DELCATH SYSTEMS INC
Form 424B5
December 26, 2012
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Filed Pursuant to Rule 424(b)(5)

Registration Statement No. 333-183675

PROSPECTUS SUPPLEMENT NO. 2

(To Prospectus dated October 9, 2012 as supplemented by Prospectus Supplement dated December 5, 2012)

DELCATH SYSTEMS, INC.

1,749,018 SHARES OF COMMON STOCK

This Prospectus Supplement No. 2 supplements the prospectus dated October 9, 2012, as supplemented by the prospectus supplement dated December 5, 2012. This prospectus supplement should be read in conjunction with the prospectus and the previous prospectus supplement, and is qualified in its entirely by reference to the prospectus and the previous prospectus supplement, except to the extent that the information presented herein supersedes the information contained in the prospectus or the previous prospectus supplement. This Prospectus Supplement No. 2 is not complete without, and may not be delivered or utilized, except in connection with the prospectus, including any amendments or supplements thereto.

Unless the context otherwise indicates, references in this prospectus supplement to the accompanying prospectus refer to the prospectus dated October 9, 2012, as supplemented by the prospectus supplement dated December 5, 2012.

Pursuant to this prospectus supplement and the accompanying prospectus, we are offering 1,749,018 shares of our common stock to Terrapin Opportunity, L.P., or Terrapin, pursuant to a Common Stock Purchase Agreement between us and Terrapin dated as of December 5, 2012, which we refer to as the Purchase Agreement, at a price of approximately $1.20 per share. The total purchase price for the shares is $2.1 million. We will receive net proceeds from the sale of these shares of approximately $2.0 million, after deducting our estimated offering expenses of approximately $50,000, including a placement agent fee of $1,500 to be paid to Financial West Group, member FINRA/SIPC, or FWG, in connection with this offering.

This prospectus supplement and the accompanying prospectus also cover the resale of these shares by Terrapin to the public. Terrapin is an underwriter within the meaning of Section 2(a)(11) of the Securities Act of 1933, as amended, or the Securities Act, and any profits on the sales of shares of our common stock by Terrapin and any discounts, commissions or concessions received by Terrapin may be deemed to be underwriting discounts and commissions under the Securities Act.

We expect to issue these shares to Terrapin on or about December 27, 2012. Our common stock is traded on the NASDAQ Global Market under the trading symbol DCTH. On December 21, 2012, the last reported sales price for our common stock was $1.20 per share.

INVESTING IN OUR SECURITIES INVOLVES A HIGH DEGREE OF RISK. SEE THE SECTION ENTITLED RISK FACTORS BEGINNING ON PAGE S2-8 OF THIS PROSPECTUS SUPPLEMENT.

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 SUPPLEMENT. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

The date of this Prospectus Supplement is December 26, 2012

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Prospectus Supplement No. 2

Prospectus Supplement No. 1

Prospectus

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ABOUT THIS PROSPECTUS SUPPLEMENT

This prospectus supplement and the accompanying prospectus, dated October 9, 2012, as supplemented by the accompanying prospectus supplement, dated December 5, 2012, are part of a registration statement on Form S-3 (File No. 333-183675), which we refer to as the registration statement, that we filed with the Securities and Exchange Commission, or the SEC, using the shelf registration process, and that was declared effective on October 9, 2012. Under this shelf registration process, we may from time to time sell any combination of securities described in the accompanying prospectus in one or more offerings up to a total of $100 million.

These documents contain important information you should consider when making your investment decision. The accompanying prospectus provides you with a general description of the securities we may offer. This prospectus supplement contains information about the shares of common stock issued in this offering. This prospectus supplement may add, update or change information in the accompanying prospectus. You should rely only on the information provided in this prospectus supplement, the accompanying prospectus or incorporated by reference in this prospectus supplement or the accompanying prospectus. We have not authorized anyone to provide you with any other information. We may also authorize one or more free writing prospectuses to be provided to you that may contain material information relating to these offerings.

This prospectus supplement contains summaries of certain provisions contained in some of the documents described herein, but reference is made to the actual documents for complete information. All of the summaries are qualified in their entirety by the actual documents. Copies of some of the documents referred to herein have been filed, will be filed or will be incorporated by reference as exhibits to the registration statement of which this prospectus supplement is a part, and you may obtain copies of those documents as described below under the section entitled Where You Can Find Additional Information.

Unless stated otherwise, references in this prospectus supplement and the accompanying prospectus to Delcath, we, us, or our refer to Delcath Systems, Inc., a Delaware corporation.

This prospectus supplement, the accompanying prospectus, and the information incorporated herein and therein by reference include trademarks, service marks and trade names owned by us or other companies. All trademarks, service marks and trade names included or incorporated by reference into this prospectus supplement or the accompanying prospectus are the property of their respective owners.

We are not making any representation to you regarding the legality of an investment in the securities by you under applicable law. We are not making an offer to sell the securities in any jurisdiction where the offer or sale is not permitted. Persons outside the United States who come into possession of this prospectus supplement and the accompanying prospectus must inform themselves about, and observe any restrictions relating to, the offering of the securities and the distribution of this prospectus supplement and the accompanying prospectus outside the United States.

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PROSPECTUS SUPPLEMENT SUMMARY

This summary highlights selected information contained elsewhere or incorporated by reference in this prospectus supplement. This summary does not contain all the information that you should consider before investing in our securities. You should read the entire prospectus supplement and the accompanying prospectus carefully, including Risk Factors, the financial statements and other information included or incorporated by reference in this prospectus supplement and the accompanying prospectus before making an investment decision. This prospectus supplement contains forward-looking statements that involve risks and uncertainties. Our actual results could differ materially from the results anticipated in these forward-looking statements as a result of factors described under the Risk Factors section and elsewhere in this prospectus supplement and in the risk factors set forth under Item 1A. Risk Factors in our Annual Report on Form 10-K for the year ended December 31, 2011 and our Quarterly Report on Form 10-Q for the quarter ended September 30, 2012, and elsewhere in the documents incorporated by reference. All references in this prospectus supplement to $ are to U.S. dollars.

Our Business

We are a specialty pharmaceutical and medical device company focused on oncology. Our 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. Our initial focus is on the treatment of primary and metastatic liver cancers.

In 2010, we announced that our 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. We also completed a multi-arm Phase II trial to treat other liver cancers. We obtained authorization to affix a CE Mark for the Delcath Hepatic CHEMOSAT® delivery system for the delivery and filtration of melphalan hydrochloride in April 2011 and for the second generation hemofiltration cartridge for CHEMOSAT in April 2012. In October 2012, we satisfied all of the requirements to affix the CE Mark to our Hepatic CHEMOSAT Delivery System device for the delivery and filtration of doxorubicin hydrochloride injection, providing a regulatory pathway for CHEMOSAT with doxorubicin hydrochloride injection for countries in Asia that accept CE Marking as part of their national regulatory requirements. The right to affix the CE mark allows us to market and sell the CHEMOSAT system in Europe. We submitted our New Drug Application (NDA) to the U.S. Food & Drug Administration (FDA) on August 15, 2012, seeking approval for commercial sale of our chemosaturation system with melphalan in the treatment of patients with unresectable metastatic melanoma in the liver. Our NDA was accepted for filing by the FDA, and has been designated for standard review with a Prescription Drug User Fee Act (PDUFA) goal date of June 15, 2013. We will continue to work with the FDA to complete its review with the goal of obtaining approval for commercial sale of our proprietary chemosaturation system with melphalan. We have not yet received FDA approval for commercial sale of our system in the United States.

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Challenge of Treating Liver Dominant Disease

There are two types of liver cancer: primary and metastatic. Primary liver cancer (hepatocellular carcinoma or HCC) originates in the liver and is particularly prevalent in populations where the primary risk factors for the disease (hepatitis-B, hepatitis-C, high levels of alcohol consumption, aflatoxin, cigarette smoking and exposure to industrial pollutants) are present. Metastatic, or secondary, liver cancer is characterized by microscopic cancer cell clusters that detach from the primary site of disease and travel via the blood stream and lymphatic system into the liver, where they grow into new tumors. These metastases often continue to grow even after the primary cancer in another part of the body has been removed. Given the vital biological function of the liver, including processing nutrients from food and filtering toxins from the blood, it is common for metastases to settle in the liver. In many cases patients die not as a result of their primary cancer, but from the tumors that metastasize in their liver. In the United States, metastatic liver cancer is more prevalent than primary liver cancer.

The Delcath system for hepatic chemosaturation allows the administration of concentrated regional chemotherapy to the liver. This whole organ therapy is administered by first isolating the circulatory system of the liver, saturating the entire organ with chemotherapeutic agent, and filtering the blood prior to returning it to the patient. The Delcath system involves three catheters placed percutaneously through standard interventional radiology techniques. The catheters temporarily isolate the liver from the body s circulatory system, deliver a 30 minute infusion of chemotherapeutic agent (currently melphalan hydrochloride) directly to the liver, and collect drug-laden blood exiting the liver for filtration by proprietary filters. The filters reduce the concentration of chemotherapeutic agent in the blood, thereby minimizing systemic exposure to the drug and related side-effects before the filtered blood is returned to the patient s circulatory system.

The procedure is minimally invasive and repeatable, allowing for multiple courses of treatment with chemotherapeutic drugs and the potential for concomitant use in conjunction with other cancer therapies. We believe that the Delcath chemosaturation system may play an important role in the management of cancers in the liver, potentially providing time and additional options for treatment of a patient s primary disease. We also believe that the Delcath system is a platform technology that in the future may include the use of other drugs to treat cancers in the liver, as well as for the treatment of cancers in other organs and regions of the body.

European Market Commercialization

In April 2011, we obtained the right to affix the CE Mark to our first generation commercial product: the Delcath Hepatic CHEMOSAT® Delivery System for the delivery and filitration of melphalan hydrochloride (CHEMOSAT System). We believe the CHEMOSAT System may ultimately fulfill an annual unmet clinical need for as many as 59,000 patients with cancers in the liver in this region. In the EEA, the CHEMOSAT System is regulated as a medical device indicated for the intra-arterial administration of chemotherapeutic agent (melphalan hydrochloride) to the liver with additional extracorporeal filtration of the venous blood return.

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In the EEA, we are focusing our initial commercialization efforts on seven target markets: Germany, United Kingdom, France, the Netherlands, Italy, Spain and Ireland. We believe these countries represent a majority of the total potential liver cancer market in the EEA. Our commercialization strategy for these markets involves the establishment of initial training and launch centers at prestigious cancer hospitals. Medical teams at these centers are trained in the performance of the CHEMOSAT procedure and proctored for their initial cases by experienced physicians, and are provided additional logistical support by Delcath. We believe that as the CHEMOSAT teams at these centers gain experience, they will form a European base of key opinion leadership that will help educate other physicians about the potential of chemosaturation therapy with CHEMOSAT and foster initial market acceptance. To further drive adoption, we are using a combination of direct and indirect sales channels to market and distribute the CHEMOSAT System in Europe. We have recently entered into exclusive distribution agreements for Italy and Spain. In addition, we have retained Quintiles to provide a third party medical science liaison force to educate medical oncologists in the target markets about the CHEMOSAT system. To support commercialization efforts, we established our EU headquarters in Galway, Ireland.

In November 2011, we announced that it had entered into our first initial training and launch agreement with the European Institute of Oncology (IEO) in Milan, Italy. As of the end of the third quarter, we had signed a total of 13 such agreements with leading European cancer centers, and has established a presence in all seven of our target markets. Patients treated thus far include those with inoperable liver-dominant metastases from ocular melanoma, cutaneous melanoma, breast cancer, gastric cancer and cholangiocarcinoma.

In April 2012, we announced that we received CE Mark approval for the Generation Two hemofiltration cartridge of the CHEMOSAT System. The Generation Two system has demonstrated filter efficiency greater than 98% during drug infusion of melphalan in an in vivo study; the same study also showed that the Generation Two filter removes fewer blood platelets. Upon approval of the Generation Two filter, we began supplying our early launch and training centers exclusively with the Generation Two CHEMOSAT system.

Applications for interim reimbursement have been submitted in Germany, Italy and the UK and we expect a response by first quarter of 2013. We are also supporting efforts of treatment centers to pursue patient specific insurance funding in these countries as well as in Spain. In the other target countries, reimbursement pathways have been identified and are being actively pursued.

Regulatory

International Regulations

We recently changed our Notified Body in Europe and as part of this change the CHEMOSAT System was reclassified from a Class III medical device to a Class IIb medical device. The primary difference between Class III and Class IIb is that for Class IIb medical devices the Notified Body is not required to carry out an examination of the product s design dossier as part of its conformity assessment. We must continue to comply with the essential requirements of the EU Medical Devices Directive (Directive 93/42 EC) and are subject to a

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conformity assessment procedure requiring the intervention of a Notified Body. The conformity assessment procedure for Class IIb medical devices requires the manufacturer to lodge an application for the assessment of its quality system for the design, manufacture and inspection of its medical devices by a Notified Body. The Notified Body will audit the system to determine whether it conforms to the provisions of the Medical Devices Directive. If the Notified Body s assessment is favorable it will issue a Full Quality Assurance Certificate, which enables the manufacturer to draw a Declaration of Conformity and affix the CE mark to the medical devices covered by the assessment. Thereafter, the Notified Body will carry out periodic audits to ensure that the approved quality system is applied by the manufacturer.

On October 22, 2012, we announced that we had satisfied all of the requirements to affix the CE Mark to our Hepatic CHEMOSAT Delivery System for the delivery and filtration of doxorubicin hydrochloride (CHEMOSAT System to deliver and filtrate doxorubicin). CE Marking confirms that a medical device complies with the Essential Requirements of the Medical Device Directive, and that the device has been subjected to conformity assessment procedures. Application of the CE Mark for the CHEMOSAT System to deliver and filtrate doxorubicin provides us with a regulatory pathway for certain countries in Asia that accept CE Marking as part of their national regulatory requirements. Doxorubicin is an established chemotherapeutic agent commonly used globally to treat hepatocellular carcinoma (HCC) via trans-arterial chemoembolization (TACE) and is widely used to treat HCC in Asia, which is where we see the market opportunity for our CHEMOSAT system to deliver and filtrate doxorubicin injection. In China, these requirements include conducting a local clinical trial and approval by the China State Food and Drug Administration (SFDA). We intend to seek approvals for the CHEMOSAT System with doxorubicin in key Asian markets such as China and South Korea. We do not intend to market the CHEMOSAT System to deliver and filtrate doxorubicin in the European Economic Area at this time.

Having previously obtained the CE Mark for the CHEMOSAT System with melphalan, we believe the right to affix the CE Mark can result in an accelerated regulatory approval in a number of countries outside the EEA and the United States. We recently received regulatory approval for the second generation CHEMOSAT System in Australia and has completed the product notification process in New Zealand. We have submitted applications for regulatory approval as a device for the CHEMOSAT System in Hong Kong, South Korea, Singapore, Canada and Israel and we intend to submit regulatory applications in Mexico, Argentina, Brazil, Russia, India, Japan, China, and Taiwan. We are in the process of determining the regulatory pathway in some of these countries subject to negotiations with the applicable health authority. It is our intention to leverage the CE Mark in some or all of these countries to commercialize the Delcath CHEMOSAT System, where appropriate. Delcath Systems Limited s facility in Galway, Ireland has obtained certificates of free sale from the Irish Medicines Board as many markets require country of origin manufacturing, such as Mexico, Argentina, Brazil, Japan, China, and Taiwan, as a prerequisite to obtain regulatory approval.

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United States

In the United States, the Delcath chemosaturation system for the administration of melphalan hydrochloride is considered a combination drug and device product and is regulated as a drug by the U.S. Food and Drug Administration (FDA). In August 2012, we submitted our Section 505(b)(2) New Drug Application (NDA), to the FDA, seeking an indication for the percutaneous intra-arterial administration of melphalan for use in the treatment of patients with metastatic melanoma in the liver. The NDA was accepted for filing by the FDA, and has been designated for standard review with a PDUFA goal date of June 15, 2013.

On December 5, 2012, we announced that, following discussions with the FDA, we elected to modify the label indication we are seeking as part of the NDA to focus on the treatment of patients with unresectable metastatic ocular melanoma in the liver.

In addition to the NDA submission, we submitted to the FDA an amendment to our Investigational New Drug application to include the Generation Two system in the FDA s Expanded Access Program (EAP), as well as all future clinical trials and compassionate use cases. We announced acceptance of these amendments on June 18, 2012, and expect the first centers to begin treating patients under the EAP by the end of 2012.

General

We have financed our operations primarily through public and private placements of equity securities. We have incurred net losses since we were founded and we expect to continue to incur significant net losses throughout 2012. We expect that the average amount of capital required for operations to increase in the foreseeable future, as we commercialize the Delcath chemosaturation system in Europe, continue research and development activities, continue the submission process with the FDA and prepare for potential US commercialization.

Our principal executive office is located at 810 Seventh Avenue, 35th Floor, New York, NY 10019. Our telephone number is (212) 489-2100. Our website address is http://www.delcath.com. Information contained in, or accessible through, our website does not constitute a part of this prospectus.

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THE OFFERING

Common stock offered by us	1,749,018 shares.
Common stock to be outstanding immediately after this offering	76,824,264 shares.
Use of Proceeds	We intend to use the net proceeds from the sale of the shares for general corporate purposes, including, but not limited to, commercialization of our products, obtaining regulatory approvals, funding of our clinical trials, capital expenditures and working capital. See Use of Proceeds on page S2-5 of this prospectus supplement.
NASDAQ Global Market Symbol	DCTH
Risk Factors	Investing in our common stock involves a high degree of risk. You should read the description of risks set forth in the Risk Factors section of this prospectus supplement or otherwise incorporated by reference in this prospectus supplement for a discussion of factors to consider before deciding to purchase our securities.

The number of shares of common stock to be outstanding immediately after this offering as reflected in the table above is based on 75,075,246 shares of common stock outstanding as of December 21, 2012. Unless we specifically state otherwise, the information throughout this prospectus supplement excludes, as of December 21, 2012:

- 4,807,953 shares issuable upon the exercise of stock options at a weighted average exercise price of $4.79 per share; and
- 5,642,580 shares issuable upon the exercise of outstanding warrants or options to purchase warrants at a weighted average exercise price of $1.59 per share.

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RISK FACTORS

Any investment in our securities involves a high degree of risk. You should carefully consider the risks described below and all of the information contained in this prospectus supplement and the accompanying prospectus before deciding whether to purchase our securities. In addition, you should carefully consider, among other things, the matters discussed under Risk Factors and Quantitative and Qualitative Disclosures About Market Risk in our Annual Report on Form 10-K for the year ended December 31, 2011, in our Quarterly Report on Form 10-Q for the period ended September 30, 2012, and in other documents that we subsequently file with the Securities and Exchange Commission, all of which are incorporated by reference. The risks and uncertainties described below and incorporated by reference are not the only risks and uncertainties we face. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also impair our business operations. If any of these risks actually occur, our business, financial condition and results of operations would suffer. In that event, the trading price of our common stock offered hereby could decline, and you may lose all or part of your investment. This prospectus supplement, the accompanying prospectus and the incorporated documents also include forward-looking statements and our actual results may differ substantially from those discussed in these forward-looking statements. See Disclosure Regarding Forward-Looking Statements.

Additional Risks Related to this Offering

Our management team will have broad discretion over the use of the net proceeds from this offering.

Our management will use its discretion to direct the net proceeds from this offering. We intend to use the net proceeds from the sale of the shares for general corporate purposes, including, but not limited to, commercialization of our products, obtaining regulatory approvals, funding of our clinical trials, capital expenditures and working capital. Our management s judgments may not result in positive returns on your investment and you will not have an opportunity to evaluate the economic, financial or other information upon which our management bases its decisions.

The sale of our common stock in this offering will may result in immediate and substantial dilution.

If we elect to draw down amounts under the Purchase Agreement, which will result in the sale of additional shares of our common stock to Terrapin, any such draw downs will have a dilutive impact on our existing stockholders. Terrapin may resell some or all of the shares we issue to it pursuant to draw downs under the Purchase Agreement and such sales could cause the market price of our common stock to decline. To the extent of any such decline, any subsequent draw downs would require us to issue a greater number of shares of common stock to Terrapin in exchange for each dollar of proceeds received from the draw down. Under these circumstances, our existing stockholders would experience greater dilution and the total amount of the financing that we will be able to raise pursuant to the Purchase Agreement could be significantly lower than $35 million.

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Future sales or issuances of our common stock in the public markets, or the perception of such sales, could depress the trading price of our common stock.

The sale of a substantial number of shares of our common stock or other equity-related securities in the public markets, or the perception that such sales could occur, could depress the market price of our common stock and impair our ability to raise capital through the sale of additional equity securities. We may sell large quantities of our common stock at any time pursuant to this prospectus supplement or one or more separate offerings. We cannot predict the effect that future sales of common stock or other equity-related securities would have on the market price of our common stock. Additionally, although Terrapin is precluded from short sales of shares acquired pursuant to draw downs under the Purchase Agreement, the sale of our common stock under the Purchase Agreement, or the perception that such sales could occur, may encourage short sales by third parties, which could contribute to further decline of our stock price.

FORWARD-LOOKING INFORMATION

This prospectus supplement, the accompanying prospectus and the documents incorporated by reference into this prospectus supplement contain certain forward-looking statements within the meaning of the safe harbor provisions of the Private Securities Litigation Reform Act of 1995 with respect to our business, financial condition, liquidity and results of operations. Words such as anticipates, expects, intends, plans, predicts, believes, seeks, estimates, could, would, will, may, can, continue, potential, should, and the negative of these terms or othe terminology often identify forward-looking statements. Statements in this prospectus supplement, the accompanying prospectus and the other documents incorporated by reference that are not historical facts are hereby identified as forward-looking statements for the purpose of the safe harbor provided by Section 21E of the Exchange Act and Section 27A of the Securities Act. These forward-looking statements are not guarantees of future performance and are subject to risks and uncertainties that could cause actual results to differ materially from the results contemplated by the forward-looking statements, including the risks discussed in this prospectus supplement, the accompanying prospectus, in our Annual Report on Form 10-K for the fiscal year ended December 31, 2011 in Item 1A under Risk Factors as well as in Item 7A Quantitative and Qualitative Disclosures About Market Risk, our Quarterly Report on Form 10-Q for the period ended September 30, 2012 in Part I, Item 3 Quantitative and Qualitative Disclosures About Market Risk and the risks detailed from time to time in our future SEC reports. These forward-looking statements include, but are not limited to, statements about:

- the progress and results of our research and development programs;
- our estimates regarding sufficiency of our cash resources, anticipated capital requirements and our need for additional financing;
- the commencement of future clinical trials and the results and timing of those clinical trials;
- submission and timing of applications for regulatory approval and approval thereof;

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our ability to successfully source certain components of the system and enter into supplier contracts;

our ability to successfully manufacture the Delcath chemosaturation system;

our ability to successfully commercialize the Delcath chemosaturation system; and

our ability to successfully negotiate and enter into agreements with distribution, strategic and corporate partners; and

Many of the important factors that will determine these results are beyond our ability to control or predict. You are cautioned not to put undue reliance on any forward-looking statements, which speak only as of the date of this prospectus supplement, the date of the accompanying prospectus or, in the case of documents incorporated by reference, as of the date of such documents. Except as otherwise required by law, we do not assume any obligation to publicly update or release any revisions to these forward-looking statements to reflect events or circumstances after the date of this prospectus supplement or to reflect the occurrence of unanticipated events.

USE OF PROCEEDS

We intend to use the net proceeds from the sale of the shares, if any, for general corporate purposes, including, but not limited to, commercialization of our products, obtaining regulatory approvals, funding of our clinical trials, capital expenditures and working capital.

DIVIDEND POLICY

We have never declared or paid any dividends to the holders of our common stock and we do not expect to pay cash dividends in the foreseeable future. We currently intend to retain all earnings for use in connection with the expansion of our business and for general corporate purposes.

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DILUTION

If you invest in our common stock, your interest will be diluted immediately to the extent of the difference between the public offering price per share of our common stock and the adjusted net tangible book value per share of our common stock after this offering.

The net tangible book value of our common stock as of September 30, 2012, was approximately $24.9 million, or approximately $0.34 per share. Net tangible book value per share represents the amount of our total tangible assets, excluding goodwill and intangible assets, less total liabilities divided by the total number of shares of our common stock outstanding.

After giving effect to the sale of shares of our common stock in the aggregate amount of $2.1 million at an offering price of $1.20 per share, and estimated offering expenses, our pro forma net tangible book value as of September 30, 2012 would have been approximately $26.9 million or approximately $0.36 per share. This represents an immediate increase in net tangible book value of approximately $0.02 per share to our existing stockholders and an immediate dilution in pro forma net tangible book value of approximately $0.84 per share to purchasers of our common stock in this offering, as illustrated by the following table:

Assumed offering price per unit	$1.20
Net Tangible book value per share as of September 30, 2012	0.34
Increase per share attributable to the offering	0.02
Adjusted net tangible book value per share as of September 30, 2012 after giving effect to this offering	0.36
Dilution per share to new investors	0.84

The foregoing table is based on 73,393,908 shares of common stock outstanding as of September 30, 2012 and assumes no exercise of warrants or options or issuances of shares of common stock since that date. In addition, the table does not take into effect further dilution to new investors that could occur upon the exercise of the outstanding options and warrants having an exercise price less than the per share offering price to the public on this offering.

The table above excludes the following potentially dilutive securities as of September 30, 2012:

- 4,834,053 shares issuable upon the exercise of stock options at a weighted average exercise price of $4.78 per share; and
- 5,643,480 shares issuable upon the exercise of outstanding warrants or options to purchase warrants at a weighted average exercise price of $1.59 per share.

PLAN OF DISTRIBUTION

Please see the information set forth under the caption Plan of Distribution in the accompanying prospectus, and the disclosure set forth in our Current Report on Form 8-K relating to our equity line of credit arrangement with Terrapin, filed with the SEC on December 5, 2012, pursuant to the Exchange Act, which is incorporated herein by reference. For more information, please see the section entitled Incorporation by Reference in this prospectus supplement.

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LEGAL MATTERS

The validity of the securities being offered hereby will be passed upon for us by Skadden, Arps, Slate, Meagher & Flom LLP, New York, New York .

EXPERTS

Ernst & Young LLP, independent registered public accounting firm, has audited our consolidated financial statements as of and for the years ended December 31, 2011 and 2010 included in our Annual Report on Form 10-K for the year ended December 31, 2011 and the effectiveness of our internal control over financial reporting as of December 31, 2011, as set forth in their reports, which are incorporated by reference in this prospectus supplement and the accompanying prospectus and elsewhere in the registration statement. Our financial statements as of and for the years ended December 31, 2011 and December 31, 2010 are incorporated by reference in reliance on Ernst & Young LLP s reports given on their authority as experts in accounting and auditing.

The consolidated financial statements of Delcath Systems, Inc. for the year ended December 31, 2009 incorporated by reference in this prospectus and elsewhere in this prospectus supplement and the accompanying prospectus and elsewhere in the registration statement from our Annual Report on Form 10-K for the year ended December 31, 2011 have been so incorporated by reference in reliance upon the report of Grant Thornton LLP, independent registered public accountants and successor to the practice of CCR LLP, upon the authority of said firm as experts in auditing and accounting in giving said report.

WHERE YOU CAN FIND MORE INFORMATION

This prospectus supplement is part of a registration statement on Form S-3 that we filed with the SEC. The registration statement that contains this prospectus supplement, including the exhibits to the registration statement, contains additional information about us and the common stock offered by this prospectus supplement.

We file annual, quarterly and current reports, proxy statements and other information with the SEC. You may read and copy any document we file at the SEC s Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the Public Reference Room. Our public filings, including reports, proxy and information statements, are also available on the SEC s website at http://www.sec.gov.

INCORPORATION BY REFERENCE

The SEC allows us to incorporate by reference information that we file with it, which means that we can disclose important information to you by referring you to another document that we have filed separately with the SEC. You should read the information incorporated by reference because it is an important part of this prospectus supplement. We incorporate by reference the following information or documents that we have filed with the SEC (Commission File No. 001-34828):

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Our Current Reports on Form 8-K filed with the SEC on January 13, 2012, January 31, 2012, February 2, 2012, March 26, 2012, April 18, 2012, April 24, 2012, May 30, 2012, May 31, 2012, July 9, 2012, July 19, 2012, August 16, 2012, October 15, 2012, November 1, 2012 and December 5, 2012;

Our Annual Report on Form 10-K for the fiscal year ended 2011 filed with the SEC on March 6, 2012 (the 2011 Form 10-K);

Our Quarterly Reports on Form 10-Q for the quarters ended September 30, 2012, June 30, 2012 and March 31, 2012 filed with the SEC on November 7, 2012, August 8, 2012 and May 9, 2012, respectively;

The information specifically incorporated by reference into the 2011 Form 10-K from our definitive proxy statement on Schedule 14A filed with the SEC on April 27, 2012; and

The description of our common stock set forth in our registration statement on Form 8-A filed with the SEC on July 23, 2010, including any amendments thereto or reports filed for the purpose of updating this transaction.

We also incorporate by reference into this prospectus supplement all documents (other than Current Reports furnished under Item 2.02 or Item 7.01 of Form 8-K and exhibits filed on such form that are related to such items) that are filed by us with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date of this prospectus supplement and until we file a post-effective amendment that indicates the termination of the offering of the securities made by this prospectus supplement. These documents include periodic reports, such as Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K, as well as proxy statements.

Any statement contained herein or in a document incorporated or deemed to be incorporated by reference into this document will be deemed to be modified or superseded for purposes of the document to the extent that a statement contained in this document or any other subsequently filed document that is deemed to be incorporated by reference into this document modifies or supersedes the statement.

You can request a copy of these filings, at no cost, by writing or telephoning us at the following address or telephone number:

Delcath Systems, Inc.

810 Seventh Avenue, 35th Floor,

New York, New York 10019

or by calling us at 212-489-2100

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PROSPECTUS SUPPLEMENT

(To Prospectus dated October 9, 2012)

DELCATH SYSTEMS, INC.

$35,000,000

COMMON STOCK

Pursuant to this prospectus supplement and the accompanying prospectus, we are offering up to $35,000,000 of shares of our common stock to Terrapin Opportunity, L.P., or Terrapin, pursuant to a Common Stock Purchase Agreement between us and Terrapin dated as of December 5, 2012, which we refer to as the Purchase Agreement. The offering price of such shares, net of commissions payable by us, will be at a discount of ranging between 3.6% to 5.8% from the volume weighted average price of our common stock at the time of sale, as reported on The NASDAQ Global Market. Upon each sale of our common stock to Terrapin under the Purchase Agreement, we have also agreed to pay Financial West Group, member FINRA/SIPC, or FWG, a placement agent fee of $1,500. The specific terms of any offering, other than the shares of common stock we agreed to issue to Terrapin in consideration of the execution and delivery of the Purchase Agreement, will be provided by way of a further prospectus supplement.

This prospectus supplement and the accompanying prospectus also cover the resale of all of these shares by Terrapin to the public. Terrapin is an underwriter within the meaning of Section 2(a)(11) of the Securities Act of 1933, as amended, or the Securities Act, and any profits on the sales of shares of our common stock by Terrapin and any discounts, commissions or concessions received by Terrapin may be deemed to be underwriting discounts and commissions under the Securities Act.

Our common stock is traded on the NASDAQ Global Market under the trading symbol DCTH. On December 4, 2012, the last reported sales price for our common stock was $1.45 per share.

INVESTING IN OUR SECURITIES INVOLVES A HIGH DEGREE OF RISK. SEE THE SECTION ENTITLED RISK FACTORS BEGINNING ON PAGE S-6 OF THIS PROSPECTUS SUPPLEMENT.

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 SUPPLEMENT. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

The date of this Prospectus Supplement is December 5, 2012

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Prospectus Supplement

Prospectus

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ABOUT THIS PROSPECTUS SUPPLEMENT

This prospectus supplement is a supplement to the accompanying prospectus, dated October 9, 2012, which is also a part of this document. This prospectus supplement and the accompanying prospectus are part of a registration statement on Form S-3 (File No. 333-183675), which we refer to as the Registration Statement, that we filed with the Securities and Exchange Commission, or the SEC, using the shelf registration process, and that was declared effective on October 9, 2012. Under this shelf registration process, we may from time to time sell any combination of securities described in the accompanying prospectus in one or more offerings up to a total of $100 million.

This document is in two parts. The first part is this prospectus supplement, which describes the specific terms of the offering and also supplements, adds to and updates information contained in the accompanying prospectus and the documents incorporated by reference into the accompanying prospectus. The second part is the accompanying prospectus, which provides more general information, some of which may not apply to the securities. Generally, when we refer to this prospectus, we are referring to both parts of this document combined. To the extent there is a conflict between the information contained in this prospectus supplement, on the one hand, and the information contained in the accompanying prospectus or any document incorporated by reference therein, on the other hand, you should rely on the information in this prospectus supplement. If any statement in one of these documents is inconsistent with a statement in another document having a later date for example, a document incorporated by reference in the accompanying prospectus the statement in the document having the later date modifies or supersedes the earlier statement.

This prospectus supplement contains summaries of certain provisions contained in some of the documents described herein, but reference is made to the actual documents for complete information. All of the summaries are qualified in their entirety by the actual documents. Copies of some of the documents referred to herein have been filed, will be filed or will be incorporated by reference as exhibits to the registration statement of which this prospectus supplement is a part, and you may obtain copies of those documents as described below under the section entitled Where You Can Find Additional Information.

Unless stated otherwise, references in this prospectus supplement and the accompanying prospectus to Delcath, we, us, or our refer to Delcath Systems, Inc., a Delaware corporation.

This prospectus supplement, the accompanying prospectus, and the information incorporated herein and therein by reference include trademarks, service marks and trade names owned by us or other companies. All trademarks, service marks and trade names included or incorporated by reference into this prospectus supplement or the accompanying prospectus are the property of their respective owners.

We are not making any representation to you regarding the legality of an investment in the securities by you under applicable law. We are not making an offer to sell the securities in any jurisdiction where the offer or sale is not permitted. Persons outside the United States who come into possession of this prospectus supplement and the accompanying prospectus must inform themselves about, and observe any restrictions relating to, the offering of the securities and the distribution of this prospectus supplement and the accompanying prospectus outside the United States.

PROSPECTUS SUPPLEMENT SUMMARY

This summary highlights selected information contained elsewhere or incorporated by reference in this prospectus supplement. This summary does not contain all the information that you should consider before investing in our securities. You should read the entire prospectus supplement and the accompanying prospectus carefully, including Risk Factors, the financial statements and other information included or incorporated by reference in this prospectus supplement and the accompanying prospectus before making an investment decision. This prospectus supplement contains forward-looking statements that involve risks and uncertainties. Our actual results could differ materially from the results anticipated in these forward-looking statements as a result of factors described under the Risk Factors section and elsewhere in this prospectus supplement and in the risk factors set

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forth under Item 1A. Risk Factors in our Annual Report on Form 10-K for the year ended December 31, 2011 and our Quarterly Report on Form 10-Q for the quarter ended September 30, 2012, and elsewhere in the documents incorporated by reference. All references in this prospectus supplement to $ are to U.S. dollars.

Our Business

We are a specialty pharmaceutical and medical device company focused on oncology. Our 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. Our initial focus is on the treatment of primary and metastatic liver cancers.

In 2010, we announced that our 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. We also completed a multi-arm Phase II trial to treat other liver cancers. We obtained authorization to affix a CE Mark for the Delcath Hepatic CHEMOSAT® delivery system for the delivery and filtration of melphalan hydrochloride in April 2011 and for the second generation hemofiltration cartridge for CHEMOSAT in April 2012. In October 2012, we satisfied all of the requirements to affix the CE Mark to our Hepatic CHEMOSAT Delivery System device for the delivery and filtration of doxorubicin hydrochloride injection, providing a regulatory pathway for CHEMOSAT with doxorubicin hydrochloride injection for countries in Asia that accept CE Marking as part of their national regulatory requirements. The right to affix the CE mark allows us to market and sell the CHEMOSAT system in Europe. We submitted our New Drug Application (NDA) to the U.S. Food & Drug Administration (FDA) on August 15, 2012, seeking approval for commercial sale of our chemosaturation system with melphalan in the treatment of patients with unresectable metastatic melanoma in the liver. Our NDA was accepted for filing by the FDA, and has been designated for standard review with a Prescription Drug User Fee Act (PDUFA) goal date of June 15, 2013. We will continue to work with the FDA to complete its review with the goal of obtaining approval for commercial sale of our proprietary chemosaturation system with melphalan. We have not yet received FDA approval for commercial sale of our system in the United States.

Challenge of Treating Liver Dominant Disease

There are two types of liver cancer: primary and metastatic. Primary liver cancer (hepatocellular carcinoma or HCC) originates in the liver and is particularly prevalent in populations where the primary risk factors for the disease (hepatitis-B, hepatitis-C, high levels of alcohol consumption, aflatoxin, cigarette smoking and exposure to industrial pollutants) are present. Metastatic, or secondary, liver cancer is characterized by microscopic cancer cell clusters that detach from the primary site of disease and travel via the blood stream and lymphatic system into the liver, where they grow into new tumors. These metastases often continue to grow even after the primary cancer in another part of the body has been removed. Given the vital biological function of the liver, including processing nutrients from food and filtering toxins from the blood, it is common for metastases to settle in the liver. In many cases patients die not as a result of their primary cancer, but from the tumors that metastasize in their liver. In the United States, metastatic liver cancer is more prevalent than primary liver cancer.

The Delcath system for hepatic chemosaturation allows the administration of concentrated regional chemotherapy to the liver. This whole organ therapy is administered by first isolating the circulatory system of the liver, saturating the entire organ with chemotherapeutic agent, and filtering the blood prior to returning it to the patient. The Delcath system involves three catheters placed percutaneously through standard interventional radiology techniques. The catheters temporarily isolate the liver from the body s circulatory system, deliver a 30 minute infusion of chemotherapeutic agent (currently melphalan hydrochloride) directly to the liver, and collect drug-laden blood exiting the liver for filtration by proprietary filters. The filters reduce the concentration of chemotherapeutic agent in the blood, thereby minimizing systemic exposure to the drug and related side-effects before the filtered blood is returned to the patient s circulatory system.

The procedure is minimally invasive and repeatable, allowing for multiple courses of treatment with chemotherapeutic drugs and the potential for concomitant use in conjunction with other cancer therapies. We believe that the Delcath chemosaturation system may play an important role in the management of cancers in the liver, potentially providing time and additional options for treatment of a patient s primary disease. We also believe that the Delcath system is a platform technology that in the future may include the use of other drugs to treat cancers in the liver, as well as for the treatment of cancers in other organs and regions of the body.

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European Market Commercialization

In April 2011, we obtained the right to affix the CE Mark to our first generation commercial product: the Delcath Hepatic CHEMOSAT® Delivery System for the delivery and filitration of melphalan hydrochloride (CHEMOSAT System). We believe the CHEMOSAT System may ultimately fulfill an annual unmet clinical need for as many as 59,000 patients with cancers in the liver in this region. In the EEA, the CHEMOSAT System is regulated as a medical device indicated for the intra-arterial administration of chemotherapeutic agent (melphalan hydrochloride) to the liver with additional extracorporeal filtration of the venous blood return.

In the EEA, we are focusing our initial commercialization efforts on seven target markets: Germany, United Kingdom, France, the Netherlands, Italy, Spain and Ireland. We believe these countries represent a majority of the total potential liver cancer market in the EEA. Our commercialization strategy for these markets involves the establishment of initial training and launch centers at prestigious cancer hospitals. Medical teams at these centers are trained in the performance of the CHEMOSAT procedure and proctored for their initial cases by experienced physicians, and are provided additional logistical support by Delcath. We believe that as the CHEMOSAT teams at these centers gain experience, they will form a European base of key opinion leadership that will help educate other physicians about the potential of chemosaturation therapy with CHEMOSAT and foster initial market acceptance. To further drive adoption, we are using a combination of direct and indirect sales channels to market and distribute the CHEMOSAT System in Europe. We have recently entered into exclusive distribution agreements for Italy and Spain. In addition, we have retained Quintiles to provide a third party medical science liaison force to educate medical oncologists in the target markets about the CHEMOSAT system. To support commercialization efforts, we established our EU headquarters in Galway, Ireland.

In November 2011, we announced that it had entered into our first initial training and launch agreement with the European Institute of Oncology (IEO) in Milan, Italy. As of the end of the third quarter, we had signed a total of 13 such agreements with leading European cancer centers, and has established a presence in all seven of our target markets. Patients treated thus far include those with inoperable liver-dominant metastases from ocular melanoma, cutaneous melanoma, breast cancer, gastric cancer and cholangiocarcinoma.

In April 2012, we announced that we received CE Mark approval for the Generation Two hemofiltration cartridge of the CHEMOSAT System. The Generation Two system has demonstrated filter efficiency greater than 98% during drug infusion of melphalan in an in vivo study; the same study also showed that the Generation Two filter removes fewer blood platelets. Upon approval of the Generation Two filter, we began supplying our early launch and training centers exclusively with the Generation Two CHEMOSAT system.

Applications for interim reimbursement have been submitted in Germany, Italy and the UK and we expect a response by first quarter of 2013. We are also supporting efforts of treatment centers to pursue patient specific insurance funding in these countries as well as in Spain. In the other target countries, reimbursement pathways have been identified and are being actively pursued.

Regulatory

International Regulations

We recently changed our Notified Body in Europe and as part of this change the CHEMOSAT System was reclassified from a Class III medical device to a Class IIb medical device. The primary difference between Class III and Class IIb is that for Class IIb medical devices the Notified Body is not required to carry out an examination of the product s design dossier as part of its conformity assessment. We must continue to comply with the essential requirements of the EU Medical Devices Directive (Directive 93/42 EC) and are subject to a conformity assessment procedure requiring the intervention of a Notified Body. The conformity assessment procedure for Class IIb medical devices requires the manufacturer to lodge an application for the assessment of its quality system for the design, manufacture and inspection of its medical devices by a Notified Body. The Notified Body will audit the

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system to determine whether it conforms to the provisions of the Medical Devices Directive. If the Notified Body s assessment is favorable it will issue a Full Quality Assurance Certificate, which enables the manufacturer to draw a Declaration of Conformity and affix the CE mark to the medical devices covered by the assessment. Thereafter, the Notified Body will carry out periodic audits to ensure that the approved quality system is applied by the manufacturer.

On October 22, 2012, we announced that we had satisfied all of the requirements to affix the CE Mark to our Hepatic CHEMOSAT Delivery System for the delivery and filtration of doxorubicin hydrochloride (CHEMOSAT System to deliver and filtrate doxorubicin). CE Marking confirms that a medical device complies with the Essential Requirements of the Medical Device Directive, and that the device has been subjected to conformity assessment procedures. Application of the CE Mark for the CHEMOSAT System to deliver and filtrate doxorubicin provides us with a regulatory pathway for certain countries in Asia that accept CE Marking as part of their national regulatory requirements. Doxorubicin is an established chemotherapeutic agent commonly used globally to treat hepatocellular carcinoma (HCC) via trans-arterial chemoembolization (TACE) and is widely used to treat HCC in Asia, which is where we see the market opportunity for our CHEMOSAT system to deliver and filtrate doxorubicin injection. In China, these requirements include conducting a local clinical trial and approval by the China State Food and Drug Administration (SFDA). We intend to seek approvals for the CHEMOSAT System with doxorubicin in key Asian markets such as China and South Korea. We do not intend to market the CHEMOSAT System to deliver and filtrate doxorubicin in the European Economic Area at this time.

Having previously obtained the CE Mark for the CHEMOSAT System with melphalan, we believe the right to affix the CE Mark can result in an accelerated regulatory approval in a number of countries outside the EEA and the United States. We recently received regulatory approval for the second generation CHEMOSAT System in Australia and has completed the product notification process in New Zealand. We have submitted applications for regulatory approval as a device for the CHEMOSAT System in Hong Kong, South Korea, Singapore, Canada and Israel and we intend to submit regulatory applications in Mexico, Argentina, Brazil, Russia, India, Japan, China, and Taiwan. We are in the process of determining the regulatory pathway in some of these countries subject to negotiations with the applicable health authority. It is our intention to leverage the CE Mark in some or all of these countries to commercialize the Delcath CHEMOSAT System, where appropriate. Delcath Systems Limited s facility in Galway, Ireland has obtained certificates of free sale from the Irish Medicines Board as many markets require country of origin manufacturing, such as Mexico, Argentina, Brazil, Japan, China, and Taiwan, as a prerequisite to obtain regulatory approval.

United States

In the United States, the Delcath chemosaturation system for the administration of melphalan hydrochloride is considered a combination drug and device product and is regulated as a drug by the U.S. Food and Drug Administration (FDA). In August 2012, we submitted our Section 505(b)(2) New Drug Application (NDA), to the FDA, seeking an indication for the percutaneous intra-arterial administration of melphalan for use in the treatment of patients with metastatic melanoma in the liver. The NDA was accepted for filing by the FDA, and has been designated for standard review with a PDUFA goal date of June 15, 2013.

In addition to the NDA submission, we submitted to the FDA an amendment to our Investigational New Drug application to include the Generation Two system in the FDA s Expanded Access Program (EAP), as well as all future clinical trials and compassionate use cases. We announced acceptance of these amendments on June 18, 2012, and expect the first centers to begin treating patients under the EAP by the end of 2012.

General

We have financed our operations primarily through public and private placements of equity securities. We have incurred net losses since we were founded and we expect to continue to incur significant net losses throughout 2012. We expect that the average amount of capital required for operations to increase in the foreseeable future, as we commercialize the Delcath chemosaturation system in Europe, continue research and development activities, continue the submission process with the FDA and prepare for potential US commercialization.

Our principal executive office is located at 810 Seventh Avenue, 35th Floor, New York, NY 10019. Our telephone number is (212) 489-2100. Our website address is http://www.delcath.com. Information contained in, or accessible through, our website does not constitute a part of this prospectus.

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THE OFFERING

Common stock offered by us	Shares of common stock with aggregate gross sale proceeds of up to $35,000,000.
Proceeds of offering	The proceeds from this offering will vary depending on the number of shares that we offer and the offering price per share. We expect that our net maximum proceeds, after discounts and placement agent commissions and offering expenses, will be up to approximately $33,410,517. We may sell fewer than all of the shares offered by this prospectus supplement, in which case our net offering proceeds will be less, and we may raise less than the maximum $35,000,000 in gross offering proceeds permitted by this prospectus supplement.
Use of Proceeds	We intend to use the net proceeds from the sale of the shares for general corporate purposes, including, but not limited to, commercialization of our products, obtaining regulatory approvals, funding of our clinical trials, capital expenditures and working capital. See Use of Proceeds on page S-7 of this prospectus supplement.
Dividend Policy	We have never declared or paid any dividends to the holders of our common stock and we do not expect to pay cash dividends in the foreseeable future. We currently intend to retain all earnings for use in connection with the expansion of our business and for general corporate purposes.
NASDAQ Global Market Symbol	DCTH
Risk Factors	Investing in our common stock involves a high degree of risk. You should read the description of risks set forth in the Risk Factors section of this prospectus supplement or otherwise incorporated by reference in this prospectus supplement for a discussion of factors to consider before deciding to purchase our securities.
Effective Date	The Purchase Agreement governing this offering became effective on December 5, 2012.

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RISK FACTORS

Any investment in our securities involves a high degree of risk. You should carefully consider the risks described below and all of the information contained in this prospectus supplement and the accompanying prospectus before deciding whether to purchase our securities. In addition, you should carefully consider, among other things, the matters discussed under Risk Factors and Quantitative and Qualitative Disclosures About Market Risk in our Annual Report on Form 10-K for the year ended December 31, 2011, in our Quarterly Report on Form 10-Q for the period ended September 30, 2012, and in other documents that we subsequently file with the Securities and Exchange Commission, all of which are incorporated by reference. The risks and uncertainties described below and incorporated by reference are not the only risks and uncertainties we face. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also impair our business operations. If any of these risks actually occur, our business, financial condition and results of operations would suffer. In that event, the trading price of our common stock offered hereby could decline, and you may lose all or part of your investment. This prospectus supplement, the accompanying prospectus and the incorporated documents also include forward-looking statements and our actual results may differ substantially from those discussed in these forward-looking statements. See Disclosure Regarding Forward-Looking Statements.

Additional Risks Related to this Offering

Our management team will have broad discretion over the use of the net proceeds from this offering.

Our management will use its discretion to direct the net proceeds from this offering. We intend to use the net proceeds from the sale of the shares for general corporate purposes, including, but not limited to, commercialization of our products, obtaining regulatory approvals, funding of our clinical trials, capital expenditures and working capital. Our management s judgments may not result in positive returns on your investment and you will not have an opportunity to evaluate the economic, financial or other information upon which our management bases its decisions.

The sale of our common stock in this offering will may result in immediate and substantial dilution.

If we elect to draw down amounts under the Purchase Agreement, which will result in the sale of additional shares of our common stock to Terrapin, any such draw downs will have a dilutive impact on our existing stockholders. Terrapin may resell some or all of the shares we issue to it pursuant to draw downs under the Purchase Agreement and such sales could cause the market price of our common stock to decline. To the extent of any such decline, any subsequent draw downs would require us to issue a greater number of shares of common stock to Terrapin in exchange for each dollar of proceeds received from the draw down. Under these circumstances, our existing stockholders would experience greater dilution and the total amount of the financing that we will be able to raise pursuant to the Purchase Agreement could be significantly lower than $35 million.

Future sales or issuances of our common stock in the public markets, or the perception of such sales, could depress the trading price of our common stock.

The sale of a substantial number of shares of our common stock or other equity-related securities in the public markets, or the perception that such sales could occur, could depress the market price of our common stock and impair our ability to raise capital through the sale of additional equity securities. We may sell large quantities of our common stock at any time pursuant to this prospectus supplement or one or more separate offerings. We cannot predict the effect that future sales of common stock or other equity-related securities would have on the market price of our common stock. Additionally, although Terrapin is precluded from short sales of shares acquired pursuant to draw downs under the Purchase Agreement, the sale of our common stock under the Purchase Agreement, or the perception that such sales could occur, may encourage short sales by third parties, which could contribute to further decline of our stock price.

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FORWARD-LOOKING INFORMATION

This prospectus supplement, the accompanying prospectus and the documents incorporated by reference into this prospectus supplement contain certain forward-looking statements within the meaning of the safe harbor provisions of the Private Securities Litigation Reform Act of 1995 with respect to our business, financial condition, liquidity and results of operations. Words such as anticipates, expects, intends, plans, predicts, believes, seeks, estimates, could, would, will, may, can, continue, potential, should, and the negative of these terms or other terminology often identify forward-looking statements. Statements in this prospectus supplement, the accompanying prospectus and the other documents incorporated by reference that are not historical facts are hereby identified as forward-looking statements for the purpose of the safe harbor provided by Section 21E of the Exchange Act and Section 27A of the Securities Act. These forward-looking statements are not guarantees of future performance and are subject to risks and uncertainties that could cause actual results to differ materially from the results contemplated by the forward-looking statements, including the risks discussed in this prospectus supplement, the accompanying prospectus, in our Annual Report on Form 10-K for the fiscal year ended December 31, 2011 in Item 1A under Risk Factors as well as in Item 7A Quantitative and Qualitative Disclosures About Market Risk, our Quarterly Report on Form 10-Q for the period ended September 30, 2012 in Part I, Item 3 Quantitative and Qualitative Disclosures About Market Risk and the risks detailed from time to time in our future SEC reports. These forward-looking statements include, but are not limited to, statements about:

- the progress and results of our research and development programs;
- our estimates regarding sufficiency of our cash resources, anticipated capital requirements and our need for additional financing;
- the commencement of future clinical trials and the results and timing of those clinical trials;
- submission and timing of applications for regulatory approval and approval thereof;
- our ability to successfully source certain components of the system and enter into supplier contracts;
- our ability to successfully manufacture the Delcath chemosaturation system;
- our ability to successfully commercialize the Delcath chemosaturation system; and
- our ability to successfully negotiate and enter into agreements with distribution, strategic and corporate partners; and

Many of the important factors that will determine these results are beyond our ability to control or predict. You are cautioned not to put undue reliance on any forward-looking statements, which speak only as of the date of this prospectus supplement, the date of the accompanying prospectus or, in the case of documents incorporated by reference, as of the date of such documents. Except as otherwise required by law, we do not assume any obligation to publicly update or release any revisions to these forward-looking statements to reflect events or circumstances after the date of this prospectus supplement or to reflect the occurrence of unanticipated events.

USE OF PROCEEDS

We intend to use the net proceeds from the sale of the shares, if any, for general corporate purposes, including, but not limited to, commercialization of our products, obtaining regulatory approvals, funding of our clinical trials, capital expenditures and working capital.

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DIVIDEND POLICY

We have never declared or paid any dividends to the holders of our common stock and we do not expect to pay cash dividends in the foreseeable future. We currently intend to retain all earnings for use in connection with the expansion of our business and for general corporate purposes.

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DILUTION

If you invest in our common stock, your interest will be diluted immediately to the extent of the difference between the public offering price per share of our common stock and the adjusted net tangible book value per share of our common stock after this offering.

The net tangible book value of our common stock as of September 30, 2012, was approximately $24.9 million, or approximately $0.34 per share. Net tangible book value per share represents the amount of our total tangible assets, excluding goodwill and intangible assets, less total liabilities divided by the total number of shares of our common stock outstanding.

After giving effect to the sale of shares of our common stock in the aggregate amount of $35,000,000 at an assumed offering price of $1.45 per share, the last reported sale price of our common stock on December 4, 2012 on The NASDAQ Capital Market, and after deducting an estimated discount of $5% (the discount that would apply under the Purchase Agreement based on the last reported sale price of our common stock on December 4, 2012) and estimated offering expenses, our pro forma net tangible book value as of December 4, 2012 would have been approximately $58.4 million or approximately $0.60 per share. This represents an immediate increase in net tangible book value of approximately $0.26 per share to our existing stockholders and an immediate dilution in pro forma net tangible book value of approximately $0.85 per share to purchasers of our common stock in this offering, as illustrated by the following table:

Assumed offering price per unit	$1.45
Net Tangible book value per share as of September 30, 2012	0.34
Increase per share attributable to the offering	0.26
Adjusted net tangible book value per share as of December 4, 2012 after giving effect to this offering	0.60
Dilution per share to new investors	0.85

The foregoing table is based on 73,393,908 shares of common stock outstanding as of September 30, 2012 and assumes no exercise of warrants or options or issuances of shares of common stock since that date. In addition, the table does not take into effect further dilution to new investors that could occur upon the exercise of the outstanding options and warrants having an exercise price less than the per share offering price to the public on this offering.

The table above excludes the following potentially dilutive securities as of September 30, 2012:

- 4,834,053 shares issuable upon the exercise of stock options at a weighted average exercise price of $4.78 per share; and
- 5,643,480 shares issuable upon the exercise of outstanding warrants or options to purchase warrants at a weighted average exercise price of $1.59 per share.

PLAN OF DISTRIBUTION

On December 5, 2012, we entered into the Purchase Agreement with Terrapin, which provides that, upon the terms and subject to the conditions set forth therein, Terrapin is committed to purchase from us up to $35,000,000 of our common stock over the approximately 24-month term of the Purchase Agreement, provided that, except as set forth in the immediately following sentence, we may not sell under the Purchase Agreement more than 15,015,343 shares of our common stock, or the Trading Market Limit, which is equal to one share less than twenty percent of our issued and outstanding shares of common stock on the effective date of the Purchase Agreement. The Trading Market Limit will not be applicable to the extent (and only for so long as) the average purchase price of all common stock issued by us to Terrapin, taking into account all discounts, equals or exceeds $1.46 per share (subject to adjustment), which represents the consolidated closing bid price per share of our common stock as reported on the Nasdaq Global Market on the effective date of the Purchase Agreement.

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From time to time over the term of the Purchase Agreement, and at our sole discretion, we may present Terrapin with draw down notices to purchase an aggregate dollar amount of our common stock, or a draw down amount, over ten consecutive trading days or such other period mutually agreed upon by us and Terrapin, or the draw down period, with each draw down subject to limitations based on the price of our common stock and a limit of 4.9% of our market capitalization at the time of such draw down. We are able to present Terrapin with up to 24 draw down notices during the term of the Purchase Agreement, with only one such draw down notice allowed per draw down period and a minimum of five trading days required between each draw down period.

Once presented with a draw down notice, Terrapin is required to purchase a pro rata portion of the draw down amount on each trading day during the draw down period on which the daily volume weighted average price for our common stock equals or exceeds a threshold price determined by us for such draw down. The per share purchase price for these shares equals the daily volume weighted average price of our common stock on each date during the draw down period on which shares are purchased, less a discount ranging from 3.6% to 5.8%. If the daily volume weighted average price of our common stock falls below the threshold price on any trading day during a draw down period, the Purchase Agreement provides that Terrapin will not be required to purchase the pro rata portion of the draw down amount allocated to that day. However, at its election, Terrapin may buy the pro rata portion of the draw down amount allocated to that day at the threshold price less the discount described above.

The Purchase Agreement also provides that from time to time and at our sole discretion we may grant Terrapin the right to exercise options to purchase additional shares of our common stock during each draw down period for an amount of shares specified by us based on the trading price of our common stock. Upon Terrapin s exercise of an option, we would sell to Terrapin the shares of our common stock subject to the option at a price per share equal to the greater of the daily volume weighted average price of our common stock on the day Terrapin notifies us of its election to exercise its option or the threshold price for the option determined by us, less a discount calculated in the same manner as it is calculated in the draw down notices.

In addition to our issuance of an aggregate of $35,000,000 of our shares of common stock to Terrapin pursuant to the Purchase Agreement, the Registration Statement also covers the sale of those shares from time to time by Terrapin to the public. Terrapin is an underwriter within the meaning of Section 2(a)(11) of the Securities Act.

Terrapin has informed us that it will use an unaffiliated broker-dealer to effectuate all sales, if any, of common stock that it may purchase from us pursuant to the Purchase Agreement. Such sales will be made on the Nasdaq Global Market, or any other exchange that our common stock may be traded on at such time, at prices and at terms then prevailing or at prices related to the then current market price. Each such unaffiliated broker-dealer will be an underwriter within the meaning of Section 2(a)(11) of the Securities Act. Terrapin has informed us that each such broker-dealer will receive fees and commissions from Terrapin that will not exceed customary brokerage fees and commissions. Terrapin also will pay other expenses associated with the sale of the common stock it acquires pursuant to the Purchase Agreement.

The shares of common stock may be sold in one or more of the following manners:

- ordinary brokerage transactions and transactions in which the broker solicits purchasers; or
- a block trade in which the broker or dealer so engaged will attempt to sell the shares as agent, but may position and resell a portion of the block as principal to facilitate the transaction.

Terrapin has agreed that during the term of and for a period of 90 days after the termination of the Purchase Agreement, neither Terrapin nor any of its affiliates will, directly or indirectly, sell for value any of our securities except the shares that it owns or has the right to purchase pursuant to the provisions of a draw down notice. Terrapin has agreed that prior to and during the periods listed above neither it nor any of its affiliates will enter into a short position with respect to shares of our common stock except that Terrapin may sell shares that it is obligated to purchase under a pending draw down notice but has not yet taken possession of so long as Terrapin covers any such sales with the shares purchased pursuant to such draw down notice. Terrapin has further agreed that during the periods listed above it will not grant any option to purchase or acquire any right to dispose or otherwise dispose for

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value of any shares of our common stock or any securities convertible into, or exchangeable for, or warrants to purchase, any shares of our common stock, or enter into any swap, hedge or other agreement that transfers, in whole or in part, the economic risk of ownership of our common stock, except for the sales permitted by the prior two sentences.

In addition, Terrapin and any unaffiliated broker-dealer will be subject to liability under the federal securities laws and must comply with the requirements of the Securities Act and the Exchange Act, including, without limitation, Rule 10b-5 and Regulation M under the Exchange Act. These rules and regulations may limit the timing of purchases and sales of shares of common stock by Terrapin or any unaffiliated broker-dealer. Under these rules and regulations, Terrapin and any unaffiliated broker-dealer:

- may not engage in any stabilization activity in connection with our securities;
- must furnish each broker that offers shares of our common stock covered by the prospectus supplement and the accompanying prospectus that is a part of our Registration Statement with the number of copies of such prospectus and any prospectus supplement that are required by each broker; and
- may not bid for or purchase any of our securities or attempt to induce any person to purchase any of our securities other than as permitted under the Exchange Act.

These restrictions may affect the marketability of the shares of common stock purchased and sold by Terrapin and any unaffiliated broker-dealer.

We have agreed to indemnify and hold harmless Terrapin, its directors, officers, employees, partners and affiliates, and each person who controls Terrapin, against certain liabilities, including certain liabilities under the Securities Act. We have agreed to pay up to $35,000 of Terrapin s reasonable attorneys fees and expenses (exclusive of disbursements and out-of-pocket expenses) incurred by Terrapin in connection with the preparation, negotiation, execution and delivery of the Purchase Agreement and related transaction documentation. Further, we have agreed that if we issue a draw down notice and fail to deliver the shares to Terrapin on the applicable settlement date, and such failure continues for ten trading days, we will pay Terrapin as partial damages, cash or restricted shares of our common stock, at the option of Terrapin.

Terrapin has agreed to indemnify and hold harmless us and each of our directors, officers, employees and affiliates and persons who control us, against certain liabilities, including certain liabilities under the Securities Act that may be based upon written information furnished by Terrapin to us for inclusion in a prospectus or prospectus supplement related to this transaction.

We and Terrapin have agreed that no shares of common stock may be issued to Terrapin pursuant to the Purchase Agreement to the extent that the issuance of such shares of common stock would result in the beneficial ownership by Terrapin of more than 9.9% of our then issued and outstanding shares of common stock (as calculated pursuant to Section 13(d) of the Exchange Act and Rule 13d-3 promulgated thereunder).

We have entered into a placement agency agreement with FWG, pursuant to which FWG agreed to act as the placement agent in connection with the sale of shares of our common stock to Terrapin. Subject to our and FWG s receipt of written confirmation from the Financial Industry Regulatory Authority, Inc., or FINRA, to the effect that FINRA s Corporate Finance Department has determined not to raise any objection with respect to the fairness or reasonableness of the terms of the Purchase Agreement or the transactions contemplated thereby, we will pay FWG a placement fee of $1,500 upon each completed sale of our common stock to Terrapin under the Purchase Agreement, as compensation for its services in acting as placement agent in the sale of our common stock to Terrapin. We have also agreed to indemnify and hold harmless FWG against certain liabilities, including liabilities under the Securities Act, and to pay up to $15,000 in the aggregate for FWG s reasonable attorneys fees and expenses incurred in connection with the preparation of certain filings required to be made by FWG in connection with the transaction.

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Please also see the information set forth under the caption Plan of Distribution in the accompanying prospectus, and the disclosure set forth in our Current Report on Form 8-K relating to the Purchase Agreement with Terrapin, filed with the SEC on December 5, 2012, pursuant to the Exchange Act, which is incorporated herein by reference. For more information, please see the section entitled Incorporation by Reference in this prospectus supplement.

LEGAL MATTERS

The validity of the securities being offered hereby will be passed upon for us by Skadden, Arps, Slate, Meagher & Flom LLP, New York, New York .

EXPERTS

Ernst & Young LLP, independent registered public accounting firm, has audited our consolidated financial statements as of and for the years ended December 31, 2011 and 2010 included in our Annual Report on Form 10-K for the year ended December 31, 2011 and the effectiveness of our internal control over financial reporting as of December 31, 2011, as set forth in their reports, which are incorporated by reference in this prospectus supplement and the accompanying prospectus and elsewhere in the registration statement. Our financial statements as of and for the years ended December 31, 2011 and December 31, 2010 are incorporated by reference in reliance on Ernst & Young LLP s reports given on their authority as experts in accounting and auditing.

The consolidated financial statements of Delcath Systems, Inc. for the year ended December 31, 2009 incorporated by reference in this prospectus and elsewhere in this prospectus supplement and the accompanying prospectus and elsewhere in the registration statement from our Annual Report on Form 10-K for the year ended December 31, 2011 have been so incorporated by reference in reliance upon the report of Grant Thornton LLP, independent registered public accountants and successor to the practice of CCR LLP, upon the authority of said firm as experts in auditing and accounting in giving said report.

WHERE YOU CAN FIND MORE INFORMATION

This prospectus supplement is part of a registration statement on Form S-3 that we filed with the SEC. The registration statement that contains this prospectus supplement, including the exhibits to the registration statement, contains additional information about us and the common stock offered by this prospectus supplement.

We file annual, quarterly and current reports, proxy statements and other information with the SEC. You may read and copy any document we file at the SEC s Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the Public Reference Room. Our public filings, including reports, proxy and information statements, are also available on the SEC s website at http://www.sec.gov.

INCORPORATION BY REFERENCE

The SEC allows us to incorporate by reference information that we file with it, which means that we can disclose important information to you by referring you to another document that we have filed separately with the SEC. You should read the information incorporated by reference because it is an important part of this prospectus supplement. We incorporate by reference the following information or documents that we have filed with the SEC (Commission File No. 001-34828):

- Our Current Reports on Form 8-K filed with the SEC on January 13, 2012, January 31, 2012, February 2, 2012, March 26, 2012, April 18, 2012, April 24, 2012, May 30, 2012, May 31, 2012, July 9, 2012, July 19, 2012, August 16, 2012, October 15, 2012, November 1, 2012 and December 5, 2012;

- Our Annual Report on Form 10-K for the fiscal year ended 2011 filed with the SEC on March 6, 2012 (the 2011 Form 10-K);

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Our Quarterly Reports on Form 10-Q for the quarters ended September 30, 2012, June 30, 2012 and March 31, 2012 filed with the SEC on November 7, 2012, August 8, 2012 and May 9, 2012, respectively;

The information specifically incorporated by reference into the 2011 Form 10-K from our definitive proxy statement on Schedule 14A filed with the SEC on April 27, 2012; and

The description of our common stock set forth in our registration statement on Form 8-A filed with the SEC on July 23, 2010, including any amendments thereto or reports filed for the purpose of updating this transaction.

We also incorporate by reference into this prospectus supplement all documents (other than Current Reports furnished under Item 2.02 or Item 7.01 of Form 8-K and exhibits filed on such form that are related to such items) that are filed by us with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date of this prospectus supplement and until we file a post-effective amendment that indicates the termination of the offering of the securities made by this prospectus supplement. These documents include periodic reports, such as Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K, as well as proxy statements.

Any statement contained herein or in a document incorporated or deemed to be incorporated by reference into this document will be deemed to be modified or superseded for purposes of the document to the extent that a statement contained in this document or any other subsequently filed document that is deemed to be incorporated by reference into this document modifies or supersedes the statement.

You can request a copy of these filings, at no cost, by writing or telephoning us at the following address or telephone number:

Delcath Systems, Inc.

810 Seventh Avenue, 35th Floor,

New York, New York 10019

or by calling us at 212-489-2100

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PROSPECTUS

$100,000,000

Common Stock

Preferred Stock

Warrants

Debt Securities

Stock Purchase Contracts

Delcath Systems, Inc. (the Company) may offer to sell from time to time common stock, preferred stock, warrants, debt securities and stock purchase contracts. The preferred stock of the Company may be convertible into common stock or preferred stock of another series.

In addition, selling stockholders to be named in a prospectus supplement may offer, from time to time, shares of our common stock. To the extent that any selling stockholder resells any securities, the selling stockholder may be required to provide you with this prospectus and a prospectus supplement identifying and containing specific information about the selling stockholder and the terms of the securities being offered.

The Company may offer securities and selling stockholders may offer shares of our common stock at an aggregate offering price of up to $100,000,000. The common stock, preferred stock, warrants, debt securities and stock purchase contracts of the Company may be offered separately or together, in multiple series, in amounts, at prices and on terms that will be set forth in one or more prospectus supplements to this prospectus.

This prospectus describes some of the general terms that may apply to these securities and the general manner in which they may be offered. Each time the Company sells securities, a prospectus supplement will be provided that will contain specific information about the terms of any securities offered and the specific manner in which the securities will be offered. The prospectus supplement will also contain information, where appropriate, about material United States federal income tax consequences relating to, and any listing on a securities exchange of, the securities covered by the prospectus supplement. The prospectus supplement may add to, update or change the information in this prospectus. You should read this prospectus and any prospectus supplement carefully before you invest in our securities. This prospectus may not be used to sell securities unless accompanied by a prospectus supplement.

The Company may offer the securities directly to investors, through agents designated from time to time by the Company, or to or through underwriters or dealers. If any agents, underwriters, or dealers are involved in the sale of any of the securities, their names, and any applicable purchase price, fee, commission or discount arrangement with, between or among them will be set forth, or will be calculable from the information set forth, in an accompanying prospectus supplement. For more detailed information, see Plan of Distribution.

Our common stock is traded on the NASDAQ Capital Market under the symbol DCTH. On September 26, 2012, the last reported sale price of our common stock on the NASDAQ Capital Market was $1.66.

Investing in our common stock involves a high degree of risk. You should review carefully the risks and uncertainties referenced under the heading Risk Factors on page 3 of this prospectus.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The date of this prospectus is October 9, 2012.

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ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that we filed with the Securities and Exchange Commission using a shelf registration process. Under this shelf process, we may sell any combination of the securities described in this prospectus in one or more offerings and selling stockholders to be named in a prospectus supplement may, from time to time, sell our common stock up to a total aggregate dollar amount of $100,000,000. This prospectus provides you with a general description of the securities we may offer. Each time we sell securities, we will provide a prospectus supplement that will contain specific information about the terms of that offering. The prospectus supplement may also add, update or change information contained in this prospectus. You should read both this prospectus and any prospectus supplement together with additional information described under the heading Where You Can Find Additional Information.

You should rely only on the information contained in this prospectus and the accompanying prospectus supplement or incorporated by reference in these documents. No dealer, salesperson or other person is authorized to give any information or to represent anything not contained or incorporated by reference in this prospectus or the accompanying prospectus supplement. If anyone provides you with different, inconsistent or unauthorized information or representations, you must not rely on them. This prospectus and the accompanying prospectus supplement are an offer to sell only the securities offered by these documents, but only under circumstances and in jurisdictions where it is lawful to do so. The information contained in this prospectus or any prospectus supplement is current only as of the date on the front of those documents.

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PROSPECTUS SUMMARY

This summary highlights information contained elsewhere or incorporated by reference into this prospectus. Because it is a summary, it does not contain all of the information that you should consider before investing in our securities. You should read this entire prospectus carefully, including the section entitled Risk Factors, any applicable prospectus supplement and the documents that we incorporate by reference into this prospectus and the prospectus supplement, before making an investment decision.

DELCATH SYSTEMS, INC.

We are a specialty pharmaceutical and medical device company focused on oncology. Our 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. Our initial focus is on the treatment of primary and metastatic liver cancers.

The Delcath system for hepatic chemosaturation allows the administration of concentrated regional chemotherapy to the liver. This whole organ therapy is administered by first isolating the circulatory system of the liver, saturating the entire organ with chemotherapeutic agent, and filtering the blood prior to returning it to the patient. The Delcath system involves three catheters placed percutaneously through standard interventional radiology techniques. The catheters temporarily isolate the liver from the body s circulatory system, deliver a 30 minute infusion of chemotherapeutic agent (currently melphalan hydrochloride) directly to the liver, and collect drug-laden blood exiting the liver for filtration by proprietary filters. The filters reduce the concentration of chemotherapeutic agent in the blood, thereby minimizing systemic exposure to the drug and related side-effects before the filtered blood is returned to the patient s circulatory system.

The procedure is minimally invasive and repeatable, allowing for multiple courses of treatment with chemotherapeutic drugs and the potential for concomitant use in conjunction with other cancer therapies. We believe that the Delcath chemosaturation system may play an important role in the management of cancers in the liver, potentially providing time and additional options for treatment of a patient s primary disease. We also believe that the Delcath system is a platform technology that in the future may include the use of other drugs to treat cancers in the liver, as well as for the treatment of cancers in other organs and regions of the body.

We obtained authorization to affix a CE Mark for our Hepatic CHEMOSAT Delivery System (CHEMOSAT System) in April 2011 and for the second generation hemofiltration cartridge for our CHEMOSAT System in April 2012. The right to affix the CE mark allows us to market and sell the CHEMOSAT System in Europe. On August 15, 2012, we submitted our new drug application (NDA) to the United States Food and Drug Administration (FDA) seeking approval for our proprietary chemosaturation system for use with melphalan hydrochloride in the treatment of patients with unresectable metastatic melanoma in the liver. We included our Generation 2 filter in our NDA submission as a technical change to the Chemistry, Manufacturing, and Control (CMC) module.

We have financed our operations primarily through public and private placements of equity securities. We have incurred net losses since we were founded and we expect to continue to incur significant net losses throughout 2012. We expect that the average amount of capital required for operations to increase in the foreseeable future, as we commercialize the Delcath chemosaturation system in Europe, continue research and development activities, continue the submission process with the FDA and prepare for potential US commercialization.

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Our principal executive office is located at 810 Seventh Avenue, 35th Floor, New York, NY 10019. Our telephone number is (212) 489-2100. Our website address is http://www.delcath.com. Information contained in, or accessible through, our website does not constitute a part of this prospectus.

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RISK FACTORS

Investing in our securities involves a high degree of risk. You should consider carefully the risk factors set forth in the documents and reports filed by us with the Securities and Exchange Commission, which we refer to as the SEC, that are incorporated by reference into this prospectus, as well as any risks described in any applicable prospectus supplement, before deciding whether to buy our securities. Additional risks not known to us or that we believe are immaterial may also significantly impair our business operations and could result in a complete loss of your investment.

DISCLOSURE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus, any prospectus supplement and the documents incorporated by reference into this prospectus contain certain forward-looking statements within the meaning of the safe harbor provisions of the Private Securities Litigation Reform Act of 1995 with respect to our business, financial condition, liquidity and results of operations. Words such as anticipates, expects, intends, plans, predicts, believes, seeks, es could, would, will, may, can, continue, potential, should, and the negative of these terms or other comparable terminology often ide forward-looking statements. Statements in this prospectus and the other documents incorporated by reference that are not historical facts are hereby identified as forward-looking statements for the purpose of the safe harbor provided by Section 21E of the Securities Exchange Act of 1934, as amended, and Section 27A of the Securities Act of 1933, as amended. These forward-looking statements are not guarantees of future performance and are subject to risks and uncertainties that could cause actual results to differ materially from the results contemplated by the forward-looking statements, including the risks discussed in this prospectus, in our Annual Report on Form 10-K for the fiscal year ended December 31, 2011 in Item 1A under Risk Factors as well as in Item 7A Quantitative and Qualitative Disclosures About Market Risk, our Quarterly Report on Form 10-Q for the period ended June 30, 2012 and our Quarterly Report on Form 10-Q for the period ended March 31, 2012 in Part I, Item 3 Quantitative and Qualitative Disclosures About Market Risk, and the risks detailed from time to time in our future SEC reports. These forward-looking statements include, but are not limited to, statements about:

- the progress and results of our research and development programs;
- our estimates regarding sufficiency of our cash resources, anticipated capital requirements and our need for additional financing;
- the commencement of future clinical trials and the results and timing of those clinical trials;
- submission and timing of applications for regulatory approval and approval thereof;
- our ability to successfully source certain components of the system and enter into supplier contracts;
- our ability to successfully manufacture the Delcath chemosaturation system;
- our ability to successfully commercialize the Delcath chemosaturation system; and
- our ability to successfully negotiate and enter into agreements with strategic and corporate partners.

Many of the important factors that will determine these results are beyond our ability to control or predict. You are cautioned not to put undue reliance on any forward-looking statements, which speak only as of the date of this prospectus or, in the case of documents incorporated by reference, as of the date of such documents. Except as otherwise required by law, we do not assume any obligation to publicly update or release any revisions to these forward-looking statements to reflect events or circumstances after the date of this prospectus or to reflect the occurrence of unanticipated events.

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WHERE YOU CAN FIND ADDITIONAL INFORMATION

This prospectus is part of a registration statement we filed with the SEC. You should rely only on the information contained in this prospectus, any applicable prospectus supplement or documents incorporated by reference into this prospectus. We have not authorized anyone else to provide you with different information. We are not making an offer of these securities in any state where the offer is not permitted. You should not assume that the information in this prospectus is accurate as of any date other than the date on the front page of this prospectus, regardless of the time of delivery of this prospectus or any sale of securities.

We file reports, proxy statements and other information with the SEC. You may read and copy any reports, proxy statements or other information filed by us at the SEC s Public Reference Room at 100 F Street NE, Washington, D.C. 20549. You may obtain information on the operation of the Public Reference Room by calling the SEC at (800) SEC-0330. The SEC maintains a website that contains reports, proxy statements and other information regarding issuers that file electronically with the SEC, including Delcath Systems, Inc. The address of the SEC website is http://www.sec.gov.

Important Information Incorporated By Reference

The SEC allows us to incorporate by reference information into this prospectus, which means that we can disclose important information to you by referring you to another document filed separately with the SEC. The documents incorporated by reference into this prospectus contain important information that you should read about us.

The following documents are incorporated by reference into this document:

SEC Filing (File No. 001-16133)	Date of Filing
Quarterly Report on Form 10-Q for quarter ended March 31, 2012	May 9, 2012
Quarterly Report on Form 10-Q for quarter ended June 30, 2012	August 8, 2012
Proxy Statement on Schedule 14A for our 2011 Meeting of Stockholders	April 27, 2012
Annual Report on Form 10-K for year ended December 31, 2011	March 3, 2012
Current Reports on Form 8-K and 8-K/A	January 13, 2012 January 13, 2012 January 31, 2012 February 2, 2012 March 26, 2012 April 18, 2012 April 24, 2012 May 30, 2012 May 31, 2012 (excluding that information that is expressly not filed) July 9, 2012 July 19, 2012 August 15, 2012

We also incorporate by reference into this prospectus all documents (other than current reports furnished under Item 2.02 or Item 7.01 of Form 8-K and exhibits filed on such form that are related to such items) that are filed by us with the SEC pursuant to Section 13(a), 13(c), 14 or 15(d) of the Exchange Act (i) after the date of the

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initial registration statement and prior to effectiveness of the registration statement, or (ii) from the date of this prospectus but prior to the termination of the offering. These documents include periodic reports, such as Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K, as well as proxy statements.

We will provide to each person, including any beneficial owner, to whom a prospectus is delivered, without charge upon written or oral request, a copy of any or all of the documents that are incorporated by reference into this prospectus, other than exhibits which are specifically incorporated by reference into such documents. Requests should be directed to Controller at Delcath Systems, Inc., 810 Seventh Avenue, 35th Floor, New York, New York 10019 or by calling us at 212-489-2100.

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USE OF PROCEEDS

Unless we provide otherwise in a supplement to this prospectus, we intend to use the net proceeds from the sale of our securities covered by this prospectus for general corporate purposes, including, but not limited to, obtaining regulatory approvals, commercialization of our products, funding of our clinical trials, capital expenditures and working capital. We will not receive any proceeds from the sale of shares of our common stock by any selling stockholder.

SELLING STOCKHOLDERS

This prospectus relates in part to the possible sale by certain of our stockholders, or the selling stockholders, who own shares of common stock granted under, or resulting from exercise of options issued under our 2009 Stock Incentive Plan, as amended. As of August 31, 2012, 833,700 shares of common stock had been issued to such officers and directors pursuant to the 2009 Stock Incentive Plan. The selling stockholders may from time to time offer and sell these shares of common stock pursuant to this prospectus and any applicable prospectus supplement.

The applicable prospectus supplement will set forth the name of each of the selling stockholders, the amount of common stock owned by each selling stockholder prior to the offering, the number of shares of our common stock to be offered by each selling stockholder and the amount of the common stock to be owned by each selling stockholder after completion of the offering. The applicable prospectus supplement will also disclose whether any of the selling stockholders has held any position or office with, has been employed by or otherwise has had a material relationship with us during the three years prior to the date of the prospectus supplement.

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DESCRIPTION OF DEBT SECURITIES

The following description, together with the additional information we may include in any applicable prospectus supplement and in any related free writing prospectuses, summarizes the material terms and provisions of the debt securities that we may offer under this prospectus. While the terms summarized below will apply generally to any debt securities that we may offer, we will describe the particular terms of any debt securities in more detail in the applicable prospectus supplement. The terms of any debt securities offered under a prospectus supplement may differ from the terms described below.

We may issue debt securities from time to time in one or more distinct series. The debt securities may be senior debt securities or subordinated debt securities. Senior debt securities may be issued under a senior indenture and subordinated debt securities may be issued under a subordinated indenture. If we issue debt securities pursuant to an indenture, in the applicable prospectus supplement we will specify the trustee under such indenture. We will include in a supplement to this prospectus the specific terms of debt securities being offered, including the terms, if any, on which debt securities may be convertible into or exchangeable for common stock, preferred stock or other debt securities. The statements and descriptions in this prospectus or in any prospectus supplement regarding provisions of debt securities and any indentures are summaries of these provisions, do not purport to be complete and are subject to, and are qualified in their entirety by reference to, all of the provisions of the debt securities and the indentures (including any amendments or supplements we may enter into from time to time which are permitted under the debt securities or any indenture).

Unless otherwise specified in a prospectus supplement, the debt securities will be direct unsecured obligations of the Company. Any debt securities designated as senior will rank equally with any of our other senior and unsubordinated debt. Any debt securities designated as subordinated will be subordinate and junior in right of payment to any senior indebtedness. There may be subordinated debt securities that are senior or junior to other series of subordinated debt securities.

The applicable prospectus supplement will set forth the terms of the debt securities or any series thereof, including, if applicable:

- the title of the debt securities and whether the debt securities will be senior debt securities or subordinated debt securities;
- any limit upon the aggregate principal amount of the debt securities;
- whether the debt securities will be issued as registered securities, bearer securities or both, and any restrictions on the exchange of one form of debt securities for another and on the offer, sale and delivery of the debt securities in either form;
- the date or dates on which the principal amount of the debt securities will mature;
- if the debt securities bear interest, the rate or rates at which the debt securities bear interest, or the method for determining the interest rate, and the date or dates from which interest will accrue;
- if the debt securities bear interest, the dates on which interest will be payable, or the method for determining such dates, and the regular record dates for interest payments;
- the place or places where the payment of principal, any premium and interest will be made, where the debt securities may be surrendered for transfer or exchange and where notices or demands to or upon us may be served;

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any optional redemption provisions, which would allow us to redeem the debt securities in whole or in part;

any sinking fund or other provisions that would obligate us to redeem, repay or purchase the debt securities;

if the currency in which the debt securities will be issuable is United States dollars, the denominations in which any registered securities will be issuable, if other than denominations of $1,000 and any integral multiple thereof, and the denominations in which any bearer securities will be issuable, if other than the denomination of $5,000;

if other than the entire principal amount, the portion of the principal amount of debt securities which will be payable upon a declaration of acceleration of the maturity of the debt securities;

the events of default and covenants relevant to the debt securities, including, the inapplicability of any event of default or covenant set forth in the indenture relating to the debt securities, or the applicability of any other events of defaults or covenants in addition to the events of default or covenants set forth in the indenture relating to the debt securities;

the name and location of the corporate trust office of the applicable trustee under the indenture for such series of notes;

if other than United States dollars, the currency in which the debt securities will be paid or denominated;

if the debt securities are to be payable, at our election or the election of a holder of the debt securities, in a currency other than that in which the debt securities are denominated or stated to be payable, the terms and conditions upon which that election may be made, and the time and manner of determining the exchange rate between the currency in which the debt securities are denominated or stated to be payable and the currency in which the debt securities are to be so payable;

the designation of the original currency determination agent, if any;

if the debt securities are issuable as indexed securities, the manner in which the amount of payments of principal, any premium and interest will be determined;

if the debt securities do not bear interest, the dates on which we will furnish to the applicable trustee the names and addresses of the holders of the debt securities;

if other than as set forth in an indenture, provisions for the satisfaction and discharge or defeasance or covenant defeasance of that indenture with respect to the debt securities issued under that indenture;

the date as of which any bearer securities and any global security will be dated if other than the date of original issuance of the first debt security of a particular series to be issued;

whether and under what circumstances we will pay additional amounts to non-United States holders in respect of any tax assessment or government charge;

whether the debt securities will be issued in whole or in part in the form of a global security or securities and, in that case, any depositary and global exchange agent for the global security or securities, whether the global form shall be permanent or temporary and, if applicable, the exchange date;

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if debt securities are to be issuable initially in the form of a temporary global security, the circumstances under which the temporary global security can be exchanged for definitive debt securities and whether the definitive debt securities will be registered securities, bearer securities or will be in global form and provisions relating to the payment of interest in respect of any portion of a global security payable in respect of an interest payment date prior to the exchange date;

the extent and manner to which payment on or in respect of debt securities will be subordinated to the prior payment of our other liabilities and obligations;

whether payment of any amount due under the debt securities will be guaranteed by one or more guarantors, including one or more of our subsidiaries;

whether the debt securities will be convertible and the terms of any conversion provisions;

the forms of the debt securities; and

any other terms of the debt securities, which terms shall not be inconsistent with the requirements of the Trust Indenture Act of 1939, as amended.

This prospectus is part of a registration statement that does not limit the aggregate principal amount of debt securities that we may issue and provides that we may issue debt securities from time to time in one or more series under one or more indentures, in each case with the same or various maturities, at par or at a discount. Unless indicated in a prospectus supplement, we may issue additional debt securities of a particular series without the consent of the holders of the debt securities of such series outstanding at the time of the issuance. Any such additional debt securities, together with all other outstanding debt securities of that series, will constitute a single series of debt securities under the applicable indenture.

We intend to disclose any restrictive covenants for any issuance or series of debt securities in the applicable prospectus supplement.

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DESCRIPTION OF CAPITAL STOCK

The following description of our common stock and preferred stock, together with the additional information we include in any applicable prospectus supplement and in any related free writing prospectuses, summarizes the material terms and provisions of the common stock and preferred stock that we may offer under this prospectus. The following description of our capital stock does not purport to be complete and is subject to, and qualified in its entirety by, our Amended and Restated Certificate of Incorporation, as amended, and our Amended and Restated By-Laws, which are exhibits to the registration statement of which this prospectus forms a part, and by applicable law. We refer in this section to our Amended and Restated Certificate of Incorporation, as amended, as our certificate of incorporation, and we refer to our Amended and Restated By-Laws as our by-laws. The terms of our common stock and preferred stock may also be affected by Delaware law.

Authorized Capital Stock

Our authorized capital stock consists of 170,000,000 shares of our common stock, $0.01 par value per share, and 10,000,000 shares of undesignated preferred stock, $0.01 par value per share. As of August 31, 2012, we had 67,510,123 shares of common stock outstanding and no shares of preferred stock outstanding.

Common Stock

Voting

Holders of our common stock are entitled to one vote per share on matters to be voted on by stockholders and also are entitled to receive such dividends, if any, as may be declared from time to time by our board of directors in its discretion out of funds legally available therefor. Holders of our common stock have exclusive voting rights for the election of our directors and all other matters requiring stockholder action, except with respect to amendments to our certificate of incorporation that alter or change the powers, preferences, rights or other terms of any outstanding preferred stock if the holders of such affected series of preferred stock are entitled to vote on such an amendment or filling vacancies on the board of directors.

Dividends

Holders of common stock are entitled to share ratably in any dividends declared by our board of directors, subject to any preferential dividend rights of any outstanding preferred stock. Dividends consisting of shares of common stock may be paid to holders of shares of common stock. We do not intend to pay cash dividends in the foreseeable future.

Liquidation and Dissolution

Upon our liquidation or dissolution, the holders of our common stock will be entitled to receive pro rata all assets remaining available for distribution to stockholders after payment of all liabilities and provision for the liquidation of any shares of preferred stock at the time outstanding.

Other Rights and Restrictions

Our common stock has no preemptive or other subscription rights, and there are no conversion rights or redemption or sinking fund provisions with respect to such stock. Our common stock is not subject to redemption by us. Our certificate of incorporation and bylaws do not restrict the ability of a holder of common stock to transfer the stockholder s shares of common stock. If we issue shares of common stock under this prospectus, the shares will be fully paid and non-assessable and will not have, or be subject to, any preemptive or similar rights.

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Listing

Our common stock is listed on The NASDAQ Capital Market under the symbol DCTH.

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is American Stock Transfer & Trust Company.

Preferred Stock

Our board of directors has the authority to issue up to 10,000,000 shares of preferred stock in one or more series and to determine the rights and preferences of the shares of any such series without stockholder approval, none of which are outstanding. Our board of directors may issue preferred stock in one or more series and has the authority to fix the designation and powers, rights and preferences and the qualifications, limitations, or restrictions with respect to each class or series of such class without further vote or action by the stockholders. The ability of our board of directors to issue preferred stock without stockholder approval could have the effect of delaying, deferring or preventing a change of control of us or the removal of existing management.

If we decide to issue any preferred stock pursuant to this prospectus, we will describe in a prospectus supplement the terms of the preferred stock, including, if applicable, the following:

- the title of the series and stated value;
- the number of shares of the series of preferred stock offered, the liquidation preference per share, if applicable, and the offering price;
- the applicable dividend rate(s) or amount(s), period(s) and payment date(s) or method(s) of calculation thereof;
- the date from which dividends on the preferred stock will accumulate, if applicable;
- any procedures for auction and remarketing;
- any provisions for a sinking fund;
- any applicable provision for redemption and the price or prices, terms and conditions on which preferred stock may be redeemed;
- any securities exchange listing;
- any voting rights and powers;
- whether interests in the preferred stock will be represented by depository shares;

the terms and conditions, if applicable, of conversion into shares of our common stock, including the conversion price or rate or manner of calculation thereof;

a discussion of any material U.S. federal income tax considerations;

the relative ranking and preference as to dividend rights and rights upon our liquidation, dissolution or the winding up of our affairs;

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any limitations on issuance of any series of preferred stock ranking senior to or on a parity with such series of preferred stock as to dividend rights and rights upon our liquidation, dissolution or the winding up of our affairs; and

any other specific terms, preferences, rights, limitations or restrictions of such series of preferred stock.

Certain Anti-Takeover Provisions of Delaware Law and our Certificate of Incorporation and Bylaws

We are not subject to Section 203 of the Delaware General Corporation Law, which prohibits Delaware corporations from engaging in a wide range of specified transactions with any interested stockholder, defined to include, among others, any person other than such corporation and any of its majority owned subsidiaries who own 15% or more of any class or series of stock entitled to vote generally in the election of directors, unless, among other exceptions, the transaction is approved by (i) our board of directors prior to the date the interested stockholder obtained such status or (ii) the holders of two thirds of the outstanding shares of each class or series of stock entitled to vote generally in the election of directors, not including those shares owned by the interested stockholder.

Staggered Board of Directors

Our certificate of incorporation and by-laws provide that our board of directors be classified into three classes of directors of approximately equal size. As a result, in most circumstances, a person can gain control of our board only by successfully engaging in a proxy contest at two or more annual meetings.

Authorized But Unissued Shares

Our authorized but unissued shares of common stock and preferred stock are available for future issuances without stockholder approval and could be utilized for a variety of corporate purposes, including future offerings to raise additional capital, corporate acquisitions, employee benefit plans and stockholder rights plans. The existence of authorized but unissued and unreserved common stock and preferred stock could render more difficult or discourage an attempt to obtain control of us by means of a proxy contest, tender offer, merger or otherwise.

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DESCRIPTION OF STOCK PURCHASE CONTRACTS

The following description, together with the additional information that we include in any applicable prospectus supplement and in any related free writing prospectuses, summarizes the material terms and provisions of the stock purchase contracts that we may offer under this prospectus. While the terms we have summarized below will apply generally to any stock purchase contracts that we may offer under this prospectus, we will describe the particular terms of any series of stock purchase contracts in more detail in the applicable prospectus supplement. The terms of any stock purchase contracts offered under a prospectus supplement may differ from the terms described below.

We will file as exhibits to the registration statement of which this prospectus is a part, or will incorporate by reference from reports that we file with the SEC, the form of stock purchase contract that describes the terms of the particular stock purchase contract we are offering before the issuance of the related stock purchase contract. The following summaries of material provisions of the stock purchase contracts are subject to, and qualified in their entirety by reference to, all the provisions of the stock purchase contracts applicable to the stock purchase contracts that we may offer under this prospectus. We urge you to read the applicable prospectus supplements related to the stock purchase contracts that we may offer under this prospectus, as well as any related free writing prospectuses, and the complete stock purchase contracts that contain the terms of the stock purchase contracts.

We may issue stock purchase contracts, including contracts obligating holders to purchase from us and us to sell to the holders, a specified number of shares of common stock or preferred stock at a future date or dates. Alternatively, the stock purchase contracts may obligate us to purchase from holders, and obligate holders to sell to us, a specified or varying number of shares of common stock or preferred stock. The consideration per share of common stock or preferred stock may be fixed at the time the stock purchase contracts are issued or may be determined by a specific reference to a formula set forth in the stock purchase contracts. The stock purchase contracts may provide for settlement by delivery by us or on our behalf of shares of the underlying security, or they may provide for settlement by reference or linkage to the value, performance or trading price of the underlying security. The stock purchase contracts may require us to make periodic payments to the holders of the certain of our securities or vice versa, and such payments may be unsecured or prefunded on some basis and may be paid on a current or on a deferred basis. The stock purchase contracts may require holders to secure their obligations thereunder in a specified manner and may provide for the prepayment of all or part of the consideration payable by holders in connection with the purchase of the underlying security or other property pursuant to the stock purchase contracts.

The securities related to the stock purchase contracts may be pledged to a collateral agent for our benefit pursuant to a pledge agreement to secure the obligations of holders of stock purchase contracts to purchase the underlying security or property under the related stock purchase contracts. The rights of holders of stock purchase contracts to the related pledged securities will be subject to our security interest therein created by the pledge agreement. No holder of stock purchase contracts will be permitted to withdraw the pledged securities related to such stock purchase contracts from the pledge arrangement.

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DESCRIPTION OF WARRANTS

The following description, together with the additional information we may include in any applicable prospectus supplement, summarizes the material terms and provisions of the warrants that we may offer under this prospectus and the related warrant agreements and warrant certificates. While the terms summarized below will apply generally to any warrants that we may offer, we will describe the particular terms of any series of warrants in more detail in the applicable prospectus supplement. The terms of any warrants offered under a prospectus supplement may differ from the terms described below.

We will file as exhibits to the registration statement of which this prospectus is a part, or will incorporate by reference from reports that we file with the SEC, the form of warrant agreement, including a form of warrant certificate, that describes the terms of the particular warrants we are offering before the issuance of the related warrants. The following summaries of material provisions of the warrants and the warrant agreements are subject to, and qualified in their entirety by reference to, all the provisions of the warrant agreement and warrant certificate applicable to the warrants that we may offer under this prospectus. We urge you to read the applicable prospectus supplements related to the warrants that we may offer under this prospectus, as well as any related free writing prospectuses, and the complete warrant agreements and warrant certificates that contain the terms of the warrants.

General

We may issue warrants for the purchase of common stock or preferred stock in one or more series. We may issue warrants independently or together with common stock and preferred stock, and the warrants may be attached to or separate from these securities.

We may evidence each series of warrants by warrant certificates that we will issue under a separate agreement. We may enter into a warrant agreement with a warrant agent. We will indicate the name and address and other information regarding the warrant agent in the applicable prospectus supplement relating to a particular warrants.

If we decide to issue warrants pursuant to this prospectus, we will specify in a prospectus supplement the terms of the warrants, including, if applicable, the following:

- the offering price and aggregate number of warrants offered;
- the designation and terms of the securities with which the warrants are issued and the number of warrants issued with each such security or each principal amount of such security;
- the date on and after which the warrants and the related securities will be separately transferable;
- the number of shares of stock purchasable upon the exercise of one warrant and the price at which these shares may be purchased upon such exercise;
- the effect of any merger, consolidation, sale or other disposition of our business on the warrant agreement and the warrants;
- the terms of any rights to redeem or call the warrants;
- any provisions for changes to or adjustments in the exercise price or number of securities issuable upon exercise of the warrants;

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the dates on which the right to exercise the warrants will commence and expire;

the manner in which the warrant agreement and warrants may be modified;

a discussion of any material U.S. federal income tax considerations of holding or exercising the warrants;

the terms of the securities issuable upon exercise of the warrants; and

any other specific terms, preferences, rights or limitations of or restrictions on the warrants.

Before exercising their warrants, holders of warrants may have no rights of holders of the securities purchasable upon such exercise, including, in the case of warrants to purchase common stock or preferred stock, the right to receive dividends, if any, or payments upon our liquidation, dissolution or winding up or to exercise voting rights, if any.

Exercise of Warrants

Each warrant will entitle the holder to purchase shares of our stock at the exercise price that we describe in the applicable prospectus supplement. Holders of the warrants may exercise the warrants at any time up to the specified time on the expiration date that we set forth in the applicable prospectus supplement. After the close of business on the expiration date, unexercised warrants will become void.

Holders of the warrants may exercise the warrants by delivering the warrant certificate representing the warrants to be exercised together with specified information, and paying the required amount to the warrant agent in immediately available funds, as provided in the applicable prospectus supplement. If we so indicate in the applicable prospectus supplement, the warrants may also provide that they may be exercised on a cashless or net basis. We will set forth on the reverse side of the warrant certificate, if applicable, and in the applicable prospectus supplement the information that the holder of the warrant will be required to deliver to us or a warrant agent.

Upon receipt of the required payment and the warrant certificate properly completed and duly executed at our offices, the corporate trust office of a warrant agent or any other office indicated in the applicable prospectus supplement, we will issue and deliver the common stock or preferred stock purchasable upon such exercise. If fewer than all of the warrants represented by the warrant certificate are exercised, then we will issue a new warrant certificate for the remaining amount of warrants. If we so indicate in the applicable prospectus supplement, holders of the warrants may surrender shares of common stock or preferred stock as all or part of the exercise price for warrants.

Enforceability of Rights by Holders of Warrants

Any warrant agent will act solely as our agent under the applicable warrant agreement and will not assume any obligation or relationship of agency or trust with any holder of any warrant. A single bank or trust company may act as warrant agent for more than one issue of warrants. A warrant agent will have no duty or responsibility in case of any default by us under the applicable warrant agreement or warrant, including any duty or responsibility to initiate any proceedings at law or otherwise, or to make any demand upon us. Any holder of a warrant may, without the consent of the related warrant agent or the holder of any other warrant, enforce by appropriate legal action its right to exercise, and receive the securities purchasable upon exercise of, its warrants.

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PLAN OF DISTRIBUTION

We may sell the securities offered by this prospectus from time to time in one or more transactions, including without limitation:

- directly to one or more purchasers;
- through agents;
- to or through underwriters, brokers or dealers;
- through a combination of any of these methods.

A distribution of the securities offered by this prospectus may also be effected through the issuance of derivative securities, including without limitation, warrants, subscriptions, exchangeable securities, forward delivery contracts and the writing of options.

In addition, the manner in which we may sell some or all of the securities covered by this prospectus includes, without limitation, through:

- a block trade in which a broker-dealer will attempt to sell as agent, but may position or resell a portion of the block, as principal, in order to facilitate the transaction;
- purchases by a broker-dealer, as principal, and resale by the broker-dealer for its account;
- ordinary brokerage transactions and transactions in which a broker solicits purchasers; or
- privately negotiated transactions.

We may also enter into hedging transactions. For example, we may:

- enter into transactions with a broker-dealer or affiliate thereof in connection with which such broker-dealer or affiliate will engage in short sales of the common stock pursuant to this prospectus, in which case such broker-dealer or affiliate may use shares of common stock received from us to close out its short positions;
- sell securities short and redeliver such shares to close out our short positions;
- enter into option or other types of transactions that require us to deliver common stock to a broker-dealer or an affiliate thereof, who will then resell or transfer the common stock under this prospectus; or
- loan or pledge the common stock to a broker-dealer or an affiliate thereof, who may sell the loaned shares or, in an event of default in the case of a pledge, sell the pledged shares pursuant to this prospectus.

In addition, we may enter into derivative or hedging transactions with third parties, or sell securities not covered by this prospectus to third parties in privately negotiated transactions. In connection with such a transaction, the third parties may sell securities covered by and pursuant to this prospectus and an applicable prospectus supplement or pricing supplement, as the case may be. If so, the third party may use securities borrowed from us or

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others to settle such sales and may use securities received from us to close out any related short positions. We may also loan or pledge securities covered by this prospectus and an applicable prospectus supplement to third parties, who may sell the loaned securities or, in an event of default in the case of a pledge, sell the pledged securities pursuant to this prospectus and the applicable prospectus supplement or pricing supplement, as the case may be.

A prospectus supplement with respect to each offering of securities will state the terms of the offering of the securities, including:

- the name or names of any underwriters or agents and the amounts of securities underwritten or purchased by each of them, if any;
- the public offering price or purchase price of the securities and the net proceeds to be received by us from the sale;
- any delayed delivery arrangements;
- any underwriting discounts or agency fees and other items constituting underwriters or agents compensation;
- any discounts or concessions allowed or reallowed or paid to dealers; and
- any securities exchange or markets on which the securities may be listed.

The offer and sale of the securities described in this prospectus by us, the underwriters or the third parties described above may be effected from time to time in one or more transactions, including privately negotiated transactions, either:

- at a fixed price or prices, which may be changed;
- at market prices prevailing at the time of sale;
- at prices related to the prevailing market prices; or
- at negotiated prices.

General

Any public offering price and any discounts, commissions, concessions or other items constituting compensation allowed or reallowed or paid to underwriters, dealers, agents or remarketing firms may be changed from time to time. Underwriters, dealers, agents and remarketing firms that participate in the distribution of the offered securities may be underwriters as defined in the Securities Act. Any discounts or commissions they receive from us and any profits they receive on the resale of the offered securities may be treated as underwriting discounts and commissions under the Securities Act. We will identify any underwriters, agents or dealers and describe their commissions, fees or discounts in the applicable prospectus supplement or pricing supplement, as the case may be.

Underwriters and Agents

If underwriters are used in a sale, they will acquire the offered securities for their own account. The underwriters may resell the offered securities in one or more transactions, including negotiated transactions. These sales may be made at a fixed public offering price or prices,

which may be changed, at market prices prevailing at the time of the sale, at prices related to such prevailing market price or at negotiated prices. We may offer the securities to the public through an underwriting syndicate or through a single underwriter. The underwriters in any particular offering will be mentioned in the applicable prospectus supplement or pricing supplement, as the case may be.

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Unless otherwise specified in connection with any particular offering of securities, the obligations of the underwriters to purchase the offered securities will be subject to certain conditions contained in an underwriting agreement that we will enter into with the underwriters at the time of the sale to them. The underwriters will be obligated to purchase all of the securities of the series offered if any of the securities are purchased, unless otherwise specified in connection with any particular offering of securities. Any initial offering price and any discounts or concessions allowed, reallowed or paid to dealers may be changed from time to time.

We may designate agents to sell the offered securities. Unless otherwise specified in connection with any particular offering of securities, the agents will agree to use their best efforts to solicit purchases for the period of their appointment. We may also sell the offered securities to one or more remarketing firms, acting as principals for their own accounts or as agents for us. These firms will remarket the offered securities upon purchasing them in accordance with a redemption or repayment pursuant to the terms of the offered securities. A prospectus supplement or pricing supplement, as the case may be, will identify any remarketing firm and will describe the terms of its agreement, if any, with us and its compensation.

In connection with offerings made through underwriters or agents, we may enter into agreements with such underwriters or agents pursuant to which we receive our outstanding securities in consideration for the securities being offered to the public for cash. In connection with these arrangements, the underwriters or agents may also sell securities covered by this prospectus to hedge their positions in these outstanding securities, including in short sale transactions. If so, the underwriters or agents may use the securities received from us under these arrangements to close out any related open borrowings of securities.

Dealers

We may sell the offered securities to dealers as principals. We may negotiate and pay dealers commissions, discounts or concessions for their services. The dealer may then resell such securities to the public either at varying prices to be determined by the dealer or at a fixed offering price agreed to with us at the time of resale. Dealers engaged by us may allow other dealers to participate in resales.

Direct Sales

We may choose to sell the offered securities directly. In this case, no underwriters or agents would be involved.

Institutional Purchasers

We may authorize agents, dealers or underwriters to solicit certain institutional investors to purchase offered securities on a delayed delivery basis pursuant to delayed delivery contracts providing for payment and delivery on a specified future date. The applicable prospectus supplement or pricing supplement, as the case may be, will provide the details of any such arrangement, including the offering price and commissions payable on the solicitations.

We will enter into such delayed contracts only with institutional purchasers that we approve. These institutions may include commercial and savings banks, insurance companies, pension funds, investment companies and educational and charitable institutions.

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Indemnification; Other Relationships

We may have agreements with agents, underwriters, dealers and remarketing firms to indemnify them against certain civil liabilities, including liabilities under the Securities Act. Agents, underwriters, dealers and remarketing firms, and their affiliates, may engage in transactions with, or perform services for, us in the ordinary course of business. This includes commercial banking and investment banking transactions.

Market-Making, Stabilization and Other Transactions

There is currently no market for any of the offered securities, other than the common stock which is listed on the NASDAQ Capital Market. If the offered securities are traded after their initial issuance, they may trade at a discount from their initial offering price, depending upon prevailing interest rates, the market for similar securities and other factors. While it is possible that an underwriter could inform us that it intends to make a market in the offered securities, such underwriter would not be obligated to do so, and any such market-making could be discontinued at any time without notice. Therefore, no assurance can be given as to whether an active trading market will develop for the offered securities. We have no current plans for listing of the debt securities, preferred stock or warrants on any securities exchange or on the National Association of Securities Dealers, Inc. automated quotation system; any such listing with respect to any particular debt securities, preferred stock or warrants will be described in the applicable prospectus supplement or pricing supplement, as the case may be.

In connection with any offering of common stock, the underwriters may purchase and sell shares of common stock in the open market. These transactions may include short sales, syndicate covering transactions and stabilizing transactions. Short sales involve syndicate sales of common stock in excess of the number of shares to be purchased by the underwriters in the offering, which creates a syndicate short position. Covered short sales are sales of shares made in an amount up to the number of shares represented by the underwriters over-allotment option. In determining the source of shares to close out the covered syndicate short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market as compared to the price at which they may purchase shares through the over-allotment option. Transactions to close out the covered syndicate short involve either purchases of the common stock in the open market after the distribution has been completed or the exercise of the over-allotment option. The underwriters may also make naked short sales of shares in excess of the over-allotment option. The underwriters must close out any naked short position by purchasing shares of common stock in the open market. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of the shares in the open market after pricing that could adversely affect investors who purchase in the offering. Stabilizing transactions consist of bids for or purchases of shares in the open market while the offering is in progress for the purpose of pegging, fixing or maintaining the price of the securities.

In connection with any offering, the underwriters may also engage in penalty bids. Penalty bids permit the underwriters to reclaim a selling concession from a syndicate member when the securities originally sold by the syndicate member are purchased in a syndicate covering transaction to cover syndicate short positions. Stabilizing transactions, syndicate covering transactions and penalty bids may cause the price of the securities to be higher than it would be in the absence of the transactions. The underwriters may, if they commence these transactions, discontinue them at any time.

Fees and Commissions

In compliance with the guidelines of the Financial Industry Regulatory Authority (the FINRA), the aggregate maximum discount, commission or agency fees or other items constituting underwriting compensation to be received by any FINRA member or independent broker-dealer will not exceed 8% of any offering pursuant to this prospectus and any applicable prospectus supplement or pricing supplement, as the case may be; however, it is anticipated that the maximum commission or discount to be received in any particular offering of securities will be significantly less than this amount.

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LEGAL MATTERS

Unless otherwise indicated in the applicable prospectus supplement, Skadden, Arps, Slate, Meagher & Flom LLP, New York, New York will provide opinions regarding the authorization and validity of the securities. Skadden, Arps, Slate, Meagher & Flom LLP may also provide opinions regarding certain other matters. Any underwriters will also be advised about legal matters by their own counsel, which will be named in the prospectus supplement.

EXPERTS

Ernst & Young LLP, independent registered public accounting firm, has audited our consolidated financial statements as of and for the years ended December 31, 2011 and 2010 included in our Annual Report on Form 10-K for the year ended December 31, 2011 and the effectiveness of our internal control over financial reporting as of December 31, 2011, as set forth in their reports, which are incorporated by reference in the registration statement. Our financial statements as of and for the years ended December 31, 2011 and December 31, 2010 are incorporated by reference in reliance on Ernst & Young LLP s reports given on their authority as experts in accounting and auditing.

The consolidated financial statements of Delcath Systems, Inc. for the year ended December 31, 2009 incorporated by reference in this prospectus and elsewhere in the registration statement from our Annual Report on Form 10-K for the year ended December 31, 2011 have been so incorporated by reference in reliance upon the report of Grant Thornton LLP, independent registered public accountants and successor to the practice of CCR LLP, upon the authority of said firm as experts in auditing and accounting in giving said report.