Date Filed:

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

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	Prelim	minary Proxy Statement Confidential, for Use of the Commission Only	
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	Solicit	iting Material Pursuant to §240.14a-12	
		THRESHOLD	
		PHARMACEUTICALS, INC.	
		(Name of Registrant as Specified In Its Charter)	
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THRESHOLD PHARMACEUTICALS, INC.

Notice of 2009 Annual Meeting of Stockholders

To Be Held May 22, 2009

The 2009 annual meeting of stockholders of Threshold Pharmaceuticals, Inc. will be held on May 22, 2009, at 9:00 a.m., Pacific time, at our principal executive offices located at 1300 Seaport Boulevard, Suite 500, Redwood City, California 94063, for the following purposes, as more fully described in the accompanying proxy statement:

- 1. To elect two Class II directors to hold office until the 2012 annual meeting of stockholders or until their successors are elected and qualified.
- 2. To ratify the appointment of PricewaterhouseCoopers LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2009.
- 3. To approve amendment of our 2004 Amended and Restated Equity Incentive Plan.
- 4. To approve amendment and restatement of our 2004 Employee Stock Purchase Plan.
- 5. To transact such other business as may properly come before the meeting or any adjournments or postponements thereof.

Only stockholders of record at the close of business on March 27, 2009 will be entitled to notice of, and to vote at, such meeting or any adjournments or postponements thereof.

BY ORDER OF THE BOARD OF DIRECTORS

Dr. Harold E. Selick Chief Executive Officer

Redwood City, California April 9, 2009

YOUR VOTE IS IMPORTANT!

WHETHER OR NOT YOU PLAN TO ATTEND THE MEETING, PLEASE COMPLETE, SIGN, DATE AND MAIL PROMPTLY THE ACCOMPANYING PROXY CARD IN THE ENCLOSED RETURN ENVELOPE, WHICH REQUIRES NO POSTAGE IF MAILED IN THE UNITED STATES. THIS WILL ENSURE THE PRESENCE OF A QUORUM AT THE MEETING. ALTERNATIVELY, YOU MAY VOTE YOUR SHARES ON THE INTERNET OR BY TELEPHONE BY FOLLOWING THE INSTRUCTIONS ON YOUR PROXY CARD. IF YOU ATTEND THE MEETING, YOU MAY VOTE IN PERSON IF YOU WISH TO DO SO EVEN IF YOU HAVE PREVIOUSLY SENT IN YOUR PROXY CARD OR VOTED.

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THRESHOLD PHARMACEUTICALS, INC.

1300 Seaport Boulevard, Suite 500 Redwood City, California 94063 (650) 474-8200

PROXY STATEMENT

2009 ANNUAL MEETING OF STOCKHOLDERS

We are furnishing this proxy statement and the enclosed proxy in connection with the solicitation of proxies by our board of directors for use at the 2009 annual meeting of stockholders of Threshold Pharmaceuticals, Inc. to be held on May 22, 2009, at 9:00 a.m., Pacific time, at our principal executive offices located at 1300 Seaport Boulevard, Suite 500, Redwood City, California 94063 and at any adjournments or postponements thereof. These materials are being mailed to stockholders on or about April 9, 2009.

Only holders of our common stock as of the close of business on March 27, 2009, or the Record Date, are entitled to vote at the 2009 annual meeting. Stockholders who hold shares in "street name" may vote at the 2009 annual meeting only if they hold a valid proxy from their broker. As of the Record Date, there were 15,222,605 shares of common stock, par value \$0.001 per share, outstanding and entitled to vote at the 2009 annual meeting. There are no statutory or contractual rights of appraisal or similar remedies available to stockholders in connection with any matter to be acted on at the 2009 annual meeting.

A majority of the outstanding shares of common stock entitled to vote at the 2009 annual meeting must be present in person or by proxy in order for there to be a quorum at the meeting. Stockholders of record who are present at the meeting in person or by proxy and who abstain from voting, including brokers holding customers' shares of record who cause abstentions to be recorded at the meeting, will be included in the number of stockholders present at the meeting for purposes of determining whether a quorum is present.

Each stockholder of record is entitled to one vote at the 2009 annual meeting for each share of common stock held by such stockholder on the Record Date. Stockholders do not have cumulative voting rights. Stockholders may vote their shares by using the proxy card enclosed with this proxy statement. Alternatively, stockholders may vote their shares on the Internet or by telephone by following the instructions on the proxy card. All proxy cards received by us which are properly signed and have not been revoked will be voted in accordance with the instructions contained in the proxy cards. If a signed proxy card is received which does not specify a vote or an abstention, the shares represented by that proxy card will be voted for the nominees to our board of directors listed on the proxy card and in this proxy statement, for the ratification of the appointment of PricewaterhouseCoopers LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2009 and for the amendment and restatement of our employee stock purchase plan. We are not aware, as of the date hereof, of any matters to be voted upon at the 2009 annual meeting other than those stated in this proxy statement and the accompanying Notice of 2009 Annual Meeting of Stockholders. If any other matters are properly brought before the 2009 annual meeting, the enclosed proxy card gives discretionary authority to the persons named as proxies to vote the shares represented by the proxy card in their discretion.

Under Delaware law and our Amended and Restated Certificate of Incorporation and Bylaws, if a quorum exists at the meeting, (i) the affirmative vote of a plurality of the votes cast at the meeting is required for the election of directors and (ii) the affirmative vote of the holders of a majority of the shares represented in person or by proxy and entitled to vote at the 2009 annual meeting will be required to approve the proposal to ratify the appointment of PricewaterhouseCoopers LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2009, to approve the proposal to amend the 2004 Amended and Restated Equity Incentive Plan, and to approve the proposal to amend and restate the 2004 Employee Stock Purchase Plan. A properly executed proxy marked "Withhold Authority" with respect to the election of one or more directors will

not be voted with respect to the director or directors indicated, although it will be counted for purposes of determining whether there is a quorum. A properly executed proxy marked "Abstain" with respect to any other matter will not be voted, although it will be counted for purposes of determining whether there is a quorum. Accordingly, an abstention will have the effect of a negative vote.

For shares held in "street name" through a broker or other nominee, the broker or nominee may not be permitted to exercise voting discretion with respect to some of the matters to be acted upon. Thus, if stockholders do not give their broker or nominee specific instructions, their shares may not be voted on those matters and will not be counted in determining the number of shares necessary for approval. Shares represented by such "broker non-votes" will, however, be counted in determining whether there is a quorum.

There are four different ways to vote your shares:

- By Internet: You may submit a proxy or voting instructions over the Internet by following the instructions atwww.proxyvoting.com.
- By Telephone: You may submit a proxy or voting instructions by calling (800) 690-6903 and following the instructions.
- <u>By Mail</u>: If you received your proxy materials via the U.S. mail, you may complete, sign and return the accompanying proxy and voting instruction card in the postage-paid envelope provided to Broadridge, 51 Mercedes Way, Edgewood, NY 11717.
- <u>In Person</u>: If you are a stockholder as of the Record Date, you may vote in person at the meeting. Submitting a proxy will not prevent a stockholder from attending the 2009 annual meeting and voting in person.

A stockholder of record may revoke a proxy at any time before it is voted at the 2009 annual meeting by (a) delivering a proxy revocation or another duly executed proxy bearing a later date to our Secretary at 1300 Seaport Boulevard, Suite 500, Redwood City, California 94063 or (b) attending the 2009 annual meeting and voting in person. Attendance at the 2009 annual meeting will not revoke a proxy unless the stockholder actually votes in person at the meeting. A stockholder who holds shares in "street name" must contact their broker directly to revoke a proxy.

The proxy card accompanying this proxy statement is solicited by our board of directors. We will pay all of the costs of soliciting proxies. In addition to solicitation by mail, our officers, directors and employees may solicit proxies personally, or by telephone, without receiving additional compensation. If requested, we will also pay brokers, banks and other fiduciaries that hold shares of Common Stock for beneficial owners for their reasonable out-of-pocket expenses of forwarding these materials to stockholders.

QUESTIONS AND ANSWERS ABOUT THE ANNUAL MEETING

Q: Who is soliciting my proxy?

A: Our board of directors.

Q: Where and when is the 2009 annual meeting of stockholders?

A: The 2009 annual meeting of stockholders of Threshold Pharmaceuticals, Inc. to be held on May 22, 2009, at 9:00 a.m., Pacific time, at our principal executive offices located at 1300 Seaport Boulevard, Suite 500, Redwood City, California 94063.

Q: Who can vote at the 2009 annual meeting?

A: All stockholders of record at the close of business on March 27, 2009, the record date for the 2009 annual meeting, will be entitled to notice of and to vote at the 2009 annual meeting. If on that date, your shares were registered directly in your name with our transfer agent, BNY Mellon Investor Services LLC, then you are a shareholder of record. As a shareholder of record, you may vote in person at the meeting or vote by proxy. If on that date, your shares were held in an account at a brokerage firm, bank, dealer or similar organization, then you are the beneficial owner of shares held in "street name" and these proxy materials are being forwarded to you by that organization. The organization holding your account is considered the shareholder of record for purposes of voting at the 2009 annual meeting. As a beneficial owner, you have the right to direct your broker or other agent on how to vote the shares in your account. You are also invited to attend the 2009 annual meeting. Nevertheless, since you are not the shareholder of record, you may not vote your shares in person at the meeting unless you request and obtain a valid proxy from your broker or other agent. As of the close of business on the record date, 15,222,605 shares of our common stock were outstanding.

Q: What constitutes a quorum for the meeting?

A: A quorum is required for stockholders to conduct business at the 2009 annual meeting. The presence, in person or by proxy, of the holders of a majority of the outstanding shares of our common stock is necessary to establish a quorum at the meeting. Shares present, in person or by proxy, including shares as to which authority to vote on any proposal is withheld, shares abstaining as to any proposal, and broker non-votes (where a broker submits a properly executed proxy but does not have authority to vote a customer's shares) on any proposal will be considered present at the meeting for purposes of establishing a quorum for the transaction of business at the meeting. Each of these categories will be tabulated separately.

Q: What am I voting on?

- A: You are voting on the following proposals:
 - 1. To elect two directors to our board of directors for the following year (see page 25).
 - 2. To ratify the appointment of PricewaterhouseCoopers LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2009 (see page 26).
 - 3. To approve the amendment of our 2004 Amended and Restated Equity Incentive Plan, or 2004 Equity Incentive Plan (see page 27).
 - 4. To approve the amendment and restatement of our 2004 Employee Stock Purchase Plan, or ESPP (see page 28).

Q: How do I vote?

A: If you complete and properly sign the proxy card and return it to Broadridge, 51 Mercedes Way, Edgewood, NY 11717, it will be voted as directed on the proxy card. You may submit a proxy or voting instructions over the Internet by following the instructions at www.proxyvoting.com. You may submit a proxy or voting instructions by calling (800) 690-6903 and following the instructions. If you are a registered stockholder and attend the 2009 annual meeting, you may deliver your completed proxy card in person.

Q: Can I change my vote after I return my proxy card?

A: Yes. Even after you have submitted your proxy card, you may revoke your proxy or change your vote at any time before the proxy is exercised by filing with our Secretary either a notice of revocation or a duly executed proxy bearing a later date. The powers of the proxy holders will be suspended if you attend the 2009 annual meeting in person and so request, although attendance at the 2009 annual meeting will not by itself revoke a previously granted proxy.

Q: My shares are held in the "street name." Will my broker vote my shares?

A: If you hold your shares in "street name," your broker or nominee may not be permitted to exercise voting discretion with respect to some of the matters to be acted upon, including Proposal 3 to approve the amendment of the 2004 Amended and Restated Equity Incentive Plan and Proposal 4 to approve the amendment and restatement of the employee stock purchase plan. If you do not give your broker or nominee specific instructions on such a matter, your shares may not be voted and, in the case of Proposals 3 and 4, will not be voted. Shares of common stock represented by "broker non-votes" will, however, be counted in determining whether there is a quorum.

Q: What vote is required to approve each item?

A: Proposal 1 (Election of Directors). The affirmative vote of a plurality of the votes cast at the 2009 annual meeting is required for the election of directors. A properly executed proxy marked "WITHHOLD AUTHORITY" with respect to the election of one or more directors will not be voted with respect to the director or directors indicated, although it will be counted for purposes of determining whether there is a quorum. Abstentions and broker non-votes will have no legal effect on the election of directors but will be counted for purposes of determining whether there is a quorum. Our Amended and Restated Certificate of Incorporation does not provide for cumulative voting in the election of directors.

Proposal 2 (Ratify Independent Registered Public Accounting Firm) The affirmative vote of a majority of the votes cast at the 2009 annual meeting is required to ratify the appointment of PricewaterhouseCoopers LLP as our independent registered public accounting firm.

Proposal 3 (Approve Amendment of our 2004 Amended and Restated Equity Incentive Plan). The affirmative vote of a majority of the votes cast at the 2009 annual meeting will be required to approve the proposed amendment of our 2004 Amended and Restated Equity Incentive Plan.

Proposal 4 (Approve Amendment and Restatement of our 2004 Employee Stock Purchase Plan). The affirmative vote of a majority of the votes cast at the 2009 annual meeting will be required to approve the proposed amendment and restatement of our 2004 Employee Stock Purchase Plan.

Q: Why are we seeking stockholder approval for Proposals 3 and 4?

A: Our board of directors believes that the proposed amendment of the 2004 Equity Incentive Plan is necessary for the 2004 Equity Incentive Plan to remain an effective plan to attract and retain non-employee directors due, in part, to the 1-for-6 reverse stock split in August 2008, which resulted in a reduction to the size of the automatic annual option grant to continuing non-employee directors. Under the rules of the NASDAQ Stock Market, any material increase in the number of shares that may be issued under the 2004 Equity Incentive Plan requires the approval of our stockholders.

Similarly, our board of directors believes that the proposed amendment and restatement of the ESPP is necessary for the ESPP to remain an effective plan to attract and retain employees due, in part, to the 1-for-6 reverse stock split in August 2008, which resulted in reductions in (a) the number of shares reserved for issuance under the ESPP, (b) the amount of the maximum annual automatic increase in the number of shares reserved for issuance under the ESPP and (c) the maximum number of shares that any participant may purchase under the ESPP on any purchase date. Under the terms of the ESPP, any increase, and under the rules of the NASDAQ Stock Market, any material increase, in the number of shares that may be issued under the ESPP requires the approval of our stockholders.

Q: How does the board of directors recommend that I vote on the proposals?

- A: Unless you give other instructions on your proxy card, the persons named as proxy holders on the proxy card will vote in accordance with the recommendations of our board of directors, as set forth below, together with the description of each item in this proxy statement:
 - FOR Proposal 1, the election of the nominated slate of two directors (see page 26);
 - FOR Proposal 2, the ratification of the appointment of PricewaterhouseCoopers LLP as our independent accountants for fiscal year 2009 (see page 27);
 - FOR Proposal 3, the approval of the amendment of our 2004 Amended and Restated Equity Incentive Plan (see page 28); and
 - FOR Proposal 4, the approval of the amendment and restatement of our 2004 Employee Stock Purchase Plan (see page 29).

Q: Who will bear the cost of this solicitation?

A: We will pay for the cost of soliciting proxies and may reimburse brokerage firms and others for their expenses in forwarding solicitation material. Solicitation will be made primarily through the use of the mail but our regular employees may, without additional compensation, solicit proxies personally by telephone, e-mail or fax.

Q: Whom should I contact with questions?

A: If you need additional copies of this proxy statement or the enclosed proxy card, or if you have other questions about the proposals or how to vote your shares, you may contact our Senior Director of Corporate Communications, Denise Powell, by telephone at (650) 474-8206.

BOARD OF DIRECTORS

Term Expires

The name, age and year in which the term expires of each member of our board of directors is set forth below as of March 31, 2008:

			on the
			Annual Meeting
Name	Age	Position	held in the Year
William A. Halter(3)	48	Director	2009
Wilfred E. Jaeger, M.D.(1)(2)	53	Director	2009
Bruce C. Cozadd(2)	45	Director	2010
David R. Hoffmann(1)(3)	64	Director	2010
George G.C. Parker, Ph.D.(2)	70	Director	2010
Jeffrey W. Bird, Ph.D.(1)(3)	48	Director	2011
Harold E. Selick, <i>Ph.D.</i>	54	Chief Executive Officer and Director	2011

- (1) Member of the audit committee
- (2) Member of the compensation committee
- (3) Member of the nominating and governance committee

Our Amended and Restated Certificate of Incorporation divides our board of directors into three classes, with staggered three-year terms. The Class I directors, whose terms expire at the 2011 annual meeting, are Jeffrey W. Bird and Harold E. Selick. The Class II directors, whose terms expire at the 2009 annual meeting, are William A. Halter and Wilfred E. Jaeger. The Class III directors, whose terms expire at the 2010 annual meeting, are Bruce C. Cozadd, David R. Hoffmann and George G.C. Parker. Only one class of directors is elected at each annual meeting. The directors in the other classes continue to serve for the remainder of such class' three-year term. Mr. Halter and Dr. Jaeger, who are Class II directors previously elected by our stockholders, are nominees for re-election at the 2009 annual meeting. The nominating and governance committee recommended to our board of directors that Mr. Halter and Dr. Jaeger be nominated for election to this class, each for a three-year term ending on the date of the 2012 annual meeting or until a successor is duly elected or appointed. Each nominee has consented to serve an additional three-year term.

NOMINEES AND CONTINUING DIRECTORS

The following individuals have been nominated for election to our board of directors at the 2009 annual meeting:

William A. Halter has served as a member of our board of directors since October 2004. Mr. Halter is the Lieutenant Governor of the State of Arkansas. Mr. Halter has been a business consultant providing services to corporate enterprises since 2001. Mr. Halter was Acting Commissioner and Deputy Commissioner of the Social Security Administration from 1999 to 2001. From 1993 to 1999, Mr. Halter served as Senior Advisor in the Office of Management and Budget in the Executive Office of the President of the United States. Mr. Halter also served as Economist for the Joint Economic Committee of Congress and as Chief Economist for the U.S. Senate Committee on Finance. Prior to entering public service, he was an Associate at McKinsey and Company. Mr. Halter is a Trustee Emeritus of Stanford University where he chaired the Academic Policy Committee and served on the Humanities and Sciences Council. Mr. Halter also served on the board of directors of Akamai Technologies, Inc., Intermune, Inc., webMethods, Inc. and Xenogen, Inc. Mr. Halter received his B.A. from Stanford University and his M.Phil. in Economics from Oxford University where he was a Rhodes Scholar.

Wilfred E. Jaeger, M.D. has served as a member of our board of directors since 2001. He has been a Partner of Three Arch Partners, a venture capital firm, since 1993. Dr. Jaeger serves on the board of directors of North American Scientific, Inc. and a number of private companies. Dr. Jaeger received his B.S. from the University of British Columbia, his M.D. from the University of British Columbia School of Medicine and his M.B.A. from Stanford University.

The following individuals will continue to serve on our board of directors after the 2009 annual meeting:

Jeffrey W. Bird has served as a member of our board of directors since November 2008. Dr. Bird is a Managing Director at Sutter Hill Ventures, a venture capital firm based in Palo Alto, California. Dr. Bird was previously Senior Vice President, Business Operations at Gilead Sciences, where he oversaw business development and commercial activities. Dr. Bird received a degree in Biological Sciences from Stanford in 1982, a Ph.D. in Cancer Biology in 1988 and a M.D. in 1992 from Stanford Medical School. Dr. Bird is currently a board member of a number of private biotechnology companies.

Bruce C. Cozadd has served as a member of our board of directors since December 2005. He has been the Executive Chairman of Jazz Pharmaceuticals, Inc. since its inception in 2003. Prior to co-founding Jazz Pharmaceuticals, Mr. Cozadd served in various executive management positions with ALZA Corporation from 1991 until its acquisition by Johnson & Johnson in 2001. At the time of the merger, Mr. Cozadd was serving as Executive Vice President and Chief Operating Officer of ALZA, with responsibility for research and development, manufacturing, and sales and marketing. Prior to joining ALZA, he was in the Corporate Finance Health Care group at Smith Barney, Harris Upham & Co. Inc. He serves on the board of directors of Jazz Pharmaceuticals, Inc. and Cerus Corp., The Nueva School and Stanford Hospital and Clinics. He received his B.S. from Yale University and his M.B.A. from Stanford University.

David R. Hoffmann has served as a member of our board of directors since April 2007. Mr. Hoffmann is retired from ALZA Corporation (now a Johnson & Johnson company) where he held the positions of Vice President and Treasurer from 1992 to until his retirement in October 2002, Vice President of Finance from 1982 to 1992 and Director of Accounting/Finance from 1976 to 1982. Mr. Hoffmann is currently Chief Executive Officer of Hoffmann Associates, a multi-group company specializing in cruise travel and financial and benefit consulting. He serves on the board of directors of DURECT Corporation. Mr. Hoffmann holds a B.S. in Business Administration from the University of Colorado.

George G.C. Parker, Ph.D. has served as a member of our board of directors since October 2004. Dr. Parker is the Dean Witter Distinguished Professor of Finance (Emeritus) and previously Senior Associate Dean for Academic Affairs and Director of the MBA Program, Graduate School of Business, Stanford University. Dr. Parker joined the faculty at Stanford University in 1973. He serves on the board of directors of Continental Airlines, Inc., BGI Mutual Funds, Tejon Ranch Company, Netgear, Inc. and a number of private companies. Dr. Parker received his B.A. from Haverford College and his M.B.A. and Ph.D. from Stanford University.

Harold E. Selick, Ph.D. joined us as Chief Executive Officer in June 2002. From June 2002 until July 2007, Dr. Selick was a Venture Partner of Sofinnova Ventures, Inc., a venture capital firm. From January 1999 to April 2002, he was Chief Executive Officer of Camitro Corporation, a biotechnology company. From 1992 to 1999, he was at Affymax Research Institute, the drug discovery technology development center for Glaxo Wellcome plc, most recently as Vice President of Research. Prior to working at Affymax he held scientific positions at Protein Design Labs, Inc. and Anergen, Inc. As a staff scientist at Protein Design Labs, he co-invented the technology underlying the creation of fully humanized antibody therapeutics and applied that to PDL's first product, Zenapax (daclizumab), which was developed and commercialized by Roche for treating kidney transplant rejection. Dr. Selick received his B.S. and Ph.D. from the University of Pennsylvania and was a Damon Runyon-Walter Winchell Cancer Fund Fellow and an American Cancer Society Senior Fellow at the University of California, San Francisco.

There are no family relationships among any of our directors or named executive officers.

DIRECTOR NOMINATION

Criteria for Board Membership. In selecting candidates for appointment or re-election to our board of directors, the nominating and governance committee, or the nominating committee, considers the appropriate balance of experience, skills and characteristics required of our board of directors, and seeks to insure that at least a majority of the directors are independent under the rules of the NASDAQ Stock Market, and that members of our audit committee meet the financial literacy and sophistication requirements under the rules of the NASDAQ Stock Market and at least one of them qualifies as an "audit committee financial expert" under the rules of the Securities and Exchange Commission. Nominees for director are selected on the basis of their depth and breadth of experience, integrity, ability to make independent analytical inquiries, understanding of our business environment, and willingness to devote adequate time to their board duties.

Stockholder Nominees. The nominating committee will consider written proposals from stockholders for nominees for director. Any such nominations should be submitted to the nominating committee c/o our Secretary and should include the following information: (a) all information relating to such nominee that is required to be disclosed pursuant to Regulation 14A under the Securities Exchange Act of 1934 (including such person's written consent to being named in the proxy statement as a nominee and to serving as a director if elected); (b) the names and addresses of the stockholders making the nomination and the number of shares of our common stock which are owned beneficially and of record by such stockholders; and (c) appropriate biographical information and a statement as to the qualification of the nominee, and should be submitted in the time frame described in our Bylaws and under the caption, "Stockholder Proposals for 2010 Annual Meeting" below.

Process for Identifying and Evaluating Nominees. The nominating committee believes we are well-served by our current directors. If an incumbent director is not standing for re-election, or if a vacancy on our board of directors occurs between annual stockholder meetings, or if our board of directors desires to increase its size, the nominating committee will seek out potential candidates for appointment to our board of directors who meet the criteria for selection as a nominee and have the specific qualities or skills being sought. Director candidates will be selected based on input from members of our board of directors and, if the nominating committee deems appropriate, a third-party search firm. The nominating committee will evaluate each candidate's qualifications and check relevant references; in addition, such candidates will be interviewed by at least one member of the nominating committee. Candidates meriting serious consideration will meet with additional members of our board of directors. Based on this input, the nominating committee will evaluate whether the committee should recommend to our board of directors that this candidate be elected to fill a vacancy on our board of directors, or presented for the approval of the stockholders, as appropriate.

We have never received a proposal from a stockholder to nominate a director. Although the nominating committee has not adopted a formal policy with respect to stockholder nominees, the committee expects that the evaluation process for a stockholder nominee would be similar to the process outlined above.

Board Nominees for the 2009 Annual Meeting. Mr. Halter and Dr. Jaeger are nominees standing for re-election.

BOARD MEETINGS AND COMMITTEES

Our board of directors met seven times during fiscal year 2008. The audit committee met six times during fiscal year 2008, the compensation committee met four times during fiscal year 2008, and the nominating committee met two times during fiscal year 2008. Each member of our board of directors attended 75% or more of the board meetings, and each member of our board of directors who served on either the audit, compensation or nominating committee attended at least 75% of each such committee's meetings.

Our board of directors has determined that the following directors are "independent" under the current rules of the NASDAQ Stock Market: Dr. Bird, Mr. Cozadd, Mr. Halter, Mr. Hoffmann, Dr. Jaeger and Dr. Parker. Under applicable rules of Securities and Exchange Commission and the rules of the NASDAQ Stock Market, the existence of certain "related party" transactions above certain thresholds between a director and the company are required to

be disclosed and preclude a finding by our board of directors that the director is independent. In addition to transactions required to be disclosed under rules of the Securities and Exchange Commission, our board of directors considered certain other relationships in making its independence determinations and determined in each case that such other relationships did not impair the director's ability to exercise independent judgment on behalf of us.

Our board of directors has standing (i) audit, (ii) compensation and (iii) nominating and governance committees, each of which has a written charter, copies of which can be found at www.thresholdpharm.com.

Audit Committee. The audit committee currently consists of Mr. Hoffmann (chair), Dr. Bird and Dr. Jaeger. Our board of directors has determined that all members of the audit committee are independent directors under the rules of the NASDAQ Stock Market and each of them is able to read and understand fundamental financial statements. Our board of directors has determined that Mr. Hoffmann qualifies as an "audit committee financial expert" as defined by the rules of the Securities and Exchange Commission.

The purpose of the audit committee is to oversee our accounting and financial reporting processes and audits of our financial statements. Although management has primary responsibility for the system of internal controls and the financial reporting process, the responsibilities of the audit committee include appointing and approving the compensation of the independent registered public accounting firm to conduct the annual audit of our accounts, reviewing and evaluating the scope and results of the annual audit, approving all professional services to be provided to us by our independent registered public accounting firm, meeting with management and the independent registered public accounting firm to discuss our financial statements and matters that may affect our financial statements, and approving all related party transactions.

Compensation Committee. The compensation committee currently consists of Dr. Jaeger (chair), Mr. Cozadd, and Dr. Parker. Our board of directors has determined that all members of the compensation committee are independent directors under the rules of the NASDAQ Stock Market. The compensation committee develops and reviews compensation policies and practices applicable to executive officers, reviews and recommends goals for our Chief Executive Officer and evaluates his performance in light of these goals, reviews and evaluates goals and objectives for other officers, oversees and evaluates our equity incentive plans and reviews and approves the creation or amendment of our equity incentive plans.

Nominating and Governance Committee. The nominating and governance committee currently consists of Mr. Halter (chair), Mr. Hoffmann and Dr. Bird. Our board of directors has determined that all members of the nominating and governance committee are independent directors under the rules of the NASDAQ Stock Market. The nominating and governance committee's responsibilities include recommending to our board of directors nominees for possible election to our board of directors. Nominees for the 2009 annual meeting were recommended to our board of directors for nomination by the nominating and governance committee and our board of directors subsequently approved these nominees at a meeting of our board of directors on April 2, 2009.

CORPORATE GOVERNANCE

We maintain a corporate governance page on our website which includes key information about our corporate governance matters, including our Code of Ethics and charters for each committee of our board of directors. If there were any amendment or waiver to our Code of Ethics, it would also be included on the corporate governance page. The corporate governance page can be found at www.thresholdpharm.com, by clicking first on "Investors," then clicking on "Corporate Governance."

Our policies and practices reflect corporate governance initiatives that it believes are compliant with the listing requirements of the NASDAQ Stock Market and the corporate governance requirements of the Sarbanes-Oxley Act of 2002, including:

A majority of our board of directors members are "independent" under the rules of the NASDAQ Stock Market;

- All members of the key board committees—the audit committee, the compensation committee and the nominating committee—are independent under the rules of the NASDAQ Stock Market;
- · The independent members of our board of directors meet regularly outside the presence of management;
- We have adopted a Code of Ethics that is monitored by management and that applies to all of our officers, directors and employees, including our principal
 executive officer and all members of our finance department, including our principal financial officer and our controller;
- · The charters of our board of directors committees establish their respective roles and responsibilities; and
- · Our audit committee has procedures in place for the anonymous submission of employee complaints on accounting, internal controls, or auditing matters.

COMMUNICATIONS WITH THE BOARD OF DIRECTORS

Stockholders or other interested parties may communicate with any director or committee of our board of directors by writing to them c/o Secretary, Threshold Pharmaceuticals, Inc., 1300 Seaport Boulevard, Suite 500, Redwood City, California 94063. Comments or questions regarding our accounting, internal controls or auditing matters will be referred to members of the audit committee. Comments or questions regarding the nomination of directors and other corporate governance matters will be referred to members of the nominating committee.

SECURITY OWNERSHIP BY CERTAIN BENEFICIAL HOLDERS AND MANAGEMENT

The following table sets forth information regarding ownership of our common stock as of March 31, 2009 or earlier date for information based on filings with the Securities and Exchange Commission by (a) each person

known to us to own more than 5% of the outstanding shares of our common stock, (b) each named executive Officer identified in the compensation tables appearing later in this proxy statement, (c) each of our directors and (d) all directors and executive officers as a group. The information in this table is based solely on statements in filings with the Securities and Exchange Commission or other information we believe to be reliable.

V	Amount and Nature of Beneficial	Percent of Shares
Name and Address of Beneficial Owner(1) Stockholders owning more than 5%	Ownership(2)	Beneficially Owned(2)
Entities affiliated with Felix J. Baker and Julian C. Baker(3) 667 Madison Avenue New York, New York 10021	1,526,814	9.99%
Entities affiliated with Three Arch Partners(4) 3200 Alpine Road Portola Valley, California 94028	1,535,572	9.99%
Entities affiliated with Sutter Hill Ventures(5) 755 Page Mill Road, Suite A-200 Palo Alto, California 94304-1005	2,549,237	16.75%
Kevin C. Tang and entities affiliated with Tang Capital Partners(6) 4401 Eastgate Mall San Diego, California 92121	1,412,937	9.11%
Entities affiliated with Alta BioPharma Management III, LLC(7) One Embarcadero Center, Suite 3700 San Francisco, California 94111	1,544,091	9.99%
HealthCare Ventures VIII, L.P.(8) 44 Nassau Street Princeton, New Jersey 08542	1,526,304	9.99%
Directors and Executive Officers		
Jeffrey W. Bird, M.D.(9)	2,630,741	17.28%
Bruce C. Cozadd(10)	6,665	*
John G. Curd, <i>M.D.</i> (11)	70,217	*
William A. Halter(12)	12,737	*
David R. Hoffmann(13)	5,499	*
Wilfred E. Jaeger, M.D.(14)	1,542,237	10.03%
Mark D. Matteucci, Ph.D.(15)	376,631	2.46%
George G.C. Parker, Ph.D.(16)	12,737	*
Harold E. Selick, Ph.D.(17)	304,478	1.99%
All current directors and executive officers as a group (11 persons)(18)	5,003,222	32.10%

^{*} Less than 1%

⁽¹⁾ Unless otherwise indicated, the address of each of the named individuals is c/o Threshold Pharmaceuticals, Inc., 1300 Seaport Boulevard, Suite 500, Redwood City, California 94063.

- (2) Percentage ownership is based on 15,222,605 shares of our common stock outstanding as of March 31, 2009. Beneficial ownership of shares is determined in accordance with the rules of the Securities and Exchange Commission and generally includes any shares over which a person exercises sole or shared voting or investment power, or of which a person has the right to acquire ownership within 60 days after March 31, 2009. Except as otherwise noted, each person or entity has sole voting and investment power with respect to the shares shown.
- (3) Pursuant to a Schedule 13G/A filed with the Securities and Exchange Commission on February 17, 2009, 667, L.P. is the holder of 383,811 shares, Baker Brokers Life Sciences, L.P. is the holder of 1,510,545 shares, 14159, L.P. is the holder of 11,358 shares and Baker/Tisch Investments, L.P. is the holder of 11,263 shares. The foregoing shares include warrants exercisable for 450,978 shares, including 60,815 shares within 60 days of March 31, 2009. By virtue of their ownership of entities that have the power to control the investment decisions of the foregoing limited partnerships, Felix J. Baker and Julian C. Baker may each be deemed to be beneficial owners of the shares owned by such entities and may be deemed to have shared voting and investment power for such shares.
- (4) Pursuant to a Schedule 13G/A filed with the Securities and Exchange Commission on March 10, 2009, this number includes 1,688,475 shares held by Three Arch Partners III, L.P. and 90,770 shares held by Three Arch Associates III, L.P. The foregoing shares include warrants exercisable for 392,156 shares, including 148,483 shares within 60 days of March 31, 2009. Dr. Jaeger, who serves as a member of our board of directors, is a managing member of Three Arch Management III, L.L.C., or TAM III, which is the general partner for Three Arch Partners III, L.P. and Three Arch Associates III, L.P. TAM III may be deemed to have sole power to vote these shares, Mark A. Wan, a managing member of TAM III, may be deemed to have sole power to vote these shares, and Barclay Nicholson, a managing member of TAM III, may be deemed to have sole power to vote these shares. Dr. Jaeger disclaims beneficial ownership of shares held by Three Arch Partners III, L.P., Three Arch Associates III, L.P. and Three Arch Management III, L.L.C., except to the extent of his pecuniary interest therein.
- (5) Pursuant to a Schedule 13G/A filed with the Securities and Exchange Commission on February 11, 2009, this number includes 3,960 shares held by Sutter Hill Entrepreneurs Fund (AI), L.P., 10,028 shares held by Sutter Hill Entrepreneurs Fund (QP), L.P. and 3,414,969 shares (including a warrant to purchase 879,720 shares which is not exercisable within 60 days of March 31, 2009) held by Sutter Hill Ventures, a California limited partnership (collectively, Sutter Hill), over which Dr. Bird, who is a member of our board of directors and is a managing director of the general partner of the partnerships mentioned herein, shares voting and investment power with seven other managing directors of the general partner of the partnerships mentioned herein. The natural persons who have voting or investment power over the shares held of record by Sutter Hill are David L. Anderson, G. Leonard Baker, Jr., Jeffrey W. Bird, Tench Coxe, James C. Gaither, Gregory P. Sands, Andrew T. Sheehan, Michael L. Speiser, David E. Sweet, James N. White and William H. Younger, Jr.
- (6) Pursuant to a Schedule 13G/A filed with the Securities and Exchange Commission on February 17, 2009, this number includes 1,106,705 shares (including warrants to purchase 294,117 shares exercisable within 60 days of March 31, 2009) held by Tang Capital Partners, L.P., a Delaware limited partnership, or TCP, of which Tang Capital Management, LLC, or TCM, is the general partner. TCM, as the general partner of TCP, may be deemed to beneficially hold the 1,106,705 shares held by TCP. Kevin C. Tang, as the manager of TCM, may be deemed to beneficially own 1,412,937 shares, including the 1,106,705 shares held by TCP, over which Mr. Tang shares voting and dispositive power with TCM and TCP, 4,716 shares owned by Mr. Tang, over which Mr. Tang has sole voting and dispositive power, and 301,516 shares over which Mr. Tang has voting and/or investment power. Mr. Tang disclaims beneficial ownership of all shares except to the extent of his pecuniary interest therein.
- (7) Pursuant to a Schedule 13G filed with the Securities and Exchange Commission on August 29, 2008, this number includes 1,604,234 shares held by Alta BioPharma Partners III, L.P., or ABPIII, 107,738 shares held by Alta BioPharma Partners III, GmbH & Co. Beteiligungs KG, or APIIIKG, and 39,534 shares held by Alta Embarcadero BioPharma Partners III, LLC, or AEBPIII. The foregoing shares include warrants exercisable for 441,175 shares, including 233,760 within 60 days of March 31, 2009. Alta BioPharma Management III, LLC,

- or ABMIII, is the general partner of ABPIII and the managing limited partner of ABPIIIKG and has shared voting and dispositive power over the 1,711,972 shares held by ABPIII and APIIIKG. ABMIII disclaims beneficial ownership of all such shares except to the extent of its pecuniary interest therein. Jean Deleage, Edward Penhoet, Alix Marduel, Farah Champsi and Edward Hurwitz are the directors of ABPIIIKG and the managers of AEBPIII and each has shared voting and dispositive power over the 1,751,506 shares held ABPIII, APIIIKG and AEB. Drs. Deleage and Penhoet and Messrs. Marduel, Champsi and Hurwitz each disclaim beneficial ownership of all such shares except to the extent of their pecuniary interest therein.
- Pursuant to a Schedule 13G filed with the Securities and Exchange Commission on August 29, 2008, this number includes 1,470,588 shares and warrants exercisable for 588,235 shares, including 55,716 shares exercisable within 60 days of March 31, 2009) held directly by HealthCare Ventures VIII, L.P., or HCVVIII. James H. Cavenaugh, Christopher Mirabelli, Harold R. Werner, John W. Littlechild and Augustine Lawlor are the Managing Directors of HealthCare Partners VIII, LLC, or HCPVIII LLC, which is the General Partner of HealthCare Partners VIII, L.P., or HCPVIII, which is the General Partner of HCVVIII. HCPVIII, HCPVIII LLC, Drs. Cavanaugh and Mirabelli and Messrs. Werner, Littlechild and Lawlor beneficially own and have shared voting and dispositive power with respect to all of the shares and warrants owned by HCVVIII.
- (9) Pursuant to a Schedule 13G/A filed with the Securities and Exchange Commission on February 11, 2009, this number includes 3,960 shares held by Sutter Hill Entrepreneurs Fund (AI), L.P., 10,028 shares held by Sutter Hill Entrepreneurs Fund (QP), L.P. and 3,414,969 shares (including a warrant to purchase 879,720 shares which is not exercisable within 60 days of December 31, 2008) held by Sutter Hill Ventures, a California limited partnership (collectively, Sutter Hill), over which Dr. Bird, who is a member of our board of directors and is a managing director of the general partner of the partnerships mentioned herein, shares voting and investment power with seven other managing directors of the general partner of the partnerships mentioned herein, who have voting or investment power over the shares held of record by Sutter Hill are David L. Anderson, G. Leonard Baker, Jr., Jeffrey W. Bird, Tench Coxe, James C. Gaither, Gregory P. Sands, Andrew T. Sheehan, Michael L. Speiser, David E. Sweet, James N. White and William H. Younger, Jr. Also included are 99,878 shares (including a warrant to purchase 23,459 shares which is not exercisable within 60 days after December 31, 2008) held in the Jeffrey W. Bird and Christina R. Bird Trust Agreement of which Dr. Bird is a trustee, 4,076 shares held by a retirement trust for the benefit of Dr. Bird and 4,166 shares subject to options granted to Dr. Bird which are exercisable within 60 days after March 31, 2009.
- (10) Includes 6,665 shares subject to options granted to Mr. Cozadd which are exercisable within 60 days after March 31, 2009.
- (11) Includes 15,070 shares subject to options granted to Dr. Curd and a warrant to purchase 9,804 shares, all of which are exercisable within 60 days after March 31, 2009. Also includes 834 shares acquired by Dr. Curd under the 2004 Employee Stock Purchase Plan.
- (12) Includes 6,665 shares subject to options granted to Mr. Halter which are exercisable within 60 days after March 31, 2009.
- (13) Includes 5,499 shares subject to options granted to Mr. Hoffmann which are exercisable within 60 days after March 31, 2009.
- Pursuant to a Schedule 13G/A filed with the Securities and Exchange Commission on March 10, 2009, this number includes 1,688,475 shares held by Three Arch Partners III, L.P. and 90,770 shares held by Three Arch Associates III, L.P. The foregoing shares include warrants exercisable for 392,156 shares, including 148,483 shares within 60 days of March 31, 2009. Dr. Jaeger, who serves as a member of our board of directors, is a managing member of Three Arch Management III, L.L.C., or TAM III, which is the general partner for Three Arch Partners III, L.P. and Three Arch Associates III, L.P. TAM III may be deemed to have sole power to vote these shares, Mark A. Wan, a managing member of TAM III, may be deemed to have sole power to vote these shares, and Barclay Nicholson, a managing member of TAM III, may be deemed to have sole power to vote these shares. Dr. Jaeger disclaims beneficial ownership of shares held by Three Arch Partners III, L.P., Three Arch Associates III, L.P. and Three Arch Management III, L.L.C., except to the extent of his pecuniary interest therein. Also included are 6,665 shares subject to options granted to Dr. Jaeger, which are exercisable within 60 days after March 31, 2009.

- (15) Includes 9,342 shares subject to options granted to Dr. Matteucci and a warrant to purchase 63,725 shares, all of which are exercisable within 60 days after March 31, 2009. Also includes 3,254 shares acquired by Dr. Matteucci under the 2004 Employee Stock Purchase Plan.
- (16) Includes 6,665 shares subject to options granted to Dr. Parker, all of which are exercisable within 60 days after March 31, 2009.
- (17) Includes 41,942 shares subject to options granted to Dr. Selick and a warrant to purchase 19,607 shares, all of which are exercisable within 60 days after March 31, 2009. Also includes 3,236 shares acquired by Dr. Selick under the 2004 Employee Stock Purchase Plan.
- (18) Includes outstanding options to purchase 116,526 shares and warrants to purchase 246,521 shares, all of which are exercisable within 60 days after March 31, 2009.

RELATED PARTY TRANSACTIONS

Procedures for Approval of Related Party Transactions

Pursuant to our Code of Ethics and the Audit Committee Charter, our executive officers and directors must disclose transactions involving actual or apparent conflicts of interests, such as related party transactions, to the audit committee in writing and must obtain the audit committee's approval prior to entering into any such transaction. In approving or rejecting any proposed transaction, the audit committee considers the relevant facts and circumstances available and deemed relevant, including but not limited to, the risks, costs, and benefits to us, the terms of the transactions, the availability of other sources for comparable services or products, and, if applicable, the impact on director independence.

Related Party Transactions and Business Relationships

All of our directors and executive officers (except Jeffrey W. Bird) participated in our 2009 Option Exchange Program completed in February 2009. In connection with the 2009 Option Exchange Program, eligible employees, executive officers and directors had the opportunity to make a one-time election to cancel certain outstanding grants of stock options, or Current Options, under our 2004 Amended and Restated Equity Incentive Plan, or the Plan, for an equal number of new unvested options to be granted under the Plan after the date of cancellation of the Current Options, or the Replacement Options. The number of options exchanged by each director and executive officer pursuant to the 2009 Option Exchange Program and the approximate dollar value of new options granted to each director pursuant to the program is set forth in the table below.

Name	Number of Old Options Exchanged	Number of New Options Granted	e of Options Granted
Jeffrey W. Bird, Ph.D.			_
Bruce C. Cozadd	10,000	10,000	\$ 4,800
John G. Curd, M.D.	103,332	103,332	\$ 25,420
Joel A. Fernandes	29,164	29,164	\$ 9,885
William A. Halter	10,000	10,000	\$ 4,800
David R. Hoffmann	7,500	7,500	\$ 2,800
Wilfred E. Jaeger, M.D.	10,000	10,000	\$ 4,800
Stewart M. Kroll	44,996	44,996	\$ 16,973
Mark D. Matteucci, Ph.D.	45,832	45,832	\$ 16,083
George G.C. Parker, Ph.D.	10,000	10,000	\$ 4,800
Harold E. Selick, Ph.D.	108,332	108,332	\$ 43,861

(1) The value of the options granted represents the total incremental compensation cost that was measured, in accordance with FAS 123R, as the fair value of the new stock option award over the fair value of the original stock option award based on the closing price of \$1.30 on February 17, 2009, the date of the re-grant.

On August 29, 2008, we sold to certain investors, including certain of our executive officers, directors and persons known to us to own more than 5% of the outstanding shares of our common stock, an aggregate of 8,970,574 shares of our common stock at a purchase price equal to \$2.04 per share for aggregate gross proceeds of \$18.3 million. As part of the sale of common stock, we issued warrants to the investors exercisable for a total of 3,588,221 shares of our common stock. The warrants have a five-year term and an exercise price equal to \$2.34 per share of common stock. The exercise price and/or the number of shares of common stock issuable upon exercise of the warrants may be adjusted in certain circumstances, including certain issuances of securities at a price equal to less than the then current exercise price, subdivisions and stock splits, stock dividends, combinations, reorganizations, reclassifications, consolidations, mergers or sales of properties and assets and upon the issuance of certain assets or securities to holders of our common stock, as applicable.

The dollar amount invested in the offering by each of our executive officers, directors and persons known to us to own more than 5% of the outstanding shares of our common stock, along with the number of shares and warrants purchased by such persons, is set forth in the table below:

	Amount	Shares	Warrants
Name	Invested (\$)	Purchased	Purchased
Entities affiliated with Felix J. Baker and Julian C. Baker(1)	2,299,994	1,127,448	450,978
Entities affiliated with Three Arch Partners(2)	1,999,998	980,391	392,156
Entities affiliated with Sutter Hill Ventures(3)	5,988,098	2,935,342	1,174,132
Kevin C. Tang and entities affiliated with Tang Capital Partners(4)	1,500,000	735,294	294,117
Entities affiliated with Alta BioPharma Management III, LLC(5)	2,249,998	1,102,940	441,175
HealthCare Ventures VIII, L.P.	3,000,000	1,470,588	588,235
Jeffrey W. Bird, M.D.(6)	119,642	58,648	23,459
John G. Curd, M.D.	49,999	24,509	9,804
Stuart M. Kroll	24,998	12,254	4,902
Mark D. Matteucci, Ph.D.	324,999	159,313	63,725
Harold E. Selick, Ph.D.	99,999	49,019	19,607

- (1) Includes 206,533 shares and 82,613 warrants purchased by 667, L.P., 885,030 shares and 354,012 warrants purchased by Baker Brokers Life Sciences, L.P., 28,395 shares and 11,358 warrants purchased by 14159, L.P., 5,914 shares and 2,365 warrants purchased by Baker/Tisch Investments, L.P. and 1,576 shares and 630 warrants purchased by Baker Brothers Investments II, L.P.
- (2) Includes 930,372 shares and 372,149 warrants purchased by Three Arch Partners III, L.P. and 50,019 shares and 20,007 warrants purchased by Three Arch Associates III, L.P. Dr. Jaeger is a managing member of Three Arch Management III, L.L.C., or TAM III, which is the general partner for Three Arch Partners III, L.P. and Three Arch Associates III, L.P.
- (3) Includes 2,199,302 shares and 879,720 warrants were purchased by Sutter Hill Ventures, a California limited partnership. Dr. Bird, who serves as a member of our board of directors, is a managing director of the general partner of Sutter Hill Ventures. Also includes 736,040 shares and 234,412 warrants purchased by individuals affiliated with Sutter Hill Ventures who are deemed to own more than 5% of the outstanding shares of our common stock and entities affiliated with such individuals.
- (4) All 735,824 shares and 294,117 warrants were acquired by Tang Capital Partners, L.P.
- (5) Includes 1,010,201 shares and 404,080 warrants purchased by Alta BioPharma Partners III, L.P., 67,844 shares and 27,137 warrants purchased by Alta BioPharma Partners III, GmbH & Co. Beteiligungs KG and 24,895 shares and 9,958 warrants purchased by Alta Embarcadero BioPharma Partners III, LLC.
- (6) All 58,648 shares and 23,459 warrants were purchased by the Jeffrey W. Bird and Christina R. Bird Trust Agreement of which Dr. Bird is a trustee. Dr. Bird is a managing director of the general partner of each of Sutter Hill Entrepreneurs Fund (AI), L.P., Sutter Hill Entrepreneurs Fund (QP), L.P. and Sutter Hill Ventures.

In March 2008, we entered into a License Agreement, for the use of 5,500 square feet of facilities and laboratory space with AllChemie, Inc., a Delaware corporation, which subsequently changed its name to Ethos Pharmaceuticals, Inc. Dr. Harold E. Selick, our Chief Executive Officer and a member of our board of directors, is the chairman of the board of directors of Ethos. Ethos paid us an aggregate fee of \$192,570 for the one-year initial term of the agreement. In addition, in 2008, Ethos paid us \$76,839 for costs we incurred that were related to agreed-upon services we provided to Ethos. In January 2009, the License Agreement was terminated at the end of its initial term.

Our Senior Director of Investor Relations, Denise Powell is the sister of Dr. Michael F. Powell, a former member of our board of directors and a former member of the audit committee and the nominating and governance committee. Dr. Powell resigned as a member of our board of directors effective November 14, 2008. Ms. Powell's annual salary is \$150,000. In addition, in January 2005, Ms. Powell was granted an option to purchase 7,590 shares of our common stock, which vested as to 25% of the shares on January 13, 2006 and

vested as to the remaining shares over the subsequent three years, becoming fully vested on January 21, 2009. In March 2006, Ms. Powell was granted an option to purchase 8,333 shares of our common stock, which vested monthly over four years beginning on January 1, 2006. In September 2006, Ms. Powell participated in our 2006 Option Exchange Program, as a result of which Ms. Powell exchanged her March 2006 option for an option to purchase an equal number of shares of our common stock granted on September 29, 2006 with an exercise price of \$15.42. This option vests monthly such that it will be fully vested on the same date as the option for which it was exchanged would have been fully vested. In January 2007, Ms. Powell received an additional option to purchase 3,333 shares of our common stock, which option vests monthly over four years beginning January 24, 2007. In January 2007, Ms. Powell received a bonus of \$22,500. In February 2008, Ms. Powell received an option to purchase 8,333 shares of our common stock, which option vests monthly over four years, beginning March 27, 2008. In February 2009, Ms. Powell participated in our 2009 Option Exchange Program, as a result of which Ms. Powell exchanged all of her options granted in 2006, 2007 and 2008 for options to purchase an equal number of shares of our common stock granted on February 18, 2009 with an exercise price of \$1.30. These options vest monthly such that they will be fully vested on the same date as the options for which they were exchanged would have been fully vested. In January 2009, Ms. Powell was granted an option to purchase 5,000 shares of our common stock, which vests monthly over four years beginning on January 9, 2009.

Our Amended and Restated Certificate of Incorporation and Bylaws provide that we will indemnify each of our directors and officers to the fullest extent permitted by Delaware law. Further, we have entered into separate indemnification agreements with each of our directors and executive officers.

SECTION 16(A) BENEFICIAL OWNERSHIP REPORTING COMPLIANCE

Under Section 16(a) of the Securities Exchange Act of 1934, or the Exchange Act, and the rules promulgated by the Securities and Exchange Commission, our directors, executive officers and beneficial owners of more than 10% of any class of equity security are required to file periodic reports of their ownership of our equity securities, and changes in that ownership, with the Securities and Exchange Commission. To our knowledge, based solely on our review of the copies of such reports received or written representations from such persons that no other reports were required, we believe that our directors, executive officers and beneficial owners of more than 10% of our equity securities complied with all applicable filing requirements during 2008.

CERTAIN INFORMATION WITH RESPECT TO EXECUTIVE OFFICERS

The following table sets forth, as of March 31, 2009, information about our executive officers.

Name	Age	Position(s)
Harold E. Selick, Ph.D.	54	Chief Executive Officer and Director
John G. Curd, M.D.	63	President and Chief Medical Officer
Joel A. Fernandes	39	Senior Director, Finance and Controller
Stewart M. Kroll	50	Vice President of Biostatistics and Clinical Operations
Mark D. Matteucci, Ph.D.	55	Senior Vice President, Discovery Research

Biographical information for Dr. Selick is included above under the heading "Nominees and Continuing Directors."

John G. Curd, M.D. has served as our President and Chief Medical Officer since October 2007. Dr. Curd previously provided advisory and consulting services to us in 2007 relating to results of certain of our clinical trials. From December 2001 until 2007, Dr. Curd served as President and Chief Medical Officer of Novacea, Inc., a biopharmaceutical company. From May 2001 to December 2001, Dr. Curd served as Senior Vice President of Development and Interim President for Vaccines at Maxygen, Inc., a biotechnology company. From June 1999 to

May 2001, Dr. Curd served as Executive Vice President at VaxGen, Inc., a vaccine company. From December 1991 to June 1999, Dr. Curd served in various positions at Genentech, Inc., including Vice President of Clinical Development. From 1978 to 1991, Dr. Curd served in various positions at Scripps Clinical and Research Foundation in La Jolla, California, including President of the Medical Staff and Vice Chairman of the Department of Medicine. Dr. Curd holds a B.S. in chemistry from Princeton University and an M.D. from Harvard Medical School.

Joel A. Fernandes joined us in April 2006 and has served as our Senior Director, Finance and Controller since November 2007. Prior to November 2007, Mr. Fernandes served as our Assistant Controller. Mr. Fernandes served as Associate Director of Finance at Theravance, Inc. from January 2005 to March 2006, Senior Manager of Corporate Finance at KLA-Tencor from August 2002 to January 2005 and Assistant Controller of ALZA Corporation from 1999 to 2002. Mr. Fernandes has been a Certified Public Accountant since 1996 and has a Masters in Accountancy from Manchester College, Indiana.

Stewart M. Kroll joined us in January 2005 and has served as our Vice President of Biostatistics and Clinical Operations since January 2007. Prior to January 2007, Mr. Kroll served as our Senior Director of Biostatistics and as our Director of Biostatistics. Mr. Kroll served as the Senior Director of Biostatistics of Corixa Corporation from December 2000 to January 2005, and served in positions of increasing responsibility, most recently as Director of Biostatistics of Coulter Pharmaceuticals, Inc. from January 1997 to December 2000. Mr. Kroll received his B.A. and M.A. from the University of California, Berkeley.

Mark D. Matteucci, Ph.D. joined us in August 2003 and has served as our Senior Vice President, Discovery Research since January 2007. Prior to January 2007, Dr. Matteucci served as our Vice President, Discovery Research. Dr. Matteucci provided medicinal chemistry consultation to several biotechnology companies from 1999 to 2002. He served as the Director of Bioorganic Chemistry at Gilead Sciences, Inc. from 1988 to 1999, where he was the first scientist hired and he established that company's research program in nucleic acid targeting. Prior to joining Gilead Sciences, Dr. Matteucci was a scientist at Genentech, Inc. Dr. Matteucci received his B.S. from the Massachusetts Institute of Technology and Ph.D. from the University of Colorado.

EXECUTIVE COMPENSATION

Summary Compensation Table

The following table sets forth information concerning compensation earned for services rendered to us by (a) our principal executive officer and (b) our two most highly compensated executive officers at the end of fiscal year 2008. Collectively, this group is referred to in this proxy statement as named executive officers.

				Option	All Other	
Name and Principal Position	Year	Salary(1)(\$)	Bonus(2)(\$)	Awards(3)(\$)	Compensation(\$)	Total(\$)
Harold E. Selick, <i>Ph.D.</i>	2008	500,000	50,000	798,543	414(4)	1,348,957
Chief Executive Officer	2007	500,000	_	1,690,262	414(4)	2,190,676
John G. Curd, M.D.*	2008	350,000	50,000	64,575	1,188(4)	465,763
President and Chief Medical Officer	2007	68,056	_	10,047	248(4)	78,351
Mark D. Matteucci, Ph.D.	2008	275,000	30,000	268,020	774(4)	573,794
Senior Vice President, Discovery Research	2007	271,647	_	602,532	414(4)	874,593

- * Dr. Curd commenced his employment in October 2007, earning \$68,056 in salary in fiscal 2007 on an annualized salary of \$350,000.
- (1) Includes amounts deferred pursuant to our 401(k) plan.
- (2) The amounts in this column reflect cash bonus awards to the named individual for fiscal 2008 which were paid in 2009.
- The amounts in this column represent the dollar amount recognized for financial statement reporting purposes with respect to the 2008 fiscal year in accordance with FAS 123R, disregarding any forfeiture assumptions. See Note 9 of the notes to our financial statements in our Annual Report on Form 10-K filed on March 13, 2009 for a discussion of all assumptions we made in determining the FAS 123R values of our equity awards.
- (4) Represents group term life insurance premiums paid by us on behalf of the named individual for fiscal years 2008 and 2007.

Outstanding Equity Awards at Fiscal Year-End

The following table sets forth information regarding outstanding equity awards held by our named executive officers at the end of fiscal year 2008.

		Ор	tion Awards	
	Number of	Number of		
	Securities	Securities		
	Underlying	Underlying		
	Unexercised	Unexercised	0 " 5 '	
	Options	Options	Option Exercise Price*	Ontion Erminotion
Name	(#) Exercisable	(#) Unexercisable	(\$)	Option Expiration Date
Harold E. Selick, <i>Ph.D.</i>	8,679	32,987	\$ 3.18	2/26/2018
	18,227	23,439	9.00	3/19/2017
	16,874	8,126	15.42	3/13/2016
Mark D. Matteucci, Ph.D.	5,208	19,792	3.18	2/26/2018
	5,468	7,032	9.00	3/19/2017
	5,623	2,709	15.42	3/12/2016
John G. Curd, M.D.	5,207	19,792	3.18	2/26/2018
	22,846	55,487	3.84	10/21/2017

^{*} In February 2009, all of our named executive officers exchanged their outstanding options for Replacement Options with an exercise price of \$1.30 per share pursuant to the 2009 Option Exchange Program. See "Related Party Transactions—Related Party Transactions and Business Relationships."

Potential Payments Upon Termination or Change In Control

Change of Control Arrangements

In December 2004, we entered into a change of control severance agreement with Harold E. Selick, which was amended and restated in November 2008. This agreement provides that if Dr. Selick's employment is terminated by us without cause or is involuntarily terminated, then he will be entitled to a severance payment consisting of 12 months base salary as in effect as of the date of termination. If we terminate Dr. Selick without cause or involuntarily terminate him within 18 months following a change of control, then he will be entitled to the following severance benefits: 12 months base salary and any applicable allowances in effect as of the date of termination or, if greater, as in effect in the year in which the change of control occurs; immediate acceleration and vesting of all stock options granted prior to the change of control; the termination of our right to repurchase shares of restricted stock purchased prior to the change of control; extension of the exercise period for stock options granted prior to the change of control to two years following the date of termination; and up to 12 months of health benefits.

Under his amended and restated change of control and severance agreement with us, if Dr. Selick's employment with us was terminated as of December 31, 2008 and he was entitled to receive the benefits set forth in his change of control agreement, Dr. Selick would have been eligible to receive a lump sum payment of \$500,000 in severance in addition to being paid his accrued PTO. If Dr. Selick's employment with us was terminated as of December 31, 2008 and he was entitled to receive the benefits set forth in his change of control agreement, and such termination occurred within 18 months following a change of control of us, Dr. Selick would have been eligible to receive a lump sum payment of \$500,000 in severance plus his accrued PTO, full acceleration of vesting of all stock options, which had de minimis value as of December 31, 2008, based on the closing price of our common stock on the NASDAQ Capital Market of \$0.57 on December 31, 2008, the final trading day of fiscal year 2008, net of the applicable exercise price of such options, and approximately \$19,710 of health benefits.

In December 2004, we entered into a change of control severance agreement with Mark D. Matteucci, which was amended and restated in November 2008. Under his amended and restated change of control and severance agreement with us, if Dr. Matteucci's employment with us was terminated as of December 31, 2008 and he was

entitled to receive the benefits set forth in his change of control agreement, Dr. Matteucci would have been eligible to receive a lump sum payment of \$275,000 in severance in addition to being paid his accrued PTO. If Dr. Matteucci's employment with us was terminated as of December 31, 2008 and he was entitled to receive the benefits set forth in his change of control agreement, and such termination occurred within 18 months following a change of control of us, Dr. Matteucci would have been eligible to receive a lump sum payment of \$275,000 in severance plus his accrued PTO, full acceleration of vesting of all stock options, which had de minimis value as of December 31, 2008, based on the closing price of our common stock on the NASDAQ Capital Market of \$0.57 on December 31, 2008, the final trading day of fiscal year 2008, net of the applicable exercise price of such options, and approximately \$21,774 of health benefits.

In October 2007, we entered into a change of control severance agreement with John G. Curd, which was amended and restated in November 2008. Under his amended and restated change of control and severance agreement with us, if Dr. Curd's employment with us was terminated as of December 31, 2008 and he was entitled to receive the benefits set forth in his change of control agreement, Dr. Curd would have been eligible to receive a lump sum payment of \$350,000 in severance in addition to being paid his accrued PTO. If Dr. Curd's employment with us was terminated as of December 31, 2008 and he was entitled to receive the benefits set forth in his change of control agreement, and such termination occurred within 18 months following a change of control of us, Dr. Curd would have been eligible to receive a lump sum payment of \$350,000 in severance plus his accrued PTO, full acceleration of vesting of all stock options, which had de minimis value as of December 31, 2008, based on the closing price of our common stock on the NASDAQ Capital Market of \$0.57 on December 31, 2008, the final trading day of fiscal year 2008, net of the applicable exercise price of such options, and approximately \$16,361 of health benefits.

Indemnification Agreements

We entered into indemnification agreements with our directors and certain of our officers. Such agreements require us, among other things, to indemnify our directors and officers, other than for liabilities arising from willful misconduct of a culpable nature, and to advance their expenses incurred as a result of any proceedings against them as to which they could be indemnified.

Equity Compensation Plans

The following table provides certain information with respect to all of our equity compensation plans in effect as of December 31, 2008:

Number of		Number of securities
securities to	Weighted-	remaining available
be issued upon	average	for future
exercise	exercise price of	issuance under
of outstanding	outstanding	equity compensation
options	options	plans
617,098	\$ 8.41	387,595
617,098	\$ 8.41	387,595(1)(2)
	securities to be issued upon exercise of outstanding options 617,098	securities to be issued upon average exercise exercise of outstanding options options 617,098 \$ 8.41

- (1) Includes 119,165 shares of common stock issuable under our 2004 Employee Stock Purchase Plan (excluding the proposed amendment and restatement of the ESPP)
- (2) Beginning on January 1, 2006, and annually thereafter, the authorized shares for the 2004 Equity Incentive Plan will be automatically increased by a number of shares equal to the lesser of:
 - 5% of the number of our shares issued and outstanding prior to the preceding December 31;
 - 202,401 shares; or
 - an amount determined by our board of directors.

DIRECTOR COMPENSATION

Each non-employee director receives an annual cash retainer of \$30,000. In addition, the chair of the audit committee receives an annual cash retainer of \$16,000 and the chairs of the nominating committee and the compensation committee each receive an annual retainer of \$14,000. Each other member of the audit committee, the nominating committee and the compensation committee receives an annual cash retainer of \$10,000. All of our directors are entitled to reimbursement for all reasonable out-of-pocket expenses incurred in connection with attendance at board and committee meetings.

All non-employee directors receive automatic stock option grants under our 2004 Amended and Restated Equity Incentive Plan. In May 2008, each non-employee director received an automatic grant of an option to purchase 2,500 shares of our common stock. Jeffrey W. Bird, who joined our board of directors in November 2008, received an automatic grant of an option to purchase 5,000 shares of our common stock.

In addition, all directors participated in the Company's 2009 Option Exchange Program completed in February 2009. In connection with the Option Exchange Program, eligible employees, executive officers and directors had the opportunity to make a one-time election to cancel certain outstanding grants of stock options, or Current Options, under our 2004 Amended and Restated Equity Incentive Plan, or the Plan, for an equal number of new unvested options to be granted under the Plan after the date of cancellation of the Current Options, or the Replacement Options. The number of options exchanged by each director pursuant to the Option Exchange Program is set forth below in the Director Summary Compensation Table.

All employee directors who are not 5% owners of our common stock are also eligible to participate in our 2004 Employee Stock Purchase Plan. In 2008, Dr. Selick purchased 834 shares of our common stock under the 2004 Employee Stock Purchase Plan.

Director Summary Compensation Table

The following table sets forth all of the compensation awarded to, earned by, or paid to each person who served as a director during 2008, other than a director who also served as a named executive officer.

	Fees Earned or	Option	
Name	Paid in Cash(\$)	Awards(\$)(1)	Total(\$)
Jeffrey W. Bird	6,250	72	6,322
Bruce C. Cozadd	40,000	125,256	165,256
William A. Halter	44,000	8,126	52,126
David R. Hoffmann*	56,000	12,785	68,785
Wilfred E. Jaeger, M.D.	54,000	8,126	62,126
George G.C. Parker, Ph.D.	40,000	8,126	48,126
Michael F. Powell, Ph.D.*	43,750	8,126	51,876

- * Dr. Powell resigned as a member of our board of directors effective November 14, 2008. Dr. Bird was elected to our board of directors effective November 14, 2008 to fill the vacancy created by Dr. Powell's resignation.
- (1) The amounts in this column represent the dollar amount recognized for financial statement reporting purposes with respect to the 2008 fiscal year in accordance with FAS 123R, disregarding any forfeiture assumptions. See Note 9 of the notes to our financial statements in our Annual Report on Form 10-K filed on March 13, 2009 for a discussion of all assumptions we made in determining the FAS 123R values of our equity awards.

REPORT OF THE AUDIT COMMITTEE

Under the guidance of a written charter adopted by our board of directors (which charter is available atwww.thresholdpharm.com), the purpose of the audit committee is to oversee our accounting and financial reporting processes and audits of our financial statements. The responsibilities of the audit committee include appointing and providing for the compensation of the independent registered public accounting firm. Each member of the audit committee meets the independence requirements of the NASDAQ Stock Market.

Management has primary responsibility for the system of internal controls and the financial reporting process. The independent registered public accounting firm has the responsibility to express an opinion on the financial statements based on an audit conducted in accordance with generally accepted auditing standards.

In this context and in connection with the audited financial statements contained in our Annual Report on Form 10-K, the audit committee:

- reviewed and discussed the audited financial statements as of and for the fiscal year ended December 31, 2008 with our management and PricewaterhouseCoopers LLP, our independent registered public accounting firm;
- discussed with PricewaterhouseCoopers LLP the matters required to be discussed by Statement of Auditing Standards No. 61, Communication with Audit Committees, as amended, as adopted by the Public Company Accounting Oversight Board in Rule 3200T;
- reviewed the written disclosures and the letter from PricewaterhouseCoopers LLP required by the Independence Standards Board Standard No. 1, Independence
 Discussions with Audit Committees, as adopted by the Public Company Accounting Oversight Board in Rule 3600T, discussed with the auditors their
 independence, and concluded that the non-audit services performed by PricewaterhouseCoopers LLP are compatible with maintaining their independence; and
- based on the foregoing reviews and discussions, recommended to our board of directors that the audited financial statements be included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2008 to be filed with the Securities and Exchange Commission.

AUDIT COMMITTEE*

David R. Hoffmann (chair) Jeffrey W. Bird Wilfred E. Jaeger

The audit committee report shall not be deemed incorporated by reference by any general statement incorporating by reference this proxy statement into any filing under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, and shall not otherwise be deemed filed under these acts.

^{*} Note: Dr. Michael F. Powell also served as a member of our audit committee until his resignation from our board of directors in November 14, 2008.

PRINCIPAL ACCOUNTANT FEES AND SERVICES

The audit committee appointed PricewaterhouseCoopers LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2008.

Auditor's Fees

The following table shows the fees paid or accrued by us for the audit and other services provided by PricewaterhouseCoopers LLP for fiscal years 2008 and 2007.

	2008	2007
Audit Fees(1)	\$ 349,202	324,525
Audit-Related Fees(2)	_	_
Tax Fees(3)	_	_
All other Fees(4)	2,400	2,400
Total	\$ 351,602	326,929

The audit committee has delegated to the chair of the audit committee the authority to pre-approve audit-related and non-audit services not prohibited by law to be performed by our independent registered public accounting firm and associated fees, provided that the chair shall report any decision to pre-approve such audit-related or non-audit services and fees to the full audit committee at its next regular meeting.

- (1) Audit fees represent fees for professional services provided in connection with the audit of our financial statements and review of our quarterly financial statements and audit services provided in connection with other statutory or regulatory filings.
- (2) Audit-related fees consist primarily of accounting consultations, employee benefit plan audits and other attestation services. For fiscal years 2008 and 2007, respectively, no fees were paid to PricewaterhouseCoopers LLP for accounting consultations, employee benefit plan audits and other attestation services.
- (3) For fiscal years 2008 and 2007, respectively, no fees were paid to PricewaterhouseCoopers LLP for tax advice or tax return preparation services.
- (4) All other fees consisted of a subscription fee for an online accounting research tool.

PROPOSAL 1

ELECTION OF DIRECTORS

At the 2009 annual meeting, our stockholders will vote on the election of two Class II directors to serve for a three-year term until the 2012 annual meeting of stockholders or until their successors are elected and qualified. Our board of directors has unanimously nominated William A. Halter and Wilfred E. Jaeger upon the recommendation of the nominating committee, for election to our board of directors as Class II directors. The nominees have indicated that they are willing and able to serve as directors. If either Mr. Halter or Dr. Jaeger becomes unable or unwilling to serve, the accompanying proxy may be voted for the election of such other person as shall be designated by our board of directors. The proxies being solicited will be voted for no more than two nominees at the 2009 annual meeting. The Class II Directors will be elected by a plurality of the votes cast, in person or by proxy, at the 2009 annual meeting, assuming a quorum is present. Stockholders do not have cumulative voting rights in the election of directors.

Our board of directors recommends a vote "FOR" the election of William A. Halter and Wilfred E. Jaeger as Class II directors.

Unless otherwise instructed, it is the intention of the persons named in the accompanying proxy card to vote shares represented by properly executed proxy cards for the election of William A. Halter and Wilfred E. Jaeger.

PROPOSAL 2

RATIFICATION OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

At the 2009 annual meeting, our stockholders will be asked to ratify the appointment of PricewaterhouseCoopers LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2009. Representatives of PricewaterhouseCoopers LLP are expected to be present at the 2009 annual meeting and will have the opportunity to make statements if they desire to do so. Such representatives are also expected to be available to respond to appropriate questions. The affirmative vote of the holders of a majority of the shares represented in person or by proxy and entitled to vote at the 2009 annual meeting will be required to approve the proposal to ratify the appointment of PricewaterhouseCoopers LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2009.

Our board of directors recommends a vote "FOR" the ratification of the appointment of PricewaterhouseCoopers LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2009.

Unless otherwise instructed, it is the intention of the persons named in the accompanying proxy card to vote shares represented by properly executed proxy cards for the ratification of the appointment of PricewaterhouseCoopers LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2009.

PROPOSAL 3

APPROVAL OF AMENDMENT OF OUR 2004 AMENDED AND RESTATED EQUITY INCENTIVE PLAN

Our board of directors is recommending that our stockholders approve an amendment of our 2004 Amended and Restated Equity Incentive Plan, or 2004 Equity Incentive Plan, to increase the size of the automatic annual option grant to continuing non-employee directors from 2,500 shares to 10,000 shares, effective as of our 2009 annual stockholder meeting. Our board of directors believes that this change is necessary for the 2004 Equity Incentive Plan to remain an effective plan to attract and retain non-employee directors due, in part, to the 1-for-6 reverse stock split in August 2008, which resulted in a reduction to the size of the automatic annual option grant to continuing non-employee directors. The affirmative vote of the holders of a majority of the shares represented in person or by proxy and entitled to vote at the 2009 annual meeting will be required to approve the proposed amendment of the 2004 Equity Incentive Plan.

Our board of directors recommends a vote "FOR" the approval of the amendment of our 2004 Amended and Restated Equity Incentive Plan.

Unless otherwise instructed, it is the intention of the persons named in the accompanying proxy card to vote shares represented by properly executed proxy cards for the approval of the amendment of our 2004 Amended and Restated Equity Incentive Plan.

PROPOSAL 4

APPROVAL OF AMENDMENT AND RESTATEMENT OF OUR 2004 EMPLOYEE STOCK PURCHASE PLAN

Our board of directors is recommending that our stockholders approve an amendment and restatement of our 2004 Employee Stock Purchase Plan, or the ESPP, to (a) increase the number of shares of common stock reserved for issuance under the ESPP to 411,659, (b) increase the maximum annual automatic increase in the number of shares reserved for issuance under the ESPP from 83,333 to 100,000, (c) increase the maximum number of shares that any participant may purchase under the ESPP on any single purchase date from 417 to 3,000, and (d) adopt changes to (i) permit administration of the ESPP in accordance with proposed IRS regulations, (ii) clarify the treatment of the ESPP in the event of certain corporate transactions, and (iii) extend the term of the ESPP to ten (10) years from the date of the 2009 annual meeting. Our board of directors believes that these changes are necessary for the ESPP to remain an effective plan to attract and retain employees due, in part, to the 1-for-6 reverse stock split in August 2008, which resulted in reductions in (a) the number of shares reserved for issuance under the ESPP, (b) the amount of the maximum annual automatic increase in the number of shares reserved for issuance under the ESPP, and (c) the maximum number of shares that any participant may purchase under the ESPP on any purchase date.

The affirmative vote of the holders of a majority of the shares represented in person or by proxy and entitled to vote at the 2009 annual meeting will be required to approve the proposed amendment and restatement of the ESPP.

Our board of directors recommends a vote "FOR" the approval of the amendment and restatement of our 2004 Employee Stock Purchase Plan.

Unless otherwise instructed, it is the intention of the persons named in the accompanying proxy card to vote shares represented by properly executed proxy cards for the approval of the amendment and restatement of our 2004 Employee Stock Purchase Plan.

A general description of the ESPP, as proposed to be amended and restated, is set forth below. This description is qualified in its entirety by the terms of the ESPP, a copy of which is attached as **Appendix A** to this proxy statement.

Administration. The ESPP is administered by the compensation committee of our board of directors, and all questions of interpretation or application of the ESPP shall be determined by the compensation committee.

Shares Available Under the ESPP. A total of 411,659 shares of common stock are authorized for purchase over the term of the ESPP, subject to adjustment in the event of a stock split, stock dividend or similar event. In addition, the ESPP provides for annual increases in the total number of shares available for issuance under the ESPP of January 1 of each year, by a number of shares that is equal to the least of:

- 1% of the outstanding shares of our common stock on that date;
- 100,000 shares; or
- A lesser number as determined by the compensation committee prior to January 1.

Eligibility. Any employee of the Company or one of its participating subsidiaries who is regularly expected to work more than 20 hours a week and more than five months in a calendar year, and is not a citizen or resident of a foreign country for whom such employee's participation in the ESPP would result in a violation of any corporate or securities laws of such foreign country, is eligible to participate in the ESPP. However, no person may participate in the ESPP if, immediately after the grant of stock purchase rights under the ESPP, such person would own stock or have rights to purchase five percent or more of the total combined voting power or value of all classes of our capital stock or of any participating subsidiary.

As of December 31, 2008, 5 executive officers and approximately 25 other employees were eligible to participate in the ESPP.

Offering Periods. The ESPP is currently implemented by offering periods of twenty-four (24) month duration commencing on February 15 and August 15 of each year and ending on February 14 and August 14. Each offering period is currently comprised of four six month purchase periods.

Payroll Deductions. The ESPP permits participants to purchase our common stock through payroll deductions of between 1% and 15% of the participant's compensation under the ESPP, up to a maximum of \$21,250 per year, and up to a maximum of 3,000 shares per purchase period. Compensation includes regular wage and salary payments, bonuses, incentive compensation, overtime pay, commissions, draws against commission, and shift premiums, but excludes long term disability or workers' compensation payments, car allowances, relocation payments or expense reimbursements. Compensation also includes amounts a participant elects to contribute to a 401(k) plan or under Section 125 to a cafeteria plan.

Purchase Price. Amounts deducted and accumulated for the participant's account are used to purchase shares of our common stock on the last trading day of each purchase period at a price of 85% of the lower of the fair market values of the common stock at the beginning of the offering period and the end of the purchase period. Participants may end their participation at any time during an offering period, and they will be paid their payroll deductions accumulated to that date without interest. Participation ends automatically upon termination of employment and payroll deductions credited to the participant's account are returned to the participant without interest.

Nontransferability. Stock purchase rights granted under the ESPP are not transferable by a participant other than by will or by the laws of descent and distribution. Shares purchased under the ESPP can be disposed of upon the provision of a notice of disposition if such disposition occurs within two years from the beginning of the offering period during which the shares were acquired or within one year following the date the shares were purchased.

Changes in Capitalization

In the event any change is made to the outstanding shares of common stock by reason of any stock split, stock dividend or any other increase or decrease in the number of issued and outstanding shares of common stock effected without receipt of any consideration by the Company or other change in the corporate structure or capitalization of the Company, the compensation committee shall make appropriate adjustments to (i) the maximum number of securities issuable under the ESPP, the annual share increase, and the maximum number of securities issuable per participant on any one purchase date, and (ii) the number of securities subject to each outstanding purchase right and the purchase price payable per share thereunder.

Corporate Transaction. In the event of the proposed dissolution or liquidation of the Company, the current offering period will terminate immediately prior to the consummation of such dissolution or liquidation, unless otherwise provided by the compensation committee. In the event of (i) a merger of the Company (where the Company is not the surviving corporation), (ii) a merger in which the Company is the surviving corporation but after which the stockholders of the Company immediately prior to such merger cease to own their shares in the Company, (iii) the sale of all or substantially all of the assets of the Company or (iv) the acquisition, sale or transfer of more than 50% of the outstanding shares of the Company by tender offer or similar transaction, all outstanding purchase rights shall be assumed by the surviving corporation, unless the compensation committee, in its sole discretion, determines to shorten the current offering period and establishes a new purchase date, the compensation committee will provide notice to each participant and (i) his or her purchase right will automatically be exercised on the new purchase date, or (ii) the Company will pay to him or her, on the new purchase date, cash, cash equivalents, or property as determined by the compensation committee, that is equal to the difference in the fair market value of the shares of common stock covered by his or her purchase right and the purchase price due had the purchase right been automatically exercised on the new purchase date.

Termination and Amendment. The ESPP shall continue until the earliest to occur of (i) the termination of the ESPP by the board of directors, (ii) issuance of all of the shares of common stock reserved for issuance under the ESPP, or (iii) May 21, 2019.

The board of directors may at any time terminate or amend the ESPP, except that no amendments will be made without stockholder approval which would (i) increase the number of shares that may be issued under the ESPP or (ii) change the designation of employees (or class of employees) eligible for participation in the ESPP. Any changes to the number of purchase periods within an offering period or the duration of purchase periods shall take effect with respect to the first offering period that commences following any such amendment.

Amended Plan Benefits. Because the number of shares of common stock issued under the ESPP depends on the level of participation by its participants, we cannot determine the number of shares of common stock that may be purchased in the future by eligible employees.

Vote Required. The affirmative vote of the holders of a majority of the shares represented in person or by proxy and entitled to vote at the 2009 annual meeting will be required to approve the proposal to amend and restate the ESPP. If you hold your shares in "street name," your broker or nominee will not be permitted to exercise voting discretion with respect this proposal. If you do not give your broker or nominee specific instructions on this proposal, your shares will not be voted with respect to this proposal.

Federal Income Tax Consequences.

The ESPP is intended to be an "employee stock purchase plan" within the meaning of Section 423 of the Internal Revenue Code. Under a plan which so qualifies, no taxable income will be recognized by a participant, and no deductions will be allowable to the Company in connection with the grant or exercise of an outstanding purchase right.

Taxable income will not be recognized until there is a sale or other disposition of the shares acquired under the ESPP or in the event the participant should die while still owning the purchased shares.

If the participant sells or otherwise disposes of the purchased shares within two (2) years after the start date of the offering period in which such shares were acquired or within one (1) year after the actual purchase date of those shares, then the participant will recognize ordinary income in the year of such sale or disposition equal to the amount by which the fair market value of the shares on the purchase date exceeded the purchase price paid for those shares, and the Company will be entitled to an income tax deduction, for the taxable year in which such sale or disposition occurs, equal in amount to such excess.

If the participant sells or disposes of the purchased shares more than two (2) years after the start date of the offering period in which such shares were acquired and more than one (1) year after the actual purchase date of those shares, then the participant will recognize ordinary income in the year of such sale or disposition equal to the lesser of (i) the amount by which the fair market value of the shares on the sale or disposition date exceeds the purchase price paid for those shares or (ii) 15% of the fair market value of the shares on the start date of the offering period, and any additional gain upon the disposition will be taxed as long-term capital gain. The Company will not be entitled to any income tax deduction with respect to such sale or disposition.

If the participant still owns the purchased shares at the time of his or her death, the lesser of (i) the amount by which the fair market value of the shares on the date of death exceeds the purchase price or (ii) 15% of the fair market value of the shares on his or her entry date into the offering period in which those shares were acquired will constitute ordinary income in the year of death.

HOUSEHOLDING OF ANNUAL MEETING MATERIALS

Some banks, brokers and other nominee record holders may be participating in the practice of "householding" proxy statements and annual reports. This means that only one copy of our proxy statement or annual report may have been sent to multiple stockholders in a household. A stockholder may request that we deliver a separate copy of either document by writing to the Secretary, Threshold Pharmaceuticals, Inc., 1300 Seaport Boulevard, Suite 500, Redwood City, California 94063 or by phoning us at (650) 474-8200 and asking for Investor Relations. In the event a stockholder wants to receive separate copies of the annual report and proxy statement in the future, or a stockholder that received multiple copies would like to receive only one copy for such stockholder's household, such stockholder should contact their bank, broker, or other nominee record holder, or contact us at the above address and phone number.

OTHER MATTERS

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

FORM 10-K

We will mail without charge to any stockholder upon written request, a copy of our Annual Report on Form 10-K for the year ended December 31, 2008 including the financial statements, schedules and a list of exhibits. Requests should be sent to: Secretary, Threshold Pharmaceuticals, Inc., 1300 Seaport Boulevard, Suite 500, Redwood City, California 94063.

STOCKHOLDER PROPOSALS FOR 2010 ANNUAL MEETING

Our Bylaws provide that advance notice of a stockholder's proposal must be delivered to our Corporate Secretary at our principal executive offices no earlier than November 8, 2009 or 150 days prior to the anniversary of the mailing date of the proxy materials for the previous year's annual meeting, and not later than December 8, 2009, or 120 days prior to the anniversary of the mailing date of the proxy materials for the previous year's annual meeting. However, our Bylaws also provide that in the event that no annual meeting was held in the previous year or the date of the annual meeting is advanced by more than 30 days or delayed by more than 60 days from the anniversary of the previous year's annual meeting, this advance notice must be received not earlier than or 150 days prior to such annual meeting and not later than the 10th day following the day on which public announcement of the date of such meeting is first made. Each stockholder's notice must contain the following information as to each matter the stockholder proposes to bring before the annual meeting: (a) as to each person whom the stockholder proposes to nominate for election or reelection as a director all information relating to such person that is required to be disclosed pursuant to Regulation 14A under the Exchange Act (including such person's written consent to being named in the proxy statement as a nominee and to serving as a director if elected) and appropriate biographical information and a statement as to the qualification of the nominee; (b) as to any other business that the stockholder proposes to bring before the meeting, a brief description of the business desired to be brought before the meeting, the reasons for conducting such business at the meeting and any material interest in such business of such stockholder and the beneficial owner, if any, on whose behalf the proposal is made; and (c) as to the stockholder giving the notice and the beneficial owner, if any, on whose behalf the nomination or proposal is made (i) the name and

A copy of the full text of the provisions of our Bylaws dealing with stockholder nominations and proposals is available to stockholders from our Corporate Secretary upon written request.

Under the rules of the Securities and Exchange Commission, stockholders who wish to submit proposals for inclusion in the proxy statement of our board of directors for the 2010 annual meeting must submit such proposals so as to be received by us at 1300 Seaport Boulevard, Suite 500, Redwood City, California 94063, on or before December 8, 2009. In addition, if we are not notified by December 8, 2009 of a proposal to be brought before the 2010 annual meeting by a stockholder, then proxies held by management may provide the discretion to vote against such proposal even though it is not discussed in the proxy statement for such meeting.

By Order of the Board of Directors

Dr. Harold E. Selick Chief Executive Officer

Redwood City, California April 9, 2009

YOUR VOTE IS IMPORTANT!

WHETHER OR NOT YOU PLAN TO ATTEND THE MEETING, PLEASE COMPLETE, SIGN, DATE AND MAIL PROMPTLY THE ACCOMPANYING PROXY CARD IN THE ENCLOSED RETURN ENVELOPE, WHICH REQUIRES NO POSTAGE IF MAILED IN THE UNITED STATES. THIS WILL ENSURE THE PRESENCE OF A QUORUM AT THE MEETING. ALTERNATIVELY, YOU MAY VOTE YOUR SHARES ON THE INTERNET OR BY TELEPHONE BY FOLLOWING THE INSTRUCTIONS ON YOUR PROXY CARD. IF YOU ATTEND THE MEETING, YOU MAY VOTE IN PERSON IF YOU WISH TO DO SO EVEN IF YOU HAVE PREVIOUSLY SENT IN YOUR PROXY CARD OR VOTED.

Appendix A

2004 EMPLOYEE STOCK PURCHASE PLAN
OF
THRESHOLD PHARMACEUTICALS, INC.
As Amended and Restated Effective May 22, 2009

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THRESHOLD PHARMACEUTICALS, INC. 2004 EMPLOYEE STOCK PURCHASE PLAN As Amended and Restated Effective May 22, 2009

1. Establishment of Plan.

Threshold Pharmaceuticals, Inc. (the "Company") proposes to grant options for purchase of the Company's Common Stock (the 'Common Stock") to eligible employees of the Company and its Participating Subsidiaries (as hereinafter defined) pursuant to this 2004 Employee Stock Purchase Plan (this "Plan"). For the purposes of this Plan, "Parent Corporation" and "Subsidiary" shall have the same meanings as "parent corporation" and "subsidiary corporation" in Sections 424(e) and 424(f), respectively, of the Internal Revenue Code of 1986, as amended (the "Code"). "Participating Subsidiaries" are Parent Corporations or Subsidiaries that the Board of Directors of the Company (the "Board") designates from time to time as corporations that shall participate in this Plan. The Company intends this Plan to qualify as an "employee stock purchase plan" under Section 423 of the Code (including any amendments to or replacements of such Section), and this Plan shall be so construed. Any term not expressly defined in this Plan but defined for purposes of Section 423 of the Code shall have the same definition herein.

2. Number of Shares.

Effective May 22, 2009, the total number of shares of Common Stock reserved and available for issuance pursuant to this Plan shall be 411,659 (the **Share Limit**'). Such Share Limit is subject to adjustments effected in accordance with Section 15 of this Plan. Notwithstanding the foregoing and subject to Section 15, the Share Limit shall automatically increase on January 1, 2010 and January 1 of each year thereafter until and including January 1, 2019 (unless the Plan is terminated earlier in accordance with the provisions hereof) by the "Annual Increase" which shall consist of a number of shares equal to the least of (i) 100,000, (ii) 1% of the number of shares of all classes of common stock of the Company outstanding on that date, or (iii) a lesser number determined by the Committee, (as hereinafter defined) prior to such January 1, provided, however, that the total number of shares available for issuance under the Plan shall not exceed the initial Share Limit plus the maximum potential cumulative Annual Increase. The Board may at such time as it deems necessary implement a substantially similar plan for employees resident outside the United States ("Foreign Plan") in which case the Share Limit shall be reduced by the number of shares issued under the Foreign Plan may consist, in whole or in part, of authorized and unissued shares or treasury shares reacquired in private transactions or open market purchases, but all shares issued under this Plan and the Foreign Plan shall be counted against the Share Limit.

3. Purpose.

The purpose of this Plan is to provide eligible employees of the Company and Participating Subsidiaries with a convenient means of acquiring an equity interest in the Company through payroll deductions, to enhance such employees' sense of participation in the affairs of the Company and Participating Subsidiaries, and to provide an incentive for continued employment. For the purposes of this Plan, "employee" shall mean any individual who is an employee of the Company or a Participating Subsidiary. Whether an individual qualifies as an employee shall be determined by the Committee, in its sole discretion. The Committee shall be guided by the provisions of Treasury Regulation Section 1.421-7 and Section 3401(c) of the Code and the Treasury Regulations thereunder, with the intent that the Plan cover all "employees" within the meaning of those provisions other than those who are not eligible to participate in the Plan, provided, however, that any determinations regarding whether an individual is an "employee" shall be prospective only, unless otherwise determined by the Committee (as hereinafter defined). Unless the Committee makes a contrary determination, the employees of the Company shall, for all purposes of this Plan, be those individuals who are carried as employees of the Company or a Participating Subsidiary for regular payroll purposes or are on a leave of absence for not more than 90 days. Any inquiries regarding eligibility to participate in the Plan shall be directed to the Committee, whose decision shall be final.

4. Administration.

This Plan shall be administered by the Compensation Committee of the Board (the "Committee"). Subject to the provisions of this Plan and the limitations of Section 423 of the Code or any successor provision in the Code, all questions of interpretation or application of this Plan shall be determined by the Committee and its decisions shall be final and binding upon all participants. Members of the Committee shall receive no compensation for their services in connection with the administration of this Plan, other than standard fees as established from time to time by the Board for services rendered by Board members serving on Board committees. All expenses incurred in connection with the administration of this Plan shall be paid by the Company.

5. Eligibility.

Any employee of the Company or the Participating Subsidiaries who has been so employed for more than 20 hours per week is eligible to participate in an Offering Period (as hereinafter defined) under this Plan except the following:

- (a) employees who are not employed by the Company or a Participating Subsidiary prior to the beginning of such Offering Period or prior to such other time period as specified by the Committee, except that employees who are employed on the effective date of the registration statement filed by the Company with the Securities and Exchange Commission ("SEC") under the Securities Act of 1933, as amended (the "Securities Act") registering the initial public offering of the Company's Common Stock shall be eligible to participate in the first Offering Period under the Plan;
 - (b) employees who are customarily employed for twenty (20) hours or less per week;
 - (c) employees who are customarily employed for five (5) months or less in a calendar year;
- (d) employees who, together with any other person whose stock would be attributed to such employee pursuant to Section 424(d) of the Code, own stock or hold options to purchase stock possessing five percent (5%) or more of the total combined voting power or value of all classes of stock of the Company or any of its Participating Subsidiaries or who, as a result of being granted an option under this Plan with respect to such Offering Period, would own stock or hold options to purchase stock possessing five percent (5%) or more of the total combined voting power or value of all classes of stock of the Company or any of its Participating Subsidiaries;
- (e) individuals who provide services to the Company or any of its Participating Subsidiaries as independent contractors who are reclassified as common law employees for any reason except for federal income and employment tax purposes; and
- (f) employees who are citizens or residents of foreign countries for whom such employees' participation in the Plan would result in a violation under any corporate or securities laws of such foreign country.

6. Offering Dates.

Until changed by resolution of the Committee, the offering periods of this Plan (each, an "Offering Period") shall be of twenty-four (24) months duration commencing on February 15 and August 15 of each year and ending on February 14 and August 14 of each year; provided, however, that the first such Offering Period shall commence on the first business day on which price quotations for the Company's Common Stock are available on the Nasdaq National Market (the "First Offering Date") and shall end on February 14, 2006 (the "First Offering Period"). Except as otherwise provided by the Committee each Offering Period shall be comprised by four six-month "Purchase Periods" except that the first Purchase Period shall commence on the first Offering Date and end February 14, 2005. The first business day of each Offering Period is referred to as the "Offering Date." The last business day of each Purchase Period is referred to as the "Purchase Date." The Committee shall have the power to change the Offering Dates, the Purchase Dates, the duration of Offering Periods or Purchase Periods, or the number of Purchase Periods within an Offering Period without stockholder approval if such change is announced prior to the relevant Offering Period.

7. Participation in this Plan.

Eligible employees may become participants in an Offering Period under this Plan on the Offering Date, after satisfying the eligibility requirements, by delivering a subscription agreement to the Company prior to such Offering Date, or such other time period as specified by the Committee, provided, however, that all eligible employees employed on or before the First Offering Date shall be automatically enrolled in the First Offering Period. Notwithstanding the foregoing, (i) after the filing of an effective Registration Statement pursuant to Form S-8 for shares under the Plan, an eligible employee may elect to decrease the number of shares of Common Stock that such employee would otherwise be permitted to purchase pursuant to Section 8 below for the First Offering Period and/or purchase shares of Common Stock for the First Offering Period through payroll deductions by delivering a subscription agreement to the Company within thirty (30) days following the First Offering Date; and (ii) the Committee may set a later time for delivering the subscription agreement authorizing payroll deductions for all eligible employees with respect to a given Offering Period. Except as provided above with respect to the First Offering Period, an eligible employee who does not deliver a subscription agreement to the Company after becoming eligible to participate in an Offering Period shall not participate in that Offering Period or any subscription agreement on the Company prior to such Offering Period, or such other time period as specified by the Committee. Once an employee becomes a participant in an Offering Period by filing a subscription agreement, such employee shall automatically participate in the Offering Period commencing immediately following the last day of the prior Offering Period unless the employee withdraws or is deemed to withdraw from this Plan or terminates further participation in the Offering Period as set forth in Section 12 below. Such participant is not required to file any additional subscription agreeme

8. Grant of Option on Enrollment.

Enrollment by an eligible employee in this Plan with respect to an Offering Period shall constitute the grant (as of the Offering Date) by the Company to such employee of an option to purchase on the Purchase Date up to that number of shares of Common Stock determined by a fraction, the numerator of which is the amount accumulated in such employee's payroll deduction account during such Purchase Period and the denominator of which is the lower of (i) eighty-five percent (85%) of the fair market value of a share of the Company's Common Stock on the Offering Date (but in no event less than the par value of a share Common Stock), or (ii) eighty-five percent (85%) of the fair market value of a share of Common Stock on the Purchase Date (but in no event less than the par value of a share of the Company's Common Stock), provided, however, that for each Purchase Period within the First Offering Period the numerator shall be fifteen percent (15%) of the eligible employee's compensation for such Purchase Period, unless the employee otherwise elected to decrease the percentage of such employee's compensation, and provided, further, that the number of shares of Common Stock subject to any option granted pursuant to this Plan shall not exceed the lesser of (x) the maximum number of shares set by the Committee pursuant to Section 11(c) below with respect to the applicable Purchase Date, or (y) the maximum number of shares which may be purchased pursuant to Section 11(b) below with respect to the applicable Purchase Date. The fair market value of a share of the Company's Common Stock shall be determined as provided in Section 9 below. Notwithstanding the foregoing, in the event of a change in generally accepted accounting principles which would adversely affect the accounting treatment applicable to any current Offering Period, the Committee may make such changes to reduce the number of Shares purchased at the end of Purchase Period or the purchase price paid as are allowable under generally accepted accounting principles an

9. Purchase Price.

The purchase price per share at which a share of Common Stock shall be sold in any Offering Period shall be eighty-five percent (85%) of the lesser of:

- (a) the fair market value on the Offering Date; or
- (b) the fair market value on the Purchase Date.

For the purposes of this Plan, the term "fair market value" means, as of any date, the value of a share of the Company's Common Stock determined as follows:

- (a) if such Common Stock is then quoted on the Nasdaq National Market, its closing price on the Nasdaq National Market on the date of determination as reported in The Wall Street Journal:
- (b) if such Common Stock is publicly traded and is then listed on a national securities exchange, its closing price on the date of determination on the principal national securities exchange on which the Common Stock is listed or admitted to trading as reported in The Wall Street Journal; or
- (c) if such Common Stock is publicly traded but is not quoted on the Nasdaq National Market nor listed or admitted to trading on a national securities exchange, the average of the closing bid and asked prices on the date of determination as reported in The Wall Street Journal.

Notwithstanding the foregoing, for purposes of the First Offering Date, fair market value shall be the price per share at which shares of the Company's Common Stock are initially offered for sale to the public by the Company's underwriters in the initial public offering of the Company's Common Stock pursuant to a registration statement filed with the SEC under the Securities Act.

10. Payment of Purchase Price; Changes in Payroll Deductions; Issuance of Shares.

- (a) The purchase price of the shares is accumulated by regular payroll deductions made during each Offering Period, provided, however, that for the First Offering Period, the purchase price of the shares shall be paid by the eligible employee in cash on each Purchase Date within the First Offering Period unless the eligible employee elects to purchase such shares through payroll deductions, after the filing of an effective Form S-8 registration statement pursuant to the second sentence of Section 7 above, within thirty (30) days following the First Offering Period. The deductions are made as a percentage of the participant's compensation in one percent (1%) increments, not less than one percent (1%), nor greater than fifteen percent (15%), or such lower limit set by the Committee. Compensation shall mean all W-2 cash compensation, including, but not limited to, base salary, wages, bonuses, incentive compensation, commissions, overtime, shift premiums, plus draws against commissions, provided, however that for purposes of determining a participant's compensation payments, car allowances, relocation payments or expense reimbursements and further provided, however, that for purposes of determining a participant's compensation, any election by such participant to reduce his or her regular cash remuneration under Sections 125 or 401(k) of the Code shall be treated as if the participant did not make such election. Payroll deductions shall commence on the first payday of the Offering Period and shall continue to the end of the Offering Period unless sooner altered or terminated as provided in this Plan.
- (b) A participant may increase or decrease the rate of payroll deductions during an Offering Period by filing with the Company a new authorization for payroll deductions, in which case the new rate shall become effective for the next payroll period commencing after the Company's receipt of the authorization and shall continue for the remainder of the Offering Period unless changed as described below. Such change in the rate of payroll deductions may be made at any time during an Offering Period, but not more than one (1) change may be made effective during any Purchase Period. A participant may increase or decrease the rate of payroll deductions for any subsequent Offering Period by filing with the Company a new authorization for payroll deductions prior to the beginning of such Offering Period, or such other time period as specified by the Committee.
- (c) A participant may reduce his or her payroll deduction percentage to zero during an Offering Period by filing with the Company a request for cessation of payroll deductions. Such reduction shall be effective beginning with the next payroll period after the Company's receipt of the request and no further payroll deductions shall be made for the duration of the Offering Period. Payroll deductions credited to the participant's account prior to the effective date of the request shall be used to purchase shares of Common Stock of the Company in accordance with Section (e) below. A participant may not resume making payroll deductions during the Offering Period in which he or she reduced his or her payroll deductions to zero.

- (d) All payroll deductions made for a participant are credited to his or her account under this Plan and are deposited with the general funds of the Company. No interest accrues on the payroll deductions. All payroll deductions received or held by the Company may be used by the Company for any corporate purpose, and the Company shall not be obligated to segregate such payroll deductions.
- (e) On each Purchase Date, for so long as this Plan remains in effect and provided that the participant has not submitted a signed and completed withdrawal form before that date, which notifies the Company that the participant wishes to withdraw from that Offering Period under this Plan and have all payroll deductions accumulated in the account maintained on behalf of the participant, as of that date returned to the participant, the Company shall apply the funds then in the participant's account to the purchase of whole shares of Common Stock reserved under the option granted to such participant with respect to the Offering Period to the extent that such option is exercisable on the Purchase Date. The purchase price per share shall be as specified in Section 9 of this Plan. Any cash remaining in a participant's account after such purchase of shares shall be refunded to such participant in cash, without interest, provided, however, that any amount remaining in such participant's account on a Purchase Date which is less than the amount necessary to purchase a full share of Common Stock shall be carried forward, without interest, into the next Purchase Period or Offering Period, as the case may be. In the event that this Plan has been oversubscribed, all funds not used to purchase shares on the Purchase Date shall be returned to the participant, without interest. No Common Stock shall be purchased on a Purchase Date on behalf of any employee whose participation in this Plan has terminated prior to such Purchase Date.
- (f) As soon as practicable after the Purchase Date, the Company shall issue shares for the participant's benefit representing the shares purchased upon exercise of his or her option.
- (g) During a participant's lifetime, his or her option to purchase shares hereunder is exercisable only by him or her. The participant shall have no interest or voting rights in shares covered by his or her option until such option has been exercised.

11. Limitations on Shares to be Purchased.

- (a) No participant shall be entitled to purchase stock under this Plan at a rate which, when aggregated with his or her rights to purchase stock under all other employee stock purchase plans of the Company or any Subsidiary, exceeds \$25,000 in fair market value, determined as of the Offering Date (or such other limit as may be imposed by the Code) for each calendar year in which an Offering Period is outstanding, a Purchase Date occurs and the employee participates in this Plan. This limit means that the maximum purchase price for shares purchased during a calendar year is \$21,250 assuming a 15% discount pursuant to Section 9. The Company shall automatically suspend the payroll deductions of any participant as necessary to enforce such limit provided that when the Company automatically resumes such payroll deductions, the Company must apply the rate in effect immediately prior to such suspension.
- (b) No participant shall be entitled to purchase more than the Maximum Share Amount (as defined below) on any single Purchase Date. Prior to the commencement of any Offering Period or prior to such earlier time period as specified by the Committee, the Committee may, in its sole discretion, set a maximum number of shares which may be purchased by any employee at any single Purchase Date (hereinafter the "Maximum Share Amount"). Effective with the first Offering Period commencing after the May 22, 2009 amendment and restatement of the Plan, the Maximum Share Amount shall be 3,000 shares. If a new Maximum Share Amount is set, then all participants must be notified of such Maximum Share Amount prior to the commencement of the next Offering Period. The Maximum Share Amount shall continue to apply with respect to all succeeding Purchase Dates and Offering Periods unless revised by the Committee as set forth above.
- (c) If the number of shares to be purchased on a Purchase Date by all employees participating in this Plan exceeds the number of shares then available for issuance under this Plan, then the Company shall make a pro rata allocation of the remaining shares in as uniform a manner as shall be reasonably practicable and as the Committee shall determine to be equitable. In such event, the Company shall give written notice of such reduction of the number of shares to be purchased under a participant's option to each participant affected.

(d) Any payroll deductions accumulated in a participant's account which are not used to purchase stock due to the limitations in this Section 11 shall be returned to the participant as soon as practicable after the end of the applicable Purchase Period, without interest.

12. Withdrawal.

- (a) Each participant may withdraw from an Offering Period under this Plan by signing and delivering to the Company a written notice to that effect on a form provided for such purpose. Such withdrawal may be elected at any time prior to the end of an Offering Period, or such other time period as specified by the Committee.
- (b) Upon withdrawal from this Plan, the accumulated payroll deductions shall be returned to the withdrawn participant, without interest, and his or her interest in this Plan shall terminate. In the event a participant voluntarily elects to withdraw from this Plan, he or she may not resume his or her participation in this Plan during the same Offering Period, but he or she may participate in any Offering Period under this Plan which commences on a date subsequent to such withdrawal by filing a new authorization for payroll deductions in the same manner as set forth in Section 7 above for initial participation in this Plan.
- (c) If the Fair Market Value on the first day of the current Offering Period in which a participant is enrolled is higher than the Fair Market Value on the first day of the immediately succeeding Offering Period, the Company shall automatically enroll such participant in the subsequent Offering Period at the same rate of payroll deductions (and if the Offering Period is comprised of two or more Purchase Periods, the Company shall automatically withdraw the participant from the preceding Offering Period). Any funds accumulated in a participant's account prior to the first day of such subsequent Offering Period shall be applied to the purchase of shares on the Purchase Date immediately prior to the first day of such subsequent Offering Period, if any.

13. Termination of Employment.

Termination of a participant's employment for any reason, including retirement, death or the failure of a participant to remain an eligible employee of the Company or of a Participating Subsidiary, shall immediately terminate his or her participation in this Plan. In such event, the payroll deductions credited to the participant's account shall be returned to him or her or, in the case of his or her death, to his or her legal representative, without interest. For purposes of this Section 13, an employee shall not be deemed to have terminated employment or failed to remain in the continuous employ of the Company or of a Participating Subsidiary in the case of sick leave, military leave, or any other leave of absence approved by the Board, provided, however that such leave is for a period of not more than ninety (90) days or reemployment upon the expiration of such leave is guaranteed by contract or statute.

14. Return of Payroll Deductions.

In the event a participant's interest in this Plan is terminated by withdrawal, termination of employment or otherwise, or in the event this Plan is terminated by the Board, the Company shall deliver to the participant all payroll deductions credited to such participant's account. No interest shall accrue on the payroll deductions of a participant in this Plan.

15. Capital Changes.

Subject to any required action by the stockholders of the Company, the number and type of shares of Common Stock covered by each option under this Plan which has not yet been exercised and the number and type of shares of Common Stock which have been authorized for issuance under this Plan, including the Annual Increase, but have not yet been placed under option (collectively, the "Reserves"), the Maximum Share Amount, as well as the price per share of Common Stock covered by each option under this Plan which has not yet been exercised, shall be proportionately adjusted for any increase or decrease in the number of issued and outstanding

shares of Common Stock of the Company resulting from a stock split or the payment of a stock dividend (but only on the Common Stock), any other increase or decrease in the number of issued and outstanding shares of Common Stock effected without receipt of any consideration by the Company or other change in the corporate structure or capitalization affecting the Company's present Common Stock, provided, however, that conversion of any convertible securities of the Company shall not be deemed to have been "effected without receipt of consideration." Such adjustment shall be made by the Committee, whose determination shall be final, binding and conclusive. Except as expressly provided herein, no issue by the Company of shares of stock of any class, or securities convertible into shares of stock of any class, shall affect, and no adjustment by reason thereof shall be made with respect to, the number or price of shares of Common Stock subject to an option.

In the event of the proposed dissolution or liquidation of the Company, the Offering Period shall terminate immediately prior to the consummation of such proposed action, unless otherwise provided by the Committee. The Committee may, in the exercise of its sole discretion in such instances, declare that this Plan shall terminate as of a date fixed by the Committee and give each participant the right to purchase shares under this Plan prior to such termination. In the event of (i) a merger or consolidation in which the Company is not the surviving corporation (other than a merger or consolidation with a wholly-owned subsidiary, a reincorporation of the Company in a different jurisdiction, or other transaction in which there is no substantial change in the stockholders of the Company or their relative stock holdings and the options under this Plan are assumed, converted or replaced by the successor corporation, which assumption shall be binding on all participants), (ii) a merger in which the Company is the surviving corporation but after which the stockholders of the Company immediately prior to such merger (other than any stockholder that merges, or which owns or controls another corporation that merges, with the Company in such merger) cease to own their shares or other equity interest in the Company, (iii) the sale of all or substantially all of the assets of the Company, or (iv) the acquisition, sale, or transfer of more than 50% of the outstanding shares of the Company by tender offer or similar transaction (each, a "Corporate Transaction"), each option under the Plan shall be assumed by such surviving corporation, unless the Committee, in the exercise of its sole discretion and in lieu of such assumption, determines to shorten the Offering Period then in progress by setting a new Purchase Date (the "New Purchase Date"). If the Committee shortens the Offering Period then in progress by setting a new Purchase Date (the New Purchase Date of the participant's option has been changed to the New Purchase Date an

- (a) the participant's option will be exercised automatically on the New Purchase Date, unless prior to such date the participant has withdrawn from the Offering Period as provided in Section 12; or
- (b) the Company shall pay to the participant on the New Purchase Date an amount in cash, cash equivalents, or property as determined by the Committee that is equal to the difference in Fair Market Value of the shares subject to the option and the Purchase Price due had the participant's option been exercised automatically under Section 15(a) above.

The Plan shall continue with regard to Offering Periods that commenced prior to the closing of the proposed transaction and shares shall be purchased based on the Fair Market Value of the surviving corporation's stock on each Purchase Date, unless otherwise provided by the Committee. For purposes of this Section 15, an option granted under the Plan shall be deemed to be assumed if, in connection with the Corporate Transaction, the option is replaced with a comparable option with respect to shares of capital stock of the surviving corporation or parent thereof. The determination of option comparability shall be made by the Committee prior to the Corporate Transaction and its determination shall be final, binding and conclusive on all persons.

The Committee may, if it so determines in the exercise of its sole discretion, also make provision for adjusting the Reserves, the Maximum Share Amount, as well as the price per share of Common Stock covered by each outstanding option, in the event that the Company effects one or more reorganizations, recapitalizations, rights offerings or other increases or reductions of shares of its outstanding Common Stock, or in the event of the Company being consolidated with or merged into any other corporation.

16. Nonassignability.

Neither payroll deductions credited to a participant's account nor any rights with regard to the exercise of an option or to receive shares under this Plan may be assigned, transferred, pledged or otherwise disposed of in any way (other than by shall, the laws of descent and distribution or as provided in Section 23 below) by the participant. Any such attempt at assignment, transfer, pledge or other disposition shall be void and without effect.

17. Reports.

Individual accounts shall be maintained for each participant in this Plan. Each participant shall receive, as soon as practicable after the end of each Purchase Period, a report of his or her account setting forth the total payroll deductions accumulated, the number of shares purchased, the per share price thereof and the remaining cash balance, if any, carried forward to the next Purchase Period or Offering Period, as the case may be.

18. Notice of Disposition.

Each participant shall notify the Company in writing if the participant disposes of any of the shares purchased in any Offering Period pursuant to this Plan if such disposition occurs within two (2) years from the Offering Date or within one (1) year from the Purchase Date on which such shares were purchased (the "Notice Period"). The Company may, at any time during the Notice Period, place a legend or legends on any certificate representing shares acquired pursuant to this Plan requesting the Company's transfer agent to notify the Company of any transfer of the shares. The obligation of the participant to provide such notice shall continue notwithstanding the placement of any such legend on the certificates.

19. No Rights to Continued Employment.

Neither this Plan nor the grant of any option hereunder shall confer any right on any employee to remain in the employ of the Company or any Participating Subsidiary, or restrict the right of the Company or any Participating Subsidiary to terminate such employee's employment.

20. Equal Rights and Privileges.

All eligible employees shall have equal rights and privileges with respect to this Plan so that this Plan qualifies as an "employee stock purchase plan" within the meaning of Section 423 or any successor provision of the Code and the related regulations. Any provision of this Plan which is inconsistent with Section 423 or any successor provision of the Code shall, without further act or amendment by the Company, the Committee or the Board, be reformed to comply with the requirements of Section 423. This Section 20 shall take precedence over all other provisions in this Plan.

21. Notices.

All notices or other communications by a participant to the Company under or in connection with this Plan shall be deemed to have been duly given when received in the form specified by the Company at the location, or by the person, designated by the Company for the receipt thereof.

22. Term; Stockholder Approval.

After this Plan is adopted by the Board, this Plan shall become effective on the First Offering Date (as defined above). This Plan shall be approved by the stockholders of the Company, in any manner permitted by applicable corporate law, within twelve (12) months before or after the date this Plan is adopted by the Board. No purchase of shares pursuant to this Plan shall occur prior to such stockholder approval. This Plan shall continue until the earlier to occur of (a) termination of this Plan by the Board (which termination may be effected by the Board at any time), (b) issuance of all of the shares of Common Stock reserved for issuance under this Plan, or (c) ten (10) years from the May 22, 2009 amendment and restatement of the Plan.

23. Designation of Beneficiary.

- (a) A participant may file a written designation of a beneficiary who is to receive any shares and cash, if any, from the participant's account under this Plan in the event of such participant's death subsequent to the end of a Purchase Period but prior to delivery to him of such shares and cash. In addition, a participant may file a written designation of a beneficiary who is to receive any cash from the participant's account under this Plan in the event of such participant's death prior to a Purchase Date.
- (b) Such designation of beneficiary may be changed by the participant at any time by written notice. In the event of the death of a participant and in the absence of a beneficiary validly designated under this Plan who is living at the time of such participant's death, the Company shall deliver such shares or cash to the executor or administrator of the estate of the participant, or if no such executor or administrator has been appointed (to the knowledge of the Company), the Company, in its discretion, may deliver such shares or cash to the spouse or to any one or more dependents or relatives of the participant, or if no spouse, dependent or relative is known to the Company, then to such other person as the Company may designate.

24. Conditions Upon Issuance of Shares; Limitation on Sale of Shares.

Shares shall not be issued with respect to an option unless the exercise of such option and the issuance and delivery of such shares pursuant thereto shall comply with all applicable provisions of law, domestic or foreign, including, without limitation, the Securities Act, the Securities Exchange Act of 1934, as amended, the rules and regulations promulgated thereunder, and the requirements of any stock exchange or automated quotation system upon which the shares may then be listed, and shall be further subject to the approval of counsel for the Company with respect to such compliance.

25. Applicable Law.

The Plan shall be governed by the substantive laws (excluding the conflict of laws rules) of the State of Delaware.

26. Amendment or Termination.

The Board may at any time amend, terminate or extend the term of this Plan, except that any such termination cannot affect options previously granted under this Plan, nor may any amendment make any change in an option previously granted which would adversely affect the right of any participant, nor may any amendment be made without approval of the stockholders of the Company obtained in accordance with Section 22 above within twelve (12) months of the adoption of such amendment (or earlier if required by Section 22) if such amendment would:

- (a) increase the number of shares that may be issued under this Plan; or
- (b) change the designation of the employees (or class of employees) eligible for participation in this Plan.

Notwithstanding the foregoing, the Board may make such amendments to the Plan as the Board determines to be advisable and which do not cause unfavorable accounting treatment, including changes with respect to current Offering Periods or Purchase Period, if the continuation of the Plan or any Offering Period would result in financial accounting treatment for the Plan that is different from the financial accounting treatment in effect on the date this Plan is adopted by the Board; provided, however, that any changes to the number of Purchase Periods within an Offering Period or the duration of Purchase Periods shall take effect with respect to the first Offering Period that commences following any such amendment.



THRESHOLD PHARMACEUTICALS, INC. 1300 SEAPORT BOULEVARD STESOO REDWOOD CITY, CA 94063

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

Electronic Delivery of Future PROXY MATERIALS
If you would like to reduce the costs incurred by our company in mailing proxy materials, you can consent to receiving all future proxy statements, proxy cards and annual reports electronically via e-mail or the Internet. To sign up for electronic delivery, please follow the instructions above to vote using the Internet and, when prompted, indicate that you agree to receive or access proxy materials electronically in future years.

VOTE BY PHONE - 1-800-690-4903
Use any touch-tone telephone to transmit your voting instructions up until 11:59
P.M. Eastern Time the day before the cut-off date or meeting date. Have your proxy card in hand when you call and then follow the instructions.

VOTE BY MAIL.

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

VOTE, MARK BLOCKS BELOW IN BLUE OR BLACK INK AS FOLD							DETACH AND				
THIS PROXY	CARD	IS V	ALID O	NLY WHEN	SIGNED	AND	DATED.	DETACH AND	RETURN	INTO LOK	TON ONL
The Board of Directors recommends that you vote FOR the following: 1. Election of Directors Nominees	For	Withhold	For All Except	individua	nominee d write t	(s), m	vote for eark "For ber(s) of low.	A11		-	\neg
01 William A. Halter 02 Wilfred E. Jaeger											
The Board of Directors recommends you vote FOR the fol	llowing	proposa	1(s):						For	Against	Abstain
 To ratify the appointments of Pricewaterhouse Coop fiscal year ending December 31, 2009. 	ers as	the com	pany's in	dependent reg	gistered po	ublic a	ccounting f	irm for the	0	0	0
3 To approve the amendment of the 2004 Amended and R	Restate	d Equity	Incentive	Plan as des	scribed in	the Pr	oxy Stateme	nt.	0	0	0
4 To approve the amendment and restatement of the 20	004 Emp	loyee St	ock Purch	ise Plan as o	described	in the	Proxy State	ment.	0	0	0
NOTE: To transact such other business as may properly shares represented by this proxy when properly executs Stockholder(s). If no direction is made, this proxy before the meeting, or if cumulative voting is required to the meeting of the cumulative voting is required.	d will	be vote voted F	d in the r OR items	anner direct	ted herein	by the	undersiged atters prop	erly come			
For address change/comments, mark here. (see reverse for instructions)	Yes	No	0								
Please indicate if you plan to attend this meeting	0	0									
Please sign exactly as your name(s) appear(s) hereon. please give full title as such. Joint owners should expartnership, please sign in full corporate or partners	sch sig	n person	ally. All	holders must	administra t sign. If	ator, o a corp	r other fid oration or	luciary,	1		
Signature [PLEASE SIGN WITHIN BOX] Date				Signature	(Joint Own	ners)		Date			

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

THRESHOLD PHARMACEUTICALS, INC. This proxy is solicited by stockholders Annual meeting of the board of directors May 22, 2009 at 9:00 AM

The stockholder(s) hereby appoint(s) Harold E. Selick and John G. Curd, or either of them, as proxies, each with the power to appoint (his/her) substitute, and hereby authorizes them to represent and to vote, as designated on the reverse side of this ballot, all of the shares of (Common/Preferred) stock of THRESHOLD PHARMACEUTICALS, INC. that the stockholder(s) is/are entitled to vote at the Annual meeting of shareholder(s) to be held at 9:00 AM, PST on 5/22/2009, at Threshold Pharmaceuticals, Inc. 1300 Seaport Blvd., Suite 500 Redwood City, CA 94063, and any adjournment or postponement thereof.

Address change/comments:

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

Continued and to be signed on reverse side