000 shares of common stock on April 18, 2008. The grant date fair value of this option computed in accordance with SFAS 123R was \$11,906. As of December 31, 2008, Dr. Schwartz had options outstanding for the purchase of 211,164 shares.
- (10) Includes an annual retainer of \$18,000 and additional fees of \$7,500 for Board and committee meetings attended. Also includes \$7,000 earned in 2008 but paid in 2009.
- (11) Dr. Weissman was granted an option to purchase 10,000 shares of common stock on October 1, 2008. The grant date fair value of this option computed in accordance with SFAS 123R was \$8,641. As of December 31, 2008, Dr. Weissman had options outstanding for the purchase of 220,292 shares.
- (12) Dr. Weissman receives \$50,000 per year for his services as a consultant and as the chairman of our Scientific Advisory Board.

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.stemcellsinc.com. We intend to disclose any substantive amendment or waivers to this code on our website. There were no amendments or waivers to this code in 2008.

INFORMATION CONCERNING EXECUTIVE OFFICERS OF THE COMPANY

Executive Officers

Following are the name, age and other information for our named executive officers, as of April 1, 2009. All company officers have been elected to serve until their successors are elected and qualified or until their earlier resignation or removal.

Martin M. McGlynn,

President and Chief Executive Officer

Ann Tsukamoto, Ph.D.

Executive Vice President, Research and Development

Rodney K.B. Young,

Chief Financial Officer and Vice President, Finance and Administration

Stewart Craig, Ph.D.

Senior Vice President, Development and Operations

Kenneth Stratton, JD General Counsel

- 62 Martin M. 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.
- 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 to the newly created position of Executive Vice President, Research and Development with responsibility for the company's scientific and clinical development programs. In March 2009, Dr. Tsukamoto married one of our outside directors.
- 46 Rodney K.B. 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.
- 47 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.
- 40 Kenneth Stratton, JD, joined the company in February 2007 as General Counsel, with responsibility for corporate compliance and legal affairs. In March 2008, he assumed responsibilities for the Human Resources function. Prior to StemCells, Mr. Stratton served as Deputy General Counsel for Threshold Pharmaceuticals and as Senior Legal Counsel for Medtronic, Inc.'s Vascular business unit.

EXECUTIVE COMPENSATION

Compensation Discussion and Analysis

Our compensation programs are designed to attract and retain employees and reward them for their efforts toward helping us achieve our short-term and long-term goals, including leading us toward profitability and developing stockholder value. Compensation programs in which our executive officers participate are designed to be equitable and competitive with the compensation programs of companies with whom we compete for high-level scientific and executive personnel and to link pay to performance.

In seeking to accomplish the objectives of our compensation policy, the Compensation Committee follows a compensation program designed, ultimately, to reward increasing stockholder value. Because achievement of our mission — to develop and commercialize cell-based therapeutics to treat damage to, or degeneration of, major organ systems — is a long and challenging process, we use the following as, in effect, surrogate endpoints:

- the achievement of stated corporate goals adopted from time to time by the Board;
- the effectiveness of 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 80 employees in total and only five executive officers — we feel that having so few people in each cohort 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 evaluate the range of each element paid by comparable companies for each position. Each year, the Compensation Committee considers the performance of the executive officers during the prior year and determines their salary and target bonus. Equity compensation is generally determined by the Board on the recommendation of the Compensation Committee and awarded at one of the company's regular Board meetings. We periodically collect and review information (i) from the Radford Biotechnology Survey — Executive Report; and (ii) from the proxies of other similar biotechnology companies, including Maxygen, Inc., Sunesis Pharmaceuticals, Inc., Affymax, Inc., Geron Corporation, Cytokinetics, Incorporated, Dynavax Technologies Corporation, Kosan Biosciences, Incorporated, Pharmacyclics, Inc., and Sangamo Biosciences, Inc. In the case of the executive officers who report directly to the chief executive officer, we also take the recommendation of the chief executive officer into account in setting compensation. We integrate all of this information with our evaluation of the performance of each of our executive officers. While we believe our officers and other employees are outstanding, we prefer to set the compensation of our employees at around the 50th percentile paid by comparable companies for similar positions because the company is at a relatively early stage of development. From time to time, however, our executive officers may be paid more or less than at the 50th percentile because of unique circumstances such as the current economic environment.

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.

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. We offer 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 to a maximum of 3% of the employee's salary, subject to legal limitations; at this time, our match is made in the form of registered shares of common stock in the company.

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 similarly situated 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 attention to the global economic crisis and the company's need to conserve cash. As a result, we decided not to increase the base salaries of our executive officers in 2008, except as provided below. The last company-wide pay action was in March 2007.

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, we eliminated Mr. Glynn's housing and transportation allowance of approximately \$200,000 and increased Mr. McGlynn's annual base salary 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%. 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 corporate goals, 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 increasingly tie his compensation to corporate success.

Since March 2007, we have maintained the annual base salary of Dr. Tsukamoto at \$300,000. Her target bonus rate is 25 percent of her base salary.

Since March 2007, we have maintained the annual base salary of Mr. Young at \$275,000. His target bonus rate is 25 percent of his base salary.

Dr. Craig joined the company in September 2008, with an annual base salary of \$275,000. His target bonus rate is 25 percent of his base salary.

Mr. Stratton joined the company in February 2007, with an annual base salary of \$220,000. In February 2008, we increased Mr. Stratton's annual base salary to \$250,000 in recognition of contributions made the prior year and because he assumed additional responsibilities in early 2008. His target bonus rate is 20 percent of his base salary.

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 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 prior year. We design these

¹ Accordingly, we omit tables showing pension benefits and non-qualified deferred compensation.

goals to be challenging, so that one would not expect consistent achievement of all of them. In recent years, we have adopted annual corporate goals covering such things as advancement of our clinical strategies for our HuCNS-SC cells, effort towards fundraising, advancement in cell manufacturing practices, and advancement of our Liver Program. In any given year, the Board may grant more than 100% of the bonus pool budgeted 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. Actual bonus levels are influenced to a significant degree by the progress made towards the accomplishment of the corporate goals, however the grant of bonuses is not formulaic. The number and nature of these goals are taken into consideration, with more important corporate goals typically weighing more heavily in the consideration process. In determining whether to award a bonus, the Board also considers such factors as the company's financial position, the status of its development programs, clinical progress, corporate development activities, and general economic factors. This necessarily involves a subjective assessment of corporate performance by the Compensation Committee. 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.

In January 2009, 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 2008, the company's successes measured against its 2008 corporate goals, the degree of difficulty in achieving these goals, as well as other events and circumstances that impacted performance. The 2008 goals and their relative weightings, 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 (30%), (ii) progress in our Liver Program including advancement of our collaborative work with a researcher at Université Catholique de Louvain (20%); (iii) successful fundraising efforts (25%); and (iv) corporate development activities (25%). Highlights of the 2008 accomplishments taken into account by the Compensation Committee in determining the overall company performance included:

- In January 2008, we completed enrollment and dosing of a six-patient Phase I clinical trial of our HuCNS-SC product candidate
 as a treatment for infantile and late infantile neuronal ceroid lipofuscinosis (NCL, also often referred to as Batten disease) at
 Oregon Health & Science University (OHSU) Doernbecher Children's Hospital.
- In January 2008, we entered into a research collaboration with OHSU Casey Eye Institute to evaluate our neural stem cells as a potential treatment for retinal degeneration, a leading cause of blindness.
- In October 2008, we were awarded a \$305,000 grant from the National Institute of Diabetes and Digestive and Kidney Diseases to research and develop a potential cell-based therapeutic for liver disease arising from infection by the hepatitis C virus.
- In November 2008, we reported that our neural stem cells, when transplanted into a well-established animal model, can protect the retina from progressive degeneration and prevent the loss of visual function. Retinal degeneration leads to loss of vision in diseases such as age-related macular degeneration and retinitis pigmentosa.
- In November 2008, we raised approximately \$20 million in gross proceeds through the sale of approximately 13.8 million units at \$1.45 per unit. Each unit consisted of one share of common stock and a warrant to purchase 0.75 shares of common stock at an exercise price of \$2.30 per share. We received total proceeds, net of offering expenses and placement agency fees, of approximately \$18.6 million.
- In December 2008, the U.S. Food and Drug Administration (FDA) approved our IND to initiate a clinical trial of our HuCNS-SC product candidate to treat Pelizeaus-Merzbacher Disease (PMD), a fatal brain disorder that mainly affects young children. This Phase I trial, which is designed to evaluate the safety and preliminary efficacy of HuCNS-SC cells as a treatment for PMD, is expected to begin enrolling patients in 2009.

Following this review, the Compensation Committee recommended, and the Board subsequently approved, a bonus award to all employees of the company, including our executive officers, equal to 50 percent of the 2008 bonus pool. The bonuses were calculated using each employee's base wage rate as of January 1, 2008, and paid in February 2009.

In Mr. McGlynn's case, because his base salary on January 1, 2008 was \$385,000 and because his target bonus was 40%, his 2008 bonus was \$77,000. In Dr. Tsukamoto's case, because her base salary on January 1, 2008 was \$300,000 and because her target bonus was 25%, her 2008 bonus was \$37,500. In Mr. Young's case, because his base salary on January 1, 2008 was \$275,000 and because his target bonus was 25%, his 2008 bonus was \$34,375. In Mr. Stratton's case, because his base salary on January 1, 2008 was \$220,000 and because his target bonus was 20%, his 2008 bonus was \$22,000. In Dr. Craig's case, because he joined the company in September 2008 with a base salary of \$275,000 and a target bonus was 25%, he received a prorated 2008 bonus of \$10,077.

The base salary and target bonus information presented above may be summarized as follows:

	12/31/2006 Base Salary/Target Bonus	12/31/2007 Base Salary/Target Bonus	12/31/2008 Base Salary/Target Bonus
Martin M. McGlynn — President and CEO	\$365,000/	\$385,000/	\$385,000/
	35% of	40% of	40% of
	\$324,000	\$365,000	\$385,000
Ann Tsukamoto, Ph.D. — EVP,			
Research & Development	\$275,000/	\$300,000/	\$300,000/
	25% of	25% of	25% of
	\$275,000	\$275,000	\$300,000
Rodney K.B. Young — CFO	\$250,000/	\$275,000/	\$275,000/
	25% of	25% of	25% of
	\$250,000	\$250,000	\$275,000
Stewart Craig, Ph.D. — VP, Development &			\$275,000/
Operations			25% of
			\$275,0000
Kenneth Stratton, JD — General Counsel		\$220,000/	\$250,000/
		20% of	20% of
		\$220,000	\$220,000

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. We have typically granted company-wide stock option 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 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 (now the Nasdaq Global Market) is not open on the grant date; and
- vest over four years, with one quarter of the shares included in any grant vesting on the anniversary of the grant and the
 remainder vesting at 1/48 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.

In January 2008 and then again in March 2008, the Compensation Committee, having noted the significant decline in share prices for biotechnology companies generally and the poor economic and financial conditions in the United States, met to discuss how best to provide long-term incentives to key employees of the company. In particular, the Compensation Committee noted that most (approximately 90%) of the outstanding employee options at the end of 2007 had a strike price significantly higher than the trading price of the company's common stock and that these options were therefore not likely to provide a strong retention incentive. The weighted average exercise price of outstanding employee options at the end of 2007 was \$2.36 and the average closing price for January 2008 was \$1.31 per share.

After discussing this with management, the Compensation Committee determined it was in the company's interest to grant additional long-term equity compensation to a limited number of employees considered particularly important to our long-term success. Consequently, in March 2008, the Compensation Committee approved the award of 1,650,000 restricted stock units to certain employees of the company. Each of the restricted stock grants vests over three years, with one-third vesting on each of the three anniversaries following the grant. Of this amount, the executive officers of the company received, in the aggregate, 907,500 restricted stock units. These restricted stock units were intended to augment the existing outstanding options held by employees, including our executive officers, to provide additional retention incentives and to encourage actions designed to increase long-term stockholder value.

The following table summarizes the restricted stock units awarded to our named executive officers in March 2008:

Name & Principal Position	Restricted Stock Units Granted
Martin M. McGlynn — President and CEO	412,500
Ann Tsukamoto, Ph.D. — Executive VP, Research & Development	206,250
Rodney K.B. Young — CFO	206,250
Stewart Craig, Ph.D. — SVP, Development & Operations(1)	0
Kenneth Stratton, JD — General Counsel	82,500

Number of

We may grant additional options to current employees, including our executive officers, in 2009.

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

⁽¹⁾ Dr. Craig joined the company after the relevant grant date.

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. 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. 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 are annual car allowance of \$10,000.

Dr. Tsukamoto joined the company in November 1997 and has served as our Executive Vice President, Research & 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 25% 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 his base salary to \$275,000. 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-quarter 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 to acquire no fewer than 25,000 shares of our common stock at the closing price of the stock on the date of grant, the first anniversary of his employment. 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 receives an annual base salary of \$275,000 per year, with a target bonus of up to 25% of his base salary. Pursuant to his July 2008 employment agreement, we granted Dr. Craig an option to purchase 200,000 shares of our common stock. This option will vest over 48 months, with one-quarter 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. In February 2008, however, we increased his base salary to \$250,000. Pursuant to his February 2007 employment agreement, we granted Mr. Stratton an option to purchase 150,000 shares of our common stock. This option will vest over 48 months, with one-quarter 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, with the exception of Mr. Stratton, 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 cause² 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 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 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; in addition, all unvested stock options

² Or termination by the executive officer for good reason, as defined in the agreement.

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 12 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.

In the case of Mr. Young, upon involuntary termination without cause, we would continue to pay 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 12 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 salary and provide benefits for six months, at the rate then in effect.

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.

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, 2008:

				Accel	lerated Vesting of		
Officer	Salary	Bonus	Health		Options*		Total
Martin McGlynn							
Terminated without cause	\$385,000	0	\$14,255		0	\$	399,255
Terminated, change of control	\$770,000	\$96,250	\$41,554(1)	\$	561,000(2)	\$1	,468,804
Disability(3)	\$192,500	0	0		0	\$	192,500
Other	0	0	0		0		0
Ann Tsukamoto, Ph.D.							
Terminated without cause	\$300,000	0	\$11,183		0	\$	311,183
Terminated, change of control	\$300,000	0	\$11,183	\$	280,500(4)	\$	591,683
Other	0	0	0		0		0
Rodney Young							
Terminated without cause	\$137,500	0	\$ 4,182		0	\$	141,682
Terminated, change of control	\$275,000	0	\$ 8,364	\$	280,500(5)	\$	563,864
Other	0	0	0		0		0
Stewart Craig, Ph.D.							
Terminated without cause	\$137,500		\$ 5,876			\$	143,376
Terminated, change of control	\$137,500		\$ 5,876	\$	48,000(5)	\$	191,376
Kenneth Stratton, JD							
Terminated, change of control				\$	112,500(5)	\$	112,500

^{*} Value shown represents the difference between the closing market price of our stock on December 31, 2008 of \$1.36 per share and the applicable exercise price of each grant.

⁽¹⁾ Includes tax gross-up on 2 years of healthcare costs.

⁽²⁾ By agreement, all options vest and remain exercisable for 2 years.

⁽³⁾ 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.

- (4) An agreement with Dr. Tsukamoto provided for vesting of her options issued under an equity incentive plan that did not provide for 100% automatic vesting on change of control, but those options have all vested. All of our other equity incentive plans provide for accelerated vesting of outstanding unvested options upon a change of control.
- (5) All unvested options issued under the applicable equity incentive plans vest upon a change of control under the terms of those plans.

Compensation Committee 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 2009.

COMPENSATION AND STOCK OPTION COMMITTEE

John J. Schwartz, Ph.D., Chairman Eric Bjerkholt

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.

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, 2008, 2007 and 2006.

Because the "Stock awards" and "Option awards" column reflects the dollar amounts recognized for financial statement reporting purposes in accordance with SFAS 123(R), these imputed values include amounts from awards granted from 2002 through 2008.

Summary Compensation Table for 2008

		Salary	Bonus	Stock Awards	Option Awards	All Other Compensation	Total
Name & Position	Year	(\$)	\$(1)	(2)(\$)	(2)(\$)	\$(3)	\$
Martin McGlynn	2008	385,000	77,000	140,588	565,793	229,221(4)	1,397,602
President and CEO	2007	383,019	116,800		748,547	213,927	1,462,293
	2006	357,115	90,720		497,604	213,110	1,158,549
Ann Tsukamoto, Ph.D	2008	300,000	37,500	70,294	196,039	21,591(5)	625,424
EVP, Research &	2007	296,827	55,000		228,721	23,562	604,110
Development	2006	270,192	50,000		155,008	13,650	488,850
Rodney Young	2008	275,000	34,375	70,294	561,461	21,765(6)	962,895
CFO	2007	271,731	50,000		518,908	21,668	862,307
	2006	250,000	50,000		468,974	8,911	777,885
Stewart Craig, Ph.D	2008	74,038	10,077		13,755	5,187(7)	103,057
Senior VP Development & Operations							
Kenneth Stratton, JD	2008	244,962	47,000	28,118	80,094	22,794(8)	422,968
General Counsel							

⁽¹⁾ Each employee's target bonus is based on his or her salary as of January 1 of the year to which it applies. For 2008, the Board awarded 50% of the target bonus for all company employees. For further description of the non-equity incentive plan see discussion in "Compensation Discussion and Analysis" and "Compensation of Named Executive Officers," above.

- (2) Reference is made to Note 7 "Stock-Based Compensation" in our Form 10-K for the period ended December 31, 2008, filed with the SEC on March 16, 2009, which identifies assumptions made in the valuation of stock-based awards in accordance with SFAS 123R. The company's stock-based compensation expense recognized under SFAS 123R reflects an estimated forfeiture rate of 13.23% in 2008. The values recognized in the "Option Awards" column above do not reflect such expected forfeitures.
- (3) Amounts include employer contributions credited under our 410(k) plan. Under the 401(k) plan, which is open to substantially all of our employees, we make matching contributions based on each participant's voluntary salary deferrals, subject to plan and Code limits in the form of company common stock. 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.
- (4) Includes \$6,900 in company contributions under the 401(k) plan, as well as an allowance for housing and transportation costs plus a tax gross-up on that allowance (\$201,406).
- (5) Includes \$6,900 in company contributions under the 401(k) plan, as well as life insurance in addition to the group life coverage (\$1,180).
- (6) Includes \$6,900 in company contributions under the 401(k) plan.
- (7) Includes \$2,073 in company contributions under the 401(k) plan.
- (8) Includes \$6,900 in company contributions under the 401(k) plan.

Grants of Plan-Based Awards

The following table shows grants of plan-based awards made to our named executive officers during the fiscal year ended December 31, 2008:

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(#)	Exercise or Base Price of Option Awards (\$/share)	Grant Date Fair Value of Option Awards (\$)
Martin McGlynn — President and CEO	3/10/08	412,500	_		\$ 519,750
Ann Tsukamoto, Ph.D. — EVP, Research & Development	3/10/08	206,250	_		\$ 259,875
Rodney K.B. Young — CFO	3/10/08	206,250	_		\$ 259,875
Stewart Craig, Ph.D. — Senior VP Development &					
Operations	9/15/08	_	200,000(2)	\$ 1.12	\$ 186,460
Kenneth Stratton, JD — General Counsel	3/10/08	82,500	_		\$ 103,950

⁽¹⁾ Restricted stock units granted in 2008 to our named executive officers were made pursuant to our 2006 equity incentive plan. These restricted stock units 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 three years.

⁽²⁾ The option award granted to Dr. Craig was made pursuant to our 2006 equity incentive plan. The award has a term of 10 years, and vests 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.

Outstanding Equity Awards at Fiscal 2008 Year-End

The following table shows equity awards held by our named executive officers as of December 31, 2008:

	Option Awards						SARs Awards					
Name	Option Grant Date	Number of Securities Underlying Unexercised Options (#) Exercisable(1)	Number of Securities Underlying Unexercised Options (#) Unexercisable(1)	Option Exercise Price (\$/sh)(1)	Option Expiration Date	Date of Award	Number of Securities Underlying Unexercised SARs (#) Exercisable(2)	Number of Securities Underlying Unexercised SARs(#) Unexercisable(2)	SAR Exercise Price (2)	SAR Expiration Date		
Martin McGlynn President and CEO	1/15/2001 10/2/2001 2/12/2002 5/2/2002 2/5/2003 9/2/2004 7/21/2006 8/23/2007	400,000 75,000 25,000 25,000 57,000 350,000 406,401 149,999	266,264 300,001	\$2.88 \$2.09 \$2.96 \$2.01 \$0.94 \$1.53 \$2.00 \$2.21	1/15/2011 10/2/2011 2/12/2012 5/2/2012 2/5/2013 9/2/2014 7/21/2016 8/23/2017	7/21/2006	460,577	301,758	\$2.00	7/21/2016		
Ann Tsukamoto, Ph.D. EVP, Research & Development	9/1/1999 10/19/1999 6/26/2001(3) 10/22/2001 10/7/2002 9/3/2004 7/21/2006 8/23/2007	25,000 3,750 12,000 30,000 60.000 225,000 111,756 49,999		\$1.19 \$1.28 \$3.10 \$2.62 \$0.61 \$1.53 \$2.00 \$2.21	9/1/2009 10/19/2009 6/26/2011 10/22/2011 10/7/2012 9/3/2014 7/21/2016 8/23/2017	7/21/2006	88,132	57,742	\$2.00	7/21/2016		
Rodney K.B Young CFO	9/6/2005 7/21/2006 9/6/2006 8/23/2007	365,624 48,333 14,062 49,999	84,376 31,667 10,938 100,001	\$5.43 \$2.00 \$2.28 \$2.21	9/6/2015 7/21/2016 9/6/2016 8/23/2017							
Stewart Craig, Ph.D. Senior VP, Development and Operations	09/15/2008	_	200,000	\$1.12	09/15/2018							
Kenneth Stratton, JD General Counsel	02/28/2007	68,749	81,251	\$2.62	02/28/2017							

		Number of Securities Underlying Restricted Stock units That Have Not Vested (4)	Awards Market Value of Securities of Restricted Stock Units That Have Not Vested (4)	
<u>N</u> ame	Date of Award	#		\$
Martin McGlynn, President and CEO	3/10/2008	412,500	\$	561,000
Ann Tsukamoto, Ph.D., EVP, Research & Development	3/10/2008	206,250	\$	280,500
Rodney K.B. Young CFO	3/10/2008	206,250	\$	280,500
Kenneth Stratton, JD, General Counsel	3/10/2008	82,500	\$	112,200

⁽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: twenty-five percent (25%) of the option vests on the first anniversary of the grant date and 1/48 of the original grant vests each additional month of service.

⁽²⁾ The terms of the SARs are essentially identical to those of the options granted on the same date; they have the same vesting schedule and same exercise price.

⁽³⁾ 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.
- (4) Restricted stock units granted under our 2006 Equity Incentive Plan. These restricted stock units 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 three years.

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 and we granted him, in 1997, an option to purchase 500,000 shares of common stock for \$5.25 per share. This option expired in 2007 on the ten-year anniversary of its grant without being exercised. 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, 2009.

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, 2008.

The Audit Committee received the following information concerning the fees of the independent accountants for the years ended December 31, 2007 and 2008, has considered whether the provision of these services is compatible with independence of the independent accountants, and concluded that it is:

	Year	Year Ended		
	12/31/08	12/31/07		
Audit fees(1)	\$ 454,460	\$480,029		
Tax fees	\$ 30,934	\$ 31,376		

(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 2008.

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 2008 and 2007, all services performed by our independent auditors were pre-approved.

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 2008, 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 2008 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, 2008 for filing with the SEC.

AUDIT COMMITTEE

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

PROPOSAL NUMBER 1

Election of Directors

The number of directors is currently fixed at six. 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 III 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 III directors, as Class III directors for a term of three years expiring at the 2012 Annual Meeting of Stockholders and until their successors are duly elected and qualified. 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 III directors, and the incumbent and continuing Class I and Class II directors, are as follows:

NOMINEES FOR ELECTION AS CLASS III DIRECTORS — TERMS TO EXPIRE 2012

Name	Principal Occupation	Age	Position
Martin McGlynn	President and Chief Executive Officer,	62	Director,
	StemCells, Inc.		Executive Officer
Roger Perlmutter, M.D., Ph.D.	Executive Vice President, Research and	56	Director
	Development, Amgen, Inc.		

^{*} Ages are as of April 1, 2009.

Martin M. McGlynn joined the company on January 15, 2001, when he was appointed president and chief executive officer of the company and of its wholly-owned subsidiary, StemCells California, Inc. He was elected to the Board of Directors in February 2001. Mr. McGlynn began his career with Becton Dickinson, Ireland Ltd., and spent 8 years in manufacturing operations. He joined Abbott Labs in 1977 where he held positions as the general manager of Abbott Ireland Ltd., the president and general manager of Abbott Canada Ltd. and the vice president of Abbott International Ltd. In 1990, he joined the BOC Group as the president of Anaquest, Inc., a company focused on anesthesia and acute care pharmaceuticals. From 1994 until he joined StemCells, Mr. McGlynn was the president and chief executive officer of Pharmadigm, Inc., a privately held company in Salt Lake City, Utah, engaged in research and development in the fields of inflammation and genetic immunization. Mr. McGlynn is a native of Dublin, Ireland. He received a Bachelor of Commerce degree from University College, Dublin, Ireland in 1968, a diploma in industrial engineering from the Irish Institute of Industrial Engineering in 1970, and a diploma in production planning from the University of Birmingham, England in 1971. He is a former member of the board of directors of the Confederation of Irish Industries and the Pharmaceutical Manufacturers Association of Canada.

Roger M. Perlmutter, M.D., Ph.D., was elected to the company's Board of Directors in December 2000. Dr. Perlmutter is the executive vice president of research and development of Amgen, Inc., a position he has held since January 2001. Prior to joining Amgen, he was the executive vice president of worldwide basic research and preclinical development of Merck Research Laboratories, a division of Merck & Co., Inc., a position he had held since August 1999. He joined Merck in February 1997 as the senior vice president of Merck Research Laboratories, from February 1997 to December 1998 and as its executive vice president from February 1999 to January 2001. Prior to joining Merck, Dr. Perlmutter was a professor in the Departments of Immunology, Biochemistry and Medicine at the University of Washington from January 1991 to January 1997 and served as chairman of the Department of Immunology at the University of Washington from May 1989 to January 1997. He also was an investigator at the Howard Hughes Medical Institute from October 1991 to January 1997. Dr. Perlmutter was a member of the board of directors of The Irvington Institute for Immunological Research from 1997 to 2001 and of the Institute for Systems Biology, where he has been its chairman of the board since 1999. Dr. Perlmutter is licensed to practice medicine in the State of Washington. He graduated from Reed College in 1973 and received his M.D. and Ph.D. degrees from Washington University, St. Louis, Missouri in 1979.

THE BOARD OF DIRECTORS RECOMMENDS THAT STOCKHOLDERS VOTE <u>FOR</u> THE ELECTION OF THE NOMINEES DESCRIBED ABOVE.

INCUMBENT CLASS I DIRECTORS — TERMS EXPIRE 2010

<u>N</u> ame	Principal Occupation	Age	Position
Eric H. Bjerkholt	Senior Vice President and CFO, Sunesis	49	Director
	Pharmaceuticals, Inc.		
John J. Schwartz, Ph.D.	President, Quantum Strategies Management	74	Director,
	Company		Chairman of the Board

Eric H. Bjerkholt was elected to the Board of Directors of the company in March 2004. He is senior vice president and chief financial officer of Sunesis Pharmaceuticals, Inc., a small molecule biopharmaceutical company in South San Francisco, CA. Before joining Sunesis, Mr. Bjerkholt served as the senior vice president and chief financial officer of IntraBiotics Pharmaceuticals, Inc. Previously, Mr. Bjerkholt co-founded LifeSpring Nutrition, Inc., a privately held nutraceutical company, and served as its chief financial officer, and later as its president and chief executive officer. From 1990 to 1997, Mr. Bjerkholt was an investment banker at J.P. Morgan & Co., Inc. Mr. Bjerkholt holds an M.B.A. from Harvard Business School and a Cand. Oecon degree in economics and econometrics from the University of Oslo, Norway. He is a member of the board of directors of Round Table Pizza, Inc.

John J. Schwartz, Ph.D., was elected to the Board of Directors of the company in December 1998 and was elected the chairman of the Board at the same time. He is the former president and chief executive officer of SyStemix, Inc. Dr. Schwartz is currently the president of Quantum Strategies Management Company, a registered investment advisor located in Palo Alto, California. Prior to his positions at SyStemix, he served as assistant professor, vice president and general counsel at Stanford University in California. Dr. Schwartz graduated from Harvard Law School in 1958 and received his Ph.D. degree in physics from the University of Rochester in 1965.

INCUMBENT CLASS II DIRECTORS — TERMS EXPIRE 2011

Name	Principal Occupation	Age	Position
Ricardo B. Levy, Ph.D.	Chairman of the Board, Catalytica Energy Systems,	64	Director
	Inc.		
Irving Weissman, M.D.	Professor, Stanford University	69	Director

Ricardo B. Levy, Ph.D. was elected to the company's Board of Directors in September 2001. Dr. Levy is the lead director of Renegy Holdings, Inc. and has been a member of its board of directors since October 2007. Dr. Levy served as chairman of the board of Catalytica Energy Systems, Inc., between 1995 and 2007 when the company merged to form Renegy. He also served as director of Catalytica Pharmaceuticals Inc. from 1995 to 2000. Prior to this, in 1974, Dr. Levy cofounded Catalytica, Inc., a manufacturing technology and components company. He served as Catalytica's chief operating officer from 1974 until 1991 and as its president and chief executive officer until December 2000, when Catalytica and Catalytica Pharmaceuticals were both sold to DSM N.V. Before founding Catalytica, Dr. Levy was a founding member of Exxon's chemical physics research team, and prior to that he served as the chief executive officer of Sudamericana C.A. in Quito, Ecuador. He currently also serves on the board of directors of Accelrys Inc. (formerly Pharmacopeia, Inc.) and NovoDynamics, Inc. Dr. Levy holds an M.S. from Princeton University and a Ph.D. in chemical engineering from Stanford University.

Irving L. 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. Dr. Weissman is the Virginia and Daniel K. Ludwig Professor of Cancer Research, Professor of Pathology and Professor of Developmental Biology at Stanford University. He is also the director of the Stanford Institute for Stem Cell Biology and Regenerative Medicine and the director of the Stanford Comprehensive Cancer Center. Previously, Dr. Weissman was a cofounder of SyStemix, Inc. and cofounder and a director of Cellerant Therapeutics, Inc., both stem cell sciences companies. He has also served on the scientific advisory boards of several biotechnology companies, including Amgen, DNAX and T-Cell Sciences. Dr. Weissman is a member of the National Academy of Science, the Institute of Medicine of the National Academies, the American Academy of Arts and Sciences, the American Society of Microbiology, and several other societies.

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, 2009. 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 <u>FOR</u> THE PROPOSAL TO RATIFY THE SELECTION OF GRANT THORNTON LLP AS THE COMPANY'S INDEPENDENT PUBLIC ACCOUNTANTS FOR THE FISCAL YEAR ENDING DECEMBER 31, 2009.

OTHER MATTERS

Stockholder Proposals

Stockholders who wish to present proposals for inclusion in the company's proxy materials for the 2010 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 January 4, 2010.

Stockholders who wish to make a proposal at the 2010 Annual Meeting of Stockholders, other than one that will be included in our proxy materials, must notify us no later than March 20, 2010 (see Rule 14a-4 under the Exchange Act). If a stockholder who wishes to present a proposal fails to notify us by March 20, 2010, 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.

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 January 4, 2010 for nominees to be considered for nomination at the 2010 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, 2008, as filed with the SEC, is available without charge upon request by writing to StemCells, Inc. at 3155 Porter Drive, Palo Alto, CA 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, CA 94304, Attention: Investor Relations.

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 Secretary

April 30, 2009

STEMCELLS, INC. C/O EQUISERVE TRUST COMPANY N.A. P.O. BOX 8694 EDISON, NJ 08818-8694

VOTE BY INTERNET - www.proxyvote.com
Use the Internet to transmit your voting instructions and for electronic delivery of information up until 11:59 P.M. Eastern Time the day before the cut-off date or meeting date. Have your proxy card in hand when you access the web site and follow the instructions to obtain your records and to create an electronic volume instructions. 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 BYPHONE - 1-800-690-6903
Use any touch-tone telephone to transmit your voting instructions up until 11:59 P.M. Eastern Time the day before the cut-off date or meeting date. Have your proxy card in hand when you call and then follow the instructions.

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, NY11717.

M14956-P81816 KEEPTHIS PORTION FOR YOUR RECORDS
WHEN SIGNED AND DATED DETACH AND RETURN THIS PORTION ONLY

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

	THIS PRO	XYCA	RD IS VA	LID O	NLY WHEN SIGNED AND DATED.	DETACH AN	DRETUR	N THIS PO	RTION ONLY
The	ELLS, INC. Board of Directors recommends that you vote R the following:	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.			_	$\overline{}$
1.	Election of Directors Nominees: 01) Martin M. McGlynn 02) Roger Perlmutter, MD Ph.D.	0	0	0					ı
The	Board of Directors recommends that you vote FOF	R the f	following	propos	sal:		For	Against	Abstain
2.	To ratify the selection of Grant Thornton LLP as ending December 31, 2009.	indep	endent po	ublic acc	countants of the company for the fiscal year	r	0	0	0
	TE: In their discretion, upon such other matters th ournments thereof.	nat ma	ny properly	y come	before the meeting or any postponements	DE .			
	address changes and/or comments, please check box and write them on the back where indicated.			0					
as full mus	ase sign exactly as your name(s) appear(s) hereon. Very attorney, executor, administrator, or other fiduciary title as such. Joint owners should each sign personall st sign. If a corporation or partnership, please sign in partnership, by authorized officer.	, pleas y. Alli	se give holders						
Sign	nature [PLEASE SIGNWITHIN BOX] Date				Signature (Joint Owners)	Date			

Important Notice Regarding the Availability of Proxy Materials for the Annual Meeting:

The Notice and Proxy Statement and Form 10-K are available at www.proxyvote.com.

M14957-P81816

STEMCELLS, INC. ANNUAL MEETING OF STOCKHOLDERS, JUNE 29, 2009 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 29, 2009 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.

Address Changes/Comments:							

(If you noted any Address Changes/Comments above, please mark corresponding box on the reverse side.)

Continued and to be signed on reverse side