

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

FORM 8-K

CURRENT REPORT

**Pursuant to Section 13 or 15(d) of the
Securities Exchange Act of 1934**

Date of Report (Date of earliest event reported): June 8, 2010 (June 7, 2010)

THRESHOLD PHARMACEUTICALS, INC.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction
of incorporation)

001-32979
(Commission
File Number)

94-3409596
(IRS Employer
Identification No.)

1300 Seaport Boulevard, Suite 500
Redwood City, California 94063
(Address of principal executive offices) (Zip Code)

(650) 474-8200
(Registrant's telephone number, including area code)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Item 8.01 Other Events.

On June 7, 2010, the Company issued a press release announcing results from Phase 1/2 clinical trials in various solid tumors related to its hypoxia-activated prodrug, TH-302. The press release is attached as Exhibit 99.1 to this Form 8-K.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits

Exhibit 99.1 Press released dated June 7, 2010.

Exhibit Index

<u>Exhibit No.</u>	<u>Description</u>
Exhibit 99.1	Press release dated June 7, 2010.



PRESS RELEASE

Contact:

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THRESHOLD PHARMACEUTICALS PRESENTS PROMISING CLINICAL TRIAL RESULTS DEMONSTRATING BROAD ANTI-TUMOR ACTIVITY

TH-302 to Move into Phase 2 Controlled Trial for Metastatic Pancreatic Cancer

REDWOOD CITY, CA – June 7, 2010 – Threshold Pharmaceuticals, Inc. (Nasdaq: THLD) today announced results from Phase 1/2 clinical trials in various solid tumors related to its hypoxia-activated prodrug, TH-302. The results were presented during the American Society for Clinical Oncology (ASCO) Annual Meeting being held in Chicago, IL.

Yesterday's presentation focused on two clinical trials, the 402 trial and the 403 trial. The 402 trial is a Phase 1/2, three arm, multicenter, dose escalation and dose expansion trial to determine the safety, efficacy and pharmacokinetics of TH-302 in combination with gemcitabine or docetaxel or pemetrexed in patients with advanced solid tumors. In the gemcitabine treatment arm, thirty-four patients with advanced or metastatic pancreatic cancer have had at least one evaluable post-treatment tumor assessment, including one patient (3%) with a complete response as measured by RECIST (Response Evaluation Criteria In Solid Tumors) and 8 patients (24%) with a partial response. Twenty-two patients (65%) achieved stable disease while 3 patients (9%) had progressive disease. Median progression free survival (PFS) was 6.4 months (95% CI: 4.3 months to Not Reached). Of the 34 assessed patients, 28 had elevated CA 19-9 levels at baseline and 17 of 28 (61%) had a CA19-9 reduction of greater than 50%. Hematologic toxicity was acceptable and skin and mucosal toxicities were well managed at current dose levels.

"Given the activity and safety of TH-302 in combination with gemcitabine, I am looking forward to a Phase 2 controlled trial of TH-302 in combination with gemcitabine to confirm these Phase 1/2 impressive results" said Mitesh Borad, M.D., Associate Director of Phase 1 Drug Development at the Mayo Clinic in Arizona.

These clinical results provide the basis for moving forward with a randomized, controlled Phase 2 clinical trial in 1st line pancreatic cancer. This trial is expected to start mid-year 2010 with interim and primary endpoint results available during 2011.

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The 403 trial is investigating TH-302 in combination with doxorubicin in patients with soft tissue sarcoma who have not received prior doxorubicin. Thirty-five patients have had at least one evaluable post-treatment tumor assessment, including 8 patients (23%) with a partial response as measured by RECIST. Twenty-three patients (66%) achieved stable disease while 4 patients (11%) had progressive disease. Median PFS was 6.4 months (95% CI: 5.6 months to Not Reached). While myelosuppression was dose limiting; there was acceptable hematologic toxicity at the maximum tolerated dose of TH-302 (300 mg/m²). The combined regimen was well tolerated with no additive toxicity to doxorubicin and no other cumulative toxicities. Skin and mucosal toxicities were reversible and have not been dose limiting at the maximum tolerated dose. These results support the conduct of additional controlled investigations in soft tissue sarcoma with TH-302 in combination with doxorubicin.

“The results from this study are very encouraging. With reported signs of therapeutic activity in sarcoma patients and this well tolerated regimen, TH-302 may provide an attractive treatment option for patients,” said Lee Cranmer, M.D., Ph.D., Assistant Professor of Medicine and Melanoma/Sarcoma Program Director at the Arizona Cancer Center.

The 402 trial is also investigating TH-302 in multiple other indications. Twenty three patients with relapsed or refractory non-small cell lung cancer (NSCLC) were treated with TH-302 in combination with docetaxel or pemetrexed and have had least one evaluable post-treatment tumor assessment. Six patients (26%) had partial responses as measured by RECIST, 10 patients (43%) achieved stable disease and 7 patients (30%) had progressive disease. Median PFS was 5.7 months (95% CI: 2.7 months to Not Reached). The 402 trial is also investigating TH-302 in combination with docetaxel for the treatment of castrate resistant prostate cancer (CRPC). Ten patients have had at least one evaluable post-treatment tumor assessment, including 2 patients (20%) with a partial response. Seven patients (70%) achieved stable disease and one patient (10%) had progressive disease. Eleven of the patients with CRPC had follow-up prostate specific antigen (PSA) measurements and 73% of the patients achieved greater than a 50% decrease from their baseline PSA level. Overall in the 402 trial, myelosuppression was the dose limiting toxicity. Hematologic and skin and mucosal toxicities have been acceptable at current dose levels.

A copy of the soft tissue sarcoma poster presented at ASCO may be obtained by calling the Company. An audio webcast with slides of the corporate presentation can be accessed from Threshold’s website, www.thresholdpharm.com, under Investors & Media.

About Threshold Pharmaceuticals

Threshold is a biotechnology company focused on the discovery and development of drugs targeting Tumor Hypoxia, the low oxygen condition found in microenvironments of most solid tumors. This approach offers broad potential to treat most solid tumors. By selectively targeting tumor cells, we are building a pipeline of drugs that hold promise to be more effective and less toxic to healthy tissues than conventional anticancer drugs. For additional information, please visit our website (www.thresholdpharm.com).

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Forward-Looking Statements

Except for statements of historical fact, the statements in this press release are forward-looking statements, including statements regarding TH-302 and its potential therapeutic uses and benefits. These statements involve risks and uncertainties that can cause actual results to differ materially from those in such forward-looking statements. Potential risks and uncertainties include, but are not limited to, Threshold's ability to commence its anticipated clinical trials, whether future clinical trials will confirm the results of earlier trials based on small numbers of patients, the time and expense required to conduct such clinical trials and analyze data, issues arising in the regulatory or manufacturing process and any unanticipated or increased side-effects observed in patients receiving TH-302. Further information regarding these and other risks is included under the heading "Risk Factors" in Threshold's Quarterly Report on Form 10-Q, which was filed with the Securities Exchange Commission on May 6, 2010 and is available from the SEC's website (www.sec.gov) and on our website (www.thresholdpharm.com) under the heading "Investors." We do not intend to update any forward-looking statement made in this news release.

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