

DELCATH SYSTEMS, INC.  
Form 10-Q  
November 10, 2016

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM 10-Q

QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the quarterly period ended September 30, 2016

Or

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from \_\_\_\_\_ to \_\_\_\_\_

Commission File Number: 001-16133

DELCATH SYSTEMS, INC.

(Exact name of registrant as specified in its charter)

Delaware 06-1245881  
(State or other jurisdiction of (I.R.S. Employer  
incorporation or organization) Identification No.)  
1633 Broadway, Suite 22C

(Address of principal executive offices)

(212) 489-2100

(Registrant's telephone number, including area code)

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Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes No

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

Large accelerated filer

Accelerated filer

Non-accelerated filer (Do not check if a smaller reporting company) Smaller reporting company

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes No

As of November 10, 2016, 2,197,431 shares of the Company’s common stock, \$0.01 par value, were outstanding.

DELCATH SYSTEMS, INC.

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## DELCATH SYSTEMS, INC.

## Condensed Consolidated Balance Sheets

(in thousands, except share data)

	September 30, 2016 (Unaudited)	December 31, 2015
<b>Assets</b>		
Current assets		
Cash and cash equivalents	\$ 3,689	\$12,607
Restricted cash	23,737	—
Accounts receivables, net	342	277
Inventories	600	757
Prepaid expenses and other current assets	310	960
Deferred financing costs	489	—
Total current assets	29,167	14,601
Restricted cash, net of current portion	6,550	—
Deferred financing costs, net of current portion	122	—
Property, plant and equipment, net	1,141	1,132
Total assets	\$ 36,980	\$15,733
<b>Liabilities and Stockholders' Equity</b>		
Current liabilities		
Accounts payable	\$ 182	\$284
Accrued expenses	2,701	2,243
Warrant liability	22,502	3,785
Total current liabilities	25,385	6,312
Convertible notes payable, net of debt discount	6,413	—
Deferred Revenue	31	—
Other non-current liabilities	665	820
Total liabilities	32,494	7,132
Commitments and Contingencies		
—		
Stockholders' equity		
Preferred stock, \$.01 par value; 10,000,000 shares authorized; no shares		
issued and outstanding at September 30, 2016 and December 31, 2015,		
respectively		
—		
Common stock, \$.01 par value; 500,000,000 shares authorized; 1,541,043 and		
1,396,348 shares issued and 1,521,933 and 1,360,239 shares outstanding		
at September 30, 2016 and December 31, 2015, respectively*		
15		
14		
Additional paid-in capital	275,245	269,863
Accumulated deficit	(270,703 )	(261,217)
Treasury stock, at cost; 110 shares at September 30, 2016 and December 31, 2015,	(51 )	(51 )

respectively*		
Accumulated other comprehensive income	(20 )	(8 )
Total stockholders' equity	4,486	8,601
Total liabilities and stockholders' equity	\$ 36,980	\$ 15,733

\*reflects a one-for-sixteen (1:16) reverse stock split effected on July 21, 2016

See accompanying Notes to Condensed Consolidated Financial Statements.

## DELCATH SYSTEMS, INC.

## Condensed Consolidated Statements of Operations and Comprehensive Loss

(Unaudited)

(in thousands, except share and per share data)

	Three months ended September 30,		Nine months ended September 30,	
	2016	2015	2016	2015
Revenue	\$435	\$399	\$1,316	\$1,308
Cost of goods sold	112	90	373	360
Gross profit	323	309	943	948
Operating expenses:				
Selling, general and administrative	2,361	2,276	7,025	7,818
Research and development	2,686	1,683	5,975	4,112
Total operating expenses	5,047	3,959	13,000	11,930
Operating loss	(4,724 )	(3,650 )	(12,057 )	(10,982 )
Change in fair value of the warrant liability, net	8,680	1,253	9,171	1,414
Interest income (expense)	(4,963 )	(14 )	(6,584 )	(39 )
Other income (expense)	2	(11 )	(15 )	(4 )
Net loss	\$(1,005 )	\$(2,422 )	\$(9,485 )	\$(9,611 )
Other comprehensive income (loss):				
Foreign currency translation adjustments	(2 )	(4 )	(12 )	(12 )
Comprehensive loss	\$(1,007 )	\$(2,426 )	\$(9,497 )	\$(9,623 )
Common share data:				
Basic and diluted loss per common share*	\$(0.66 )	\$(1.96 )	\$(6.38 )	\$(10.75 )
Weighted average number of basic and diluted common				
shares outstanding*	1,521,927	1,233,086	1,486,986	893,819

\*reflects a one-for-sixteen (1:16) reverse stock split effected on July 21, 2016

See accompanying Notes to Condensed Consolidated Financial Statements.

## DELCATH SYSTEMS, INC.

## Condensed Consolidated Statements of Cash Flows

(Unaudited)

(in thousands)

	Nine months ended September 30,	
	2016	2015
<b>Cash flows from operating activities:</b>		
Net loss	\$(9,485 )	\$(9,611 )
<b>Adjustments to reconcile net loss to net cash used in operating activities:</b>		
Stock option compensation expense	138	255
Restricted stock compensation expense	228	189
Depreciation expense	232	504
Loss on disposal of equipment	1	2
Warrant liability fair value adjustment	(9,171 )	(1,414 )
Non-cash interest income	(1 )	(1 )
Deferred revenue	31	—
Debt discount and deferred finance costs amortization	6,567	—
<b>Changes in assets and liabilities:</b>		
Decrease in prepaid expenses and other assets	610	306
Increase in accounts receivable	(94 )	(135 )
Decrease (increase) in inventories	190	(62 )
Increase (decrease) in accounts payable and accrued expenses	312	(2,056 )
Decrease in other non-current liabilities	(155 )	(165 )
Net cash used in operating activities	(10,597)	(12,188)
<b>Cash flows from investing activities:</b>		
Purchase of property, plant and equipment	(245 )	(129 )
Increase in restricted cash	(1,087 )	—
Proceeds from sales of property, plant and equipment	—	2
Net cash used in investing activities	(1,332 )	(127 )
<b>Cash flows from financing activities:</b>		
Increase in restricted cash	(29,200)	—
Net proceeds from convertible debt financing	31,436	—
Net proceeds from sale of stock and exercise of warrants	704	8,674
Net cash provided by financing activities	2,940	8,674
Foreign currency effects on cash and cash equivalents	71	(162 )
Net decrease in cash and cash equivalents	(8,918 )	(3,803 )
<b>Cash and cash equivalents:</b>		
Beginning of period	12,607	20,469
End of period	\$3,689	\$16,666
<b>Supplemental non-cash activities:</b>		

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Fair value of warrants issued	\$28,133	\$4,247
Fair value of warrants exercised	\$245	\$123

See accompanying Notes to Condensed Consolidated Financial Statements.

DELCATH SYSTEMS, INC.

Notes to the Condensed Consolidated Financial Statements



### (1) General

The interim condensed consolidated financial statements of Delcath Systems, Inc. (“Delcath” or the “Company”) as of and for the three months and nine months ended September 30, 2016 and 2015 should be read in conjunction with the consolidated financial statements included in the Company’s Annual Report on Form 10-K for the year ended December 31, 2015 (“Annual Report”), which has been filed with the Securities Exchange Commission (“SEC”) and can also be found on the Company’s website (www.delcath.com). In these notes the terms “us”, “we” or “our” refer to Delcath and its consolidated subsidiaries.

On July 19, 2016, shareholders of the Company approved, through a shareholder vote, an amendment to the Company’s Amended and Restated Certificate of Incorporation authorizing the Board of Directors to effect a reverse stock split of Delcath’s common stock at a ratio within a range of one-for-ten (1:10) to one-for-twenty (1:20). The reverse stock split became effective on July 21, 2016 at which time Delcath’s common stock began trading on the NASDAQ Stock Exchange on a one-for-sixteen (1:16) split-adjusted basis. All owners of record as of the open of the NASDAQ market on July 21, 2016 received one issued and outstanding share of Delcath common stock in exchange for sixteen issued and outstanding shares of Delcath common stock. No fractional shares were issued in connection with the reverse stock split. All fractional shares created by the one-for-sixteen exchange were rounded up to the next whole share. All current and prior period amounts related to shares, share prices and earnings per share, presented in these condensed consolidated financial statements and the accompanying Notes, have been restated to give retrospective presentation for the reverse stock split.

### Description of Business

Delcath Systems, Inc. is an interventional oncology Company focused on the treatment of primary and metastatic liver cancers. Our investigational product—Melphalan Hydrochloride for Injection for use with the Delcath Hepatic Delivery System (Melphalan/HDS) —is designed to administer high-dose chemotherapy to the liver while controlling systemic exposure and associated side effects. In Europe, our system is in early-stage commercial development under the trade name Delcath Hepatic CHEMOSAT® Delivery System for Melphalan (CHEMOSAT®), where it has been used at major medical centers to treat a wide range of cancers of the liver.

Our primary research focus is on ocular melanoma liver metastases (mOM), intrahepatic cholangiocarcinoma (ICC), hepatocellular carcinoma (HCC or primary liver), and certain other cancers that are metastatic to the liver. We believe the disease states we are investigating represent a multi-billion dollar global market opportunity and a clear unmet medical need.

Our clinical development program (CDP) for CHEMOSAT/Melphalan/HDS is comprised of: The FOCUS Clinical Trial for Patients with Hepatic Dominant Ocular Melanoma, a Global Phase 3 clinical trial that is investigating overall survival in mOM, and a Global Phase 2 clinical trial program investigating Melphalan/HDS with and without sorafenib in HCC and Melphalan/HDS in ICC. Our CDP also includes a commercial registry for CHEMOSAT non-clinical commercial cases performed in Europe and sponsorship of select investigator initiated trials (IITs) in HCC and colorectal cancer liver metastases (mCRC)..

### Liquidity and Operating Matters

The accompanying financial statements have been prepared on a going concern basis, which contemplates the realization of assets and the satisfaction of liabilities in the normal course of business. The Company has incurred losses since inception and has an accumulated deficit of \$270.7 million at September 30, 2016. As shown in the accompanying financial statements during the three months and nine months ended September 30, 2016, the Company incurred net losses of \$1.0 million and \$9.5 million, respectively, and during the nine months ended September 30, 2016 used \$10.6 million of cash for its operating activities. These factors among others raise substantial doubt about

the Company's ability to continue as a going concern for a reasonable period of time.

The Company's existence is dependent upon management's ability to obtain additional funding sources or to enter into strategic alliances. There can be no assurance that the Company's efforts will result in the resolution of the Company's liquidity needs. The accompanying statements do not include any adjustments that might result should the Company be unable to continue as a going concern.

The Company has incurred losses since inception. The Company anticipates incurring additional losses until such time, if ever, that it can generate significant sales. As a result of issuing \$35.0 million in senior secured convertible notes in June 2016, management believes that its capital resources are adequate to fund operations through the end of 2017. To the extent additional capital is not available when needed, the Company may be forced to abandon some or all of its development and commercialization efforts, which would have a material adverse effect on the prospects of the business. Operations of the

Company are subject to certain risks and uncertainties, including, among others, uncertainties and risks related to clinical research, product development; regulatory approvals; technology; patents and proprietary rights; comprehensive government regulations; limited commercial manufacturing; marketing and sales experience; and dependence on key personnel.

#### Basis of Presentation

These interim condensed consolidated financial statements are unaudited and were prepared by the Company in accordance with generally accepted accounting principles in the United States of America (GAAP) and with the SEC's instructions to Form 10-Q and Article 10 of Regulation S-X. They include the accounts of all entities controlled by Delcath and all significant inter-company accounts and transactions have been eliminated in consolidation.

The preparation of interim financial statements requires management to make assumptions and estimates that impact the amounts reported. These interim condensed consolidated financial statements, in the opinion of management, reflect all adjustments, consisting of normal recurring accruals, necessary for a fair presentation of the Company's results of operations, financial position and cash flows for the interim periods ended September 30, 2016 and 2015; however, certain information and footnote disclosures normally included in our Annual Report have been condensed or omitted as permitted by GAAP. It is important to note that the Company's results of operations and cash flows for interim periods are not necessarily indicative of the results of operations and cash flows to be expected for a full fiscal year or any interim period.

#### Significant Accounting Policies

A description of our significant accounting policies has been provided in Note 3 Summary of Significant Accounting Policies to the Consolidated Financial Statements included in the Company's Annual Report on Form 10-K filed for the period ended December 31, 2015.

#### Deferred Revenue

Deferred revenue on the accompanying condensed consolidated balance sheets includes payment received for product sales to a distributor. When obligations or contingencies remain after the products are shipped, such as training and certifying the treatment centers, revenue is deferred until the obligations or contingencies are satisfied. The Company will recognize the revenue related to product sales when its obligations under the agreement have been satisfied.

#### Restricted Cash

Cash and cash equivalents that are restricted as to withdrawal or use under the terms of certain contractual agreements are recorded as restricted cash on the accompanying condensed consolidated balance sheets. On June 13, 2016, the Company issued \$35.0 million in senior secured convertible notes and received \$32.2 million in cash proceeds. Under the terms of the notes, at closing, an initial tranche of \$3.0 million was available for immediate use by the Company for general corporate purposes. The remaining cash proceeds of \$29.2 million will be available in a tranche of \$3.0 million on December 31, 2016 ("First Release Date") and the remainder of \$26.2 million in four equal tranches to be released quarterly, beginning in January 2017 ("Subsequent Release Dates"), pursuant to an account control agreement whereby the restrictions on the proceeds are terminated when the Company meets certain equity conditions. The terms of the Notes are discussed in more detail in Note 7 of the Company's interim condensed consolidated financial statements contained in this Quarterly Report on Form 10-Q. The cash is deposited in an account that is not FDIC insured.

#### Recent Accounting Pronouncements

In May 2014, the FASB issued ASU 2014-09, Revenue from Contracts with Customers (“ASU 2014-09”) that updates the principles for recognizing revenue. The core principle of the guidance is that an entity should recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. ASU 2014-09 also amends the required disclosures of the nature, amount, timing and uncertainty of revenue and cash flows arising from contracts with customers. ASU 2014-09 is effective for annual reporting periods beginning after December 15, 2017, including interim periods within that reporting period. The Company expects to adopt this guidance when effective, and does not anticipate that this guidance will materially impact its consolidated financial statements.

In August 2014, the FASB issued ASU 2014-15, Presentation of Financial Statements — Going Concern, Disclosure of Uncertainties about an Entity’s Ability to Continue as a Going Concern (“ASU 2014-15”). ASU 2014-15 requires management to assess an entity’s ability to continue as a going concern by incorporating and expanding upon certain principles that are

currently in U.S. auditing standards. Specifically, the ASU (1) provides a definition of the term substantial doubt, (2) requires an evaluation every reporting period including interim periods, (3) provides principles for considering the mitigating effect of management's plans, (4) requires certain disclosures when substantial doubt is alleviated as a result of consideration of management's plans, (5) requires an express statement and other disclosures when substantial doubt is not alleviated, and (6) requires an assessment for a period of one year after the date that the financial statements are issued (or available to be issued). This standard is effective for the fiscal years ending after December 15, 2016, and for annual periods and interim periods thereafter. Early application is permitted. The Company does not anticipate that this guidance will materially impact its consolidated financial statements.

In April 2015, the FASB issued ASU 2015-03, "Simplifying the Presentation of Debt Issuance Costs," which requires debt issuance costs to be presented in the balance sheet as a direct deduction from the carrying value of the associated debt liability, consistent with the presentation of debt discounts or premiums. The ASU is effective for fiscal years beginning after December 15, 2015, and interim periods within those fiscal years. During the year 2015, the Company elected early adoption of this standard and applied the changes in its financial statements and related disclosures.

In July 2015, the FASB issued ASU 2015-11, Inventory (Topic 330): Simplifying the Measurement of Inventory. ASU 2015-11 more closely aligns the measurement of inventory in U.S. GAAP with the measurement of inventory in International Financial Reporting Standards by requiring companies using the first-in, first-out and average costs methods to measure inventory using the lower of cost and net realizable value, where net realizable value is the estimated selling prices in the ordinary course of business, less reasonably predictable costs of completion, disposal, and transportation. ASU 2015-11 is effective for annual reporting periods beginning after December 15, 2016 and interim periods within those fiscal years. ASU 2015-11 should be applied prospectively with earlier application permitted as of the beginning of an interim or annual reporting period. The Company does not anticipate that this guidance will materially impact its consolidated financial statements.

In November 2015, the FASB issued ASU 2015-17, Income Taxes (Topic 740). ASU 2015-17 requires deferred tax liabilities and assets to be classified as non-current on the consolidated condensed balance sheet. ASU 2015-17 is effective for annual reporting periods beginning after December 15, 2016 and interim periods within those fiscal years and early application is permitted. ASU 2015-17 may be applied either prospectively to all deferred tax liabilities and assets or retrospectively to all periods presented. The Company does not anticipate that this guidance will materially impact its consolidated financial statements.

In February 2016, the FASB issued ASU 2016-02, Leases, which requires entities to report a right-to-use asset and liability for the obligation to make payments for all leases with the exception of those leases with a term of twelve months or less. ASU 2016-02 is effective for annual reporting periods beginning after December 15, 2018. The Company is currently evaluating the impact of the pending adoption of ASU 2016-02 on its consolidated financial statements.

In March 2016, the FASB issued ASU 2016-09, Compensation - Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting. The standard is intended to simplify several areas of accounting for share-based compensation arrangements, including the income tax impact and classification on the statement of cash flows. ASU 2016-09 is effective for fiscal years, and interim periods within those years, beginning after December 15, 2016, and early adoption is permitted. The Company is currently evaluating the impact of the pending adoption of ASU 2016-09 on its consolidated financial statements.

(2)Inventories

Inventories consist of the following:

(in thousands)	September 30, 2016	December 31, 2015
Raw materials	\$ 313	\$ 360
Work-in-process	171	251
Finished goods	116	146
Total inventory	\$ 600	\$ 757

## (3) Prepaid Expenses and Other Current Assets

Prepaid expenses and other current assets consist of the following:

(in thousands)	September 30, 2016	December 31, 2015
Insurance premiums	\$ 85	\$ 625
Kits for clinical use	—	162
Security deposit	49	74
Other <sup>1</sup>	176	99
<b>Total prepaid expenses and other current assets</b>	<b>\$ 310</b>	<b>\$ 960</b>

<sup>1</sup> Other consists of various prepaid expenses and other current assets, with no individual item accounting for more than 5% of prepaid expenses and other current assets at September 30, 2016 and December 31, 2015.

## (4) Property, Plant, and Equipment

Property, plant, and equipment consist of the following:

(in thousands)	September 30, 2016	December 31, 2015
Buildings and land	\$ 556	\$ 556
Enterprise hardware and software	1,529	1,520
Leaseholds	1,520	1,305
Equipment	933	902
Furniture	355	355
Property, plant and equipment, gross	4,893	4,638
Accumulated depreciation	(3,752 )	(3,506 )
<b>Property, plant and equipment, net</b>	<b>\$ 1,141</b>	<b>\$ 1,132</b>

Depreciation expense for the three months and nine months ended September 30, 2016 was approximately \$0.1 million and \$0.2 million, respectively, as compared to approximately \$0.1 million and 0.5 million, respectively, for the same periods in 2015.

## (5) Accrued Expenses

Accrued expenses consist of the following:

(in thousands)	September 30, 2016	December 31, 2015
Compensation, excluding taxes	\$ 928	\$ 692
Clinical trial expenses	782	219
Professional fees	234	391
Short-term portion of lease restructuring	209	220
Other <sup>1</sup>	548	721
Total accrued expenses	\$ 2,701	\$ 2,243

<sup>1</sup> Other consists of various accrued expenses, with no individual item accounting for more than 5% of current liabilities at September 30, 2016 and December 31, 2015.

#### (6) Restructuring Expenses

In order to help reduce operating costs and more appropriately align its office space with the reduced size of its workforce, the Company entered into two sub-leases for office space at its 810 Seventh Avenue office. On May 22, 2014, the Company entered into a sub-lease agreement (“Sub-lease #1”) for approximately one-half of the office space at this location (“Suite 3500”), resulting in a lease restructuring reserve of approximately \$0.9 million. On August 18, 2014, the Company entered into a sub-lease agreement (“Sub-lease #2”) for the remaining one-half of office space at its 810 Seventh Avenue office (“Suite 3505”),



resulting in a lease restructuring reserve of approximately \$0.7 million. As of September 30, 2016, the total remaining lease restructuring liability for its leased office space was approximately \$0.9 million, of which approximately \$0.2 million and \$0.7 million were included in Accrued expenses and Other non-current liabilities on the condensed consolidated balance sheets, respectively.

The following table provides the year-to-date activity of the Company's restructuring reserves as of September 30, 2016:

(in thousands)	Lease Liability
Reserve balance at December 31, 2015	\$ 1,039
Charges	—
Payments/Utilizations	(165 )
Reserve balance at September 30, 2016	\$ 874

#### (7) Convertible Notes Payable

On June 6, 2016, the Company entered into a Securities Purchase Agreement (the "SPA") with certain investors named on the Schedule of Buyers attached to the SPA pursuant to which the Company issued \$35.0 million in principal face amount of senior secured convertible notes of the Company (the "Notes") and related Series C Warrants (the "Series C Warrants") to purchase additional shares of the Company's common stock, par value \$0.01 per share ("Common Stock"). \$35.0 million of the Notes were issued for cash proceeds of \$32.2 million with an original issue discount in the amount of \$2.8 million. The Notes are secured pursuant to a Security Agreement which creates a first priority security interest in all of the personal property (other than Excluded Collateral (as defined in the Security Agreement)) of the Company of every kind and description, tangible or intangible, whether currently owned and existing or created or acquired in the future.

The Notes do not bear any ordinary interest. However, interest shall commence accruing immediately upon the occurrence of, and shall continue accruing during the continuance of, an Event of Default, at 15% per annum and shall be computed on the basis of a 360-day year of twelve 30-day months and shall be payable, if applicable, in arrears for each calendar month on the first (1st) business day of each calendar month after any such interest accrues after an Event of Default.

Under the terms of the Notes, at closing the Company received an initial tranche of \$3.0 million for immediate use for general corporate purposes. The remaining cash proceeds of \$29.2 million are being held in a restricted account and will be released to the Company from the Company's restricted accounts in subsequent tranches subject to certain equity conditions.

As security for the Company's obligations under the Notes, \$29.2 million of the total net cash proceeds is subject to a cash covenant restricting its use and requiring it to be held in a Master Restricted Account ("Master Restricted Account") established in accordance with and pursuant to the terms and conditions of an account control agreement between the Company, the Buyers and Silicon Valley Bank (a "Controlled Account Agreement"). Subsequently, \$3.0 million of the restricted cash shall become unrestricted cash on the 20<sup>th</sup> trading day after the later of the stockholder approval of the transaction in accordance with NASDAQ rules (as described below), or the six-month anniversary of the closing date (such 20<sup>th</sup> trading day, the "Trigger Date"). Thereafter, subject to certain equity

conditions, the remaining \$26.2 million of restricted cash will become unrestricted in equal quarterly installments starting the 30<sup>th</sup> trading day after the Trigger Date, such that the balance will become unrestricted by the maturity date of the Notes, December 29, 2017, subject to satisfaction of certain conditions contained in the Notes.

In connection with the issuance of the Notes under the SPA, the Company also issued Series C Warrants, exercisable to acquire 6.8 million shares of Common Stock. On December 31, 2017, the number of Warrant Shares issuable upon exercise of the Series C Warrants will be increased by such number of Warrant Shares equal to 75% of the difference of (i) the quotient of (A) the product of (x) the exercise price as of the date of issuance (as adjusted for certain events) multiplied by (y) the number of Warrant Shares as of the date of issuance (as adjusted for certain events), divided by (B) the volume-weighted average price of the Common Stock on the maturity date, less (ii) the number of Warrant Shares as of the date of issuance (as adjusted for certain events).

Each Series C Warrant will be exercisable by the holder beginning one year after the closing date and continuing for a period of five years thereafter. The Series C Warrants are exercisable at \$4.83 per share of common stock, subject to adjustments for certain dilutive events. The provisions in the Series C Warrants require the Company to account for the warrants as derivative liabilities.

The Company has agreed to make amortization payments with respect to the Notes in twelve (12) equal installments beginning seven (7) months after the original date of issuance of June 13, 2016 (each, an "Installment Date"). On each installment date, assuming certain equity conditions are met, the installment payment shall, at the election of the Company, automatically be

converted into shares of Common Stock at a conversion rate defined in the agreement. At any time after the issuance of the Notes, the Notes will be convertible at the election of the holder into shares of our Common Stock at a conversion price equal to \$4.39, subject to adjustment as provided in the Notes.

As a result of the Notes including a feature such that the conversion price is based upon a formula which includes discounts to the market price of the common stock as well as having a lower effective conversion price considering the issuance discount and the value allocated to the Series C Warrants, the Company has recognized a beneficial conversion feature of \$4.4 million. The original issue discount, the beneficial conversion feature, and the fair value of the issuance of the Series C Warrants are collectively considered the debt discount. The Company recorded a debt discount in the amount of \$35.0 million which is being amortized over the life of the Notes using the effective interest method. As of September 30, 2016, \$10.1 million of the debt discount has been amortized to interest expense. In addition to the debt discounts listed above, the Notes also include put options in the event of default and change in control as defined in the Notes. The value of such options was zero as the probability for such events was remote as of the issuance date and at September 30, 2016. All debt issuance costs are accounted for as a deferred asset and will be amortized over the life of the Notes.

The following table summarizes the convertible notes outstanding at September 30, 2016:

(in thousands)	
Convertible notes payable, principal	\$35,000
Debt discounts	(28,587)
Net convertible note payable	\$6,413

## (8) Stockholders' Equity

### Stock Issuances

#### Reverse Stock Split

On July 19, 2016, shareholders of the Company approved, through a shareholder vote, an amendment to the Company's Amended and Restated Certificate of Incorporation authorizing the Board of Directors to effect a reverse stock split of Delcath's common stock at a ratio within a range of one-for-ten (1:10) to one-for-twenty (1:20). The reverse stock split became effective on July 21, 2016 at which time Delcath's common stock began trading on the NASDAQ Stock Exchange on a one-for-sixteen (1:16) split-adjusted basis. All owners of record as of the open of the NASDAQ market on July 21, 2016 received one issued and outstanding share of Delcath common stock in exchange for sixteen issued and outstanding shares of Delcath common stock. No fractional shares were issued in connection with the reverse stock split. All fractional shares created by the one-for-sixteen exchange were rounded up to the next whole share. The reverse stock split had no impact on the par value per share of Delcath common stock, which remains at \$0.01. All current and prior period amounts related to shares, share prices and earnings per share, presented in the Company's interim condensed consolidated financial statements contained in this Quarterly Report on Form 10-Q and the accompanying Notes, have been restated to give retrospective presentation for the reverse stock split.

In addition, shareholders of the Company also approved an amendment to the Company's Amended and Restated Certificate of Incorporation to increase the number of authorized shares of common stock from 170,000,000 to 500,000,000. The previously discussed reverse stock split had no impact on the increase in authorized shares.

#### At-the-Market ("ATM") Programs

In March 2013, the Company entered into an agreement with Cowen and Company LLC ("Cowen") to sell shares of the Company's common stock, par value \$.01 per share, from time to time, through an ATM equity offering program having aggregate sales proceeds of \$50.0 million, under which Cowen will act as sales agent. During the nine months ended September 30, 2016, the Company sold an additional 3,100 shares for net proceeds of approximately \$17,500. The shares were issued pursuant to an effective registration statement on Form S-3 (333-187230). The net proceeds will be used 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. As of September 30, 2016, this program is no longer active.

#### Warrants

In October 2013, the Company completed the sale of 81,875 shares of its common stock and the issuance of warrants to purchase approximately 37,000 common shares (the "2013 Warrants") pursuant to a placement agency agreement. The Company received proceeds of \$7.5 million, with net cash proceeds after related expenses from this transaction of

approximately \$6.9 million. Of those proceeds, the Company allocated an estimated fair value of \$1.9 million to the 2013 Warrants. The exercise price is subject to appropriate adjustment in the event of stock dividends, stock splits, reorganizations or similar events affecting our common stock. At September 30, 2016, the 2013 Warrants were exercisable at \$112.64 per share with approximately 37,000 warrants outstanding. The 2013 Warrants have a five-year term.

In February 2015, the Company completed the sale of 153,750 shares of its common stock and the issuance of warrants to purchase 69,000 common shares (the "February 2015 Warrants") pursuant to an underwriting agreement. The Company received proceeds of \$2.6 million, with net cash proceeds after related expenses from this transaction of \$2.5 million. Of those proceeds, the Company allocated an estimated fair value of \$0.8 million to the February 2015 Warrants. The exercise price is subject to appropriate adjustment in the event of stock dividends, stock splits, reorganizations or similar events affecting our common stock. The exercise price of the warrants is also subject to anti-dilution adjustments for any issuance of common stock or rights to acquire common stock for consideration per share less than the exercise price of the warrants. At September 30, 2016, the February 2015 Warrants were exercisable at \$3.90 per share with approximately 69,000 warrants outstanding. The February 2015 Warrants have a five-year term.

In July 2015, the Company completed the sale of approximately 0.6 million Units consisting of 0.6 million shares of its common stock, Series A Warrants to purchase up to approximately 0.4 million common shares ("Series A Warrants") and Series B Warrants to purchase Units consisting of up to approximately 0.6 million common shares ("Series B Warrants") and 0.4 million Series A Warrants pursuant to an underwriting agreement. The Company received proceeds of \$7.0 million, with net cash proceeds after related expenses from this transaction of \$6.0 million. Of those proceeds the Company allocated an estimated fair value of \$3.4 million to the Series A and Series B Warrants. During the nine months ended September 30, 2016, approximately 0.1 million Series B Warrants were exercised for net proceeds of approximately \$0.8 million. The remaining 0.4 million Series B Warrants expired on January 29, 2016 and the remaining liability was credited to Change in the fair value of the warrant liability. As a result of the Series B Warrant exercises, an additional 0.1 million Series A Warrants were issued. The exercise price of the Series A Warrants is subject to appropriate adjustment in the event of stock dividends, stock splits, reorganizations or similar events affecting our common stock and is subject to anti-dilution adjustments for any issuance of common stock or rights to acquire common stock for consideration per share less than the exercise price of the warrants. At September 30, 2016, the Series A Warrants were exercisable at \$3.90 with approximately 0.5 million warrants outstanding. The Series A Warrants have a five-year term.

In June 2016, the Company entered into a Securities Purchase Agreement pursuant to which the Company issued \$35.0 million in principal face amount of senior secured convertible notes of the Company (the "Notes") and related Series C Warrants (the "Series C Warrants") to purchase 6.8 million additional shares of the Company's common stock. The Company allocated an estimated fair value of \$27.8 million to the Series C Warrants. On December 31, 2017, the number of Warrant Shares issuable upon exercise of the Series C Warrants will be increased by such number of Warrant Shares equal to 75% of the difference of (i) the quotient of (A) the product of (x) the exercise price as of the date of issuance (as adjusted for certain events) multiplied by (y) the number of Warrant Shares as of the date of issuance (as adjusted for certain events), divided by (B) the volume-weighted average price of the Common Stock on the maturity date, less (ii) the number of Warrant Shares as of the date of issuance (as adjusted for certain events). At September 30, 2016, The Series C Warrants were exercisable at \$4.83 with approximately 6.8 million warrants outstanding. The Series C Warrants will be exercisable by the holder beginning one year after the closing date and continuing for a period of five years thereafter.

#### Stock Incentive Plans

The Company established the 2004 Stock Incentive Plan and the 2009 Stock Incentive Plan (collectively, the “Plans”) under which 11,719 and 200,391 shares, respectively, have been reserved for the issuance of stock options, stock appreciation rights, restricted stock, stock grants and other equity awards. In July 2016, the total number of shares of Delcath common stock reserved for issuance under the 2009 Stock Incentive Plan was increased by 106,250 shares, from 94,141 to 200,391 shares, upon a favorable vote by the Company’s stockholders. The Plans are administered by the Compensation and Stock Option Committee of the Board of Directors which determines the individuals to whom awards shall be granted as well as the type, terms, conditions, option price and the duration of each award. As of September 30, 2016 there were 120,883 shares available to grant under the 2009 Stock Incentive Plan.

A stock option grant allows the holder of the option to purchase a share of the Company’s common stock in the future at a stated price. Options and Restricted Stock granted under the Plans vest as determined by the Company’s Compensation and Stock Option Committee. Options granted under the Plans expire over varying terms, but not more than ten years from the date of grant.

For the three months and nine months ended September 30, 2016, the Company recognized compensation expense of approximately \$24,000 and \$0.1 million, respectively, relating to stock options granted to employees. For the same period in 2015, the Company recognized compensation expense of approximately \$0.1 million and \$0.3 million, respectively. There were no stock options awards granted during the nine months ended September 30, 2016. There were approximately 32,765 stock option awards granted during the same period in 2015.

For the three months and nine months ended September 30, 2016, the Company recognized compensation expense of approximately \$38,000 and \$0.2 million, respectively, relating to restricted stock granted to employees. For the same period in 2015, the Company recognized compensation expense of approximately \$0.1 million and \$0.2 million, respectively. There were — shares of restricted stock granted during the nine months ended September 30, 2016. There were approximately 36,000 shares of restricted stock awards granted for the same period in 2015.

#### (9) Fair Value Measurements Derivative Warrant Liability

As disclosed in Note 8 of the Company's interim condensed consolidated financial statements contained in this Quarterly Report on Form 10-Q, the Company allocated part of the proceeds of public offerings in 2013 and 2015 of the Company's common stock to warrants issued in connection with those transactions. In addition, the Company recognized a discount to debt related to the initial fair value of warrants issued in connection with the June 2016 Convertible Notes discussed in further detail in Note 7 of the Company's interim condensed consolidated financial statements contained in this Quarterly Report on Form 10-Q. The valuation of the October 2013, February 2015, Series A and Series C warrants (collectively, the "Warrants") was determined using option pricing models. These models use inputs such as the underlying price of the shares issued at the measurement date, volatility, risk free interest rate and expected life of the instrument. The Company has classified the Warrants as a current liability due to certain provisions relating to price adjustments and potential cash payments, as well as the holders' ability to exercise the warrants within twelve months of the reporting date and has accounted for them as derivative instruments in accordance with ASC 815, adjusting the fair value at the end of each reporting period. Additionally, the Company has determined that the warrant derivative liability should be classified within Level 3 of the fair-value hierarchy by evaluating each input for the option pricing models against the fair-value hierarchy criteria and using the lowest level of input as the basis for the fair-value classification as called for in ASC 820. There are six inputs: closing price of Delcath stock on the day of evaluation; the exercise price of the warrants; the remaining term of the warrants; the volatility of Delcath's stock over that term; annual rate of dividends; and the risk-free rate of return. Of those inputs, the exercise price of the warrants and the remaining term are readily observable in the warrant agreements. The annual rate of dividends is based on the Company's historical practice of not granting dividends. The closing price of Delcath stock would fall under Level 1 of the fair-value hierarchy as it is a quoted price in an active market (ASC 820-10). The risk-free rate of return is a Level 2 input as defined in ASC 820-10, while the historical volatility is a Level 3 input as defined in ASC 820. Since the lowest level input is a Level 3, Delcath determined the warrant derivative liability is most appropriately classified within Level 3 of the fair value hierarchy.

For the three months and nine months ended September 30, 2016, the Company recorded pre-tax derivative warrant income of \$8.7 million and pre-tax derivative income of \$9.2 million, respectively. The resulting derivative warrant liabilities totaled \$22.5 million at September 30, 2016. Management expects that the Warrants will either be exercised or expire worthless. The fair value of the Warrants at September 30, 2016 was determined by using option pricing models with the following assumptions:

	Series C	Series A	February 2015	October 2013
	Warrants	Warrants	Warrants	Warrants
Expected volatility	91.93%	96.65%	99.65%	91.70%
Risk-free interest rates	1.28%	1.01%	0.95%	0.76%
Expected life (in years)	5.70	3.81	3.38	2.08

The table below presents the Company's assets and liabilities measured at fair value on a recurring basis as of September 30, 2016, aggregated by the level in the fair value hierarchy within which those measurements fall in accordance with ASC 820.

(in thousands)	Assets and Liabilities Measured at Fair Value on a Recurring Basis			
	Level			Balance at
	Level 1	Level 2	Level 3	September 30, 2016
<b>Liabilities</b>				
Derivative instrument liabilities	\$—	\$ —	\$22,502	\$ 22,502



For the periods ended September 30, 2016 and 2015, there were no transfers in or out of Level 1, 2 or 3 inputs.

The table below presents the activity within Level 3 of the fair value hierarchy for the nine months ended September 30, 2016:

Fair Value Measurements Using Significant Unobservable Inputs (Level 3)

(in thousands)	Warrant Liability
Balance at December 31, 2015	\$ 3,785
Total change in the liability included in earnings	(9,171 )
Fair value of warrants issued	28,133
Fair value of warrants exercised	(245 )
Balance at September 30, 2016	\$ 22,502

(10) Net Loss per Common Share

Basic net loss per share is determined by dividing net loss by the weighted average shares of common stock outstanding during the period, without consideration of potentially dilutive securities. Diluted net loss per share is determined by dividing net loss by diluted weighted average shares outstanding. Diluted weighted average shares reflects the dilutive effect, if any, of potentially dilutive common shares, such as stock options and warrants calculated using the treasury stock method. In periods with reported net operating losses, all common stock options and warrants are generally deemed anti-dilutive such that basic net loss per share and diluted net loss per share are equal.

The following potentially dilutive securities were excluded from the computation of earnings per share as of September 30, 2016 and 2015 because their effects would be anti-dilutive:

	September 30,	
	2016	2015
Stock options	41,356	47,884
Unvested restricted shares	19,000	36,006
Warrants	7,427,510	1,128,688
Total	7,487,866	1,212,578

(11) Taxes

As discussed in Note 13 Income Taxes of the Company's Annual Report, the Company has a valuation allowance against the full amount of its net deferred tax assets. The Company currently provides a valuation allowance against deferred tax assets when it is more likely than not that some portion or all of its deferred tax assets will not be realized. The Company has not recognized any unrecognized tax benefits in its balance sheet.

The Company is subject to income tax in the U.S., as well as various state and international jurisdictions. During the third quarter of 2015, the Company was notified by the Internal Revenue Service that they will be examining the tax return for calendar year 2013. The effect of the outcome cannot be reasonably estimated as the exam is presently ongoing. However, the Company does not expect any material change to its financial statements as a result of this audit. Any proposed adjustments would result in an adjustment to the net operating loss carryforward for which a valuation allowance has been provided against the full amount. The Company has not been audited by the international tax authorities or any states in connection with income taxes. The Company's New York State tax returns have been subject to annual desk reviews which have resulted in insignificant adjustments to the related franchise tax liabilities and credits. The Company's tax years generally remain open to examination for all federal, state and foreign tax matters until its net operating loss carryforwards are utilized and the applicable statutes of limitation have expired. The federal and state tax authorities can generally reduce a net operating loss (but not create taxable income) for a period outside the statute of limitations in order to determine the correct amount of net operating loss which may be allowed as a deduction against income for a period within the statute of limitations.

#### (12) Subsequent Events

On September 30, 2016 the Company entered into an underwriting agreement (the "Underwriting Agreement") with Roth Capital Partners, LLC, as Underwriter (the "Underwriter"). The Underwriting Agreement provided for the sale to the Underwriter of 425,000 units consisting of 425,000 shares of the Company's common stock, par value \$0.01 per share (the

“Common Stock”), and 148,750 warrants at price of \$3.00 per unit. The offering closed on October 5, 2016. The warrants are exercisable beginning on the date of issuance and will expire on October 5, 2021. The exercise price of the warrants is \$3.00 per share of Common Stock, subject to certain adjustments. The net proceeds to the Company from the offering are approximately \$1.1 million after underwriting discounts and commissions and other estimated offering expenses payable by the Company, and excluding any proceeds the Company may receive upon exercise of the warrants issued in the offering. As a result, the exercise price of the February 2015 Warrants and the Series A Warrants has been adjusted to \$2.99.

## Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

The following discussion and analysis of the Company's financial condition and results of operations should be read in conjunction with the unaudited interim condensed consolidated financial statements and notes thereto contained in Item 1 of Part I of this Quarterly Report on Form 10-Q and the audited financial statements and notes thereto as of and for the year ended December 31, 2015 included in the Company's 2015 Annual Report on Form 10-K to provide an understanding of its results of operations, financial condition and cash flows.

### Disclosure Regarding Forward-Looking Statements

This Quarterly Report on Form 10-Q for the period ended September 30, 2016 contains 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," and the negative of these terms or other comparable terminology often identify forward-looking statements. Statements in this Quarterly Report on Form 10-Q for the period ending September 30, 2016 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 Quarterly Report on Form 10-Q for the period ended September 30, 2016 in Part II, Item 1A under "Risk Factors" as well as in Part I, Item 3 "Quantitative and Qualitative Disclosures About Market Risk," our Annual Report on Form 10-K for the period ended December 31, 2015 in Item 1A under "Risk Factors" as well as in Item 7A "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:

- 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;
- our ability to successfully commercialize CHEMOSAT/Melphalan/HDS, generate revenue and successfully obtain reimbursement for the procedure and System;
- the progress and results of our research and development programs;
- 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 CHEMOSAT/Melphalan/HDS;
- our ability to successfully negotiate and enter into agreements with distribution, strategic and corporate partners; and
- our estimates of potential market opportunities and our ability to successfully realize these opportunities.

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 Quarterly Report on Form 10-Q. 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 Quarterly Report on Form 10-Q or to reflect the occurrence of unanticipated events.

### Overview

The following section should be read in conjunction with Part I, Item 1: Condensed Consolidated Financial Statements of this report as well as Part I, Item 1: Business; and Part II, Item 8: Financial Statements and Supplementary Data of the Company's 2015 Annual Report on Form 10-K.

## Company Overview

Delcath Systems, Inc. is an interventional oncology Company focused on the treatment of primary and metastatic liver cancers. Our investigational product—Melphalan Hydrochloride for Injection for use with the Delcath Hepatic Delivery System (Melphalan/HDS) —is designed to administer high-dose chemotherapy to the liver while controlling systemic exposure and associated side effects. In Europe, our system is in early-stage commercial development under the trade name Delcath Hepatic CHEMOSAT<sup>®</sup> Delivery System for Melphalan (CHEMOSAT<sup>®</sup>), where it has been used at major medical centers to treat a wide range of cancers of the liver.

Our primary research focus is on ocular melanoma liver metastases (mOM), intrahepatic cholangiocarcinoma (ICC), hepatocellular carcinoma (HCC or primary liver), and certain other cancers that are metastatic to the liver. We believe the disease states we are investigating represent a multi-billion dollar global market opportunity and a clear unmet medical need.

Our clinical development program (CDP) for CHEMOSAT/Melphalan/HDS is comprised of: The FOCUS Clinical Trial for Patients with Hepatic Dominant Ocular Melanoma, a Global Phase 3 clinical trial that is investigating overall survival in mOM, and a Global Phase 2 clinical trial program investigating Melphalan/HDS with and without sorafenib in HCC and Melphalan/HDS in ICC. Our CDP also includes a commercial registry for CHEMOSAT non-clinical commercial cases performed in Europe and sponsorship of select investigator initiated trials (IITs) in HCC and colorectal cancer liver metastases (mCRC).

The direction and focus of our CDP for CHEMOSAT/Melphalan/HDS is informed by prior clinical development conducted between 2004 and 2010, non-clinical commercial CHEMOSAT cases performed on approximately 150 patients in Europe, and prior regulatory experience with the FDA. Experience gained from this research, development, early European commercial and U.S. regulatory activity has led to the implementation of several safety improvements to our product and the associated medical procedure.

In the United States, Melphalan/HDS is considered a combination drug and device product, and is regulated as a drug by the United States Food and Drug Administration (FDA). The FDA has granted us six orphan drug designations, including three orphan designations for the use of the drug melphalan for the treatment of patients with mOM, HCC and ICC. Melphalan/HDS has not been approved for sale in the United States.

In Europe, the current version of our CHEMOSAT product is regulated as a Class IIb medical device and received its CE Mark in 2012. We are in an early phase of commercializing the CHEMOSAT system in select markets in the European Union where the prospect of securing adequate reimbursement for the procedure is strongest. In 2015 national reimbursement coverage for CHEMOSAT procedures was awarded in Germany, with coverage levels to be determined by German authorities in mid to late 2016.

Currently there are few effective treatment options for certain cancers in the liver. Traditional treatment options include surgery, chemotherapy, liver transplant, radiation therapy, interventional radiology techniques, and isolated hepatic perfusion. We believe that CHEMOSAT/Melphalan/HDS represents a potentially important advancement in regional therapy for primary liver cancer and certain other cancers metastatic to the liver. We believe that CHEMOSAT/Melphalan/HDS is uniquely positioned to treat the entire liver either as a stand-alone therapy or as a complement to other therapies.

## Cancers in the Liver – A Significant Unmet Need

Cancers of the liver remain a major unmet medical need globally. According to GLOBOCAN and American Cancer Society (ACS) Facts & Figures 2008, approximately 1.2 million patients globally are diagnosed each year with primary liver cancer or cancer that has metastasized to the liver. According to the ACS' Cancer Facts & Figures 2015 report, cancer is the second leading cause of death in the United States, with an estimated 589,430 deaths and 1,658,290 new cases diagnosed in 2015. Cancer is one of the leading causes of death worldwide, accounting for approximately 8.2 million deaths and 14.1 million new cases in 2012 according to GLOBOCAN. The financial burden of cancer is enormous for patients, their families and society. The National Institutes of Health (NIH) projects that medical expenditures will reach \$158 billion by 2020, a 27% increase over 2010 levels. The liver is often the life-limiting organ for cancer patients and one of the leading causes of cancer death. Patient prognosis is generally poor once cancer has spread to the liver.

## Liver Cancers—Incidence and Mortality

There are two types of liver cancers: primary liver cancer and metastatic liver disease. Primary liver cancer (hepatocellular carcinoma or HCC, including intrahepatic bile duct cancers or ICC) originates in the liver or biliary tissue and is particularly prevalent in populations where the primary risk factors for the disease, such as hepatitis-B, hepatitis-C, high levels of alcohol consumption, aflatoxin, cigarette smoking and exposure to industrial pollutants, are present. Metastatic liver disease, also called liver metastasis, 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 functions of the liver, including processing nutrients from food and filtering toxins from the blood, it is not uncommon 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 to their liver. In the United States, metastatic liver disease is more prevalent than primary liver cancer.

## Ocular Melanoma

Ocular melanoma is one of the cancer histologies with a high likelihood of metastasizing to the liver. We estimate that up to 5,000 cases of ocular melanoma are diagnosed in the U.S. and Europe annually, and that approximately 55% of these patients will develop metastatic disease. Of metastatic cases of ocular melanoma, we estimate that approximately 90% of patients will development liver

involvement. Once ocular melanoma has spread to the liver, current evidence suggests median overall survival for these patients is generally six to eight months. Currently there is no standard of care for patients with ocular melanoma liver metastases. As a result, we estimate that up to 2,200 patients with ocular melanoma liver metastases in the U.S. and Europe may be eligible for treatment with the Melphalan/HDS.

#### Hepatocellular Carcinoma (HCC) and Intrahepatic Cholangiocarcinoma (ICC)

Hepatobiliary cancers---including HCC and ICC---are among the most prevalent and lethal forms of cancer. According to GLOBOCAN and the ACS, an estimated 76,000 new cases of primary liver cancers are diagnosed in the U.S. and Europe annually. Approximately 90% of these patients are diagnosed with HCC. Excluding patients who are eligible for surgical resection or certain focal treatments, we estimate that approximately 15,000 patients with HCC in the U.S. and Europe may be eligible for treatment with Melphalan/HDS. We estimate that an additional 9,000 patients diagnosed with ICC may also be eligible for treatment with Melphalan/HDS. According to the ACS, the overall five-year survival rate for liver cancer patients in the U.S is approximately 17%, compared with 68% for all cancers diagnosed in 2004-2010. Globally, with 782,000 new cases in 2012, HCC was the fifth most common cancer in men and the ninth in women according to GLOBOCAN. GLOBOCAN estimates indicate that HCC was responsible for 746,000 deaths in 2012 (9.1% of the total cancer deaths), making it the second most common cause of death from cancer worldwide.

The prognosis for primary liver cancer is very poor, as indicated by an overall ratio of mortality to incidence of 0.95. The ACS' Cancer Facts & Figures 2015 outlines the treatment options for HCC as follows: "Early stage liver cancer can sometimes be treated successfully with surgery to remove part of the liver (partial hepatectomy); however, only a limited number of patients have sufficient healthy liver tissue for this to be an option. Liver transplantation may be an option for individuals with small tumors who are not candidates for partial hepatectomy. Other treatment options include ablation (tumor destruction) or embolization (blocking blood flow to the tumor). Fewer treatment options exist for patients diagnosed at an advanced stage. Sorafenib (Nexavar®) is a targeted drug approved for the treatment of HCC in patients who are not candidates for surgery and do not have severe cirrhosis."

ICC is the second most common primary liver tumor and accounts for 3% of all gastrointestinal cancers and 15% of HCC cases diagnosed in the U.S. and Europe annually. Outside of resection, which is the only cure for ICC, there is currently no standard of care (SOC). Based on third party research we believe that 90% of ICC patients are not candidates for surgical resection, and that approximately 20-30% of these may be candidates for certain focal interventions. We estimate that approximately 9,000 ICC patients in the U.S. and Europe annually could be candidates for treatment with Melphalan/HDS, which we believe represents a significant market opportunity.

#### About CHEMOSAT/Melphalan/HDS

CHEMOSAT/Melphalan/HDS administers concentrated regional chemotherapy to the liver. This "whole organ" therapy is performed by isolating the circulatory system of the liver, infusing the liver with chemotherapeutic agent, and then filtering the blood prior to returning it to the patient. During the procedure, known as percutaneous hepatic perfusion (PHP® procedure), three catheters are placed percutaneously through standard interventional radiology techniques. The catheters temporarily isolate the liver from the body's circulatory system, allow administration of the chemotherapeutic agent melphalan hydrochloride directly to the liver, and collect blood exiting the liver for filtration



by our proprietary filters. The filters absorb chemotherapeutic agent in the blood, thereby reducing systemic exposure to the drug and related toxic side effects, before the filtered blood is returned to the patient's circulatory system.

The PHP procedure is performed in an interventional radiology suite in approximately two to three hours. Patients remain in an intensive care or step-down unit overnight for observation following the procedure. Treatment with CHEMOSAT/Melphalan/HDS is repeatable, and a new disposable CHEMOSAT/Melphalan/HDS is used for each treatment. Patients treated in both clinical and non-clinical settings have received up to 6 treatments. In the United States, melphalan hydrochloride for injection will be included with the system. In Europe, the system is sold separately and used in conjunction with melphalan hydrochloride commercially available from a third party. In our clinical trials, melphalan hydrochloride for injection is provided to both European and U.S. clinical trial sites.

#### Prior Clinical Development

Our Phase 3 clinical trial and multi-arm Phase 2 clinical trial of the Melphalan/HDS with melphalan in patients with liver cancers are summarized below. The Phase 3 and Phase 2 clinical trials were subject to the terms and conditions of the Cooperative Research and Development Agreement (CRADA), between the Company and the National Cancer Institute (NCI). The Phase 3 trial was conducted under an FDA Special Protocol Assessment (SPA) and was conducted at centers throughout the United States.

#### Phase 3—Melanoma Metastases Trial

In February 2010, we concluded a randomized Phase 3 multi-center study for patients with unresectable metastatic ocular or cutaneous melanoma exclusively or predominantly in the liver. In the trial, patients were randomly assigned to receive PHP treatments with melphalan using the Melphalan/HDS, or to a control group to receive best alternative care (BAC). Patients assigned to the PHP arm

were eligible to receive up to six cycles of treatment at approximately four to eight week intervals. Patients randomized to the BAC arm were permitted to cross-over into the PHP arm at radiographic documentation of hepatic disease progression. A majority of the BAC patients did in fact cross over to the PHP arm. Secondary objectives of the study were to determine the response rate, safety, tolerability and overall survival.

On April 21, 2010, we announced that our randomized Phase 3 clinical trial of PHP with melphalan using Melphalan/HDS for patients with unresectable metastatic ocular and cutaneous melanoma in the liver had successfully achieved the study's primary endpoint of extended hepatic progression-free survival, or hPFS. An updated summary of the results was presented at the European Multidisciplinary Cancer Congress organized by the European Cancer Organization (ECCO) and the European Society of Medical Oncology (ESMO) in September 2011. Data submitted in October 2012 to the FDA in Delcath's New Drug Application (NDA) comparing treatment with the PHP with melphalan (the treatment group) to BAC (the control group), showed that patients in the PHP arm had a statistically significant longer median hPFS of 7.0 months compared to 1.7 months in the BAC control group, according to the Independent Review Committee (IRC) assessment. This reflects a 4-fold increase of hPFS over that of the BAC arm, with 50% reduction in the risk of progression and/or death in the PHP treatment arm compared to the BAC control arm. Results of this study were published in *Annals of Surgical Oncology*, a prestigious medical journal in December 2015.

#### Phase 2 Multi-Histology, Unresectable Hepatic Tumor Trial

Also in 2010, we concluded a separate multi-arm Phase 2 clinical trial of PHP with melphalan using an early version of the Melphalan/HDS in patients with primary and metastatic liver cancers, stratified into four arms: neuroendocrine tumors (carcinoid and pancreatic islet cell tumors), ocular or cutaneous melanoma, metastatic colorectal adenocarcinoma (mCRC), and HCC. In the metastatic neuroendocrine (mNET) cohort (n=24), the objective tumor response rate was 42%, with 66% of patients achieving hepatic tumor shrinkage and durable disease stabilization. In the mCRC cohort, there was inconclusive efficacy possibly due to advanced disease status of the patients. Similar safety profiles were seen across all tumor types studied in the trial.

In the HCC cohort (n=8) of our Phase 2 Multi-Histology trial, a positive signal in hepatic malignancies was observed in 5 patients. Among these patients, one patient received four treatments, achieved a partial response lasting 12.22 months, and survived 20.47 months. Three other patients with stable disease received 3-4 treatments, with hepatic progression free survival (hPFS) ranging 3.45 to 8.15 months, and overall survival (OS) ranging 5.26 to 19.88 months. There was no evidence of extrahepatic disease progression. The observed duration of hPFS and OS in this limited number of patients exceeded that generally associated with this patient population. We believe these results constitute a promising signal that warrants further clinical investigation.

#### Integrated Safety Profile from Prior Phase 3 and Phase 2 Trials

As with many cancer therapies, treatment with CHEMOSAT/Melphalan/HDS is associated with toxic side effects and certain risks, some of which are potentially life threatening. An integrated safety population comprised of patients treated during our prior clinical development using early versions of the Melphalan/HDS showed these risks to include grade 3 or 4 bone marrow suppression and febrile neutropenia, as well as risks of hepatic injury, severe hemorrhage, gastrointestinal perforation, stroke, and myocardial infarction in the setting of an incomplete cardiac risk

assessment. In this integrated safety population, deaths due to certain adverse reactions did not occur again during the clinical trials following the adoption of related protocol amendments.

#### Procedure and Product Refinements

The trials that comprised this integrated safety population used early versions of the device and procedure. As a consequence of these identified risks, along with experience gained in non-clinical, commercial usage in Europe, we have continued to develop and refine both the CHEMOSAT/Melphalan/HDS and the PHP procedure. The procedure refinements have included modifications to the pre, peri and post procedure patient management and monitoring, as well as the use of the following: prophylactic administration of proton pump inhibitors, prophylactic platelet transfusions, prophylactic hydration at key pre-treatment intervals, use of vasopressor agents coupled with continuous monitoring for maintenance of blood pressure and prophylactic administration of growth factors to reduce risk of serious myelosuppression. In addition, in 2012 we introduced the Generation Two version of the CHEMOSAT system, which offered improved hemofiltration and other product enhancements.

Reports from treating physicians in both Europe and the U.S. using the Generation Two CHEMOSAT/Melphalan/HDS in a non-clinical, commercial setting have suggested that these product improvements and procedure refinements have improved the safety profile. In 2015, physicians in Europe and the U.S. also presented the results of research that signaled an improved safety profile as well as efficacy in multiple tumor types at several major medical conferences.

#### Current Clinical Development Program

The focus of our current CDP is to generate clinical data for the CHEMOSAT/Melphalan/HDS in various disease states and validate the safety profile of the current version of the product and treatment procedure. We believe that the improvements we have made to CHEMOSAT/Melphalan/HDS and to the PHP procedure have addressed the severe toxicity and procedure-related risks observed

during the previous Phase 2 and 3 clinical trials. The CDP is also designed to support clinical adoption of and reimbursement for CHEMOSAT in Europe, and to support regulatory approvals in various jurisdictions, including the U.S.

#### FOCUS Clinical Trial for Patients with Hepatic Dominant Ocular Melanoma (the FOCUS Trial) - NCT02678572

In January 2016, pursuant to a SPA agreement reached with FDA, we initiated a new pivotal Phase 3 overall survival (OS) clinical trial in hepatic dominant ocular melanoma. Called the FOCUS Trial, this new global Phase 3 trial will evaluate the safety, efficacy and pharmacokinetic profile of Melphalan/HDS versus best alternative care in 240 patients with hepatic dominant OM. The primary endpoint is a comparison of overall survival between the two study arms. Secondary and exploratory endpoints include progression-free survival, overall response rate and Quality of Life (QoL) measures. In the FOCUS trial's treatment phase, patients randomized to the Melphalan/HDS arm will receive up to six treatments at intervals of six to eight weeks for up to 12 months. Tumor response will be assessed in both study arms every 12 weeks until evidence of hepatic disease progression. For patients progressing to the follow-up phase, disease assessment scans will continue every 12 weeks for up to two years.

The FOCUS Trial will be conducted at leading cancer centers in the United States and Europe. The Moffitt Cancer Center in Tampa, Fla. was activated as a participating center in January 2016 with Jonathan Zager, M.D., FACS, Professor of Surgery in the Cutaneous Oncology and Sarcoma Departments and a Senior Member at Moffitt Cancer Center, serving as the trial's principal investigator. In October 2016 we announced the addition of several prestigious cancer centers in the United States and Europe, and now have 13 centers open for patient enrollment in the FOCUS trial. We intend to include approximately 30 leading cancer centers in the United States and Europe in the FOCUS Trial.

The FOCUS Trial is being conducted under a SPA agreement we negotiated with the FDA in January 2016. The SPA provides agreement that the Phase 3 trial design adequately addresses objectives that, if met, would support the submission for regulatory approval of Melphalan/HDS. The agreement also represents the satisfactory resolution of a substantial number of the FDA's issues in the Complete Response Letter (CRL) issued in September 2013. These issues were related to safety of a previous generation of the Melphalan/HDS device and procedure. Delcath completed the work necessary to satisfy these requirements prior to submitting its request for the SPA agreement.

There currently is no standard of care for the treatment of hepatic dominant ocular melanoma. The Melphalan/HDS has been granted orphan drug status by FDA for treatment of patients with ocular melanoma. Based on the strength of the efficacy data in this disease observed in our prior Phase 3 clinical trial and the reports of an improved safety profile from approximately 150 patients treated in a non-clinical trial setting in Europe, we are confident that this program can address the concerns raised by the FDA in its CRL. We believe that ocular melanoma liver metastases represent a high unmet medical need, and that pursuit of an indication in this disease state represents the fastest path to potential approval of the Melphalan/HDS in the U.S.

Phase 2 Hepatocellular Carcinoma (HCC) & Intrahepatic Cholangiocarcinoma (ICC) Program

In 2014 we initiated a new Phase 2 clinical trial program in Europe and the U.S., with the goal of obtaining an efficacy and safety signal for Melphalan/HDS in the treatment of HCC and ICC. Due to differences in treatment practice patterns between Europe and the U.S., we established separate European and U.S. trial protocols for the HCC Phase 2 program with different inclusion and exclusion patient selection criteria:

Protocol 201 NCT02406508– Conducted in the U.S., this trial will assess the safety and efficacy of Melphalan/HDS followed by sorafenib. The trial will evaluate overall response rate via modified Response Evaluation Criteria in Solid Tumors (mRECIST), progression free survival, characterize the systemic exposure of melphalan and assess patient quality of life.

Protocol 202 NCT02415036– Conducted in Europe, this trial will assess the safety and efficacy of Melphalan/HDS without sorafenib. The trial will also evaluate overall response rate via mRECIST criteria, progression free survival, characterize the systemic exposure of melphalan and assess patient quality of life.

ICC Cohort – In 2015, we expanded Protocol 202 to include a cohort of patients with ICC. The trial for this cohort is being conducted at the same centers participating in the Phase 2 HCC trial.

Clinical trials are long, expensive and highly uncertain processes and failure can unexpectedly occur at any stage of clinical development. The start or end of a clinical trial is often delayed or halted due to changing regulatory requirements, manufacturing challenges, required clinical trial administrative actions, slower than anticipated patient enrollment, changing standards of care, availability or prevalence of use of a comparator treatment or required prior therapy.

## European Investigator Initiated Trials

In addition to the clinical trials in our CDP, we are supporting data generation in other areas. We are currently supporting two Investigator Initiated Trials (IITs) in Europe— one in colorectal carcinoma metastatic to the liver (mCRC) at Leiden University Medical Center in The Netherlands, and another in HCC at Goethe University Hospital in Frankfurt Germany. Both of these trials have opened for enrollment. We continue to evaluate other IITs as suitable opportunities in Europe. We believe IITs will serve to build clinical experience at key cancer centers, and will help support efforts to obtain broader reimbursement in Europe.

## European Clinical Data Generation

On April 2, 2015 we announced the activation of our prospective patient registry in Europe to collect uniform essential patient safety, efficacy, and QoL information using observational study methods. A prospective registry is an organized system that uses observational study methods to collect defined clinical data under normal conditions of use to evaluate specified outcomes for a population defined by a particular disease, condition, or exposure. Our registry is gathering data in multiple tumor types from commercial cases performed by participating cancer centers in Germany, the United Kingdom, and the Netherlands. Data on approximately 20 patients, all of whom have ocular melanoma, have been entered thus far. Enrollment in this registry continues and with a variety of tumor types to be entered. Registry data is non-randomized, and as such cannot be used for either registration approval, promotional or competitive claims. However, we believe the Patient Registry will provide a valuable data repository from a commercial setting that can be used to identify further clinical development opportunities, support clinical adoption and reimbursement in Europe, and support global Health Authority submissions.

## Recent Data Presentations & Publications

In September 2016, we announced that data from two studies supporting CHEMOSAT were presented at the Cardiovascular and Interventional Radiology Society of Europe (CIRSE) annual meeting. The first study, Secondary Resectability of Ocular Melanoma Liver Metastases (OMLM) Following Percutaneous Hepatic Perfusion (PFP) by M. Zeile, et al. of the Asklepios Barmbek Clinic in Hamburg, Germany, evaluated 7 patients with unresectable ocular melanoma liver metastases treated with CHEMOSAT. There were 12 CHEMOSAT procedures administered in total, with a median of 2 cycles per patient, and a range of 1 to 3. The objective response rate after 1-2 treatments was 71.4%. Two patients showed secondary resectability on imaging after completing two treatments and remain alive for over 26 months following resections. Progression free survival was 9.9 months and hepatic progression free survival was 11.2 months. Median survival for the study has not yet been reached, but is higher than 16.9 months. There were no adverse events of grade 3 or higher. Investigators concluded that CHEMOSAT is safe to use in these patients and that significant downsizing of ocular melanoma liver metastases can be achieved with CHEMOSAT. These researchers concluded that if these promising results were further validated it “may lead to a new standard of therapy for the treatment of patients with ocular melanoma liver metastases.”

The second study, Percutaneous Isolated Hepatic Perfusion (Chemosaturation) In Patients With Primary Or Secondary Liver Tumours: Experience In 20 Patients, by S. Marquardt et al., of Hanover Medical School in Hanover, Germany,

retrospectively evaluated patients with advanced disease from primary or metastatic cancers of the liver. The local response rate (stable disease or partial response) was 80%. Mean progression free survival was 3.2 months. The investigators reported no major complications and that bone marrow suppression was common but controllable. The investigators concluded that patients with primary or secondary liver tumors that have disease progression under standard therapy “may profit from PHP with Melphalan,” that technical execution is problem-free, and complications are manageable.

In October 2016, we announced that a review of research conducted with CHEMOSAT has been accepted for publication by the prestigious medical journal, *Advances in Therapy*. The retrospective study, "Chemosaturation Percutaneous Hepatic Perfusion: A Systemic Review," was conducted by a team led by Dr. Arndt Vogel of the University of Hanover in Germany, and resulted from a CHEMOSAT Experts Forum convened by Delcath in February 2015. The study is expected to be published in early 2017. In July 2016, we announced that a review of clinical research treatment outcomes using Melphalan/HDS in patients with hepatic metastases has been accepted for publication in the prestigious journal, *Cancer Control*. Results of the study, "Chemosaturation with Percutaneous Hepatic Perfusion in Patients with Unresectable Hepatic Metastases: Review of Outcomes," by Evan S. Glazer, M.D., Ph.D. and Jonathan S. Zager, M.D., FACS of Moffitt Cancer Center, are scheduled to be published in the January 2017 edition of *Cancer Control*.

## Market Access & Commercial Clinical Adoption

### European Region

Our immediate market access and clinical adoption efforts continue to be focused on the key target markets of Germany and the United Kingdom, which represent a majority of the total potential liver cancer market (primary and metastatic) in the European region and where progress in securing reimbursement for CHEMOSAT treatments offers the best near-term opportunities. We also continue to support clinical adoption of CHEMOSAT in the Netherlands, Spain, France, Italy and Turkey. We employ a combination of direct and indirect sales channels to market and sell CHEMOSAT in these markets. Our European headquarters is in Galway, Ireland.

Physicians in Europe have used CHEMOSAT to treat patients with a variety of cancers in the liver primarily ocular melanoma liver metastases, and other tumor types, including hepatocellular carcinoma, cholangiocarcinoma, and liver metastases from colorectal cancer, breast, and cutaneous melanoma.

### European Reimbursement

A critical driver of utilization growth for CHEMOSAT in Europe is the expansion of reimbursement mechanisms for the procedure in our priority markets. In Europe, there is no centralized pan-European medical device reimbursement body. Reimbursement is administered on a regional and national basis. Medical devices are typically reimbursed under Diagnosis Related Groups (DRG) as part of a procedure. Prior to obtaining permanent DRG reimbursement codes, in certain jurisdictions, the Company is actively seeking interim reimbursement from existing mechanisms that include specific interim reimbursement schemes, new technology payment programs as well as payment through existing DRG codes. In most EU countries, the government provides healthcare and controls reimbursement levels. Since the EU has no jurisdiction over patient reimbursement or pricing matters in its member states, the methodologies for determining reimbursement rates and the actual rates may vary by country.

### Germany

In October 2015, we announced that the Institut für das Entgeltsystem im Krankenhaus (InEK), the German federal reimbursement agency, established a national Zusatzentgelt (ZE) reimbursement code for procedures performed with CHEMOSAT in Germany. The ZE diagnostic-related group (DRG) code is a national reimbursement code that augments existing DRG codes until a specific new DRG code can be created, and will replace the previous Neue Untersuchungen und Behandlungsmethoden (NUB) procedure that required patients in Germany to apply individually for reimbursement of their CHEMOSAT treatment. With the establishment of a ZE code for CHEMOSAT, the procedure is now permanently represented in the DRG catalog in Germany.



Hospitals in Germany began to negotiate with insurers to obtain reimbursement rates for CHEMOSAT procedures in February 2016. Hospitals in several regions in Germany have concluded negotiations and have obtained favorable rates. Until the ZE reimbursement rates negotiation process is complete, we expect that Individual Funding Requests (IFRs) will continue to be the primary reimbursement vehicle in the German market. IFRs are case-by-case appeals for reimbursement made to the patient's insurance carrier ("sickness funds"). While each IFR is evaluated independently, the majority of these applications are being approved.

#### United Kingdom

In the United Kingdom, though Delcath and our participating cancer centers identified existing Healthcare Resource Groups (HRG) code(s), we have been advised that hospitals have not used it for coverage of CHEMOSAT related costs. We continue to work with the HRG organization that decides on new HRG codes toward receipt of a dedicated and permanent reimbursement code in the future.

Delcath is in consultation with Interventional Procedural Assessment Commitment (IPAC), to provide recent clinical evidence with the view to moving the Interventional Procedural Guidance from research to specialist status that would enable greater scope for commercialization through self-paying and private insurance patients and pave the way for a full Medical Technology Assessment as a way towards long term reimbursement with the NHS.

In May 2014, the National Institute for Clinical Excellence (NICE), a non-departmental public body that provides guidance and advice to improve health and social care in the UK, completed a clinical review of CHEMOSAT. The NICE review indicated that as the current body of evidence on the safety and efficacy of PHP with CHEMOSAT for primary or metastatic liver cancer is limited, the procedure should be performed within the context of research by clinicians with specific training in its use and techniques. NICE stated that this research may take the form of observational studies. With continued enrollment in the UK in our Phase 2 HCC and ICC trial in 2016, we believe the data generated from these studies will help provide supporting clinical data and address the concerns raised by NICE relative to survival, quality of life and adverse events. NICE may decide to conduct a Technology Appraisal of CHEMOSAT thereafter, the outcome of which could influence the long-term reimbursement status.

Public patients will continue to be treated in the UK through clinical trials. Private patients will continue to be treated through the established private treatment pathway such as private insurance coverage or self-pay.

## Spain

In April 2016, we announced that the General and Digestive Surgery team at HM Sanchinarro University Hospital had activated the hospital's CHEMOSAT program. The Sanchinarro team successfully performed three procedures with CHEMOSAT, using the procedure to treat patients with peripheral cholangiocarcinoma, neuroendocrine tumors and colorectal liver metastases. HM Sanchinarro University Hospital is the second center in Spain to offer CHEMOSAT treatments.

## Turkey

In April 2016 we announced the activation of the Hacettepe University Clinic in Ankara, Turkey as a CHEMOSAT treatment center. Hacettepe University Clinic successfully completed its first CHEMOSAT treatments in March 2016, and the center represents the first CHEMOSAT commercial location to be activated outside of the European Union. We believe that Hacettepe University can serve as an important hub for CHEMOSAT treatment to patients in Turkey and throughout the region.

## Other European Markets

Permanent reimbursement coverage in other markets in the European region will require additional time to secure. We believe that national reimbursement in Germany and publication of our prior Phase 3 trial results will provide support for reimbursement in additional markets such France, Spain and the Netherlands. In the interim period, we are seeking payment through various avenues, including new technology programs.

## Regulatory Status

Our products are subject to extensive and rigorous government regulation by foreign regulatory agencies and the FDA. Foreign regulatory agencies, the FDA and comparable regulatory agencies in state and local jurisdictions impose extensive requirements upon the clinical development, pre-market clearance and approval, manufacturing, labeling, marketing, advertising and promotion, pricing, storage and distribution of pharmaceutical and medical device products. Failure to comply with applicable foreign regulatory agency or FDA requirements may result in Warning Letters, fines, civil or criminal penalties, suspension or delays in clinical development, recall or seizure of products, partial or total suspension of production or withdrawal of a product from the market.

## U.S. Regulatory History

In August 2012, we submitted our New Drug Application (NDA) for the Melblez Kit under Section 505(b)(2) of the Federal Food Drug Cosmetic Act (FFDCA) seeking an indication for the percutaneous intra-arterial administration of melphalan for use in the treatment of patients with metastatic melanoma in the liver, and subsequently amended the indication to ocular melanoma metastatic to the liver. Our NDA was accepted for filing by the FDA on October 15, 2012, and was designated for standard review with an initial Prescription Drug User Fee Act (PDUFA) goal date of June 15, 2013. On April 3, 2013, the FDA extended its PDUFA goal date to September 13, 2013. On May 2, 2013 the Company announced that an Oncologic Drug Advisory Committee (ODAC) panel convened by the FDA voted 16 to 0, with no abstentions, that the benefits of treatment with the Melblez Kit do not outweigh the risks associated with the procedure using the early clinical trial versions of the system. Data submitted to the FDA used the early clinical trial versions of the system along with early clinical procedure techniques.

## Complete Response Letter

On September 12, 2013, the FDA issued a complete response letter (CRL) regarding our NDA for Melblez Kit. The FDA issues a CRL after the review of a file has been completed and questions remain that preclude approval of the NDA in its current form. The FDA comments included, but were not limited to, a statement that Delcath must perform another "well-controlled randomized trial(s) to establish the safety and efficacy of Melblez Kit using overall survival as the primary efficacy outcome measure," and which "demonstrates that the clinical benefits of Melblez Kit outweigh its risks." The FDA also requires that the additional clinical trial(s) be conducted using the product the Company intends to market. Since receiving the 2013 CRL, we have worked to resolve certain clinical, clinical pharmacology, Human Factors and product quality components of the CRL. The 2016 SPA agreement with the FDA represents the satisfactory resolution of a substantial number of these requirements.

In the United States, the FDA regulates drug and device products under the Federal Food, Drug, and Cosmetic Act (FFDCA), and it's implementing regulations. The Delcath Melphalan/HDS is subject to regulation as a combination product, which means it is composed of both a drug product and device product. If marketed individually, each component would therefore be subject to different regulatory pathways and reviewed by different centers within the FDA. A combination product, however, is assigned to a center that will have primary jurisdiction over its pre-market review and regulation based on a determination of its primary mode of action, which is the single mode of action that provides the most important therapeutic action. In the case of the Melphalan/HDS, the primary mode

of action is attributable to the drug component of the product, which means that the Center for Drug Evaluation and Research (CDER), has primary jurisdiction over its pre-market development and review.

The process required by the FDA before drug product candidates may be marketed in the United States generally involves the following:

- submission to the FDA of an investigational new drug application, or IND, which must become effective before human clinical trials may begin and must be updated annually;
- completion of extensive preclinical laboratory tests and preclinical animal studies, all performed in accordance with the FDA's Good Laboratory Practice, or GLP, regulations;
- performance of adequate and well-controlled human clinical trials to establish the safety and efficacy of the product candidate for each proposed indication;
- submission to the FDA of an NDA after completion of all pivotal clinical trials;
- a determination by the FDA within 60 days of its receipt of an NDA to file the NDA for review;
- satisfactory completion of an FDA pre-approval inspection of the manufacturing facilities at which the product is produced and tested to assess compliance with current good manufacturing practice, or cGMP, regulations; and
- FDA review and approval of an NDA prior to any commercial marketing or sale of the drug in the United States.

The development and approval process requires substantial time, effort and financial resources, and we cannot be certain that any approvals for our product will be granted on a timely basis, if at all.

#### Orphan Drug Exclusivity

Some jurisdictions, including the United States, may designate drugs for relatively small patient populations as orphan drugs. Pursuant to the Orphan Drug Act, the FDA grants orphan drug designation to drugs intended to treat a rare disease or condition, which is generally a disease or condition that affects fewer than 200,000 individuals in the United States. The orphan designation is granted for a combination of a drug entity and an indication and therefore it can be granted for an existing drug with a new (orphan) indication. Applications are made to the Office of Orphan Products Development at the FDA and a decision or request for more information is rendered in 60 days. NDAs for designated orphan drugs are exempt from user fees, obtain additional clinical protocol assistance, are eligible for tax credits up to 50% of research and development costs, and are granted a seven-year period of exclusivity upon approval. The FDA cannot approve the same drug for the same condition during this period of exclusivity, except in certain circumstances where a new product demonstrates superiority to the original treatment. Exclusivity begins on the date that the marketing application is approved by the FDA for the designated orphan drug, and an orphan designation does not limit the use of that drug in other applications outside the approved designation in either a commercial or investigational setting.

The FDA has granted Delcath six orphan drug designations. In November 2008, the FDA granted Delcath two orphan drug designations for the drug melphalan for the treatment of patients with cutaneous melanoma as well as patients with ocular melanoma. In May 2009, the FDA granted Delcath an additional orphan drug designation of the drug melphalan for the treatment of patients with neuroendocrine tumors. In August 2009, the FDA granted Delcath an orphan drug designation of the drug doxorubicin for the treatment of patients with primary liver cancer. In October

2013, the FDA granted Delcath an orphan drug designation of the drug melphalan for the treatment of HCC. In July 2015, the FDA granted Delcath an orphan drug designation of the drug melphalan for the treatment of cholangiocarcinoma, which includes ICC.

The granting of orphan drug designations does not mean that the FDA has approved a new drug. Companies must still pursue the rigorous development and approval process that requires substantial time, effort and financial resources, and we cannot be certain that any approvals for our product will be granted at all or on a timely basis.

#### Other Regulatory Requirements

Products manufactured or distributed pursuant to FDA approvals are subject to continuing regulation by the FDA, including recordkeeping, annual product quality review and reporting requirements. Adverse event experience with the product must be reported to the FDA in a timely fashion and pharmacovigilance programs to proactively look for these adverse events are mandated by the FDA. Drug manufacturers and their subcontractors are required to register their establishments with the FDA and certain state agencies, and are subject to periodic unannounced inspections by the FDA and certain state agencies for compliance with ongoing regulatory requirements, including cGMPs, which impose certain procedural and documentation requirements upon us and our third-party manufacturers. Following such inspections, the FDA may issue notices on Form 483 and Untitled Letters or Warning Letters that could cause us or our third-party manufacturers to modify certain activities. A Form 483 Notice, if issued at the conclusion of an

FDA inspection, can list conditions the FDA investigators believe may have violated cGMP or other FDA regulations or guidelines. In addition to Form 483 Notices and Untitled Letters or Warning Letters, failure to comply with the statutory and regulatory requirements can subject a manufacturer to possible legal or regulatory action, such as suspension of manufacturing, seizure of product, injunctive action or possible civil penalties. We cannot be certain that we or our present or future third-party manufacturers or suppliers will be able to comply with the cGMP regulations and other ongoing FDA regulatory requirements. If we or our present or future third-party manufacturers or suppliers are not able to comply with these requirements, the FDA may require us to recall our products from distribution or withdraw any potential approvals of an NDA for that product.

The FDA closely regulates the post-approval marketing and promotion of drugs, including standards and regulations for direct-to-consumer advertising, dissemination of off-label information, industry-sponsored scientific and educational activities and promotional activities involving the Internet. Drugs may be marketed only for the approved indications and in accordance with the provisions of the approved label. Further, if there are any modifications to the drug, including changes in indications, labeling, or manufacturing processes or facilities, we may be required to submit and obtain FDA approval of a new or supplemental NDA, which may require us to develop additional data or conduct additional preclinical studies and clinical trials. Failure to comply with these requirements can result in adverse publicity, Warning Letters, corrective advertising and potential civil and criminal penalties.

Physicians may prescribe legally available products for uses that are not described in the product's labeling and that differ from those tested by us and approved by the FDA. Such off-label uses are common across medical specialties, in particular in oncology. Physicians may believe that such off-label uses are the best treatment for many patients in varied circumstances. The FDA does not regulate the behavior of physicians in their choice of treatments. The FDA does, however, impose stringent restrictions on manufacturers' communications regarding off-label use.

#### European Regulatory Environment

In the European Economic Area (EEA), the CHEMOSAT system is subject to regulation as a medical device. The EEA is composed of the 27 Member States of the European Union plus Norway, Iceland and Liechtenstein. Under the EU Medical Devices Directive (Directive No 93/42/ECC of 14 June 1993, as last amended), drug delivery products such as the CHEMOSAT system is governed by the EU laws on pharmaceutical products only if they are (i) placed on the market in such a way that the device and the pharmaceutical product form a single integral unit which is intended exclusively for use in the given combination, and (ii) the product is not reusable. In such cases, the drug delivery product is governed by the EU Code on Medicinal Products for Human Use (Directive 2001/83/EC, as last amended), while the essential requirements of the EU Medical Devices Directive apply to the safety and performance-related device features of the product. Because we do not intend to place the CHEMOSAT system on the EEA market as a single integral unit with melphalan, the product is governed solely by the EU Medical Devices Directive, while the separately marketed drug is governed by the EU Code relating to Medicinal Products for Human Use and other EU legislation applicable to drugs for human use.

Before we may commercialize a medical device in the EEA, we must comply with the essential requirements of the EU Medical Devices Directive. Compliance with these requirements entitles a manufacturer to affix a CE conformity mark, without which the products cannot be commercialized in the EEA. To demonstrate compliance with the essential requirements and obtain the right to affix the CE conformity mark, medical device manufacturers must

undergo a conformity assessment procedure, which varies according to the type of medical device and its classification. In April 2011, we obtained authorization to affix a CE Mark for the Generation One CHEMOSAT system and began European commercialization with this version of the CHEMOSAT system in early 2012. In April 2012, the Company obtained authorization to affix a CE Mark for the Generation Two CHEMOSAT system, and since this time all procedures in Europe have been performed with this version of the system

The Medical Devices Directive establishes a classification system placing devices into Class I, IIa, IIb, or III, depending on the risks and characteristics of the medical device. For certain types of low risk medical devices (i.e., Class I devices which are non-sterile and do not have a measuring function), the manufacturer may issue an EC Declaration of Conformity based on a self-assessment of the conformity of its products with the essential requirements of the EU Medical Devices Directives. Other devices are subject to a conformity assessment procedure requiring the intervention of a Notified Body, which is an organization designated by a Member State of the EEA to conduct conformity assessments.

CHEMOSAT is regulated as a Class IIb medical device. As a Class IIb medical device, the Notified Body is not required to carry out an examination of the product's design dossier as part of its conformity assessment prior to commercialization. The Company must continue to comply with the essential requirements of the EU Medical Devices Directive (Directive 93/42 EC) and is 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 apply 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.

A manufacturer without a registered place of business in a Member State of the European Union which places a medical device on the market under its own name must designate an authorized representative established in the European Union who can act before, and be addressed by, the Competent Authorities on the manufacturer's behalf with regard to the manufacturer's obligations under the EU Medical Devices Directive. We appointed such a representative prior to establishing our infrastructure in the EEA and expect that we will not need a third party representative in the future.

In the EEA, we must also comply with the Medical Device Vigilance System, which is designed to improve the protection of health and safety of patients, users and others by reducing the likelihood of recurrence of incidents related to the use of a medical device. Under this system, incidents are defined as any malfunction or deterioration in the characteristics and/or performance of a device, as well as any inadequacy in the labeling or the instructions for use which, directly or indirectly, might lead to or might have led to the death of a patient, or user or of other persons or to a serious deterioration in their state of health. When a medical device is suspected to be a contributory cause of an incident, its manufacturer or authorized representative in the European Union must report it to the Competent Authority of the Member State where the incident occurred. Incidents are generally investigated by the manufacturer. The manufacturer's investigation is monitored by the Competent Authority, which may intervene, or initiate an independent investigation if considered appropriate. An investigation may conclude in the adoption of a Field Safety Corrective Action (FSCA). An FSCA is an action taken by a manufacturer to reduce a risk of death or serious deterioration in the state of health associated with the use of a medical device that is already placed on the market. An FSCA may include device recall, modification exchange and destruction. FSCAs must be notified by the manufacturer or its authorized representative to its customers and/or the end users of the medical device via a Field Safety Notice.

In the EEA, the off-label promotion of a pharmaceutical product is strictly prohibited under the EU Community Code on Medicinal Products, which provides that all information provided within the context of the promotion of a drug must comply with the information contained in its approved summary of product characteristics. Our product instructions and indication reference the chemotherapeutic agent melphalan hydrochloride. However, no melphalan labels in the EEA reference our product, and the labels vary from country to country with respect to the approved indication of the drug and its mode of administration. In the exercise of their professional judgment in the practice of medicine, physicians are generally allowed, under certain conditions, to use or prescribe a product in ways not approved by regulatory authorities. Physicians intending to use our device must obtain melphalan separately for use with the CHEMOSAT system and must use melphalan independently at their discretion.

In the EEA, the advertising and promotion of our products is also subject to EEA Member States laws implementing the EU Medical Devices Directive, Directive 2006/114/EC concerning misleading and comparative advertising and Directive 2005/29/EC on unfair commercial practices, as well as other EEA Member State legislation governing the advertising and promotion of medical devices. These laws may further limit or restrict the advertising and promotion of our products to the general public and may also impose limitations on our promotional activities with health care professionals.



Failure to comply with the EEA Member State laws implementing the Medical Devices Directive, with the EU and EEA Member State laws on the promotion of medicinal products or with other applicable regulatory requirements can result in enforcement action by the EEA Member State authorities, which may include any of the following: fines, imprisonment, orders forfeiting products or prohibiting or suspending their supply to the market, or requiring the manufacturer to issue public warnings, or to conduct a product recall.

The European Commission reviewed the medical devices legislative framework in 2012 with the aim of simplifying it and ensuring a more uniform application of the provisions contained in the medical devices directives across the EEA. We do not believe the adopted regulatory changes will impact our business at this time, though future changes to the medical device legislation may adversely affect our business, financial condition and results of operations or restrict our operations.

#### Other International Regulations

The CHEMOSAT device has received registrations in the following countries: Australia, New Zealand, Argentina, Taiwan, and Singapore. With limited resources and our attention focused on European commercial and clinical adoption efforts, pursuing other markets at this time is not practical. We will continue to evaluate commercial opportunities in these and other markets when resources are available and at an appropriate time.

#### Recent Financing

In June 2016, we announced a Securities Purchase Agreement to issue \$35.0 million of senior convertible notes (the “Notes”) and related common stock purchase warrants. The Notes were issued at an 8% original issue discount. The aggregate proceeds of \$32.2 million will be used to fund our ongoing operations, commercial activities and clinical development programs, including our global Phase 3 FOCUS Trial and our global Phase 2 HCC/ICC program. We believe this committed financing will provide us with the

resources to execute our clinical development program through the end of 2017, while also supporting our commercialization efforts in Europe. Of the net proceeds, \$3.0 million was available immediately and the balance of \$29.2 million is held in certain control accounts.

Results of Operations for the three months and nine months ended September 30, 2016; Comparisons of Results of Operations for the three months and nine months ended September 30, 2015

Three months ended September 30, 2016 and September 30, 2015

#### Revenue

The Company recorded approximately \$0.4 million in revenue related to product sales in each of the three months ended September 30, 2016 and 2015.

#### Cost of Goods Sold

During each of the three months ended September 30, 2016 and 2015, the Company recorded cost of goods sold of approximately \$0.1 million.

#### Selling, General and Administrative Expenses

For the three month periods ended September 30, 2016 and 2015, selling, general and administrative expenses were \$2.4 million and \$2.3 million, respectively. The \$0.1 million increase is attributable to a slight increase in facility and professional expenses.

#### Research and Development Expenses

For the three month periods ended September 30, 2016 and 2015, research and development expenses increased to \$2.7 million from \$1.7 million, primarily due to the initiation of our Phase 3 trial during 2016 which is discussed in further detail in the Current Clinical Development Program section above.

#### Other Income/Expense and Interest Income/Expense

Other expense is primarily related to foreign currency exchange gains and losses.

Interest expense is related to:

1. the restructuring lease liability discussed in Note 6 of the Company's interim condensed consolidated financial statements contained in this Quarterly Report on Form 10-Q; and
2. the amortization of debt discounts discussed in Note 7 of the Company's interim condensed consolidated financial statements contained in this Quarterly Report on Form 10-Q.

Interest income is from a money market account and interest earned on operating accounts.

#### Net Loss

The Company recorded a net loss for the three months ended September 30, 2016, of \$1.0 million, a decrease of \$1.4 million, or 58.5%, compared to a net loss of \$2.4 million for the same period in 2015. This decrease in net loss is primarily due to a \$7.4 million change in the fair value of the warrant liability, a non-cash item. This was partially offset by an \$4.9 million increase in interest expense primarily related to the amortization of debt discounts discussed

further in Note 7 of the Company's interim condensed consolidated financial statements contained in this Quarterly Report on Form 10-Q, and a \$1.1 million increase in operating expenses primarily related to increased investment in our clinical trial initiatives.

Nine months ended September 30, 2016 and September 30, 2015

#### Revenue

The Company recorded approximately \$1.3 million in revenue related to product sales during each of the nine months ended September 30, 2016 and 2015.

#### Cost of Goods Sold

During each of the nine months ended September 30, 2016 and 2015, the Company recorded cost of goods sold of approximately \$0.4 million.

### Selling, General and Administrative Expenses

For the nine months ended September 30, 2016 and 2015, selling, general and administrative expenses were \$7.0 million and \$7.8 million, respectively. The \$0.8 million improvement is primarily attributable to a reduction in corporate expenses and depreciation, as well as a reduction in facility expenses related to the lease restructurings discussed in Note 6 of the Company's interim condensed consolidated financial statements contained in this Quarterly Report on Form 10-Q.

### Research and Development Expenses

For the nine months ended September 30, 2016 and 2015, research and development expenses increased to \$6.0 million from \$4.1 million, primarily due to the initiation of our Phase 3 trial during 2016 which is discussed in further detail in the Current Clinical Development Program section above.

### Other Income/Expense

Other expense is primarily related to foreign currency exchange gains and losses.

Interest expense is related to:

1. an ongoing Revolving Line Facility Fee as required by the Loan and Security Agreement signed with Silicon Valley Bank in 2012 and discussed in Note 11 to the Company's audited financial statements contained in the 2015 Annual Report on Form 10-K;
2. the restructuring lease liability discussed in Note 6 of the Company's interim condensed consolidated financial statements contained in this Quarterly Report on Form 10-Q; and
3. the amortization of debt discounts discussed in Note 7 of the Company's interim condensed consolidated financial statements contained in this Quarterly Report on Form 10-Q.

Interest income is from a money market account and interest earned on operating accounts.

### Net Loss

The Company recorded a net loss for the nine months ended September 30, 2016 of \$9.5 million, a decrease of \$0.1 million, or 1.3%, compared to a net loss of \$9.6 million for the same period in 2015. This decrease in net loss is primarily due to a \$7.8 million change in the fair value of the warrant liability, a non-cash item. This was partially offset by a \$6.6 million increase in interest expense primarily related to the amortization of debt discounts discussed further in Note 7 of the Company's interim condensed consolidated financial statements contained in this Quarterly Report on Form 10-Q and a \$1.1 million increase in operating expenses primarily related to increased investment in our clinical trial initiatives.

### Liquidity and Capital Resources

The Company's future results are subject to substantial risks and uncertainties. Delcath has operated at a loss for its entire history and anticipates that losses will continue over the coming years. There can be no assurance that Delcath will ever generate significant revenues or achieve profitability. The Company expects to use cash, cash equivalents and investment proceeds to fund its clinical and operating activities. Delcath's future liquidity and capital requirements will depend on numerous factors, including the initiation and progress of clinical trials and research and product development programs; obtaining approvals and complying with regulations; the timing and effectiveness of product commercialization activities, including marketing arrangements; the timing and costs involved in preparing, filing, prosecuting, defending and enforcing intellectual property rights; and the effect of competing technological and market developments.

At September 30, 2016, the Company had cash and cash equivalents totaling \$3.7 million, as compared to cash and cash equivalents totaling \$12.6 million and \$16.7 million at December 31, 2015 and September 30, 2015, respectively. In addition, the Company has \$30.3 million in restricted cash primarily related to the Convertible Notes discussed further in Note 7 of the Company's interim condensed consolidated financial statements contained in this Quarterly Report on Form 10-Q. During the nine months ended September 30, 2016 the Company used \$10.6 million of cash in its operating activities, which compares to \$12.2 million used for operating activities during the comparable period in 2015. The decrease of \$1.6 million is primarily driven by a reduction in cash payments related to severance, bonus and lease restructuring liabilities. The Company believes that its capital resources are adequate to fund its operating activities through the end of 2017.

Our consolidated financial statements as of September 30, 2016 have been prepared under the assumption that we will continue as a going concern for the next twelve months. We expect to incur significant expenses and operating losses for the foreseeable future.

These factors raise substantial doubt about our ability to continue as a going concern. Because Delcath's business does not generate positive cash flow from operating activities, the Company will need to obtain substantial additional capital in order to fund clinical trial research and support development efforts relating to Ocular Melanoma liver metastases, ICC, HCC or other indications, and to fully commercialize the product. The Company believes it will be able to raise additional capital in the event it is in its best interest to do so. The Company anticipates raising such additional capital by either borrowing money, selling shares of Delcath's capital stock, or entering into strategic alliances with appropriate partners. To the extent additional capital is not available when needed or on acceptable terms, the Company may be forced to abandon some or all of its development and commercialization efforts, which would have a material adverse effect on the prospects of our business. Further, the Company's assumptions relating to its cash requirements may differ materially from its actual requirements because of a number of factors, including significant unforeseen delays in the regulatory approval process, changes in the timing, scope, focus and direction of clinical trials and costs related to commercializing the product.

The Company has funded its operations through a combination of private placements of its securities, public offerings in 2000, 2003, 2009, 2010, 2011, 2012, 2013, 2015, and 2016, registered direct offerings in 2007, 2009 and 2013, "at the market" equity offering programs in 2012 and 2013, and by issuing convertible notes in 2016. For a detailed discussion of the Company's various sales of securities see Note 8 of the Company's interim condensed consolidated financial statements contained in this Quarterly Report on Form 10-Q.

In October 2015, the Company filed a registration statement on Form S-3 with the SEC, which was declared effective on October 20, 2015 and allows the Company to offer and sell, from time to time in one or more offerings, up to \$77.4 million of common stock, preferred stock, warrants, debt securities and stock purchase contracts as it deems prudent or necessary to raise capital at a later date. Pursuant to SEC regulations, so long as the Company's public float remains below \$75 million, we cannot sell securities from the shelf registration statement which represent more than one third of the market value of our non-affiliated public float during any 12-month period.

The Company intends to use the net proceeds from any future offerings for general corporate purposes, including, but not limited to, funding of clinical trials, obtaining regulatory approvals, commercialization of its products, capital expenditures and working capital.

#### Application of Critical Accounting Policies

The Company's financial statements have been prepared in accordance with generally accepted accounting principles in the United States of America (GAAP). Certain accounting policies have a significant impact on amounts reported in the financial statements. A summary of those significant accounting policies can be found in Note 3 to the Company's audited financial statements contained in the 2015 Annual Report on Form 10-K.

#### Item 3. Quantitative and Qualitative Disclosures about Market Risk

The Company may be minimally exposed to market risk through changes in market interest rates that could affect the interest earned on its cash balances.

The Company measures all derivatives, including certain derivatives embedded in contracts, at fair value and recognizes them on the balance sheet as an asset or a liability, depending on the Company's rights and obligations under the applicable derivative contract.

In October 2013, the Company completed the sale of 81,875 shares of its common stock and the issuance of warrants to purchase approximately 37,000 common shares (the “2013 Warrants”) pursuant to a placement agency agreement. The Company received proceeds of \$7.5 million, with net cash proceeds after related expenses from this transaction of approximately \$6.9 million. Of those proceeds, the Company allocated an estimated fair value of \$1.9 million to the 2013 Warrants. The exercise price is subject to appropriate adjustment in the event of stock dividends, stock splits, reorganizations or similar events affecting our common stock. At September 30, 2016, the 2013 Warrants were exercisable at \$112.64 per share with approximately 37,000 warrants outstanding. The 2013 Warrants have a five-year term.

In February 2015, the Company completed the sale of 153,750 shares of its common stock and the issuance of warrants to purchase 69,000 common shares (the “February 2015 Warrants”) pursuant to an underwriting agreement. The Company received proceeds of \$2.6 million, with net cash proceeds after related expenses from this transaction of \$2.5 million. Of those proceeds, the Company allocated an estimated fair value of \$0.8 million to the February 2015 Warrants. The exercise price is subject to appropriate adjustment in the event of stock dividends, stock splits, reorganizations or similar events affecting our common stock. The exercise price of the warrants is also subject to anti-dilution adjustments for any issuance of common stock or rights to acquire common stock for consideration per share less than the exercise price of the warrants. For purposes of these adjustments, dilutive issuances do not include securities issued under existing instruments, under board-approved equity incentive plans or in certain strategic transactions.



At September 30, 2016, the February 2015 Warrants were exercisable at \$3.90 per share with approximately 69,000 warrants outstanding. The February 2015 Warrants have a five-year term.

In July 2015, the Company completed the sale of 0.6 million Units consisting of 0.6 million shares of its common stock, Series A Warrants to purchase up to 0.4 million common shares (“Series A Warrants”) and Series B Warrants to purchase Units consisting of up to 0.6 million common shares (“Series B Warrants”) and 0.4 million Series A Warrants per unit pursuant to an underwriting agreement. The Company received proceeds of \$7.0 million, with net cash proceeds after related expenses from this transaction of \$6.0 million. Of those proceeds the Company allocated an estimated fair value of \$3.4 million to the 2015 Series A Warrants and Series B Warrants. The exercise price of both series of warrants is subject to appropriate adjustment in the event of stock dividends, stock splits, reorganizations or similar events affecting our common stock and is subject to anti-dilution adjustments for any issuance of common stock or rights to acquire common stock for consideration per share less than the exercise price of the warrants. During the nine months ended September 30, 2016, approximately 0.1 million Series B Warrants were exercised for net proceeds of approximately \$0.8 million. The remaining 0.4 million Series B Warrants expired on January 29, 2016 and the remaining liability was credited to Change in the fair value of the warrant liability. As a result of the Series B Warrant exercises, an additional 0.1 million Series A Warrants were issued. At September 30, 2016, the Series A Warrants were exercisable at \$3.90 with approximately 0.5 million warrants outstanding. The Series A Warrants have a five-year term.

In June 2016, the Company entered into a Securities Purchase Agreement pursuant to which the Company issued \$35 million in principal face amount of senior secured convertible notes of the Company (the “Notes”) and related Series C Warrants (the “Series C Warrants”) to purchase 6.8 million additional shares of the Company’s common stock. The Company allocated an estimated fair value of \$27.8 million to the Series C Warrants. On December 31, 2017, the number of Warrant Shares issuable upon exercise of the Series C Warrants will be increased by such number of Warrant Shares equal to 75% of the difference of (i) the quotient of (A) the product of (x) the exercise price as of the date of issuance (as adjusted for certain events) multiplied by (y) the number of Warrant Shares as of the date of issuance (as adjusted for certain events), divided by (B) the volume-weighted average price of the Common Stock on the maturity date, less (ii) the number of Warrant Shares as of the date of issuance (as adjusted for certain events). At September 30, 2016, the Series C Warrants were exercisable at \$4.83 with approximately 6.8 million warrants outstanding. The Series C Warrants will be exercisable by the holder beginning one year after the closing date and continuing for a period of five years thereafter.

The proceeds allocated to the 2013 Warrants, February 2015 Warrants, the Series A Warrants, and the Series C Warrants (the “Warrants”) were initially classified as derivative instrument liabilities that are subject to mark-to-market adjustments each period. As a result, for the nine months ended September 30, 2016, the Company recorded pre-tax derivative instrument income of \$9.2 million. The fair value of the Warrants totaled \$22.5 million at September 30, 2016. Management expects that the warrants outstanding at September 30, 2016 will either be exercised or expire worthless. The fair value of the Warrants at September 30, 2016 was determined by using option pricing models assuming the following:

	Series C	Series A	February 2015	October 2013
	Warrants	Warrants	Warrants	Warrants
Expected volatility	91.93%	96.65%	99.65%	91.70%
Risk-free interest rates	1.28%	1.01%	0.95%	0.76%
Expected life (in years)	5.70	3.81	3.38	2.08

Item 4. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

Delcath's management, with the participation of its Chief Executive Officer, evaluated the effectiveness of the design and operation of its disclosure controls and procedures (as defined in Rule 13a-15(e) or 15d-15(e) of the Exchange Act). Based on that evaluation, the Company's Chief Executive Officer concluded that Delcath's disclosure controls and procedures as of September 30, 2016 (the end of the period covered by this Quarterly Report on Form 10-Q), have been designed and are functioning effectively to provide reasonable assurance that the information required to be disclosed by us in the Company's reports filed or submitted under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, and that such information is accumulated and communicated to management, including the Company's Chief Executive Officer, as appropriate to allow timely decisions regarding required disclosure.

Changes in Internal Controls

There was no change in our internal control over financial reporting that occurred during the quarter ended September 30, 2016 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

## PART II: OTHER INFORMATION

Item 1. Legal Proceedings  
Not Applicable.

### Item 1A. Risk Factors

In addition to the risk factors set forth below, Delcath's 2015 Annual Report on Form 10-K, in Part 1 – Item 1A. "Risk Factors," contains a detailed discussion of factors that could materially adversely affect our business, operating results and/or financial condition.

#### Risks relating to the Note Financing

Our recently acquired indebtedness reduces our financial flexibility and could impede our ability to operate.

On June 13, 2016 we issued an aggregate \$35 million principal amount of senior secured convertible notes (the "notes"). The notes are payable in equal monthly installments beginning seven (7) months after the original date of issuance. Although the notes are payable through the issuance of shares of our common stock to the noteholders, our ability to issue stock, instead of paying cash, to satisfy our payment obligations under the notes, is limited and subject to various conditions (including trading volume and stock price conditions for these notes) that we may not be able to meet. If we cannot meet these conditions, we could be required to repay some or all of the amounts due under the notes in cash, and we may not have the funds available to make one or more of such payments when due. Even if we do have funds so available, the use of cash to make such payments could adversely affect our ability to fund operations due to the diversion of necessary cash flow to fund operations to utilization for note payments. Furthermore, the notes impose certain restrictive covenants on us which may impede our ability to operate our business or raise further funds in the capital markets. For example, there are restrictions on incurring additional indebtedness, with exceptions, while the notes are outstanding.

Such payments are based upon a formula which uses as a conversion price a discount to market formula with a floor price of \$0.05, thus the amount of shares issued can be significantly dilutive to our stockholders.

As part of the note financing, we are required to repay the principal on the notes in equal monthly installments in cash or shares of common stock and we are required to issue shares upon the exercise of the Series C Warrants. The issuance of shares of our common stock pursuant to the notes and related Series C Warrants will result in significant dilution to our stockholders.

Our stockholders may experience significant dilution as a result of shares of our common stock issued pursuant to the notes and related Series C Warrants. Under the notes and related Series C Warrants, we are required to have reserved or have designated for future issuance a number of shares of common stock necessary to effect the conversion of the notes and the exercise of the Series C Warrants. Currently, that reservation amount is 22,130,196.

The notes will be repayable in cash or shares of common stock, at our election, subject to satisfaction of certain conditions. As of the date of this quarterly report, we do not believe that we will have the financial ability, nor would it be in the best interests of our stockholders, to make all payments on the notes in cash when due. Thus, we intend, as of the date hereof, to make such payments in shares of our common stock, to the greatest extent possible. The price at which we will be required to make any installment payments in shares of common stock is equal to the lowest of (i) the then prevailing conversion price, and (ii) initially 85% of the arithmetic average of the lower of (x) the three lowest daily weighted average prices of the common stock during the twenty (20) consecutive trading day period ending on the trading day immediately preceding the installment date and (y) the volume weighted average price of the common stock on the trading day immediately preceding the installment date; provided, that the amount determined in this clause (ii) shall in no event be less than \$0.05.

At any time after the issuance of the notes, the notes will be convertible at the election of the holder into shares of common stock at a conversion price equal to 110% of the quotient of (i) the sum of the volume-weighted average price of the Common Stock on each of the three (3) consecutive trading days ending and including the trading day ended immediately preceding the issuance date, divided by (ii) three (3), subject to adjustment as provided in the notes. Conversion of the notes is subject to a blocker provision which prevents any holder from converting into shares of common stock if its beneficial ownership of the common stock would exceed 4.99% (subject to adjustment not to exceed 9.99%) of our issued and outstanding common stock.

Further, we issued Series C Warrants exercisable to acquire 6,778,619 shares of common stock, which number is equal to 85% of the number of shares of common stock into which the notes are initially convertible. On December 31, 2017, the number of shares issuable upon exercise of the Series C Warrants will be increased by such number of shares equal to 75% of the difference of (i) the

quotient of (x) the product of (A) the exercise price as of the date of issuance (as adjusted for certain events) multiplied by (B) the number of shares issued upon the conversion or exercise of any note or Series C Warrant (“Warrant Shares”) as of the date of issuance (as adjusted for certain events), divided by (y) the volume-weighted average price of the common stock on the maturity date, less (ii) the number of Warrant Shares as of the date of issuance (as adjusted for certain events). Although we have the option to settle the principal payments on the notes in cash and certain conversion and exercise restrictions are placed upon the holders of the notes and Series C Warrants, the issuance of material amounts of common stock by us would cause our stockholders to experience significant dilution in their investment in our Company.

Our obligations to the holders of our notes are secured by a security interest in substantially all of our assets, so if we default on those obligations, the note holders could foreclose on our assets.

Our obligations under the notes and the transaction documents relating to the notes are secured by a first priority security interest in substantially all of our assets. As a result, if we default under our obligations under the notes or the transaction documents, the holders of the notes, acting through their appointed agent, could foreclose on their security interests and liquidate some or all of these assets, which would harm our business, financial condition and results of operations and could require us to reduce or cease operations.

The holders of the notes have certain additional rights upon an event of default under the notes which could harm our business, financial condition and results of operations and could require us to reduce or cease or operations.

Under the notes, the holders have certain rights upon an event of default. Such rights include (i) the remaining principal amount of the notes bearing interest at a rate of 15% per annum, (ii) receipt of payment in cash of an amount equal to (x) the remaining principal amount of the notes, accrued and unpaid interest and accrued and unpaid Late Charges (as defined in the notes) on such principal and interest, multiplied by (y) the redemption premium, equal to 118%, in addition to any and all other amounts due thereunder and (iii) the holder having the right to demand redemption of all or a portion of the notes, as described below. At any time after certain notice requirements for an event of default are triggered, a holder of notes may require us to redeem all or any portion of the note by delivering written notice. Each portion of the note subject to redemption would be redeemed by us in cash by wire transfer of immediately available funds at a price equal to the greater of (x) 118% of the principal amount being redeemed or (y) the product of (A) the conversion rate then in effect multiplied by (B) 118% of the volume weighted average price of the common stock on any trading day during the period commencing on the date immediately preceding such event of default and ending on the date such redemption payment is made. We may not have sufficient funds to settle the redemption price and, as described above, this could trigger rights under the security interest granted to the holders and result in the foreclosure of their security interests and liquidation of some or all of our assets.

The exercise of any of these rights upon an event of default could substantially harm our financial condition and force us to reduce or cease operations.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds  
Not Applicable.

Item 3. Defaults upon Senior Securities  
Not Applicable.

Item 4. Mine Safety Disclosures  
Not Applicable.

Item 5. Other Information  
Not Applicable.

Item 6. Exhibits

Exhibit No.	Description
10.1	(1) Securities Purchase Agreement, dated as of June 6, 2016
10.2	(2) Form of Senior Secured Convertible Note
10.3	(3) Form of Warrant
10.4	(4) Form of Security and Pledge Agreement
31.1	** Certification by Principal Executive Officer Pursuant to Exchange Act Rules 13a-14(a) and 15d-14(a), as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	** Certification by Principal Financial Officer Pursuant to Exchange Act Rules 13a-14(a) and 15d-14(a), as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1	*** Certification of Principal Executive Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2	*** Certification of Principal Financial Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS	XBRL Instance Document
101.SCH	XBRL Taxonomy Extension Schema Document
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	XBRL Taxonomy Extension Label Linkbase Document
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document

\*\* Filed herewith.

\*\*\* Furnished herewith.

(1) Filed as Exhibit 10.1 to our Current Report on Form 8-K filed with the SEC on June 7, 2016 and incorporated by reference

(2) Filed as Exhibit A to the Securities Purchase Agreement filed as Exhibit 10.1 to our Current Report on Form 8-K filed with the SEC on June 7, 2016 and incorporated by reference

- (3) Filed as Exhibit B to the Securities Purchase Agreement filed as Exhibit 10.1 to our Current Report on Form 8-K filed with the SEC on June 7, 2016 and incorporated by reference
  
- (4) Filed as Exhibit C to the Securities Purchase Agreement filed as Exhibit 10.1 to our Current Report on Form 8-K filed with the SEC on June 7, 2016 and incorporated by reference



DELCATH SYSTEMS, INC.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

November 10, 2016 DELCATH SYSTEMS, INC.  
(Registrant)

/s/ Jennifer K. Simpson  
Jennifer K. Simpson  
President and Chief Executive Officer  
(Principal Executive Officer)

DELCATH SYSTEMS, INC.

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