

Prospectus Supplement No. 4
(to Prospectus dated July 16, 2015)

DELCATH SYSTEMS, INC.

9,350,000 Units
Consisting of 9,350,000 Shares of Common Stock
and
7,012,500 Series A Warrants to Purchase 7,012,500 Shares
of Common Stock
and
9,350,000 Series B Warrants to Purchase 9,350,000 Shares of
Common Stock and 7,012,500 Series A Warrants

This prospectus amends and supplements the prospectus dated July 16, 2015 (the "Prospectus"), which forms a part of our Registration Statement on Form S-1 (Registration Statement No. 333-204979). This prospectus supplement is being filed to update and supplement the information included or incorporated by reference in the prospectus with the information contained in our Current Report on Form 8-K, filed with the Securities and Exchange Commission on October 6, 2015 (the "Form 8-K"). Accordingly, we have attached the Form 8-K to this prospectus supplement.

The prospectus and this prospectus supplement relate to the issuance of shares of our common stock and Series A Warrants upon the exercise of Series A Warrants and Series B Warrants issued in connection with our offering of units consisting of common stock, Series A Warrants and Series B Warrants on July 16, 2015.

Our common stock is traded on The Nasdaq Capital Market under the symbol "DCTH". Neither series of warrants will trade on The Nasdaq Capital Market or any other securities exchange or trading market. On October 5, 2015, the closing price for a share of our common stock on The Nasdaq Capital Market was \$0.49 per share.

Investing in our Common Stock involves risks. See "Risk Factors" beginning on page 9 of the Prospectus to read about factors you should consider before you make your investment decision.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the accuracy or adequacy of this prospectus. Any representation to the contrary is a criminal offense.

The date of this Prospectus Supplement No. 4 is October 6, 2015

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 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): October 1, 2015

Delcath Systems, Inc.
(Exact Name of Registrant Specified in Charter)

Delaware
(State or Other Jurisdiction
of Incorporation)

001-16133
(Commission
File Number)

06-1245881
(I.R.S. Employer
Identification No.)

1301 Avenue of the Americas, 43rd Floor
New York, New York
(Address of Principal Executive Offices)

10019
(Zip Code)

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

Not Applicable
(Former Name or Former Address, if Changed Since Last Report)

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))
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Item 5.02 Departure of Directors or Certain Officers; Election of Directors; Appointment of Certain Officers; Compensatory Arrangements of Certain Officers.

Delcath Systems, Inc. (the “Company”) has announced the appointment of Dr. Jennifer K. Simpson, Ph.D. to the Company’s Board of Directors (the “Board”) effective October 1, 2015. Dr. Simpson will continue to serve as the Company’s President and Chief Executive Officer. Dr. Simpson will serve as a Class III director with her term expiring at the 2018 annual meeting. In connection with Dr. Simpson’s appointment, the Board increased the size of the Board to seven members. Dr. Simpson is currently not expected to be appointed to serve on any committee of the Board and there are no reportable transactions as would be required by Item 404(a) of Regulation S-K. The terms of Dr. Simpson’s employment and compensation remain unchanged.

In addition, Dr. Roger G. Stoll, Ph.D., previously the Executive Chairman of the Board, has been named Chairman of the Board effective October 1, 2015.

Item 9.01. Financial Statements and Exhibits.

The following exhibits are filed herewith:

(d) Exhibits.

Exhibit No.	Description
99.1	Press Release of Delcath Systems, Inc., dated October 6, 2015

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this Report to be signed on its behalf by the undersigned hereunto duly authorized.

DELCATH SYSTEMS, INC.

Date: October 6, 2015

By: /s/ Jennifer K. Simpson, Ph.D.

Jennifer K. Simpson, Ph.D.

Director, President and Chief Executive Officer

EXHIBIT INDEX

Exhibit No.	Description
99.1	Press Release of Delcath Systems, Inc., dated October 6, 2015

**DEL CATH SYSTEMS APPOINTS CEO JENNIFER SIMPSON
TO BOARD OF DIRECTORS**

NEW YORK (October 6, 2015) – Delcath Systems, Inc. (NASDAQ: DCTH), a specialty pharmaceutical and medical device company focused on oncology with an emphasis on the treatment of primary and metastatic liver cancers, announces that Jennifer K. Simpson, Ph.D., MSN, CRNP, the company’s President and CEO, has been appointed to its Board of Directors, effective October 1, 2015. In addition, Roger G. Stoll, Ph.D., formerly Executive Chairman, was appointed as Chairman of the Board. With Dr. Simpson’s appointment, Delcath Systems will have seven directors.

“Jennifer is a strong leader who continues to successfully advance our strategic vision for Delcath Systems, and we are delighted to name her to our Board of Directors. Under her stewardship we have seen significant progress with our European commercial operation and meaningful developments with our clinical programs. She has been a tremendous asset to Delcath and will be a valuable addition to our Board,” commented Dr. Stoll.

“This is a very exciting time to be leading Delcath Systems. We have made excellent progress both clinically and commercially, and expect to achieve a number of value-creating milestones in the coming year,” noted Dr. Simpson. “I am grateful to Roger for his support over this past year and look forward to continuing to work with him and the Board as we endeavor to bring potentially life-saving therapies to patients suffering with cancers in the liver.”

About Delcath Systems

Delcath Systems, Inc. is a specialty pharmaceutical and medical device company focused on oncology with an emphasis on the treatment of primary and metastatic liver cancers. Our proprietary Melphalan Hydrochloride for Injection for use with the Delcath Hepatic Delivery System (Melphalan/HDS) is designed to administer high-dose chemotherapy to the liver while controlling systemic exposure. In April 2012 we obtained authorization to affix a CE Mark to our second-generation system, which is currently marketed in Europe as a device under the trade name Delcath Hepatic CHEMOSAT® Delivery System for Melphalan (CHEMOSAT). In the U.S. the Melphalan/HDS system is considered a combination drug and device product, and is regulated as a drug by the U.S. Food and Drug Administration (FDA). The Melphalan/HDS system has not been approved for sale in the U.S. We have commenced a global Phase 2 clinical trial in Europe and the U.S. to investigate the Melphalan/HDS system for the treatment of primary liver cancer (HCC) and intrahepatic cholangiocarcinoma (ICC), and expect to initiate a global Phase 3 trial in ocular melanoma (OM) that has metastasized to the liver.

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: future patient outcomes and clinical trial results consistent with the data contained in the SSO abstract, acceptance and publication of the Phase

3 trial manuscript and the impact of publication to support the Company's efforts, the timing and results of the Company's clinical trials including without limitation the HCC, ICC and OM clinical trial programs timely enrollment and treatment of patients in the global Phase 2 HCC and ICC clinical trial, FDA approval of the global Phase 3 OM clinical trial protocol, IRB or ethics committee clearance of the Phase 2 HCC/ICC and/or Phase 3 OM protocols from participating sites and the timing of site activation and subject enrollment in each trial, the impact of the presentations at ESSO and future clinical results consistent with the data presented, approval of Individual Funding Requests for reimbursement of the CHEMOSAT procedure, the impact, if any of Value 4 status on potential CHEMOSAT product use and sales in Germany, clinical adoption, use and resulting sales, if any, for the CHEMOSAT system to deliver and filter melphalan in Europe including the key markets of Germany and the UK, the Company's ability to successfully commercialize the Melphalan HDS/CHEMOSAT system and the potential of the Melphalan HDS/CHEMOSAT system as a treatment for patients with primary and metastatic disease in the liver, our ability to obtain reimbursement for the CHEMOSAT system in various markets, the Company's ability to satisfy the requirements of the FDA's Complete Response Letter and provide the same in a timely manner, approval of the current or future Melphalan HDS/CHEMOSAT system for delivery and filtration of melphalan or other chemotherapeutic agents for various indications in the U.S. and/or in foreign markets, actions by the FDA or other foreign regulatory agencies, the Company's ability to successfully enter into strategic partnership and distribution arrangements in foreign markets and the timing and revenue, if any, of the same, uncertainties relating to the timing and results of research and development projects, our ability to maintain NASDAQ listing, and uncertainties regarding the Company's ability to obtain financial and other resources for any research, development, clinical trials 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.

Contact Information:

Investor Contact:

LHA

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