

Prospectus Supplement No. 5
(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 15, 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 14, 2015, the closing price for a share of our common stock on The Nasdaq Capital Market was \$0.56 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. 5 is October 15, 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 9, 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.

As previously announced, Dr. Roger G. Stoll, Ph.D., previously the Executive Chairman of the Board of Directors of Delcath Systems, Inc. (the "Company"), was named Chairman of the Board effective October 1, 2015. On October 9, 2015, in connection with the determination to change Dr. Stoll's designation, the Board of Directors of the Company (the "Board") unanimously approved Dr. Stoll's annual retainer fee as Chairman of the Board to be modified to \$68,000, effective October 1, 2015, and in the future he will be entitled to receive such equity compensation as non-executive Board members pursuant to the Company's 2009 Stock Incentive Plan.

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 15, 2015

By: /s/ Jennifer K. Simpson

Jennifer K. Simpson

Director, President and Chief Executive Officer