

**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, Suite 500
Redwood City, California 94063**
(Address of Principal Executive Offices)

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

Harold E. Selick, Ph.D.
Chief Executive Officer
1300 Seaport Boulevard, Suite 500
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:

Stephen Thau, Esq.
Morrison & Foerster LLP
755 Page Mill Road
Palo Alto, California 94304
Telephone: (650) 813-5640
Facsimile: (650) 251-3745

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer

Accelerated filer

Non-accelerated filer (Do not check if a smaller reporting company)

Smaller reporting company

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	2,250,000	\$1.44(2)	\$3,240,000	\$231.01

- (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 the Registrant's Common Stock reported on the NASDAQ Capital Market on May 28, 2010.

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 Registration Statements of Threshold Pharmaceuticals, Inc., or Registrant, on Form S-8 relating to the same employee benefit plans are effective. Registrant's Registration Statements on Form S-8 filed with the Securities and Exchange Commission on June 30, 2005 (File No. 333-126276), May 31, 2006 (File No. 333-134598), May 21, 2007 (File No. 333-143130), January 15, 2009 (File No. 333-156733) and February 12, 2010 (File No. 333-164865) are hereby incorporated by reference.

PART I

INFORMATION REQUIRED IN THE SECTION 10(a) PROSPECTUS

The documents containing the information specified in this Part I of Form S-8 (plan information and registrant information and employee plan annual information) will be sent or given to employees as specified by Securities and Exchange Commission Rule 428(b)(1). Such documents need not be filed with the Securities and Exchange Commission either as part of this Registration Statement or as prospectuses or prospectus supplements pursuant to Rule 424. These documents and the documents incorporated by reference in this Registration Statement pursuant to Item 3 of Part II of this Form S-8, taken together, constitute a prospectus that meets the requirements of Section 10(a) of the Securities Act of 1933.

PART II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference

The following documents, which have been filed by Threshold Pharmaceuticals, Inc. (the "Registrant") with the Securities and Exchange Commission ("SEC"), are hereby incorporated by reference in this Registration Statement:

- (a) Registrant's Registration Statements on Form S-8 filed with the SEC on June 30, 2005 (File No. 333-126276), May 31, 2006 (File No. 333-134598), May 21, 2007 (File No. 333-143130), January 15, 2009 (File No. 333-156733) and February 12, 2010 (File No. 333-164865);
- (b) Registrant's Annual Report on Form 10-K for the year ended December 31, 2009, filed with the SEC on March 8, 2010, which contains audited financial statements for the Registrant's latest fiscal year for which such statements have been filed;
- (c) Registrant's Current Reports on Form 8-K filed with the SEC on January 13, 2010, January 26, 2010, March 4, 2010, March 31, 2010, May 12, 2010, May 20, 2010 and June 1, 2010 (except for information in such reports concerning financial results);
- (d) Registrant's Quarterly Report on Form 10-Q for the quarter ended March 31, 2010 filed with the SEC on May 6, 2010; and
- (e) The description of Registrant's Common Stock contained in the Registration Statement on Form 8-A filed with the SEC 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.

To the extent that any proxy statement or Form 8-K is incorporated herein by reference, such incorporation shall not include any information contained in such proxy statement or Form 8-K which is not, pursuant to the SEC's rules, deemed to be "filed" with the SEC or subject to the liabilities of Section 18 of the Exchange Act.

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 Morrison & Foerster LLP
23.1	Consent of PricewaterhouseCoopers LLP, Independent Registered Public Accounting Firm
23.2	Consent of Morrison & Foerster LLP (filed as part of Exhibit 5.1)

- 24.1 Power of Attorney (See page II-5)
- 99.1 Threshold Pharmaceuticals, Inc. 2004 Amended and Restated Equity Incentive Plan (as amended on May 19, 2010) (Incorporated by reference to Appendix B of Registrant's Definitive Proxy Statement on Form DEF 14A, filed on April 5, 2010)

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;

(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. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective 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 of 1933, 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 of 1933, each filing of the Registrant's annual report pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Securities Exchange Act of 1934) 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 of 1933 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 Securities and Exchange

Commission such indemnification is against public policy as expressed in the 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 Act and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, 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 Redwood City, California, on this 2nd day of June, 2010.

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 Joel A. Fernandes, his attorneys-in-fact and agents, each acting alone, with the power of substitution and resubstitution, for him and in his 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 might or could do in person, and ratifying and confirming all that the attorney-in-fact and agent, or his 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, Ph.D.</u> Harold E. Selick, Ph.D.	Chief Executive Officer (principal executive officer)	June 2, 2010
<u>/s/ Joel A. Fernandes</u> Joel A. Fernandes	Senior Director, Finance and Controller (principal financial and accounting officer)	June 2, 2010
<u>/s/ Jeffrey W. Bird, M.D., Ph.D.</u> Jeffrey W. Bird, M.D., Ph.D.	Director	June 2, 2010
<u>/s/ Bruce C. Cozadd</u> Bruce C. Cozadd	Director	June 2, 2010
<u>/s/ David R. Hoffmann</u> David R. Hoffmann	Director	June 2, 2010
<u>/s/ Wilfred E. Jaeger, M.D.</u> Wilfred E. Jaeger, M.D.	Director	June 2, 2010
<u>/s/ George G. C. Parker, Ph.D.</u> George G. C. Parker, Ph.D.	Director	June 2, 2010
<u>/s/ David R. Parkinson, M.D.</u> David R. Parkinson, M.D.	Director	June 2, 2010

INDEX TO EXHIBITS

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[LETTERHEAD OF MORRISON & FOERSTER LLP]

OPINION OF MORRISON & FOERSTER LLP

June 2, 2010

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 to be filed by Threshold Pharmaceuticals, Inc., a Delaware corporation (the "Company"), with the Securities and Exchange Commission on or about June 2, 2010 (the "Registration Statement"), relating to the registration under the Securities Act of 1933, as amended, of an aggregate of 2,250,000 shares of the Company's Common Stock, \$0.001 par value (the "Shares") reserved for issuance under the Company's 2004 Amended and Restated Equity Incentive Plan (the "Plan").

As counsel to the Company, we have examined the proceedings taken or to be taken by the Company in connection with the adoption of the Plan and the authorization and registration of the Shares, and such documents as we have deemed necessary to render this opinion. For purposes of rendering the opinion below, we have assumed that in connection with the issuance of the Shares under the Plan, the Company will receive consideration in an amount not less than the aggregate par value of the Shares covered by each such issuance.

Based upon and subject to the foregoing, it is our opinion that the Shares, when issued and outstanding pursuant to the terms of the Plan, will be validly issued, fully paid and nonassessable.

We consent to the use of this opinion as an exhibit to the Registration Statement and further consent to all references to us in the Registration Statement, any prospectus contained therein, and any amendments or supplements thereto.

Very truly yours,

/s/ Morrison & Foerster 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 8, 2010 relating to the financial statements, which appears in Threshold Pharmaceuticals, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2009.

/s/ PricewaterhouseCoopers LLP

San Jose, California
June 2, 2010