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

April 28, 2008 (April 25, 2008) Date of Report (Date of earliest event reported)

DELCATH SYSTEMS, INC.

(Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction of incorporation) 001-16133

(Commission File No.)

06-1245881 (IRS Employer Identification No.)

600 Fifth Avenue, 23rd Floor New York, NY 10020

(Address of principal executive offices, including zip code)

Registrant's telephone number, including area code: (212) 489-2100

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligations of the registrant under any of the following provisions (see General Instruction A.2. below):

o Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

o Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

o Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

o 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 April 25, 2008, Delcath Systems, Inc. (the "Company") announced that the Institutional Review Board of the University of Maryland Medical Center ("UMMC") has approved UMMC's participation in the Phase III study of the Company's Percutaneous Hepatic Perfusion System for the isolated, high dose delivery of the anti-cancer agent melphalan to treat inoperable metastatic melanoma in the liver. The Phase III study is being led by the National Cancer Institute which previously approved the study's expansion to a multi-center trial. The Company and UMMC have entered into a clinical research agreement enabling the hospital to immediately begin recruiting and treating patients. H. Richard Alexander, M.D., Professor of Surgery and Associate Chairman for Clinical Research, Surgery at the University of Maryland will serve as Principal Investigator of the study at this new center.

A copy of the Company's press release announcing the events described above is attached hereto as Exhibit 99.1 and is incorporated herein by reference.

ITEM 9.01 FINANCIAL STATEMENTS AND EXHIBITS.

- (a) Not applicable.
- (b) Not applicable.
- (c) Not applicable.
- (d) Exhibits

No. Description

99.1 Press release of the Company dated April 25, 2008

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, as amended, the registrant has duly caused this Current Report on Form 8-K to be signed on its behalf by the undersigned thereunto duly authorized.

Dated: April 28, 2008

DELCATH SYSTEMS, INC.

By: /s/ Richard L. Taney

Name: Richard L. Taney Title: Chief Executive Officer No.Description99.1Press release of the Company dated April 25, 2008



DELCATH EXPANDS PHASE III TRIAL FOR METASTATIC MELANOMA TO INCLUDE UNIVERSITY OF MARYLAND MEDICAL CENTER

NEW YORK - April 25, 2008 - Delcath Systems, Inc. (NASDAQ: DCTH) announced today that the Institutional Review Board (IRB) of the University of Maryland Medical Center (UMMC) has approved UMMC's participation in the Phase III study of the Company's Percutaneous Hepatic Perfusion (PHP) System for the isolated, high dose delivery of the anti-cancer agent melphalan to treat inoperable metastatic melanoma in the liver. The pivotal, Phase III study is being led by the National Cancer Institute (NCI), which previously approved the study's expansion to a multi-center trial.

UMMC has also entered into a clinical research agreement with Delcath enabling the hospital to immediately begin recruiting and treating patients. H. Richard Alexander, M.D., Professor of Surgery and Associate Chairman for Clinical Research, Surgery at the University of Maryland will serve as Principal Investigator of the study at this new center. Dr. Alexander, a recognized leader in the field of regional cancer therapy, was previously Deputy Director of the NCI's Center for Cancer Research, and Principal Investigator of the Phase I study that was Fast Tracked to this current Phase III study.

"The diagnosis of liver metastases results in a very poor prognosis for the patient," commented Dr. Alexander. "The Delcath System may represent an effective, minimally toxic means of restoring liver health and improving patient outcome. UMMC is committed to remaining at the forefront of cancer research and treatment. We look forward to participating in this NCI-led pivotal study and to understanding how this system may benefit patients."

"Expanding this Phase III study to premier oncology centers such as UMMC remains a top priority for the Company, as it allows the Delcath System to reach more patients desperately in need of new treatment options and expands physician awareness of its potential clinical benefit," said Richard L. Taney, President and CEO of Delcath Systems. "It is especially exciting to be collaborating with Dr. Alexander, who pioneered the use of our PHP system with Melphalan while at the NCI. Throughout 2008, we expect to expand the study to additional clinical sites with world-class clinical oncology programs. Several of these sites are currently in the process of securing the necessary approvals in order to join our clinical trials."

The Phase III Study

The Phase III study is designed to test Delcath's proprietary PHP System for the regional delivery of melphalan to the liver to treat patients with metastatic ocular and cutaneous melanoma who have unresectable tumors in the liver. The Delcath System is designed to deliver significantly higher doses of anticancer drugs to a patient's liver while preventing entry of the drugs to the rest of the patient's circulation. This isolation limits toxicities that result from systemic chemotherapy treatments.

Patients in the Phase III trial initially are randomized into one of two treatment arms, including immediate treatment with melphalan via the Delcath System or treatment with best alternative care. The study is designed to evaluate the duration of tumor response in each of the two study arms. Following guidelines established by U.S. Food and Drug Administration (FDA) under a Special Protocol Assessment (SPA), when disease progresses in patients enrolled in the best alternative care arm of the trial, they are permitted to "cross over" and receive treatment with the Delcath System.

About University of Maryland Medical Center

The University of Maryland Medical Center (UMMC) is the heart of the University of Maryland Medical System's downtown campus. The hospital provides comprehensive care for the West Baltimore community and tertiary care for Maryland and the surrounding area. In partnership with the University of Maryland School of Medicine, UMMC's vision is to be internationally recognized for world-class clinical programs distinguished by research and education, and strengthened by high-quality clinical care, exceptional customer service and operational excellence.

About Delcath Systems, Inc.

Delcath Systems is a developmental stage company testing its percutaneous perfusion technology for the isolated delivery of high doses of therapeutic and chemotherapeutic agents. The Delcath System is currently being tested with the drug melphalan in Phase III and Phase II clinical trials. The Company's intellectual property portfolio currently consists of twenty-eight patents on a worldwide basis including the U.S., Europe, Asia and Canada. For more information, please visit the Company's website at <u>www.delcath.com</u>.

The Private Securities Litigation Reform Act of 1995 provides a safe harbor for forward-looking statements made by the Company or on its behalf. This news release contains forward-looking statements, which are subject to certain risks and uncertainties that can cause actual results to differ materially from those described. Factors that may cause such differences include, but are not limited to, uncertainties relating to our ability to successfully complete Phase III clinical trials and secure regulatory approval of our current or future drug-delivery system and uncertainties regarding our ability to obtain financial and other resources for any research, development and commercialization activities. These factors, and others, are discussed from time to time in our filings with the Securities and Exchange Commission. You should not place undue reliance on these forward-looking statements, which speak only as of the date they are made. We undertake no obligation to publicly update or revise these forward-looking statements to reflect events or circumstances after the date they are made.

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