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): May 9, 2012 (May 8, 2012)

DELCATH SYSTEMS, INC.

(Exact name of registrant as specified in its charter)

Delaware (State or Other Jurisdiction of Incorporation) 001-16133 (Commission File Number) 06-1245881 (IRS Employer Identification Number)

810 Seventh Avenue, 35th Floor, New York, New York, 10019 (Address of principal executive offices, including zip code)

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

NONE

(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 (see General Instruction A.2. below):
[] 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 2.02. Results of Operations and Financial Condition.

On May 8, 2012, Delcath Systems, Inc. issued a press release reporting the financial results for the fiscal 2012 first quarter ended March 31, 2012 and recent corporate developments. A copy of the press release is attached as Exhibit 99.1 to this Current Report on Form 8-K.

The information furnished pursuant to this Current Report on Form 8-K, including Exhibit 99.1 hereto, is being furnished and shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, nor shall it be incorporated by reference into any registration statement or other document pursuant to the Securities Act of 1933, as amended, except as expressly set forth in such filing.

Item 9.01. Financial Statements and Exhibits.

The following exhibits are filed herewith:

(d) Exhibits.

Exhibit No.	Description
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99.1 Press Release of Delcath Systems, Inc., dated May 8, 2012

SIGNATURES

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.

Dated: May 9, 2012 By: /s/ Peter J. Graham

Name: Peter J. Graham

Title: Executive Vice President, General

Counsel

EXHIBIT INDEX

Exhibit No. 99.1

Description
Press Release of Delcath Systems, Inc., dated May 8, 2012



DELCATH HIGHLIGHTS FIRST QUARTER 2012 AND RECENT ACCOMPLISHMENTS

--Conference Call and Webcast Today at 4:30 p.m. ET--

NEW YORK, May 8, 2012 – Delcath Systems (NASDAQ: DCTH) today announced financial results and highlights for its first quarter 2012 ended March 31, 2012 and recent weeks.

Highlights for the first quarter 2012 and recent weeks include:

- · Receipt of CE Mark approval for the second generation hemofiltration cartridge ("Generation 2") for Hepatic CHEMOSAT® delivery system
- · Treatment of the first patient with Generation 2
- · Additional patients treated with liver dominant metastases from multiple tumor types
- · Presentation of the first evidence of the dramatically improved side-effect profile for chemosaturation therapy with Generation 2
- · Addition of eight EU cancer centers to the CHEMOSAT initial launch and training program; the Company now has a presence in five of its seven target markets
- · Receipt of the first commercial orders for CHEMOSAT
- · Final preparations for filing the new drug application (NDA) for CHEMOSAT with the FDA
- · Regulatory approval in Australia for CHEMOSAT
- · Secure a \$20 million working capital credit facility with Silicon Valley Bank
- · Addition of pharmaceutical industry veterans Chris Houchins and Jennifer Simpson, Ph.D. to the management team

"During the first quarter, we delivered several significant accomplishments which build on the solid foundation we established in 2011 to help realize the commercial potential of our chemosaturation system," said Eamonn P. Hobbs, President and CEO of Delcath. "The Generation 2 CHEMOSAT system received CE Marking in early April, and we believe that initial validation of the new system's potential to dramatically improve the side-effect profile for chemosaturation therapy was immediately seen in the first case treated with Generation 2. Prior treatments in Europe also included patients suffering from a wide variety of tumor types, which we believe is a sign of the broad potential physicians at our early launch centers see for chemosaturation therapy. These successes culminated in receipt of our first commercial order for CHEMOSAT, which we are confident will be followed by others as the benefits of the Generation 2 CHEMOSAT system become more widely known."

Mr. Hobbs stated, "At the same time, we are in the final stages of completing our New Drug Application (NDA) submission for filing with the FDA. Safety data collection and database migration is complete, the clinical sites have been notified that we will lock the databases on May 25th, and we are confident of submitting our NDA in mid-August. We have submitted an amendment to our Investigational New Drug application to include Generation 2 in our Expanded Access Program and all future clinical trials, compassionate use cases, and have initiated a dialogue with the FDA to discuss the optimal approval path for Gen 2 in the U.S."

For the three months ended March 31, 2012, Delcath's operating loss was \$14.6 million, which included approximately \$0.9 in non-cash stock-based compensation expense. Operating loss for the three months ended March 31, 2011 was \$7.8 million, which included approximately \$1.3 million in non-cash stock-based compensation expense. General and administrative (G&A) expenses were \$7.4 million for the first quarter of 2012, compared to \$4.2 million for the same period in 2011. The increase was primarily due to an expansion in staff particularly for the Company's EU headquarters in Galway, Ireland and for sales and marketing support staff in the EU. Research and development (R&D) expenses were \$7.1 million for the first quarter of 2012, compared to \$3.6 million for the same period in 2011. The increase was primarily due to global regulatory efforts including continued preparation of the NDA submission to the FDA, securing CE Mark for Generation 2, and expansion of addressable markets through the pursuit of additional regulatory approvals.

At March 31, 2012, cash, cash equivalents and certificates of deposit were \$20.8 million, compared to \$30.8 million at December 31, 2011. Gross cash spend in the first quarter 2012 was \$14.7 million, as compared to \$7.8 million in the same period in the prior year. The increase was primarily driven by NDA submission related costs, staff increases in various functions to support commercialization, and operational costs related to the new EU headquarters. Average monthly operating gross spend was \$4.9 million, which was in line with our expectation of between \$4 million to \$5 million. After proceeds generated from the Company's At-the-Market facility, the net cash spend was approximately \$10 million, or a monthly average of \$3.3 million.

Following the anticipated NDA submission in mid-August, Delcath expects monthly cash expenses to decrease to \$3 million to \$4 million for the remainder of 2012. The Company expects revenue from CHEMOSAT sales in the second half of the year will partially offset cash expenditures.

Conference Call and Webcast

The Company will host a conference call today, May 8, 2012 at 4:30 p.m. ET. To participate in the live call by telephone, please dial 866-202-1971 for domestic participants and 617- 213-8842 for international participants, both using passcode 12208526. To access the live webcast, go to the Events & Presentations page on Delcath's website at http://www.delcath.com/investors/events/.

A taped replay of the conference call will also be available beginning approximately two hours after the call's conclusion and will be available for seven days. This replay can be accessed by dialing 888-286-8010 for domestic callers and 617-801-6888 for international callers, both using

passcode 69501976. An archived webcast will also be available at http://www.delcath.com/investors/events/.

About Delcath Systems

Delcath Systems, Inc. is a specialty pharmaceutical and medical device company focused on oncology. Delcath's proprietary system for chemosaturation is designed to administer high dose chemotherapy and other therapeutic agents to diseased organs or regions of the body, while controlling the systemic exposure of those agents. The Company's initial focus is on the treatment of primary and metastatic liver cancers. In 2010, Delcath announced that its randomized Phase III clinical trial for patients with metastatic melanoma in the liver had successfully achieved the study's primary endpoint of extended hepatic progression-free survival. The Company also completed a multi-arm Phase II trial to treat other liver cancers. The Company obtained authorization to affix a CE Mark for the Delcath Hepatic CHEMOSAT® delivery system in April 2011. The right to affix the CE mark allows the Company to market and sell the CHEMOSAT system in Europe. The Company has not yet received FDA approval for commercial sale of its system in the United States. The Company continues with the preparation of its NDA submission and intends to seek FDA approval for commercial sale of its chemosaturation system with melphalan. For more information, please visit the Company's website at www.delcath.com.

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: the benefits of the Generation 2 CHEMOSAT system and market acceptance of the same, patient outcomes using the Generation 2 system, the timing of the supply and distribution of the CHEMOSAT system to early launch centers in Europe, the time required to build inventory and establish commercial operations in Europe, adoption, use and resulting sales, if any, for the Hepatic CHEMOSAT delivery system in the EEA, our ability to successfully commercialize the chemosaturation system and the potential of the chemosaturation system as a treatment for patients with terminal metastatic disease in the liver, acceptability of the Phase III clinical trial data by the FDA, our ability to address the issues raised in the Refusal to File letter received from the FDA and the timing of our re-submission of our NDA, re-submission and acceptance of the Company's NDA by the FDA, approval of the Company's NDA for the treatment of metastatic melanoma to the liver, adoption, use and resulting sales, if any, in the United States, approval of the current or future chemosaturation system for other indications, actions by the FDA or other foreign regulatory agencies, our ability to obtain reimbursement for the CHEMOSAT system, our ability to successfully enter into distribution and strategic partnership agreements in foreign markets and the corresponding revenue associated with such foreign markets, uncertainties relating to the results of research and development projects and future clinical trials, acceptance of our IND amendment, the timing and use, if any, of the line of credit from SVB and our ability to access this facility, 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.

Contact Information:

Investor Contact: Doug Sherk/Gregory Gin EVC Group 415-568-4887/646-445-4801 Media Contact: Janine McCargo EVC Group 646-688-0425

DELCATH SYSTEMS, INC. (A Development Stage Company) Condensed Consolidated Balance Sheets as of March 31, 2012 and December 31, 2011 (in thousands, except share data)

		March 31, 2012		December 31, 2011	
Assets:					
Current assets					
Cash and cash equivalents	\$	17,050	\$	25,777	
Investments – Certificates of deposit		3,735		4,980	
Prepaid expenses and other current assets		1,345		1,231	
Total current assets		22,130		31,988	
Property, plant and equipment					
Land		154		154	
Furniture and fixtures		904		880	
Machinery and equipment		1,424		1,371	
Computer software and equipment		1,469		1,212	
Leasehold improvements		1,386		1,148	
		5,337		4,765	
Less: accumulated depreciation		(1,834)		(1,512)	
Property, plant and equipment, net		3,503		3,253	
Total assets	\$	25,633	\$	35,241	
Liabilities and Stockholders' Equity:					
Current liabilities					
Accounts payable	\$	1,802	\$	925	
Accrued expenses		3,824		5,473	
Warrant liability		2,930		2,439	
Total current liabilities		8,556		8,837	
Deferred revenue		300		300	
Commitments and contingencies		_		_	
Communents and contingencies					
Stockholders' equity					
Preferred stock, \$.01 par value; 10,000,000 shares authorized; no shares issued and outstanding at March 31, 2012 and December 31, 2011		_		_	
Common stock, \$.01 par value; 70,000,000 shares authorized; 49,788,761 and 48,237,630 shares issued and					
49,760,661 and 48,209,534 shares outstanding at March 31, 2012 and December 31, 2011, respectively		498		482	
Additional paid-in capital		178,159		172,613	
Deficit accumulated during the development stage		(161,829)		(146,940)	
Treasury stock, at cost; 28,100 shares at March 31, 2012 and December 31, 2011		(51)		(51)	
Total stockholders' equity		16,777		26,104	
Total liabilities and stockholders' equity	\$	25,633	\$	35,241	

DELCATH SYSTEMS, INC.

(A Development Stage Company) Condensed Consolidated Statements of Operations and Comprehensive Loss for the Three Months Ended March 31, 2012 and 2011 and Cumulative from Inception (August 5, 1988) to March 31, 2012 (in thousands, except share and per share data)

	Three months ended March 31,			March 31,	Cumulative from inception (August 5, 1988) to March 31, 2012		
	2012 2011		2011		•		
Costs and expenses							
General and administrative expenses ¹	\$	7,423	\$	4,166	\$	68,571	
Research and development costs ¹		7,131		3,648		88,894	
Total costs and expenses		14,554		7,814		157,465	
Operating loss		(14,554)		(7,814)		(157,465)	
Derivative instrument income (expense)		(338)		5,966		(5,471)	
Interest income		3		-		2,880	
Other expense and interest expense		-		-		(274)	
Net loss	\$	(14,889)	\$	(1,848)	\$	(160,330)	
Common share data:							
Basic and diluted loss per share	\$	(0.31)	\$	(0.04)			
Weighted average number of basic and diluted common shares outstanding		48,341,670		42,953,553			
Comprehensive Loss	\$	(14,889)		(1,856)		(160,376)	

Note 1:

Includes non-cash stock-based compensation as follows:

	Thr	Three months ended March 31,			
		2012		2011	
General and administrative expenses	\$	563	\$	887	
Research and development costs		370		406	
Total stock-based compensation expense	\$	933	\$	1,293	