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

FORM 8-A/A

For registration of certain classes of securities
pursuant to Section 12 (b) or (g) of the Securities Exchange Act of 1934

THRESHOLD PHARMACEUTICALS, INC.
(Exact name of registrant as specified in its charter)

Delaware
(State of incorporation or organization)

94-3409596
(IRS Employer Identification No.)

1300 Seaport Boulevard, Redwood City, California
(Address of principal executive offices)

94089
(Zip Code)

Securities to be registered pursuant to Section 12(b) of the Act:

Title of each class to
be so registered

Name of each exchange on which each
class is to be registered

Not applicable

Not applicable

If this form relates to the registration of a class of securities pursuant to Section 12(b) of the Exchange Act and is effective pursuant to General Instruction A.(c), check the following box.

If this form relates to the registration of a class of securities pursuant to Section 12(g) of the Exchange Act and is effective pursuant to General Instruction A.(d), check the following box.

Securities Act registration statement file number to which this form relates: **333-114376**
(if applicable)

Securities to be registered pursuant to Section 12(g) of the Act:

Common Stock, par value \$0.001 per share
(Title of Class)

Item 1. Description of Registrant's Securities to be Registered

A description of the Common Stock, par value \$0.001 per share, of Threshold Pharmaceuticals, Inc., a Delaware corporation (the "Registrant"), to be registered hereunder is contained under the caption "Description of Capital Stock" in the prospectus included in the Registrant's Registration Statement on Form S-1 filed with the Securities and Exchange Commission ("SEC") on April 9, 2004, as amended on May 10, 2004, June 8, 2004, December 6, 2004, December 29, 2004, January 11, 2005, January 28, 2005 and February 3, 2005 (SEC File No. 333-114376), and by any other amendments to such Registration Statement on Form S-1 (collectively, the "Registration Statement") and any prospectus relating thereto filed subsequently pursuant to Rule 424(b) of the Securities Act of 1933, as amended, each of which is hereby incorporated by reference.

Item 2. Exhibits

The following exhibits are filed as a part of the registration statement:

- 1.* Amended and Restated Certificate of Incorporation of the Registrant, incorporated herein by reference to Exhibit 3.1 of the Registration Statement (as defined above).
- 2.* Form of Amended and Restated Certificate of Incorporation of the Registrant to be effective upon completion of the offering, incorporated herein by reference to Exhibit 3.2 of the Registration Statement (as defined above).
- 3.* Bylaws of the Registrant, incorporated by herein by reference to Exhibit 3.3 of the Registration Statement (as defined above).
- 4.* Form of Amended and Restated Bylaws of the Registrant to be effective upon completion of the offering, incorporated herein by reference to Exhibit 3.4 of the Registration Statement (as defined above).
- 5.* Certificate of Amendment of the Amended and Restated Certificate of Incorporation of the Registrant dated January 26, 2005, incorporated by reference to Exhibit 3.5 of the Registration Statement (as defined above).
- 6.* Specimen certificate for Registrant's Common Stock, incorporated herein by reference to Exhibit 4.1 of the Registration Statement (as defined above).
- 7.* Warrant to purchase stock, issued by Registrant to Silicon Valley Bank on March 27, 2003, incorporated herein by reference to Exhibit 4.2 of the Registration Statement (as defined above).
- 8.* Amended and Restated Investor Rights Agreement dated as of November 17, 2003 among the Registrant and the parties listed therein, incorporated herein by reference to Exhibit 4.3 of the Registration Statement (as defined above).
9. Form of Amendment No. 1 to Amended and Restated Investor Rights Agreement among the Registrant and certain parties to the Amended and Restated Investor Rights Agreement, incorporated herein by reference to Exhibit 4.4 of the Registration Statement (as defined above).

* Previously filed.

SIGNATURE

Pursuant to the requirements of Section 12 of the Securities Exchange Act of 1934, the registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereto duly authorized.

Date: February 3, 2005

THRESHOLD PHARMACEUTICALS, INC.

By: _____ /s/ HAROLD E. SELICK
Harold E. Selick
Chief Executive Officer