

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

FORM S-8

REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

DELCATH SYSTEMS, INC.

(Exact Name of Registrant as Specified in its Charter)

Delaware
(State or other jurisdiction of
Incorporation or Organization)

06-1245881
(IRS Employer
Identification No.)

600 Fifth Avenue, 23rd Floor
New York, New York 10020
(212) 489-2100
(Address, including zip code, and telephone number,
including area code, of Registrant's principal executive offices)

2009 Stock Incentive Plan
(Full Title of the Plan)

Eamonn Hobbs
Chief Executive Officer
Delcath Systems, Inc.
600 Fifth Avenue, 23rd Floor
New York, New York 10020
(212) 489-2100
(Name, address, including zip code, and telephone number,
including area code, of agent for service)

Copies to:

Gary J. Simon, Esq.
Hughes Hubbard & Reed LLP
One Battery Park Plaza
New York, NY 10004

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated
filer

Accelerated filer

Non-accelerated
filer

(Do not check if a smaller reporting company)

Smaller reporting company

CALCULATION OF REGISTRATION FEE

Title of securities to be registered	Amount to be registered	Proposed maximum offering price per share	Proposed maximum aggregate offering price	Amount of registration fee
Common Stock, par value \$0.01 per share(1)	2,000,000 shares(2)	\$3.36(3)	\$6,720,000(3)	\$374.98

- (1) Each share of Common Stock includes a related right (a "Right") to purchase one share (subject to adjustment) of Common Stock of the Company. The Rights are not exercisable or transferable apart from the Common Stock at this time, and accordingly no independent value is attributable to such Rights.
- (2) Pursuant to Rule 416 of the Securities Act of 1933, as amended, this Registration Statement also covers any additional securities as may be issued under the Registrant's 2009 Stock Incentive Plan pursuant to stock splits, stock dividends or similar transactions.
- (3) Estimated solely for the purpose of calculating the registration fee pursuant to 457 of the Securities Act of 1933, as amended, and based upon the average of the high and low prices of the Registrant's Common Stock as reported on the Nasdaq Capital Market on July 20, 2009.

PART II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. *Incorporation of Documents by Reference.*

The following documents filed by Delcath Systems, Inc. (the "Company") under the Securities Exchange Act of 1934 (the "Exchange Act") are incorporated herein by reference:

- Annual Report on Form 10-K for the fiscal year ended December 31, 2008, filed March 3, 2008.
- Quarterly Report on Form 10-Q for the fiscal quarter ended March 31, 2009, filed April 24, 2009.
- Current Reports on Form 8-K, filed April 10, 2009, April 17, 2009, April 24, 2009, June 10, 2009 and July 7, 2009.
- Definitive Proxy Statement on Schedule 14A filed on April 30, 2009.
- The description of the Company's Common Stock contained in its registration statements filed with the Securities and Exchange Commission under the Exchange Act and subsequent amendments and reports filed to update such information.

All documents filed by the Company pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act after the date of this Registration Statement on Form S-8 (this "Registration Statement") and prior to the filing of a post-effective amendment which indicates that all securities offered hereby have been sold or which deregisters all securities then remaining unsold, shall be deemed to be incorporated by reference in this Registration Statement and to be a part hereof from the date of the filing of such documents. Any statement contained in a document incorporated by reference herein shall be deemed to be modified or superseded for purposes of this Registration Statement to the extent that a statement contained in a subsequently filed document which is also incorporated by reference herein modifies or supersedes such statement. Any such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this Registration Statement.

Item 4. *Description of Securities.*

Not applicable.

Item 5. *Interests of Named Experts and Counsel.*

Not applicable.

Item 6. *Indemnification of Directors and Officers.*

Section 102 of the Delaware General Corporation Law ("DGCL"), as amended, allows a corporation to eliminate the personal liability of directors of a corporation to the corporation or its stockholders for monetary damages for a breach of fiduciary duty as a director, except where the director breached his duty of loyalty, failed to act in good faith, engaged in intentional misconduct or knowingly violated a law, authorized the payment of a dividend or approved a stock repurchase in violation of Delaware corporate law or obtained an improper personal benefit.

Section 145 of the DGCL provides that directors, officers, employees or agents of Delaware corporations are entitled, under certain circumstances, to be indemnified against expenses (including attorneys' fees) and other liabilities actually and reasonably incurred by them in connection with any suit brought against them in their capacity as a director, officer, employee or agent, if they acted in good faith and in a manner they reasonably believed to be in or not opposed to the best interests of the corporation,

and with respect to any criminal action or proceeding, if they had no reasonable cause to believe their conduct was unlawful. Section 145 also provides that directors, officers, employees and agents may also be indemnified against expenses (including attorneys' fees) actually and reasonably incurred by them in connection with a derivative suit brought against them in their capacity as a director, officer, employee or agent, as the case may be, if they acted in good faith and in a manner they reasonably believed to be in or not opposed to the best interests of the corporation, except that no indemnification may be made without court approval if such person was adjudged liable to the corporation.

Article VIII of the Company's amended and restated certificate of incorporation (Exhibit 4.1) requires the Company to indemnify any person who may be indemnified by a Delaware corporation pursuant to Section 145 of the DGCL in each situation where the Company is permitted to indemnify such persons.

The indemnification provisions as are or may be contained in the Company's amended and restated certificate of incorporation and amended and restated bylaws are not exclusive of any other rights to which a person may be entitled by law, agreement, vote of stockholders or disinterested directors or otherwise. In addition, the Company maintains insurance on behalf of its directors and executive officers insuring them against any liability asserted against them in their capacities as directors or officers or arising out of such status.

Item 7. Exemption from Registration Claimed.

Not applicable.

Item 8. Exhibits.

See Exhibit Index attached hereto.

Item 9. Undertakings.

(a) The Company hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this Registration Statement:

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the Registration Statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represents a fundamental change in the information set forth in the Registration Statement;

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the Registration Statement or any material change to such information in the Registration Statement.

provided, however, that paragraphs (a)(1)(i) and (a)(1)(ii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Securities and Exchange Commission by the Company pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the Registration Statement.

(2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(b) The Company hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the Company's annual report pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the Registration Statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(c) Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the Company pursuant to the foregoing provisions, or otherwise, the Company has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in such Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Company of expenses incurred or paid by a director, officer or controlling person of the Company in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Company will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in such Act and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of New York, State of New York, on the 24th day of July, 2009.

DELCATH SYSTEMS, INC.

By: /s/ Eamonn P. Hobbs

Eamonn P. Hobbs
Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Eamonn P. Hobbs, Barbra Keck and Harold S. Koplewicz, and each or any one of them, his or her true and lawful attorney-in-fact and agent, with full power of substitution and re-substitution, for him or her and in his or her name, place and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) to this Registration Statement and to sign any and all additional registration statements relating to the Registration Statement on Form S-8 to be filed with the Securities and Exchange Commission under the Securities Act of 1933, as amended, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorney-in-fact and agent or his or her substitute or substitutes, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorney-in-fact and agent or his or her substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed below by the following persons in the capacities and on the dates indicated.

Signature	Title	Date
<u>/s/ Eamonn P. Hobbs</u> Eamonn P. Hobbs	Chief Executive Officer and Director (principal executive officer)	July 24, 2009
<u>/s/ Barbra Keck</u> Barbra Keck	Controller (principal financial and accounting officer)	July 24, 2009
<u>/s/ Harold S. Koplewicz</u> Harold S. Koplewicz, M.D.	Chairman of the Board	July 24, 2009
<u>/s/ Laura Philips</u> Laura Philips, Ph.D.	Director	July 24, 2009
<u>/s/ Richard L. Taney</u> Richard L. Taney	Director	July 24, 2009

/s/ Robert Ladd

Robert Ladd

Director

July 24, 2009

/s/ Pamela Contag

Pamela Contag

Director

July 24, 2009

EXHIBIT INDEX

Exhibit Number	Description of the Document
4.1	Amended and Restated Certificate of Incorporation of Delcath Systems, Inc., as amended on June 30, 2005 (incorporated by reference to Exhibit 3.1 to Company's Current Report on Form 8-K filed June 5, 2006).
4.2	Amended and Restated By-Laws of Delcath Systems, Inc. (incorporated by reference to Exhibit 3.2 to Amendment No. 1 to the Company's Registration Statement on Form SB-2 (Registration No. 333-39470)).
4.3	Rights Agreement, dated October 30, 2001, by and between Delcath Systems, Inc. and American Stock Transfer & Trust Company, as Rights Agent (incorporated by reference to Exhibit 4.7 to the Company's Form 8-A filed November 14, 2001).
4.4	Form of Warrant to Purchase Shares of Common Stock issued pursuant to the Common Stock Purchase Agreement dated as of March 19, 2004 (incorporated by reference to Exhibit 4 to the Company's Current Report on Form 8-K filed March 22, 2004).
4.5	Form of 2005 Series A Warrant to Purchase Shares of Common Stock issued pursuant to the Common Stock Purchase Agreement dated as of November 27, 2005 (incorporated by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K filed November 30, 2005).
4.6	Form of 2005 Series C Warrant to Purchase Shares of Common Stock issued pursuant to the Common Stock Purchase Agreement dated as of November 27, 2005 (incorporated by reference to Exhibit 4.3 to the Company's Current Report on Form 8-K filed November 30, 2005).
4.7	2009 Stock Incentive Plan (incorporated by reference to Appendix B to the Company's proxy statement on Schedule 14A filed April 30, 2009).
4.8	Form of Warrant to Purchase Shares of Common Stock issued pursuant to the Subscription Agreement dated as of June 9, 2009 (incorporated by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K filed June 10, 2009).
5.1*	Opinion of Hughes Hubbard & Reed LLP.
23.1*	Consent of CCR LLP.
23.2*	Consent of Hughes Hubbard & Reed LLP (included in Exhibit 5.1).
24.1*	Power of Attorney (included on the signature page hereto).

* Filed herewith.

July 24, 2009

Delcath Systems, Inc.
600 Fifth Avenue, 23rd Floor
New York, New York 10020

Re: Delcath Systems, Inc. 2009 Stock Incentive Plan (the "Plan")

Ladies & Gentlemen:

You have requested our opinion in connection with the Registration Statement on Form S-8 (the "Registration Statement") of Delcath Systems, Inc. (the "Company") filed with the Securities and Exchange Commission under the Securities Act of 1933, as amended (the "Act"), with respect to 2,000,000 shares (the "Shares") of common stock, par value \$.01 per share of the Company ("Common Stock") to be issued under the Plan.

We have examined such documents and have reviewed such questions of law as we have considered necessary and appropriate for the purposes of rendering the opinions herein. In rendering the opinions herein, we have assumed the authenticity of all documents submitted to us as originals, the genuineness of all signatures on all documents examined by us, the conformity to authentic originals of all documents submitted to us as copies, and the legal capacity for all purposes relevant hereto of all natural persons who have approved or executed any of such documents. As to questions of fact material to our opinions, we have relied upon certificates of officers of the Company and of public officials.

The law covered by the opinions expressed herein is limited to the Federal law of the United States and the General Corporation Law of the State of Delaware (including all applicable provisions of the Constitution of the State of Delaware and reported judicial decisions interpreting the provisions of such law and Constitution) and we express no opinion with respect to the applicability of any other laws.

Based upon and subject to the foregoing, we are of the opinion that the Shares have been duly authorized for issuance and, when (i) the applicable provisions of the Act and of such "Blue Sky" or other state securities laws as may be applicable shall have been complied with, and (ii) the Shares deliverable under the Plan shall have been issued in accordance with the terms of the Plan and for consideration in an amount at least equal to the aggregate par value of such Shares, (a) the Shares will be validly issued, fully paid and nonassessable, and (b) the Rights attached to such Shares, when issued in accordance with the terms of the Rights Agreement, dated as of October 30, 2001 by and between the Company and American Stock Transfer & Trust Company, as Rights Agent, will be legally issued.

We hereby consent to the filing of this Opinion Letter as an exhibit to the Registration Statement. In giving this consent, we do not admit that we are in the category of persons whose consent is required under Section 7 of the Act or the rules and regulations of the Securities and Exchange Commission.

This Opinion Letter is rendered as of the date first written above and we disclaim any obligations to advise you of facts, circumstances, events or developments which hereafter may be brought to our attention and which may alter, affect or modify the opinion expressed herein. This Opinion Letter is expressly limited to the matters set forth above and we render no opinion, whether by implication or otherwise, as to any other matters relating to the Company, the Plan or the Shares.

Very truly yours,

/s/ Hughes Hubbard & Reed LLP

CONSENT OF REGISTERED INDEPENDENT PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in this Registration Statement on Form S-8 of Delcath Systems, Inc. (the "Company") of our report dated February 27, 2009, relating to the balance sheets of the Company as of December 31, 2008 and 2007, and the related statements of operations, other comprehensive loss, stockholders' equity, and cash flows for each of the years in the three year period ended December 31, 2008, and cumulative from inception (August 5, 1988) to December 31, 2008 (which report expressed an unqualified opinion), relating to the financial statement schedule and relating to the Company's internal control over financial reporting as of December 31, 2008, included in the Company's Annual report on Form 10-K for the fiscal year ended December 31, 2008 and to the reference to our firm under the heading "Experts" in the prospectus.

/s/ CCR LLP
Glastonbury, CT
July 23, 2009