

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

**FORM S-8  
REGISTRATION STATEMENT  
UNDER  
THE SECURITIES ACT OF 1933**

**THRESHOLD PHARMACEUTICALS, INC.**

(Exact Name of Registrant as Specified in Its Charter)

**Delaware**  
(State or Other Jurisdiction of  
Incorporation or Organization)

**94-3409596**  
(I.R.S. Employer  
Identification No.)

**1300 Seaport Boulevard  
Redwood City, California 94063**  
(Address of Principal Executive Offices)

**Threshold Pharmaceuticals, Inc. Amended and Restated 2004 Equity Incentive Plan  
Threshold Pharmaceuticals, Inc.  
2004 Employee Stock Purchase Plan**  
(Full Title of the Plans)

**Harold E. Selick, Ph.D.**  
Chief Executive Officer  
**1300 Seaport Boulevard  
Redwood City, California 94063**  
(Name and Address of Agent For Service)

**(650) 474-8200**  
(Telephone Number, Including Area Code, of Agent For Service)

*Copy to:*  
**Sarah A. O'Dowd, Esq.**  
Heller Ehrman LLP  
275 Middlefield Road  
Menlo Park, California 94025  
Telephone: (650) 324-7000  
Facsimile: (650) 324-0638

**CALCULATION OF REGISTRATION FEE**

Title of Securities to be Registered	Amount to be Registered (1)	Proposed Maximum Offering Price per Share	Proposed Maximum Aggregate Offering Price	Amount of Registration Fee
Threshold Pharmaceuticals, Inc. 2004 Amended and Restated Equity Incentive Plan, Common Stock, par value \$0.001 per share	1,214,402	\$4.17(2)	\$5,064,056	\$542
Threshold Pharmaceuticals, Inc. 2004 Employee Stock Purchase Plan, Common Stock, par value \$0.001 per share	372,315	\$3.54(3)	\$1,317,995	\$141
<b>TOTAL</b>	<b>1,586,717</b>		<b>\$6,383,727</b>	<b>\$683</b>

- (1) Pursuant to Rule 416(a), this registration statement also covers any additional securities that may be offered or issued in connection with any stock split, stock dividend or similar transaction.
- (2) Estimated solely for the purpose of computing the amount of registration fee pursuant to Rule 457(h) under the Securities Act of 1933, as amended (the "Securities Act"), based on the average of the high and low prices of Registrant's Common Stock reported on the Nasdaq National Market on May 26, 2006.
- (3) Estimated in accordance with Rule 457(h) under the Securities Act solely for the purpose of calculating the registration fee. The computation is based upon the average of the high and low sale prices of the common stock as reported on the Nasdaq National Market on May 26, 2006, multiplied by 85%, which is the percentage of the trading purchase price applicable to purchases under the referenced Plan.

**Explanatory Note**

This Registration Statement is being filed for the purpose of increasing the number of securities of the same class as other securities for which a Registration Statement of Threshold Pharmaceuticals, Inc., or Registrant, on Form S-8 relating to the same employee benefit plans are effective. Registrant's Registration Statement on Form S-8 filed with the Securities and Exchange Commission, or SEC, on June 30, 2005 (File No. 333-126276) is hereby incorporated by reference.



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**PART II**  
**INFORMATION REQUIRED IN THE REGISTRATION STATEMENT**

**Item 3. Incorporation of Documents by Reference**

The following documents, which have been filed by Registrant with the SEC, are hereby incorporated by reference in this Registration Statement:

- (a) Registrant's Annual Report on Form 10-K filed on March 28, 2006, which contains audited financial statements for the Registrant's latest fiscal year for which such statements have been filed;
- (b) Registrant's Current Reports on Form 8-K filed on February 9, 2006, March 17, 2006, April 4, 2006; May 10, 2006 and May 12, 2006;
- (c) Registrant's Quarterly Report on Form 10-Q filed on May 15, 2006; and
- (d) The description of Registrant's Common Stock contained in the Registration Statement on Form 8-A filed pursuant to Section 12 of the Exchange Act of 1934, as amended (the "Exchange Act"), on January 28, 2005, as amended on February 4, 2005, and any amendment or report filed with the SEC for the purpose of updating such description.

All documents subsequently filed by Registrant pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act, prior to the filing of a post-effective amendment to this registration statement which indicates that all securities offered hereby have been sold or which deregisters all securities remaining unsold, shall be deemed to be incorporated by reference in this registration statement and to be a part hereof from the date of filing of such documents.

**Item 4. Description of Securities**

Not applicable.

**Item 5. Interests of Named Experts and Counsel**

Not applicable.

**Item 6. Indemnification of Directors and Officers**

Registrant's amended and restated certificate of incorporation limits the liability of directors to the maximum extent permitted by Delaware law. Delaware law provides that directors of a corporation will not be personally liable for monetary damages for breach of their fiduciary duties as directors, except liability for:

- any breach of their duty of loyalty to the corporation or its stockholders;
- acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law;
- unlawful payments of dividends or unlawful stock repurchases or redemptions; or
- any transaction from which the director derived an improper personal benefit.

Registrant's bylaws provide that it will indemnify its directors and officers to the fullest extent permitted by law, including if he or she is serving as a director, officer, employee or agent of another company at Registrant's request. Registrant believes that indemnification under its bylaws covers at least negligence and gross negligence on

the part of indemnified parties. Registrant's bylaws also permit Registrant to secure insurance on behalf of any officer, director, employee or other agent for any liability arising out of his or her actions in connection with their services to Registrant, regardless of whether our bylaws permit such indemnification.

Registrant has entered into separate indemnification agreements with its directors and executive officers, in addition to the indemnification provided for in its bylaws. These agreements, among other things, provide that Registrant will indemnify its directors and executive officers for certain expenses (including attorneys' fees), judgments, fines and settlement amounts incurred by a director or executive officer in any action or proceeding arising out of such person's services as one of Registrant's directors or executive officers, or any of Registrant's subsidiaries or any other company or enterprise to which the person provides services at Registrant's request. Registrant believes that these provisions and agreements are necessary to attract and retain qualified persons as directors and executive officers.

**Item 7. Exemption from Registration Claimed**

Not applicable.

**Item 8. Exhibits**

<u>Item No.</u>	<u>Description of Item</u>
4.1	Specimen Certificate evidencing shares of common stock (Incorporated by reference to Exhibit 3.2 of Registrant's Registration Statement on Form S-1, as amended (File No. 333-114376), filed on April 9, 2004)
5.1	Opinion of Heller Ehrman LLP
23.1	Consent of PricewaterhouseCoopers LLP, Independent Registered Public Accounting Firm
23.2	Consent of Heller Ehrman LLP (filed as part of Exhibit 5.1)
24.1	Power of Attorney (See page II-5)
99.1	Threshold Pharmaceuticals, Inc. Amended and Restated 2004 Equity Incentive Plan (Incorporated by reference to Registrant's Current Report on Form 8-K filed on May 24, 2005)
99.2	Threshold Pharmaceuticals, Inc. 2004 Employee Stock Purchase Plan (Incorporated by reference to Registrant's Registration Statement on Form S-1 filed on Registrant's Amendment No. 5 to Registration Statement on Form S-1 filed on January 11, 2005 (No. 333-114376))

**Item 9. Undertakings**

- (a) The undersigned Registrant hereby undertakes:
  - (1) To file, during any period in which offers or sales are being made, a post-effective amendment to this Registration Statement:
    - (i) To include any prospectus required by Section 10(a)(3) of the Securities Act;

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- (ii) To reflect in the prospectus any facts or events arising after the effective date of this Registration Statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in this Registration Statement; and
- (iii) To include any material information with respect to the plan of distribution not previously disclosed in this Registration Statement or any material change to such information in this Registration Statement;

*provided, however,* that paragraphs (a)(1)(i) and (a)(1)(ii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in periodic reports filed with or furnished to the Commission by the Registrant pursuant to Section 13 or 15(d) of the Exchange Act that are incorporated by reference in this Registration Statement.

(2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(b) The undersigned Registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the Registrant's annual report pursuant to Section 13(a) or 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference in this Registration Statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(h) Insofar as the indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant pursuant to the provisions described in Item 6 above, or otherwise, the Registrant has been advised that in the opinion of the Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question of whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

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**SIGNATURES**

Pursuant to the requirements of the Securities Act, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Redwood City, State of California, on this 31st day of May, 2006.

**THRESHOLD PHARMACEUTICALS, INC.**

By: /s/ Harold E. Selick  
Harold E. Selick, Ph.D.  
Chief Executive Officer

**POWER OF ATTORNEY TO SIGN AMENDMENT**

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Harold E. Selick and Michael S. Ostrach, his or her attorneys-in-fact and agents, each acting alone, with the power of substitution and resubstitution, for him or her and in his or her name, place or stead, in any and all capacities, to sign any amendments to this Registration Statement on Form S-8, and to file such amendments, together with exhibits and other documents in connection therewith, with the Securities and Exchange Commission, granting to the attorney-in-fact and agent, full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully as he or she might or could do in person, and ratifying and confirming all that the attorney-in-fact and agent, or his or her substitute or substitutes, may do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act, this Registration Statement on Form S-8 has been signed by the following persons in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/S/ HAROLD E. SELICK</u> Harold E. Selick	Chairman of the Board of Directors and Chief Executive Officer (principal executive officer)	May 31, 2006
<u>/S/ JANET I. SWEARSON</u> Janet I. Swearson	Chief Financial Officer (principal financial and accounting officer)	May 31, 2006
<u>/S/ BRUCE C. COZADD</u> Bruce C. Cozadd	Director	May 31, 2006
<u>/S/ PATRICK G. ENRIGHT</u> Patrick G. Enright	Director	May 31, 2006
<u>/S/ WILLIAM A. HALTER</u> William A. Halter	Director	May 31, 2006
<u>/S/ WILFRED E. JAEGER</u> Wilfred E. Jaeger	Director	May 31, 2006
<u>/S/ GEORGE G. C. PARKER</u> George G. C. Parker	Director	May 31, 2006
<u>/S/ MICHAEL F. POWELL</u> Michael F. Powell	Director	May 31, 2006

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## INDEX TO EXHIBITS

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[LETTERHEAD OF HELLER EHRMAN LLP]  
OPINION OF HELLER EHRMAN LLP

May 31, 2006

Threshold Pharmaceuticals, Inc.  
1300 Seaport Boulevard  
Redwood City, California 94063

Re: Registration Statement on Form S-8

Ladies and Gentlemen:

We have examined the Registration Statement on Form S-8 (the "*Registration Statement*") filed by you with the Securities and Exchange Commission (the "*Commission*") on or about May 31, 2006 in connection with the registration under the Securities Act of 1933, as amended, of an additional 1,214,402 shares of your Common Stock (the "*Plan Shares*") reserved for issuance under the Threshold Pharmaceuticals, Inc. Amended and Restated 2004 Equity Incentive Plan (the "*2004 Plan*") and of an additional 372,315 shares of your Common Stock (the "*ESPP Shares*", which together with the Plan Shares, are the "*Shares*") reserved for issuance under the Threshold Pharmaceuticals, Inc. 2004 Employee Stock Purchase Plan (the "*2004 ESPP*", which together with the 2004 Plan, are the "*Plans*").

In connection with this opinion, we have assumed the authenticity of all records, documents and instruments submitted to us as originals, the genuineness of all signatures, the legal capacity of natural persons and the conformity to the originals of all records, documents and instruments submitted to us as copies. We have based our opinion upon our review of the following records, documents and instruments:

- a. The Amended and Restated Certificate of Incorporation of the Company, as amended to date, certified by the Secretary of State of the State of Delaware as of May 10, 2006 and certified to us by an officer of the Company as being complete and in full force and effect as of the date of this opinion;
- b. The Bylaws of the Company, as amended to date, certified to us by an officer of the Company as being complete and in full force and effect as of the date of this opinion;
- c. A Certificate of an officer of the Company (i) attaching records certified to us as constituting all records of proceedings and actions of the Board of Directors and stockholders of the Company relating to the adoption and approval of the Plans and the Registration Statement, and (ii) certifying as to certain factual matters;
- d. A Certificate of Mellon Investors Services LLC, the transfer agent of the Company, certifying as to the number of outstanding shares of common stock of the Company;
- e. The Registration Statement; and
- f. The Plans.

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This opinion is limited to the federal laws of the United States of America and the General Corporation Law of the State of Delaware. We disclaim any opinion as to any other statute, rule, regulation, ordinance, order or other promulgation of any other jurisdiction or any regional or local governmental body or as to any related judicial or administrative opinion.

Based upon the foregoing and our examination of such questions of law as we have deemed necessary or appropriate for the purpose of this opinion, and assuming that (i) the Registration Statement becomes and remains effective during the period when the Shares are offered, issued and sold, (ii) the Shares to be sold are issued in accordance with the terms of the Plans, (iii) the Company receives the full consideration for the Shares as stated in the Plans, (iv) the per share consideration for each Share includes payment of cash or other lawful consideration at least equal to the par value of the Company's Common Stock and (v) all applicable securities laws are complied with, it is our opinion that the Shares covered by the Registration Statement, when issued and sold by the Company, after payment therefore in the manner provided in the applicable Plan and the Registration Statement, will be legally issued, fully paid and nonassessable.

This opinion is rendered to you in connection with the Registration Statement and is solely for your benefit. This opinion may not be relied upon by you for any other purpose, or relied upon by any other person, firm, corporation or other entity for any purpose, without our prior written consent. We disclaim any obligation to advise you of any change of law that occurs, or any facts of which we may become aware, after the date of this opinion.

We consent to the use of this opinion as an exhibit to the Registration Statement and further consent to the use of our name wherever appearing in the Registration Statement, including the Prospectus constituting a part thereof, and in any amendment thereto.

Very truly yours,

/s/ Heller Ehrman LLP

**CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

We hereby consent to the incorporation by reference in this Registration Statement on Form S-8 of our report dated March 27, 2006 relating to the financial statements of Threshold Pharmaceuticals, Inc., which appears in the Threshold Pharmaceuticals, Inc. Annual Report on Form 10-K for the year ended December 31, 2005.

/s/ PricewaterhouseCoopers LLP

San Jose, California  
May 30, 2006