As filed with the Securities and Exchange Commission on February 4, 2009

SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

SCHEDULE TO

TENDER OFFER STATEMENT UNDER SECTION 14(d)(1) OR 13(e)(1) OF THE SECURITIES EXCHANGE ACT OF 1934 AMENDMENT NO. 2

THRESHOLD PHARMACEUTICALS, INC.

(Name of Subject Company (Issuer) and Filing Persons (Offeror))

Certain Options to Purchase Common Stock under the Threshold Pharmaceuticals, Inc. 2004 Amended and Restated Equity Incentive Plan (Title of Class of Securities)

885807107

(CUSIP Number of Class of Securities) (Underlying Common Stock)

Harold E. Selick, Ph.D. Chief Executive Officer Threshold Pharmaceuticals, Inc. 1300 Seaport Boulevard, Suite 500 Redwood City, California 94063 (650) 474-8200

(Name, address and telephone number of person authorized to receive notices and communications on behalf of filing person.)

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

Calculation of Filing Fee

Transaction Valuation* \$177,954 Amount of Filing Fee** \$6.99***

- * Calculated solely for purposes of determining the filing fee. This amount assumes that options to purchase 569,548 shares of common stock of Threshold Pharmaceuticals, Inc., having an aggregate value of \$177,954 as of January 7, 2008, will be exchanged pursuant to this offer. The aggregate value of these options was calculated based on the Black-Scholes option-pricing model.
- ** The amount of the filing fee, calculated in accordance with Rule 0-11(b) of the Securities Exchange Act of 1934, as amended, equals \$39.30 per each \$1.0 million of the value of the transaction, and has been previously transmitted to the Securities and Exchange Commission.

*** Previously paid.

Check the box if any part of the fee is offset as provided by Rule 0-11(a)(2) and identify the filing with which the offsetting fee was previously paid. Identify the previous filing by registration statement number, or the Form or Schedule and the date of its filing.

Amount Previously Paid: Not applicable. Form or Registration No.: Not applicable. Filing party: Not applicable. Date filed: Not applicable.

Check the box if the filing relates solely to preliminary communications made before the commencement of a tender offer.

Check the appropriate boxes below to designate any transactions to which the statement relates:

- □ third party tender offer subject to Rule 14d-1.
- issuer tender offer subject to Rule 13e-4. ⊠
- going-private transaction subject to Rule 13e-3.
- amendment to Schedule 13D under Rule 13d-2.

Check the following box if the filing is a final amendment reporting the results of the tender offer:

This Amendment No. 2 amends and supplements the Tender Offer Statement on Schedule TO (as amended, this "Schedule TO") filed by Threshold Pharmaceuticals, Inc., a Delaware corporation ("Threshold" or the "Company"), with the Securities and Exchange Commission ("SEC") on January 12, 2009, as amended by Amendment No. 1 to the Schedule TO filed with the SEC on February 2, 2009.

This Schedule TO relates to an offer (the "Offer") by Threshold pursuant to which eligible employees, consultants, executive officers and directors have the opportunity to make a one-time election to cancel certain outstanding grants of stock options (the "Current Options") under the Threshold Pharmaceuticals, Inc. 2004 Amended and Restated Equity Incentive Plan (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 (the "Replacement Options"). The Replacement Options are subject to terms and conditions set forth in this amended Schedule TO and the exhibits hereto.

The safe harbor protections for forward-looking statements contained in the Securities Act of 1933, as amended, and the Securities Exchange Act of 1934, as amended, do not apply to any forward-looking statements made in connection with this Offer.

The Offer to Exchange filed as Exhibit (a)(2) of the Schedule TO is hereby amended as follows:

THE OFFER

The first paragraph of Section 11 of Part II of the Offer to Exchange (p. 17) entitled "Status of Options Acquired by Us in the Offer; Accounting Consequences of the Offer" is hereby amended and restated as follows:

"Options we acquire pursuant to the Offer will be cancelled no later than the first business day following the Expiration Date (subject to the possible non-cancellation and prompt return of tendered options in the event we are prohibited from granting Replacement Options, as described below in Section 12), and the shares of common stock subject to those options will be returned to the pool of shares available for the grant of new awards and for issuance of shares upon the exercise of new awards under the Plan. To the extent such shares are not fully reserved for issuance upon exercise of the Replacement Options to be granted in connection with the Offer, the shares will be available for future awards to employees, consultants, executive officers, directors and other eligible plan participants without further stockholder action, except as required by applicable law or the rules of the NASDAQ Stock Market or any other securities quotation system or stock exchange on which our common stock is then quoted or listed.

The second paragraph of Section 12 of Part II of the Offer to Exchange (p. 17) entitled "Legal Matters; Regulatory Approvals" is hereby amended and restated as follows:

"If we are prohibited by federal or state securities laws or regulations from granting Replacement Options after the Expiration Date, we will either not grant any Replacement Options or delay the grant of Replacement Options, in our sole discretion. If any such prohibition arises, we will use reasonable efforts to promptly effect the grant, but if the grant is prohibited we will not grant any Replacement Options, and the options you tendered for exchange will not be cancelled and will be promptly returned to you."

The last sentence of Section 18 of Part II of the Offer to Exchange (p. 20) entitled "Miscellaneous" is hereby amended and restated as follows:

"As amended on February 4, 2009"

Item 12. Exhibits.

The Exhibit Index included in this Schedule TO is incorporated herein by reference.

SIGNATURE

After due inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

Threshold Pharmaceuticals, Inc.

By: /s/ Joel A. Fernandes

Joel A. Fernandes Senior Director, Finance and Controller (Principal Accounting and Financial Officer)

Date: February 4, 2008

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INDEX TO EXHIBITS	
(a)(1)	Form of Email Accompanying Distribution of the Offer.*
(a)(2)	Amended Offer to Exchange, dated February 2, 2008.*
(a)(3)	Question and Answer Document for Employees, Directors and Executive Officers of Threshold Pharmaceuticals, Inc.*
(a)(4)	Form of Letter of Transmittal.*
(a)(5)	Form of Email Confirmation of Receipt of Letter of Transmittal.*
(a)(6)	Form of Letter of Withdrawal.*
(a)(7)	Form of Email to Eligible Option Holders.*
(a)(8)	Form of Email Communication Reporting Results to Tendering Option Holders.*
(a)(9)	Threshold Pharmaceuticals, Inc. Annual Report on Form 10-K for its fiscal year ended December 31, 2007, filed with the Securities and Exchange Commission on March 12, 2008 and incorporated herein by reference.
(a)(10)	Threshold Pharmaceuticals, Inc. Quarterly Report on Form 10-Q for its quarter ended March 31, 2008, filed with the Securities and Exchange Commission on May 8, 2008 and incorporated herein by reference.
(a)(11)	Threshold Pharmaceuticals, Inc. Quarterly Report on Form 10-Q for its quarter ended June 30, 2008, filed with the Securities and Exchange Commission on August 7, 2008 and incorporated herein by reference.
()(10)	

- Threshold Pharmaceuticals, Inc. Quarterly Report on Form 10-Q for its quarter ended September 30, 2008, filed with the Securities and Exchange Commission on (a)(12) November 6, 2008 and incorporated herein by reference.
- Form of Email to Eligible Option Holders dated January 12, 2008.* (a)(13)
- (a)(14) Form of Email to Eligible Option Holders dated February 2, 2008.*

(b) Not applicable.

- Threshold Pharmaceuticals, Inc. 2004 Amended and Restated Equity Incentive Plan and form of Option Agreement thereunder, filed as Exhibit 10.20 to Threshold Pharmaceuticals, Inc. Current Report on Form 8-K filed with the Securities and Exchange Commission on May 24, 2005 and incorporated herein by reference. (d)(1)
- (g) Not applicable.
- (h) Not applicable.
- * Previously Filed

February 4, 2009

Confidential For Use of the Commission Only

Via EDGAR

Perry J. Hindin Special Counsel Division of Corporation Finance United States Securities and Exchange Commission 100 F. Street, N.E. Washington, D.C. 20549-3628

RE: Threshold Pharmaceuticals, Inc. Amendment No. 1 to Schedule TO-I filed February 2, 2009 File No. 5-81377

Dear Mr. Hindin:

On behalf of Threshold Pharmaceuticals, Inc. ("Threshold" or the "Company"), this letter responds to the comment of the staff of the Securities and Exchange Commission (the "Staff") orally received on February 3, 2009, following up on a comment made in its letter of January 26, 2009, in connection with the above-referenced Schedule TO-I (the "Schedule TO") filing. Threshold is concurrently filing an Amendment No. 2 to the Schedule TO (the "Amendment") that incorporates the Company's response to the Staff's comment.

The Company's response below is preceded by that portion of the comment in the Staff's January 26, 2009 letter to which the Staff's oral comment relates.

* * * *

Perry J. Hindin Division of Corporation Finance United States Securities and Exchange Commission February 4, 2009

Schedule TO-I

Offer to Exchange (the "Offer")

4. We ... note the disclosure in the last sentence of the fifth paragraph on page 17 that "[i]f the grant of Replacement Options is prohibited [Eligible Persons] will not receive any other consideration for the options that [they] tendered for exchange." Should [this event] occur, does the Company intend to return the options tendered for exchange to the Eligible Persons? If so, please revise the disclosure to make this clear. If not, please explain how the Company's failure to return the tendered options is consistent with Exchange Act Rule 14e-I(c).

Response:

Threshold has complied with the Staff's request and revised the offering materials to clarify that if the Company is prohibited from granting Replacement Options, it will not cancel and will promptly return the options tendered for exchange to those persons who tendered options.

* * * *

We appreciate the efforts of the Staff to assist Threshold in resolving the above comments. Please contact me at (650) 813-5640 or by fax at (650) 251-3745 if you have any questions regarding the response to the Staff's comment letter set forth herein.

Sincerely,

Morrison & Foerster LLP

/s/ Stephen Thau Stephen Thau

cc: Harold E. Selick, Threshold Pharmaceuticals, Inc. Joel Fernandes, Threshold Pharmaceuticals, Inc.