

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

FORM 10-Q

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

For the quarterly period ended June 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: 001-36284

Biocept, Inc.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

80-0943522
(I.R.S. Employer
Identification No.)

5810 Nancy Ridge Drive, San Diego, California
(Address of principal executive offices)

92121
(Zip Code)

(858) 320-8200
(Registrant's telephone number, including area code)

Not Applicable
(Former name, former address and former fiscal year, if changed since last report)

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 (§232.405 of this chapter) 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 the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

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

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

As of August 2, 2016, there were 25,189,414 shares of the Registrant's common stock outstanding.

BIOCEPT, INC.
FORM 10-Q
FOR THE QUARTERLY PERIOD ENDED
June 30, 2016

INDEX

	<u>Page</u>
<u>IMPORTANT NOTE REGARDING FORWARD-LOOKING STATEMENTS</u>	3
PART I. <u>FINANCIAL INFORMATION</u>	
Item 1. <u>Financial Statements</u>	4
<u>Condensed Balance Sheets as of December 31, 2015 and June 30, 2016 (unaudited)</u>	4
<u>Condensed Statements of Operations and Comprehensive Loss for the three and six months ended June 30, 2015 and 2016 (unaudited)</u>	5
<u>Condensed Statements of Cash Flows for the six months ended June 30, 2015 and 2016 (unaudited)</u>	6
<u>Notes to Condensed Financial Statements (unaudited)</u>	8
Item 2. <u>Management’s Discussion and Analysis of Financial Condition and Results of Operations</u>	19
Item 3. <u>Quantitative and Qualitative Disclosures about Market Risk</u>	25
Item 4. <u>Controls and Procedures</u>	26
PART II. <u>OTHER INFORMATION</u>	
Item 1. <u>Legal Proceedings</u>	27
Item 1A. <u>Risk Factors</u>	27
Item 2. <u>Unregistered Sales of Equity Securities and Use of Proceeds</u>	27
Item 3. <u>Defaults Upon Senior Securities</u>	27
Item 4. <u>Mine Safety Disclosures</u>	27
Item 5. <u>Other Information</u>	28
Item 6. <u>Exhibits</u>	28

IMPORTANT NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Quarterly Report on Form 10-Q, or Quarterly Report, contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. All statements included or incorporated by reference in this Quarterly Report other than statements of historical fact, are forward-looking statements. You can identify these and other forward-looking statements by the use of words such as “may,” “will,” “could,” “anticipate,” “expect,” “intend,” “believe,” “continue” or the negative of such terms, or other comparable terminology. Forward-looking statements also include the assumptions underlying or relating to such statements.

Our actual results could differ materially from those anticipated in these forward-looking statements as a result of various factors, including those set forth in our other filings with the Securities and Exchange Commission, or the SEC. Moreover, we operate in an evolving environment. New risk factors and uncertainties emerge from time to time and it is not possible for us to predict all risk factors and uncertainties, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements. Readers are cautioned not to place undue reliance on forward-looking statements. The forward-looking statements speak only as of the date on which they are made and we undertake no obligation to update such statements to reflect events that occur or circumstances that exist after the date on which they are made except as required by law. Readers should, however, review the factors and risks we describe in the reports and registration statements we file from time to time with the SEC.

Item 1. Financial Statements

Biocept, Inc.
Condensed Balance Sheets

	<u>December 31,</u> <u>2015</u>	<u>June 30,</u> <u>2016</u> (unaudited)
Current assets:		
Cash and cash equivalents	\$ 8,821,329	\$ 3,751,570
Accounts receivable	34,200	86,653
Inventories, net	349,271	496,047
Prepaid expenses and other current assets	435,938	606,342
Total current assets	9,640,738	4,940,612
Fixed assets, net	946,180	1,362,541
Total assets	\$ 10,586,918	\$ 6,303,153
Current liabilities:		
Accounts payable	\$ 632,538	\$ 946,328
Accrued liabilities	966,899	817,778
Supplier financings	42,369	194,607
Current portion of equipment financings	110,924	220,892
Current portion of credit facility	1,588,058	1,408,357
Total current liabilities	3,340,788	3,587,962
Non-current portion of equipment financings, net	291,189	452,627
Non-current portion of credit facility, net	2,638,487	2,053,629
Non-current portion of interest payable	153,547	192,928
Non-current portion of deferred rent	470,172	435,409
Total liabilities	6,894,183	6,722,555
Commitments and contingencies (see Note 10)		
Shareholders' equity/(deficit):		
Common stock, \$0.0001 par value, 40,000,000 authorized; 19,670,054 issued and outstanding at December 31, 2015; 24,969,975 issued and outstanding at June 30, 2016 (see Note 3)	1,967	2,497
Additional paid-in capital	158,927,316	164,284,021
Accumulated deficit	(155,236,548)	(164,705,920)
Total shareholders' equity/(deficit)	3,692,735	(419,402)
Total liabilities and shareholders' equity/(deficit)	\$ 10,586,918	\$ 6,303,153

The accompanying notes are an integral part of these unaudited condensed financial statements.

Biocept, Inc.
Condensed Statements of Operations and Comprehensive Loss
(Unaudited)

	For the three months ended June 30,		For the six months ended June 30,	
	2015	2016	2015	2016
Revenues:	\$ 76,768	\$ 662,860	\$ 226,770	\$ 884,229
Costs and expenses:				
Cost of revenues	1,013,075	1,669,571	2,160,757	3,144,361
Research and development expenses	744,242	716,279	1,395,662	1,444,355
General and administrative expenses	1,359,226	1,517,664	2,651,275	3,004,888
Sales and marketing expenses	851,109	1,291,709	1,560,565	2,596,608
Total costs and expenses	<u>3,967,652</u>	<u>5,195,223</u>	<u>7,768,259</u>	<u>10,190,212</u>
Loss from operations	(3,890,884)	(4,532,363)	(7,541,489)	(9,305,983)
Other income/(expense):				
Interest expense, net	(169,474)	(99,720)	(318,673)	(238,160)
Other income	25,608	38,412	25,608	76,824
Total other income/(expense):	<u>(143,866)</u>	<u>(61,308)</u>	<u>(293,065)</u>	<u>(161,336)</u>
Loss before income taxes	(4,034,750)	(4,593,671)	(7,834,554)	(9,467,319)
Income tax expense	(355)	(503)	(1,279)	(2,053)
Net loss and comprehensive loss	<u>\$ (4,035,105)</u>	<u>\$ (4,594,174)</u>	<u>\$ (7,835,833)</u>	<u>\$ (9,469,372)</u>
Weighted-average shares outstanding used in computing net loss per share attributable to common shareholders:				
Basic	<u>17,998,969</u>	<u>23,106,860</u>	<u>14,206,885</u>	<u>21,403,917</u>
Diluted	<u>17,998,969</u>	<u>23,106,860</u>	<u>14,206,885</u>	<u>21,403,917</u>
Net loss per common share:				
Basic	<u>\$ (0.22)</u>	<u>\$ (0.20)</u>	<u>\$ (0.55)</u>	<u>\$ (0.44)</u>
Diluted	<u>\$ (0.22)</u>	<u>\$ (0.20)</u>	<u>\$ (0.55)</u>	<u>\$ (0.44)</u>

The accompanying notes are an integral part of these unaudited condensed financial statements.

Biocept, Inc.
Condensed Statements of Cash Flows
(Unaudited)

	For the six months ended June 30,	
	2015	2016
Cash Flows from Operating Activities:		
Net loss	\$ (7,835,833)	\$ (9,469,372)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	114,765	157,979
Inventory reserve	(14,801)	(37,662)
Stock-based compensation	676,895	699,710
Non-cash interest expense related to credit facility and other financing activities	68,609	32,919
Increase/(decrease) in cash resulting from changes in:		
Accounts receivable	(21,460)	(52,453)
Inventories	(50,335)	(109,114)
Prepaid expenses and other current assets	(313,963)	264,071
Accounts payable	(47,750)	362,648
Accrued liabilities	184,479	(163,377)
Accrued interest	50,728	36,087
Deferred rent	3,742	(15,226)
Net cash used in operating activities	(7,184,924)	(8,293,790)
Cash Flows from Investing Activities:		
Purchases of fixed assets	(72,717)	(323,923)
Net cash used in investing activities	(72,717)	(323,923)
Cash Flows from Financing Activities:		
Net proceeds from issuance of common stock	8,825,058	4,657,525
Proceeds from exercise of common stock warrants	9,667,521	—
Payments on equipment financings	(41,871)	(49,061)
Payments on supplier and other third party financings	(33,674)	(282,207)
Payments on line of credit	—	(778,303)
Net cash provided by financing activities	18,417,034	3,547,954
Net increase (decrease) in Cash and Cash Equivalents	11,159,393	(5,069,759)
Cash and Cash Equivalents at Beginning of Period	5,364,582	8,821,329
Cash and Cash Equivalents at End of Period	<u>\$ 16,523,975</u>	<u>\$ 3,751,570</u>
Supplemental Disclosures of Cash Flow Information:		
Cash paid during the period for:		
Interest	\$ 206,289	\$ 187,319
Taxes	<u>\$ 1,855</u>	<u>\$ 2,053</u>

Non-cash Investing and Financing Activities:

A public offering of the Company's common stock and warrants to purchase its common stock was effected on February 9, 2015, the closing of which occurred on February 13, 2015 (see Note 3). In connection with the closing of this offering, (i) warrants were issued to buy (in the aggregate) up to 8,000,000 shares of common stock at an exercise price of \$1.56 per share with a term of five years and an estimated grant date fair value of \$7,690,395, which was recorded as an offset to additional paid-in capital within common stock issuance costs, (ii) the underwriters were granted a 45 day option from the closing date of this offering to purchase up to 1,200,000 additional shares of common stock at a price of \$1.25 per share and/or additional warrants to purchase up to 1,200,000 shares of common stock at a price of \$0.0001 per warrant, less underwriting discounts and commissions, to cover over-allotments, if any, with an aggregate estimated grant date fair value of \$1,627,396 that was recorded to common stock issuance costs, and (iii) costs of \$63,111 directly associated with this offering that were included in prepaid expenses and other current assets at December 31, 2014 were reclassified to common stock issuance costs.

A public offering of the Company's common stock and warrants to purchase its common stock was effected on April 29, 2016, the closing of which occurred on May 4, 2016 (see Note 3). In connection with the closing of this offering, warrants were issued to buy (in the aggregate) up to 3,490,601 shares of common stock at an exercise price of \$1.30 per share with a term of five years and an estimated grant date fair value of \$1,997,667, which was recorded as an offset to additional paid-in capital within common stock issuance costs (see Note 4).

Fixed assets purchased totaling \$279,008 and \$445,386 during the six months ended June 30, 2015 and 2016, respectively, were recorded as equipment financing obligations and were excluded from cash purchases in the Company's unaudited condensed statements of cash flows. During the six months ended June 30, 2016, a financing agreement underlying a fixed asset with a remaining net book value of \$126,811, which was previously recorded as an equipment financing obligation, was cancelled.

The amount of unpaid fixed asset purchases excluded from cash purchases in the Company's unaudited condensed statements of cash flows increased from \$19,546 at December 31, 2014 to \$38,993 at June 30, 2015. The amount of unpaid fixed asset purchases excluded from cash purchases in the Company's unaudited condensed statements of cash flows decreased from \$64,300 at December 31, 2015 to \$14,032 at June 30, 2016.

During the six months ended June 30, 2016, the Company financed insurance premiums of \$434,475 through third party financings.

The accompanying notes are an integral part of these unaudited condensed financial statements.

NOTES TO CONDENSED FINANCIAL STATEMENTS

(Unaudited)

1. Basis of Presentation**Basis of Presentation**

The financial statements and accompanying notes are prepared in accordance with accounting principles generally accepted in the United States of America.

The unaudited condensed financial statements included in this Form 10-Q have been prepared in accordance with the U.S. Securities and Exchange Commission, or SEC, instructions for Quarterly Reports on Form 10-Q. Accordingly, the condensed financial statements are unaudited and do not contain all the information required by U.S. Generally Accepted Accounting Principles, or GAAP, to be included in a full set of financial statements. The balance sheet at December 31, 2015 has been derived from the audited financial statements at that date but does not include all of the information and footnotes required by GAAP for a complete set of financial statements. The audited financial statements for the year ended December 31, 2015, filed with the SEC with our Annual Report on Form 10-K on March 10, 2016 include a summary of our significant accounting policies and should be read in conjunction with this Form 10-Q. In the opinion of management, all material adjustments necessary to present fairly the results of operations for such periods have been included in this Form 10-Q. All such adjustments are of a normal recurring nature. The results of operations for interim periods are not necessarily indicative of the results of operations for the entire year.

Certain prior period amounts have been reclassified to conform to the current period presentation. Additionally, a total of \$27,856 and \$318,565 of revenue-generating costs previously allocated to research and development expenses during the three and six months ended June 30, 2015, respectively, were reclassified to cost of revenues in the current period presentation of the unaudited condensed statements of operations and comprehensive loss.

The Company and Business Activities

Biocept, Inc., or the Company, was founded in California in May 1997 and is an early stage cancer diagnostics company developing and commercializing proprietary circulating tumor cell, or CTC, and circulating tumor DNA, or ctDNA, assays utilizing a standard blood sample to improve the treatment that oncologists provide to their patients by providing better, more detailed information on the characteristics of their tumor.

The Company operates a clinical laboratory that is CLIA-certified (under the Clinical Laboratory Improvement Amendment of 1988) and CAP-accredited (by the College of American Pathologists), and manufactures cell enrichment and extraction microfluidic channels, related equipment and certain reagents to perform the Company's diagnostic assays in a facility located in San Diego, California. CLIA certification and accreditation are required before any clinical laboratory may perform testing on human specimens for the purpose of obtaining information for the diagnosis, prevention, treatment of disease, or assessment of health. The assays the Company offers are classified as laboratory developed tests under the CLIA regulations.

In July 2013, the Company effected a reincorporation to Delaware by merging itself with and into Biocept, Inc., a Delaware corporation, which had been formed to be and was a wholly-owned subsidiary of the Company since July 23, 2013.

Recent Accounting Pronouncements

In May 2014, and as subsequently updated and amended from time to time, the Financial Accounting Standards Board, or FASB, issued authoritative guidance that requires entities to recognize revenue when it transfers promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled to in exchange for those goods or services. This proposed guidance has been deferred and would be effective for annual reporting periods beginning after December 15, 2017, including interim periods within that reporting period. Earlier application is permitted only as of annual reporting periods beginning after December 15, 2016, including interim periods within that reporting period. The Company is currently in the process of evaluating the impact of the adoption of this guidance on its financial statements and disclosures.

In June 2014, the FASB issued authoritative guidance requiring share-based payments with a performance target which affects vesting and that could be achieved after the requisite service period be treated as a performance condition. This guidance is effective for fiscal years, and interim periods within those years, beginning after December 15, 2015. The Company adopted this guidance for the interim reporting period ended June 30, 2016. The adoption of this guidance did not have a material impact on the Company's financial statements or disclosures.

In August 2014, the FASB issued authoritative guidance requiring management to evaluate whether there are conditions or events that raise substantial doubt about the entity's ability to continue as a going concern within one year after the date that the financial statements are issued. Certain additional financial statement disclosures are required if such conditions or events are identified. This guidance is effective for the annual reporting period ending after December 15, 2016, and for annual periods and interim periods thereafter. Early adoption is permitted. The Company is currently in the process of evaluating the impact of the adoption of this guidance on its financial statements and disclosures.

In July 2015, the FASB issued authoritative guidance requiring entities that do not measure inventory using the retail inventory method or on a last-in, first-out basis to record inventory at the lower of cost and net realizable value. Net realizable value is the estimated selling prices in the ordinary course of business, less reasonably predictable costs of completion, disposal, and transportation. This guidance is effective on a prospective basis for fiscal years beginning after December 15, 2016, including interim periods within those fiscal years. Early adoption is permitted. The Company does not expect adoption of this guidance to have a material impact on its financial statements or disclosures.

In January 2016, the FASB issued authoritative guidance requiring, among other things, that certain equity investments be measured at fair value with changes in fair value recognized in net income, that financial assets and financial liabilities be presented separately by measurement category and form of financial asset on the balance sheet or the accompanying notes to the financial statements, that the prior requirement to disclose the method(s) and significant assumptions used to estimate the fair value that is required to be disclosed for financial instruments measured at amortized cost on the balance sheet be eliminated, and that a reporting organization is to present separately in other comprehensive income the portion of the total change in the fair value of a liability resulting from a change in the instrument-specific credit risk when the organization has elected to measure the liability at fair value in accordance with the fair value option for financial instruments. This guidance is effective for fiscal years, and interim periods within those years, beginning after December 15, 2017. Early adoption of the instrument-specific credit risk amendment is permitted. The Company does not expect adoption of this guidance to have a material impact on its financial statements or disclosures.

In February 2016, the FASB issued authoritative guidance requiring, among other things, that entities recognize the assets and liabilities arising from leases on the balance sheet under revised criteria, while the classification criteria for distinguishing between finance leases and operating leases are substantially similar to the classification criteria in the previous leases guidance. In transition, lessees and lessors are required to recognize and measure leases at the beginning of the earliest period presented using a modified retrospective approach. This guidance is effective for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years. Early adoption is permitted. The Company is currently in the process of evaluating the impact of the adoption of this guidance on its financial statements and disclosures.

In March 2016, the FASB issued authoritative guidance clarifying that a change in the counterparty to a derivative instrument that has been designated as the hedging instrument does not necessarily require dedesignation of that hedging relationship, provided that all other applicable hedge accounting criteria continue to be met. This guidance is effective on either a prospective basis or modified retrospective basis for fiscal years beginning after December 15, 2016, and interim periods within those fiscal years. Early adoption is permitted. The Company is currently in the process of evaluating the impact of the adoption of this guidance on its financial statements and disclosures.

In March 2016, the FASB issued authoritative guidance requiring entities to assess whether contingent call (put) options that can accelerate the payment of principal on debt instruments are clearly and closely related to their debt hosts, and clarifies what steps are required when assessing whether the economic characteristics and risks of call (put) options are clearly and closely related to the economic characteristics and risks of their debt hosts. This guidance is effective on a modified retrospective basis for fiscal years beginning after December 15, 2016, and interim periods within those fiscal years. Early adoption is permitted. The Company is currently in the process of evaluating the impact of the adoption of this guidance on its financial statements and disclosures.

In March 2016, the FASB issued authoritative guidance simplifying the accounting for stock compensation. This guidance, among other things, amends existing accounting and classification requirements primarily around income taxes, forfeitures, and cash payments associated with share-based payment awards to employees. This guidance is effective for fiscal years beginning after December 15, 2016, including interim periods within those fiscal years. Early adoption is permitted. The Company is currently in the process of evaluating the impact of the adoption of this guidance on its financial statements and disclosures.

2. Liquidity and Going Concern Uncertainty

As of June 30, 2016, cash and cash equivalents totaled \$3.8 million and the Company had an accumulated deficit of \$164.7 million. For the year and six month periods ended December 31, 2015 and June 30, 2016, the Company incurred net losses of \$16.9 million and \$9.5 million, respectively. At June 30, 2016, the Company had aggregate gross interest-bearing indebtedness of approximately \$5.0 million, of which approximately \$1.9 million was due within one year in the absence of subjective acceleration of amounts due under a credit facility entered into in April 2014 with Oxford Finance LLC, or the April 2014 Credit Facility, in addition to approximately \$2.2 million of other non-interest bearing liabilities. Additionally, in February 2016, the Company signed a firm,

noncancelable, and unconditional commitment in an aggregate amount of \$1,062,500 with a vendor to purchase certain inventory items, payable in minimum quarterly installments of \$62,500 through May 2020 (see Note 10). These factors raise substantial doubt about the Company's ability to continue as a going concern. The accompanying unaudited condensed financial statements have been prepared assuming that the Company will continue as a going concern. The unaudited condensed financial statements do not include any adjustments to reflect the possible future effects on the recoverability and classification of assets or the amounts and classification of liabilities that may result from the possible inability of the Company to continue as a going concern.

While the Company is currently in the commercialization stage of operations, the Company has not yet achieved profitability and anticipates that it will continue to incur net losses for the foreseeable future. Historically, the Company's principal sources of cash have included proceeds from the issuance of common and preferred stock, proceeds from the exercise of warrants to purchase common stock, proceeds from the issuance of debt, and revenues from laboratory services. The Company's principal uses of cash have included cash used in operations, payments relating to purchases of property and equipment and repayments of borrowings. The Company expects that the principal uses of cash in the future will be for continuing operations, hiring of sales and marketing personnel and increased sales and marketing activities, funding of research and development, capital expenditures, and general working capital requirements. The Company expects that, as revenues grow, sales and marketing and research and development expenses will continue to grow, albeit at a slower rate and, as a result, the Company will need to generate significant growth in net revenues to achieve and sustain income from operations.

Subsequent to the closing of a follow-on public offering on February 13, 2015, cash proceeds of approximately \$9.8 million have been received by the Company from the exercise of warrants sold in such offering, while approximately \$2.7 million in gross warrant proceeds remain outstanding and available to be exercised at \$1.56 per share until their expiration in February 2020. On December 21, 2015, the Company entered into a common stock purchase agreement with Aspire Capital Fund LLC, or Aspire Capital, whereby the lesser of approximately \$13.5 million, or up to 2,464,683 shares, may be issued to Aspire Capital under this agreement as of August 2, 2016, subject to certain contractual limitations that prohibit the Company's ability to sell its common stock to Aspire Capital. In May 2015, the SEC declared effective a shelf registration statement filed by the Company. The shelf registration statement allows the Company to issue any combination of its common stock, preferred stock, debt securities and warrants from time to time for an aggregate initial offering price of up to \$50 million, subject to certain limitations for so long as the Company's public float is less than \$75 million. A public offering of the Company's common stock and warrants to purchase its common stock was effected under this shelf registration statement on April 29, 2016, the closing of which occurred on May 4, 2016, pursuant to which the Company received net cash proceeds of approximately \$4.4 million (see Note 3). Subsequent to the closing of this public offering on May 4, 2016, no warrants sold in such offering have been exercised, with approximately \$4.5 million in gross warrant proceeds remaining outstanding and available to be exercised at \$1.30 per share until their expiration in May 2021. Following this offering and through the date that the Company's June 30, 2016 unaudited condensed financial statements are available to be issued, given the limitations that apply for so long as the Company's public float is less than \$75 million, no additional common stock, preferred stock, debt securities or warrants may be sold by the Company under this shelf registration statement. In connection with its May 2016 public offering, the Company has agreed to certain contractual terms that limit its ability to issue variable rate securities for a period of one year. The specific terms of additional future offerings, if any, under this shelf registration statement would be established at the time of such offerings.

Management's Plan to Continue as a Going Concern

In order to continue as a going concern, the Company will need, among other things, additional capital resources. Until the Company can generate significant cash from operations, including assay revenues, management's plans to obtain such resources for the Company include proceeds from offerings of the Company's equity securities or debt, or transactions involving product development, technology licensing or collaboration. Management can provide no assurances that any sources of a sufficient amount of financing will be available to the Company on favorable terms, if at all.

3. Sales of Equity Securities

Pursuant to an underwriting agreement dated February 9, 2015 between the Company, Aegis Capital Corp. and Feltl and Company, as underwriters named therein, a public offering of 8,000,000 shares of the Company's common stock and warrants to purchase up to an aggregate of 8,000,000 shares of common stock was effected at a combined offering price of \$1.25. The estimated grant date fair value of these warrants of \$7.7 million was recorded as an offset to additional paid-in capital within common stock issuance upon the closing of this offering. Each of the members of the Company's Board of Directors participated in this offering, purchasing an aggregate 142,000 shares of the Company's common stock and warrants to purchase up to an aggregate of 142,000 shares of its common stock for a total purchase price of \$177,500. All warrants sold in this offering have a per share exercise price of \$1.56, are exercisable immediately and expire five years from the date of issuance. The closing of the sale of these securities to the underwriters occurred on February 13, 2015, when the Company received, after deducting underwriting discounts and additional costs paid to the underwriters, \$9.1 million of net cash proceeds. The total increase in capital as a result of the sale of these shares and warrants was \$8.8 million after deducting \$0.3 million of additional non-underwriter costs incurred. Additionally, the underwriters were granted a 45-day option to purchase up to 1,200,000 additional shares of common stock at a price of \$1.25 per share and/or additional warrants

to purchase up to 1,200,000 shares of common stock at a price of \$0.0001 per warrant, less underwriting discounts and commissions, to cover over-allotments, if any, which was not exercised. The estimated grant date fair value of the over-allotment options and warrants of \$1.6 million was recorded as an offset to additional paid-in capital within common stock issuance costs upon the closing of this offering. Underwriter costs and discounts of \$0.2 million and \$0.7 million, respectively, as well as additional non-underwriter costs associated with this offering of \$0.3 million, were also recorded to common stock issuance costs upon closing. Subsequent to the closing of this offering on February 13, 2015, additional cash proceeds of \$9.8 million have been received from the exercise of warrants sold in such offering. As such, the aggregate total increase in capital related to this offering has been \$18.6 million, after deducting \$0.9 million of underwriter costs and discounts and \$0.3 million of additional non-underwriter costs incurred, which were netted against these proceeds under applicable accounting guidance.

In May 2015, the SEC declared effective a shelf registration statement filed by the Company. The shelf registration statement allows the Company to issue any combination of its common stock, preferred stock, debt securities and warrants from time to time for an aggregate initial offering price of up to \$50 million, subject to certain limitations for so long as the Company's public float is less than \$75 million. Pursuant to an exclusive placement agent agreement dated April 25, 2016 between the Company and H.C. Wainwright & Co., LLC, or Wainwright, and a securities purchase agreement dated April 29, 2016 between the Company and the purchasers signatory thereto, a public offering of 4,986,573 shares of the Company's common stock and warrants to purchase up to an aggregate of 3,490,601 shares of common stock was effected under this registration statement at a combined offering price of \$1.00. All warrants sold in this offering have a per share exercise price of \$1.30, are exercisable immediately and expire five years from the date of issuance. The closing of the sale of these securities to the purchasers occurred on May 4, 2016, pursuant to which the Company received, after deducting the placement agent's fees and non-accountable expense reimbursements paid to Wainwright, as well as advisory service fees paid to ROTH Capital Partners, LLC and certain other transactional fees paid to third parties, approximately \$4.6 million of net cash proceeds. The total increase in capital as a result of the sale of these shares and warrants was approximately \$4.4 million after deducting an estimated \$0.2 million of additional third party costs incurred in connection with this offering. An aggregate balance of approximately \$0.6 million related to placement agent's fees, advisory service expenses and non-placement agent costs associated with this offering was recorded to common stock issuance costs upon closing under applicable accounting guidance. Subsequent to the closing of this public offering on May 4, 2016, no warrants sold in such offering have been exercised, with approximately \$4.5 million in gross warrant proceeds remaining outstanding and available to be exercised at \$1.30 per share until their expiration in May 2021. Following this offering and through the date that the Company's June 30, 2016 unaudited condensed financial statements are available to be issued, given the limitations that apply for so long as the Company's public float is less than \$75 million, no additional common stock, preferred stock, debt securities or warrants may be sold by the Company under this shelf registration statement. In connection with its May 2016 public offering, the Company has agreed to certain contractual terms that limit its ability to issue variable rate securities for a period of one year. The specific terms of additional future offerings, if any, under this shelf registration statement would be established at the time of such offerings.

On December 21, 2015, the Company entered into a common stock purchase agreement with Aspire Capital, which committed to purchase up to an aggregate of \$15.0 million of shares of the Company's common stock over the 30-month term of the common stock purchase agreement. Upon execution of the common stock purchase agreement, the Company sold to Aspire Capital 625,000 shares of common stock at \$1.60 per share for proceeds of \$1,000,000, and concurrently also entered into a registration rights agreement with Aspire Capital, pursuant to which the Company filed a registration statement registering the sale of the shares of the Company's common stock that have been and may be issued to Aspire Capital under the common stock purchase agreement. Under the common stock purchase agreement, on any trading day selected by the Company, the Company has the right, in its sole discretion, to present a purchase notice directing Aspire Capital to purchase up to 100,000 shares of the Company's common stock per business day, up to \$15.0 million of common stock in the aggregate at a per share price equal to the lesser of either i) the lowest sale price of the Company's common stock on the purchase date, or ii) the arithmetic average of the three lowest closing sale prices for the Company's common stock during the 10 consecutive trading days ending on the trading day immediately preceding the purchase date. In addition, on any date on which the Company submits a purchase notice to Aspire Capital in an amount equal to 100,000 shares and the Company's stock price is not less than \$0.50 per share, the Company also has the right, in its sole discretion, to present Aspire Capital with a volume-weighted average price purchase notice directing Aspire Capital to purchase an amount of stock equal to up to 30% of the aggregate shares of the Company's common stock traded on the its principal market on the next trading day, subject to a maximum number of shares the Company may determine. The purchase price per share pursuant to such volume-weighted average price purchase notice is generally 97% of the volume-weighted average price for the Company's common stock traded on its principal market on the volume-weighted average purchase date. The purchase price will be adjusted for any reorganization, recapitalization, non-cash dividend, stock split, or other similar transaction occurring during the period(s) used to compute the purchase price. The Company may deliver multiple purchase notices and volume-weighted average price purchase notices to Aspire Capital from time to time during the term of the common stock purchase agreement, so long as the most recent purchase has been completed. The common stock purchase agreement provides that the Company and Aspire Capital shall not effect any sales on any purchase date where the closing sale price of the Company's common stock is less than \$0.50. There are no trading volume requirements or restrictions under the common stock purchase agreement, and the Company will control the timing and amount of sales of its common stock to Aspire Capital. Aspire Capital has no right to require any sales by the Company, but is obligated to make purchases from the Company as directed by the Company in accordance with the common stock purchase agreement. There are no limitations on use of proceeds, financial or business covenants, restrictions on future fundings, rights of first refusal, participation rights, penalties or liquidated

damages in the common stock purchase agreement. In consideration for entering into, and concurrently with the execution of, the common stock purchase agreement, the Company issued to Aspire Capital 165,000 shares of its common stock. The common stock purchase agreement may be terminated by the Company at any time, at its discretion, without any cost to the Company. Aspire Capital has agreed that neither it nor any of its agents, representatives and affiliates shall engage in any direct or indirect short-selling or hedging of the Company's common stock during any time prior to the termination of the common stock purchase agreement. Any proceeds the Company receives under the common stock purchase agreement are expected to be used for working capital and general corporate purposes. During the six months ended June 30, 2016, the Company submitted purchase notices to Aspire Capital for an aggregate of 300,000 shares of common stock for gross proceeds of \$403,000. Subsequent to June 30, 2016, the Company submitted purchase notices to Aspire Capital for an aggregate of 219,439 shares of common stock for gross proceeds of \$141,051. Costs associated with this offering of approximately \$42,000 and \$83,000 during the year ended December 31, 2015 and six months ended June 30, 2016, respectively, were also recorded to common stock issuance costs under applicable accounting guidance, and as such, the aggregate total increase in capital related to this transaction has been approximately \$1.4 million. The lesser of approximately \$13.5 million, or up to 2,464,683 shares, may be issued to Aspire Capital under this agreement as of August 2, 2016, subject to certain contractual limitations that prohibit the Company's ability to sell its common stock to Aspire Capital.

4. Fair Value Measurement

The Company uses a three-tier fair value hierarchy to prioritize the inputs used in the Company's fair value measurements. These tiers include: Level 1, defined as observable inputs such as quoted prices in active markets for identical assets; Level 2, defined as inputs other than quoted prices in active markets that are either directly or indirectly observable; and Level 3, defined as unobservable inputs in which little or no market data exists, therefore requiring an entity to develop its own assumptions. The Company believes the carrying amount of cash and cash equivalents, accounts receivable, accounts payable and accrued expenses approximate their estimated fair values due to the short-term maturities of these financial instruments.

Other Fair Value Measurements

As of the closing of the Company's May 2016 public offering, the estimated aggregate grant date fair value of \$1,997,667 associated with the warrants to purchase 3,490,601 shares of common stock issued in such offering was recorded as an offset to additional paid-in capital within common stock issuance costs, and was estimated using a Black-Scholes valuation model with the following assumptions:

Stock price	\$	0.90
Exercise price	\$	1.30
Expected dividend yield		0.00%
Discount rate-bond equivalent yield		1.23%
Expected life (in years)		5.00
Expected volatility		90.0%

The estimated fair value of the April 2014 Credit Facility at June 30, 2016 approximated carrying value, which was determined using a discounted cash flow analysis. The analysis considered interest rates of instruments with similar maturity dates, which involved the use of significant unobservable Level 3 inputs.

5. Balance Sheet Details

The following provides certain balance sheet details:

	December 31, 2015	June 30, 2016
Fixed Assets		
Machinery and equipment	\$ 2,518,158	\$ 2,705,632
Furniture and office equipment	143,726	143,726
Computer equipment and software	577,898	614,077
Leasehold improvements	514,614	514,614
Financed equipment	914,179	1,271,531
Construction in process	70,815	64,150
	<u>4,739,390</u>	<u>5,313,730</u>
Less accumulated depreciation and amortization	3,793,210	3,951,189
Total fixed assets, net	<u>\$ 946,180</u>	<u>\$ 1,362,541</u>
Accrued Liabilities		
Accrued interest	\$ 28,981	\$ 23,825
Accrued payroll	128,753	101,509
Accrued vacation	307,845	338,794
Accrued bonuses	376,100	188,076
Accrued sales commissions	76,574	85,552
Current portion of deferred rent	31,170	50,701
Accrued other	17,476	29,321
Total accrued liabilities	<u>\$ 966,899</u>	<u>\$ 817,778</u>

6. April 2014 Credit Facility

On April 30, 2014, the Company received net cash proceeds of approximately \$4,898,000 pursuant to the execution of the April 2014 Credit Facility with Oxford Finance LLC. Upon the entry into the April 2014 Credit Facility, the Company was required to pay the lender a facility fee of \$50,000 in conjunction with the funding of the term loan. The April 2014 Credit Facility is secured by substantially all of the Company's personal property other than its intellectual property. Amounts due to Oxford Finance LLC under the April 2014 Credit Facility are callable before maturity by the lender under certain subjective acceleration clauses of the underlying agreement, including changes deemed to be materially adverse by the lender. The term loan under the April 2014 Credit Facility bears interest at an annual rate equal to the greater of (i) 7.95% or (ii) the sum of (a) the three-month U.S. LIBOR rate reported in the Wall Street Journal three business days prior to the funding date of the term loan, plus (b) 7.71%. The term loan bears interest at an annual rate of 7.95%. The Company was required to make interest-only payments on the term loan through August 1, 2015. The outstanding term loan under the April 2014 Credit Facility began amortizing at the end of the applicable interest-only period, with monthly payments of principal and interest being made by the Company to the lender in consecutive monthly installments following such interest-only period. The term loan under the April 2014 Credit Facility matures on July 1, 2018. Under the original terms of the underlying agreement, the Company is also required to make a final payment to the lender equal to 5.5% of the original principal amount of the term loan funded. At its option, the Company may prepay the outstanding principal balance of the term loan in whole but not in part, subject to a prepayment fee of 1% of any amount prepaid.

On June 30, 2016, the Company entered into an amendment of the April 2014 Credit Facility. This amendment requires the Company to make interest-only payments on the term loan from July 1, 2016 through September 30, 2016, and also requires an additional final payment of \$50,000 to the lender. If on or before September 30, 2016 the Company receives unrestricted net cash proceeds of at least \$7.0 million from the issuance and sale its equity securities, or the Company receives a signed letter of intent relating to a sale or merger of the Company, in form and substance satisfactory to the lender, the Company will be required to make interest-only payments on the term loan through December 31, 2016, and the amount of the additional final payment to the lender upon repayment will increase to \$75,000. The terms of the amendment require the amortization of the outstanding amount due under the term loan to commence at the end of the applicable interest-only period, with monthly payments of principal and interest, in arrears, being made by the Company to the lender in consecutive monthly installments following such interest-only period. Additionally, pursuant to the amendment the aggregate outstanding principal amount of the Company's permitted indebtedness, consisting of capitalized lease obligations and purchase money indebtedness outstanding at any time, was increased to \$1.2 million. The June 30, 2016 amendment of the Company's 2014 Credit Facility was accounted for as a modification of debt under applicable accounting guidance.

The April 2014 Credit Facility includes affirmative and negative covenants applicable to the Company and any subsidiaries created in the future. The affirmative covenants include, among others, covenants requiring the Company to maintain its legal existence and governmental approvals, deliver certain financial reports and maintain insurance coverage. The negative covenants include, among others, restrictions on transferring collateral, incurring additional indebtedness, engaging in mergers or acquisitions, paying dividends

or making other distributions, making investments, creating liens, selling assets, and suffering a change in control, in each case subject to certain exceptions. The April 2014 Credit Facility also includes events of default, the occurrence and continuation of which provide Oxford Finance LLC, as collateral agent, with the right to exercise remedies against the Company and the collateral securing the term loan under the April 2014 Credit Facility, including foreclosure against the Company's properties securing the April 2014 Credit Facility, including its cash. These events of default include, among other things, the Company's failure to pay any amounts due under the April 2014 Credit Facility, a breach of covenants under the April 2014 Credit Facility, insolvency, a material adverse change, the occurrence of any default under certain other indebtedness in an amount greater than \$250,000, and a final judgment against the Company in an amount greater than \$250,000.

A warrant to purchase up to 52,966 shares of the Company's common stock at an exercise price of \$4.72 per share with a term of 10 years was issued to Oxford Finance LLC on April 30, 2014. Issuance costs of \$102,498 associated with the term loan under the April 2014 Credit Facility were recorded as a discount to outstanding debt as of the closing date, resulting in net proceeds of \$4,897,502. The estimated fair value of the warrant issued of \$233,107 was recorded as a discount to outstanding debt as of the closing date. The discounts and other issuance costs are amortized to interest expense utilizing the effective interest method over the underlying term of the loan. The effective annual interest rate associated with the April 2014 Credit Facility was 11.50% and 13.87% at December 31, 2015 and June 30, 2016, respectively.

7. Stock-based Compensation

Equity Incentive Plans

The Company maintains two equity incentive plans: The Amended and Restated 2013 Equity Incentive Plan, or the 2013 Plan, and the 2007 Equity Incentive Plan, or the 2007 Plan. The 2013 Plan includes a provision that shares available for grant under the Company's 2007 Plan become available for issuance under the 2013 Plan and are no longer available for issuance under the 2007 Plan. As of June 30, 2016, under all plans, a total of 3,068,865 shares were authorized for issuance, 2,454,470 stock options and restricted stock units, or RSUs, had been issued and were outstanding, and 489,961 shares were available for grant.

Stock Options

A summary of stock option activity for option awards granted under the 2013 Plan and 2007 Plan for the six months ended June 30, 2016 is as follows:

	Number of Shares	Weighted Average Exercise Price Per Share	Average Remaining Contractual Term in Years
Vested and unvested expected to vest, December 31, 2015	1,940,701	\$ 5.16	9.0
Outstanding at December 31, 2015	2,141,141	\$ 3.71	9.1
Granted	329,823	\$ 1.21	
Exercised	—		
Cancelled/forfeited/expired	(276,763)	\$ 2.65	
Outstanding at June 30, 2016	2,194,201	\$ 3.47	8.6
Vested and unvested expected to vest, June 30, 2016	2,021,149	\$ 3.61	8.5

The intrinsic values of options outstanding and options vested and unvested expected to vest at June 30, 2016 were both zero. The intrinsic value of options exercisable at June 30, 2016 was zero.

The fair values of option awards granted during the six months ended June 30, 2016 were estimated using a Black-Scholes pricing model with the following assumptions:

Stock and exercise prices	\$0.67 - \$1.34
Expected dividend yield	0.00%
Discount rate-bond equivalent yield	1.24% - 1.39%
Expected life (in years)	5.42 - 6.08
Expected volatility	90.00%

Using the assumptions described above, with stock and exercise prices being equal on date of grant, the weighted-average estimated fair value of options granted in the six months ended June 30, 2016 was \$0.88 per share.

On August 31, 2015, the Company's Board of Directors approved the issuance of 100,000 stock options with an estimated grant date fair value of \$1.47 per share to its Chief Executive Officer pursuant to the 2013 Plan. On February 29, 2016, the Company's Board of Directors approved the issuance of 100,000 stock options with an estimated grant date fair value of \$0.96 per share to its Chief Executive Officer pursuant to the 2013 Plan. Vesting of these stock options may occur based on the Company's achievement of specified objectives by December 31, 2016 as determined by the Company's Board of Directors, or a committee of the Company's Board of Directors, in its sole discretion, as follows:

Target	Percentage of Overall Stock Option Grants Subject to Vesting
Minimum number of accessions processed, billed and collected	13%
Minimum revenues from contracts with pharmaceutical companies	10%
Attainment of a sustainable positive GAAP gross margin	12%
Minimum operating cash on-hand with no more than one interim dilutive equity financing event	15%
Achievement of the Company's 2016 corporate goals	25%
Completion of a Board-approved strategic transaction	25%
Total	<u>100%</u>

Restricted Stock

A summary of RSU activity for awards granted under the 2013 Plan and 2007 Plan for the six months ended June 30, 2016 is as follows:

	Number of Shares	Weighted Average Grant Date Fair Value
Vested and unvested expected to vest, December 31, 2015	46,117	\$ 4.83
Outstanding at December 31, 2015	77,265	\$ 5.04
Granted	227,500	\$ 0.70
Vested and issued	(13,348)	\$ 5.35
Forfeited	(31,148)	\$ 5.35
Outstanding at June 30, 2016	260,269	\$ 1.19
Vested and unvested expected to vest, June 30, 2016	251,169	\$ 1.21

The RSUs granted during the six months ended June 30, 2016 vest fully on the one year anniversary of the date of grant, subject to continuing service by the holders of such RSUs. At June 30, 2016, the intrinsic values of RSUs outstanding and RSUs unvested and expected to vest were \$173,079 and \$167,027, respectively.

On June 12, 2014, the Company's Board of Directors granted an RSU award for 44,496 shares with a grant date fair value of \$5.35 per share to its Chief Executive Officer pursuant to the 2013 Plan. Vesting of these RSUs was based on the Company's achievement of specified objectives by December 31, 2015 as determined by the Company's Board of Directors or the Compensation Committee of the Board of Directors, as follows:

Target	Percentage of Overall RSU Grant Subject to Vesting
Minimum revenue	25%
Maximum EBITDA loss	15%
Attainment of financial plan for fiscal 2015	20%
Minimum value of strategic agreements	20%
Implementation of four new diagnostic test panels	20%
Total	100%

During the six months ended June 30, 2016, a total of 13,348 RSUs were declared vested by the Company's Board of Directors and issued to its Chief Executive Officer in satisfaction of this award and the remaining 31,148 shares underlying this RSU were forfeited.

Stock-based Compensation Expense

The following table presents the effects of stock-based compensation related to equity awards to employees and nonemployees on the unaudited condensed statements of operations and comprehensive loss during the periods presented:

	For the three months ended		For the six months ended	
	June 30,		June 30,	
	2015	2016	2015	2016
<u>Stock Options</u>				
Cost of revenues	\$ 17,674	\$ 29,412	\$ 33,810	\$ 55,487
Research and development expenses	24,505	25,961	44,925	58,964
General and administrative expenses	229,561	264,566	448,622	537,135
Sales and marketing expenses	31,089	1,897	62,101	39,240
Total expenses related to stock options	302,829	321,836	589,458	690,826
<u>RSUs</u>				
Cost of revenues	—	1,916	—	1,916
Research and development expenses	1,599	1,452	9,099	1,452
General and administrative expenses	38,402	1,008	78,338	1,008
Sales and marketing expenses	—	4,508	—	4,508
Total stock-based compensation	\$ 342,830	\$ 330,720	\$ 676,895	\$ 699,710

Stock-based compensation expense was recorded net of estimated forfeitures of 0% - 4% per annum during the six months ended June 30, 2015 and 2016. As of June 30, 2016 total unrecognized stock-based compensation expense related to unvested stock options and RSUs, adjusted for estimated forfeitures, was approximately \$2,025,000 and is expected to be recognized over a weighted-average period of 2.2 years.

8. Common Stock Warrants Outstanding

A summary of equity-classified common stock warrant activity for the six months ended June 30, 2016 is as follows:

	Number of Shares	Weighted Average Exercise Price Per Share	Average Remaining Contractual Term in Years
Outstanding at December 31, 2015	2,352,738	\$ 3.73	3.8
Issued	3,490,601	\$ 1.30	
Exercised	—		
Expired	(152,712)	\$ 10.00	
Outstanding at June 30, 2016	5,690,627	\$ 2.07	4.3

The intrinsic value of equity-classified common stock warrants outstanding and exercisable at June 30, 2016 was \$0.

9. Net Loss per Common Share

Basic and diluted net loss per common share is determined by dividing net loss applicable to common shareholders by the weighted-average common shares outstanding during the period. Because there is a net loss attributable to common shareholders for the six months ended June 30, 2015 and 2016, the outstanding RSUs, warrants, and common stock options have been excluded from the calculation of diluted loss per common share because their effect would be anti-dilutive. Therefore, the weighted-average shares used to calculate both basic and diluted loss per share are the same.

The following potentially dilutive securities have been excluded from the computations of diluted weighted-average shares outstanding for the periods presented, as they would be anti-dilutive:

	For the three and six months ended	
	June 30,	
	2015	2016
Preferred warrants outstanding (number of common stock equivalents)	1,587	1,587
Preferred share RSUs (number of common stock equivalents)	73,151	—
Common warrants outstanding	2,412,058	5,690,627
Common share RSUs	178,118	260,269
Common options outstanding	917,316	2,194,201
Total anti-dilutive common share equivalents	3,582,230	8,146,684

10. Commitments and Contingencies

In the normal course of business, the Company may be involved in legal proceedings or threatened legal proceedings. The Company is not party to any legal proceedings or aware of any threatened legal proceedings that are expected to have a material adverse effect on its financial condition, results of operations or liquidity.

In February 2016, the Company signed a firm, noncancelable, and unconditional commitment in an aggregate amount of \$1,062,500 with a vendor to purchase certain inventory items, payable in quarterly installments of \$62,500 through May 2020.

11. Related Party Transactions

All of the members of the Company's Board of Directors participated in its public offering in February 2015, purchasing an aggregate of 142,000 shares of the Company's common stock and warrants to purchase up to an aggregate of 142,000 shares of its common stock for total proceeds of \$177,500.

A member of the Company's management is the controlling person of Aegea Biotechnologies, Inc., or Aegea. On September 2, 2012, the Company entered into an Assignment and Exclusive Cross-License Agreement, or the Cross-License Agreement, with Aegea. The Company received a payment of \$19,047 during the six months ended June 30, 2016 from Aegea as reimbursement for shared patent costs under the Cross-License Agreement.

Pursuant to a sublease agreement dated March 30, 2015, the Company subleased 9,849 square feet, plus free use of an additional area, of its San Diego facility to an entity affiliated with the Company's non-executive Chairman for \$12,804 per month, with a refundable security deposit of \$12,804 due from the subtenant. The initial term of the sublease expired on July 31, 2015, and is subject to renewal on a month-to-month basis thereafter. A total of \$25,608 and \$76,824 in rental income was recorded to other income/(expense) in the Company's unaudited condensed statements of operations and comprehensive loss during the six months ended June 30, 2015 and 2016, respectively.

Three members of the Company's Board of Directors participated in its public offering in May 2016, purchasing an aggregate of 175,000 shares of the Company's common stock and warrants to purchase up to an aggregate of 122,500 shares of its common stock for total proceeds to the Company of \$175,000 (see Note 3).

The Company believes that these transactions were on terms at least as favorable to the Company as could have been obtained from unrelated third parties.

12. Subsequent Events

On July 6, 2016, the Compensation Committee of the Company's Board of Directors approved retention RSUs for an aggregate of 175,000 shares of common stock to three of the Company's executive officers pursuant to the 2013 Plan, including retention RSUs for 100,000 shares of common stock to its Chief Executive Officer. Each of these retention RSUs has a grant date fair value of \$0.62 per

share for a grant date fair value of \$108,990 to all three officers, in aggregate. These retention RSUs vest fully on the one year anniversary of the date of grant, subject to continuing service by the holders of such RSUs.

On July 25, 2016, the Company's Board of Directors approved an amendment to the 2013 Plan to reserve 1,000,000 shares of the Company's common stock exclusively for the grant of stock awards to employees who have not previously been an employee or director of the Company, except following a bona fide period of non-employment, as an inducement material to the individual's entering into employment with the Company, as defined under applicable Nasdaq Listing Rules.

On July 25, 2016, the Company entered into an employment agreement with its new Chief Financial Officer, Senior Vice President of Operations and Secretary, or CFO. Pursuant to the terms of this employment agreement, the CFO was granted the following inducement awards under the 2013 Plan: (i) a stock option to purchase up to 200,000 shares of the Company's common stock, 25% of which will vest on the one-year anniversary of the commencement of the CFO's employment with the Company, and remainder of which will vest in equal monthly installments over the following three years, (ii) a stock option to purchase up to 100,000 shares of the Company's common stock, which vest upon the Company's achievement of corporate goals for 2016 and the consummation of a specified financing transaction, and (iii) an RSU covering 75,000 shares of the Company's common stock, 100% of which will vest on the one-year anniversary of the commencement of the CFO's employment with the Company.

Subsequent to June 30, 2016, the Company submitted purchase notices to Aspire Capital for an aggregate of 219,439 shares of common stock for gross proceeds of \$141,051.

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

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with our unaudited condensed financial statements and related notes included in 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 and the related Management's Discussion and Analysis of Financial Condition and Results of Operations, both of which are contained in our Annual Report on Form 10-K for the year ended December 31, 2015, filed with the Securities and Exchange Commission on March 10, 2016. Past operating results are not necessarily indicative of results that may occur in future periods.

We are an early stage molecular oncology diagnostics company that develops and commercializes proprietary circulating tumor cell, or CTC, and circulating tumor DNA, or ctDNA, assays utilizing a standard blood sample, or "liquid biopsy." Our assays provide, and our planned future assays would provide, information to oncologists and other physicians that enable them to select appropriate personalized treatment for their patients who have been diagnosed with cancer based on timelier and more-detailed data on the characteristics of their patients' tumors.

Our current assays and our planned future assays focus on key solid tumor indications utilizing our Target-Selector™ CTC offering for the biomarker analysis of CTCs and ctDNA from a standard blood sample. The Target-Selector CTC offering is based on an internally developed and patented, microfluidics-based capture and analysis platform, with enabling features that change how CTC testing is used by clinicians. The Target-Selector platforms provide both biomarker detection as well as monitoring, and require only a blood sample. Our patent pending Target-Selector ctDNA technology enables mutation detection with enhanced sensitivity and specificity and is applicable to nucleic acid from CTCs or other sample types, such as blood plasma. We believe the Target-Selector technology can someday be used as a stand-alone test for molecular biomarker screening, marked as in vitro diagnostics kits.

At our corporate headquarters facility located in San Diego, California, we operate a clinical laboratory that is certified under the Clinical Laboratory Improvement Amendments of 1988, or CLIA, and accredited by the College of American Pathologists. We manufacture our microfluidic channels, related equipment and certain reagents to perform our current assays and our planned future assays at this facility. CLIA certification is required before any clinical laboratory, including ours, may perform testing on human specimens for the purpose of obtaining information for the diagnosis, prevention, or treatment of disease or the assessment of health. The assays we offer and intend to offer are classified as laboratory developed tests, or LDTs, under CLIA regulations.

We are commercializing our Target-Selector assays for a number of solid tumor indications such as: breast cancer, non-small cell lung cancer, or NSCLC, small cell lung cancer, or SCLC, gastric cancer, colorectal cancer, prostate cancer, and melanoma. These assays utilize our dual CTC and ctDNA technology platform and provide biomarker analysis from a standard blood sample.

In the case of our breast and gastric cancer offering, biomarker analysis involves fluorescence in situ hybridization, or FISH, for the detection and quantitation of the human epidermal growth factor receptor 2, or HER2, gene copy number as well as immunocytochemical analysis of estrogen receptor, or ER, protein, as well as androgen receptor, or AR, protein, which are currently commercially available. We plan to include immunocytochemical analysis of progesterone receptor, or PR, proteins as part of the Target-Selector CTC menu in 2016. A patient's HER2 status provides the physician with information about the appropriateness of therapies such as Herceptin® or Tykerb®. ER and PR status provides the physician with information about the appropriateness of endocrine therapies such as tamoxifen and aromatase inhibitors.

The lung cancer biomarker analyses currently include FISH testing for ALK, ROS1 and RET gene rearrangements and mutation analysis of the T790M, Deletion 19, and L858R mutations of the epidermal growth factor receptor, or EGFR, gene as well as B-RAF using our Target-Selector CtDNA platform. The L858R mutation of the EGFR gene and Exon 19 deletions as activators of EGFR kinase activity are associated with the drugs Tarceva®, Gilotrif® and Iressa®. For lung cancer, we also offer a resistance panel assay consisting of the biomarkers MET, HER2 (both of which we perform using our technology for CTCs), K-RAS, and T790M (both of which are performed using ctDNA in plasma). This assay could be used by physicians to identify the mechanism causing disease progression for patients with NSCLC who are being treated with TKI therapy and therefore could qualify for inclusion in a clinical trial. In November 2015, Tagrisso® was approved by the U.S. Food and Drug Administration, providing another biomarker based therapy for the treatment of patients with EGFR related lung cancer. Tagrisso® is indicated for the treatment of patients with metastatic EGFR T790M mutation-positive NSCLC, who have progressed on or after EGFR tyrosine kinase inhibitor therapy.

Fibroblast growth receptor 1, or FGFR1, amplification is offered using our CTC technology. FGFR1 is present in several tumor types, including both NSCLC and SCLC and has been shown to be a prognostic indicator of progression. FGFR1 is also a key target for many drugs which are in clinical development.

Mutations of the B-RAF gene are associated with Zelboraf® and Tafinlar®, which are both approved for treating patients with melanoma and are in clinical trials for lung cancer. We offer testing for B-RAF on blood using our ctDNA offering.

We recently analytically validated PD-L1 testing utilizing our CTC technology. PD-L1 is a biomarker that is informative for immuno-oncology therapies currently marketed today for lung cancer and melanoma, as well as in development for multiple tumor types. We collaborated with David Rimm, M.D., Ph.D., a pathologist at Yale Medical School, on the analytical development of this assay.

We plan to add other biomarker analyses, such as ESR1 and NRAS, on blood samples to our current assays and our planned future Target-Selector CTC assays as their relevance is demonstrated in clinical trials and/or included in guidelines used by physicians to make treatment decisions.

We continue to execute on our strategies of expanding our business globally as well as engaging with pharmaceutical companies on clinical trials and assay development. We have executed distribution agreements in Mexico with Quest Diagnostics to support testing for a large pharmaceutical partner, as well as an agreement with Progenetics to market our assays in Israel for clinical testing.

We announced two additional pharmaceutical collaborations during 2016. The first agreement is to provide testing for a clinical trial that includes patients who have leptomeningeal disease, or metastatic lung cancer to the brain. In this exploratory trial, we are testing both cerebral spinal fluid and blood for molecular alterations that could be impacted by treatment. The second agreement is a large milestone-based multi-project assay development collaboration focused on hepatocellular carcinoma, or liver cancer, whereby we will develop assays utilizing both our CTC and ctDNA technologies for clinical trials.

Our revenue generating efforts are focused in three areas:

- providing clinical testing that oncologists use in order to determine the best treatment plan for their patients;
- providing clinical trial, research and development services to biopharma companies developing cancer therapies; and
- licensing our proprietary testing and/or technologies to partners in the United States and abroad.

The following tables set forth certain information concerning our commercial cases accessioned for the periods shown:

	Three Months Ended June 30,		Change	
	2015	2016	#	%
Commercial cases accessioned	334	981	647	194%

	Six Months Ended June 30,		Change	
	2015	2016	#	%
Commercial cases accessioned	581	1,704	1,123	193%

Revenues from commercial cases are recognized as collected, and the expected collection period for a commercial case often extends beyond the end of the quarter in which accessioned, with multiple payments received per case. For commercial accessions received during the six months ended June 30, 2015 and 2016, the average number of tests performed increased from 2.3 tests per accession to 3.7 tests per accession, respectively. For commercial accessions received from January 1, 2016 through June 30, 2016, the expected price to be collected at 2016 Medicare schedule rates ranged from less than \$200 per accession to over \$4,900 per accession, and the weighted-average expected price to be collected is approximately \$1,200 per accession, although such reimbursement experience has not yet been achieved. Relatively higher reimbursement rates are expected to be achieved for cases billed to certain private payors where we have agreements. Approximately 44% of the number of commercial accessions billed from January 1, 2016 through June 30, 2016 were subject to Medicare reimbursement rates, and approximately 50% and 45% of commercial revenues and total revenues, respectively, during the six months ended June 30, 2016 were associated with Medicare reimbursement. We have not historically been reimbursed at these average rates for a variety of reasons, including billing challenges related to changes in Medicare CPT codes for our FISH assays in 2015, establishing our associated internal processes, and also managing an external “out-sourced” billing company. Additionally, a significant amount of our non-Medicare business (private payors) has historically not been contracted, and reimbursement for this business has historically not been at “in network” rates and has therefore been inconsistent. We did begin to contract private payor networks in 2015 and continue to do so in 2016, and our number of accessions treated as “in network” increased and reimbursement is improving. We are currently contracted with eight Preferred Provider Organization networks and one large health plan and expect to continue to gain contracts in order to be considered as an “in-network” provider with additional plans.

Results of Operations

Three Months Ended June 30, 2015 and 2016

The following table sets forth certain information concerning our results of operations for the periods shown:

	Three Months Ended June 30,		Change	
	2015	2016	\$	%
<i>(dollars in thousands)</i>				
Revenues	\$ 77	\$ 663	\$ 586	761%
Cost of revenues	1,013	1,670	657	65%
Research and development expenses	744	716	(28)	(4%)
General and administrative expenses	1,360	1,518	158	12%
Sales and marketing expenses	851	1,292	441	52%
Loss from operations	(3,891)	(4,533)	(642)	16%
Interest expense, net	(169)	(100)	69	(41%)
Other income	25	38	13	52%
Loss before income taxes	(4,035)	(4,595)	(560)	14%
Income tax expense	—	—	—	—
Net loss	\$ (4,035)	\$ (4,595)	\$ (560)	14%

Revenues

Revenues were approximately \$663,000 for the three months ended June 30, 2016, compared with approximately \$77,000 for the same period in 2015, an increase of \$586,000, or 761%. The increase was due to an increase of approximately \$537,000 in commercial assay revenues resulting primarily from increases in both commercial accession volume and collections made thereon, as well as an increase of approximately \$49,000 in development services revenues with 155 development services accessions received during the three months ended June 30, 2016 as compared to 52 accessions received during the same period in 2015.

Costs and Expenses

Cost of Revenues. Cost of revenues was approximately \$1,669,000 for the three months ended June 30, 2016, compared with approximately \$1,013,000 for the three months ended June 30, 2015, an increase of \$656,000, or 65%. The increase was primarily attributable to an increase of approximately \$493,000 in personnel, materials and other direct costs mainly related to higher assay volume, an increase of approximately \$77,000 related to fewer laboratory costs charged to research and development, as well as an increase of approximately \$53,000 in allocated facilities costs.

Research and Development Expenses. Research and development expenses were approximately \$716,000 for the three months ended June 30, 2016, compared with approximately \$744,000 for the three months ended June 30, 2015, a decrease of \$28,000, or 4%. The decrease was primarily attributable to a decrease of approximately \$77,000 in laboratory costs charged to research and development, partially offset by an increase of approximately \$42,000 in personnel costs due to an increase in the average number of employees in the research and development function from 8 employees during the three months ended June 30, 2015 to 9 employees during the same period in 2016.

General and Administrative Expenses. General and administrative expenses were approximately \$1,518,000 for the three months ended June 30, 2016, compared with approximately \$1,360,000 for the three months ended June 30, 2015, an increase of \$158,000, or 12%. The increase was primarily due to an increase of approximately \$82,000 in legal fees primarily associated with patents, an increase of approximately \$32,000 in consulting, billing, and other third party service provider costs mainly associated with expanded commercial activities, as well as an increase of approximately \$25,000 in personnel costs.

Sales and Marketing Expenses. Sales and marketing expenses were approximately \$1,292,000 for the three months ended June 30, 2016, compared with approximately \$851,000 for the three months ended June 30, 2015, an increase of \$441,000, or 52%. The increase was primarily due to an increase of approximately \$362,000 in personnel costs and travel expenses associated with an increase in the average number of employees included in the sales and marketing function from 11 employees during the three months ended June 30, 2015 to 15 employees during the same period in 2016, as well as an increase of approximately \$72,000 in consulting and other third party service provider costs associated with expanded commercial activities.

Income Taxes

Over the past several years we have generated operating losses in all jurisdictions in which we may be subject to income taxes. As a result, we have accumulated significant net operating losses and other deferred tax assets. Because of our history of losses and the uncertainty as to the realization of those deferred tax assets, a full valuation allowance has been recognized. We do not expect to report a provision for income taxes until we have a history of earnings, if ever, that would support the realization of our deferred tax assets.

We have not completed a study to assess whether an ownership change has occurred or whether there have been multiple ownership changes since our formation, due to the complexity and cost associated with such a study, and the fact that there may be additional ownership changes in the future, however, we believe an ownership change likely occurred during 2015. As a result, we have estimated that the use of our net operating loss is limited and the remaining net operating loss carryforwards and research and development credits we estimate can be used in the future remain fully offset by a valuation allowance to reduce the net asset to zero.

Six Months Ended June 30, 2015 and 2016

The following table sets forth certain information concerning our results of operations for the periods shown:

	Six Months Ended June 30,		Change	
	2015	2016	\$	%
(dollars in thousands)				
Revenues	\$ 227	\$ 884	\$ 657	289%
Cost of revenues	2,161	3,144	983	45%
Research and development expenses	1,396	1,444	48	3%
General and administrative expenses	2,651	3,005	354	13%
Sales and marketing expenses	1,560	2,597	1,037	66%
Loss from operations	(7,541)	(9,306)	(1,765)	23%
Interest expense, net	(319)	(238)	81	(25%)
Other income	25	77	52	208%
Loss before income taxes	(7,835)	(9,467)	(1,632)	21%
Income tax expense	(1)	(2)	(1)	100%
Net loss	\$ (7,836)	\$ (9,469)	\$ (1,633)	21%

Revenues

Revenues were approximately \$884,000 for the six months ended June 30, 2016, compared with approximately \$227,000 for the same period in 2015, an increase of \$657,000, or 289%. The increase was due to an increase of approximately \$588,000 in commercial assay revenues resulting primarily from increases in both commercial accession volume and collections made thereon, as well as an increase of approximately \$69,000 in development services revenues with 228 development services accessions received during the six months ended June 30, 2016 as compared to 94 accessions received during the same period in 2015.

Costs and Expenses

Cost of Revenues. Cost of revenues was approximately \$3,144,000 for the six months ended June 30, 2016, compared with approximately \$2,161,000 for the six months ended June 30, 2015, an increase of \$983,000, or 45%. The increase was primarily attributable to an increase of approximately \$886,000 in personnel, materials and other direct costs mainly related to higher assay volume, as well as an increase of approximately \$56,000 related to fewer laboratory costs charged to research and development.

Research and Development Expenses. Research and development expenses were approximately \$1,444,000 for the six months ended June 30, 2016, compared with approximately \$1,396,000 for the six months ended June 30, 2015, an increase of \$48,000, or 3%. The increase was primarily attributable to an increase of \$100,000 in personnel costs due to an increase in the average number of employees in the research and development function from 7 employees during the six months ended June 30, 2015 to 9 employees during the same period in 2016, partially offset by a decrease of approximately \$56,000 in laboratory costs charged to research and development.

General and Administrative Expenses. General and administrative expenses were approximately \$3,005,000 for the six months ended June 30, 2016, compared with approximately \$2,651,000 for the six months ended June 30, 2015, an increase of \$354,000, or 13%. The increase was primarily due to an increase of approximately \$132,000 in consulting, billing, and other third party service provider

costs mainly associated with expanded commercial activities, an increase of approximately \$94,000 in allocated facilities costs, an increase of approximately \$78,000 in personnel costs, as well as an increase of approximately \$22,000 in legal fees.

Sales and Marketing Expenses. Sales and marketing expenses were approximately \$2,597,000 for the six months ended June 30, 2016, compared with approximately \$1,560,000 for the six months ended June 30, 2015, an increase of \$1,037,000, or 66%. The increase was primarily due to an increase of approximately \$797,000 in personnel costs and travel expenses associated with an increase in the average number of employees included in the sales and marketing function from 11 employees during the six months ended June 30, 2015 to 15 employees during the same period in 2016, as well as an increase of approximately \$229,000 in consulting and other third party service provider costs associated with expanded commercial activities.

Income Taxes

Over the past several years we have generated operating losses in all jurisdictions in which we may be subject to income taxes. As a result, we have accumulated significant net operating losses and other deferred tax assets. Because of our history of losses and the uncertainty as to the realization of those deferred tax assets, a full valuation allowance has been recognized. We do not expect to report a provision for income taxes until we have a history of earnings, if ever, that would support the realization of our deferred tax assets.

We have not completed a study to assess whether an ownership change has occurred or whether there have been multiple ownership changes since our formation, due to the complexity and cost associated with such a study, and the fact that there may be additional ownership changes in the future, however, we believe an ownership change likely occurred during 2015. As a result, we have estimated that the use of our net operating loss is limited and the remaining net operating loss carryforwards and research and development credits we estimate can be used in the future remain fully offset by a valuation allowance to reduce the net asset to zero.

Liquidity and Capital Resources

Cash Flows

Our net cash flow from operating, investing and financing activities for the periods below were as follows:

	Six Months Ended	
	June 30,	
	<u>2015</u>	<u>2016</u>
<i>(dollars in thousands)</i>		
Cash provided by (used in):		
Operating activities	\$ (7,185)	\$ (8,294)
Investing activities	(73)	(324)
Financing activities	18,417	3,548
Net increase (decrease) in cash and cash equivalents	<u>\$ 11,159</u>	<u>\$ (5,070)</u>

Cash Used in Operating Activities. Net cash used in operating activities was \$8.3 million for the six months ended June 30, 2016, compared to net cash used in operating activities of \$7.2 million for the six months ended June 30, 2015. In all periods the primary use of cash was to fund our net loss. The increase of \$1.1 million of cash used in operating activities for the six months ended June 30, 2016 as compared to the same period in 2015 also includes a decrease of \$0.5 million cash used to fund operating assets and liabilities.

Cash Used in Investing Activities. Cash used in investing activities of approximately \$324,000 and \$73,000 during the six months ended June 30, 2016 and 2015, respectively, was related to the acquisition of fixed assets.

Cash Provided by Financing Activities. Net cash provided by financing activities was \$3.5 million for the six months ended June 30, 2016, compared to net cash provided by financing activities of \$18.4 million for the six months ended June 30, 2015. Our primary sources of cash from financing during the six months ended June 30, 2015 consisted of proceeds from our follow-on 2015 public offering and the exercise of common stock warrants sold in that offering. Our primary sources of cash from financing during the six months ended June 30, 2016 consisted of \$4.4 million in net proceeds from our May 2016 public offering and \$0.3 million in net proceeds from the sale of common stock to Aspire Capital under our common stock purchase agreement, which was partially offset by \$1.1 million of principal payments made on indebtedness.

Capital Resources and Expenditure Requirements

We expect to continue to incur substantial operating losses in the future. It may take several years to achieve positive operational cash flow or we may not ever achieve positive operational cash flow. We expect that we will use a portion of the net proceeds from our

follow-on public offerings, the proceeds from our common stock purchase agreement with Aspire Capital, and our revenues from operations to hire sales and marketing personnel, support increased sales and marketing activities, fund further research and development, clinical utility studies and future enhancements of our assays, acquire equipment, implement automation and scale our capabilities to prepare for significant assay volume, for general corporate purposes and to fund ongoing operations and the expansion of our business, including the increased costs associated with expanded commercial activities. We may also use a portion of the net proceeds from our follow-on public offerings and the proceeds from our common stock purchase agreement with Aspire Capital to acquire or invest in businesses, technologies, services or products, although we do not have any current plans to do so.

As of June 30, 2016, our cash and cash equivalents totaled \$3.8 million, and our outstanding indebtedness totaled \$5.0 million (including \$0.2 million of interest accrued thereon, and excluding \$0.4 million of associated debt discounts). While we currently are in the commercialization stage of operations, we have not yet achieved profitability and anticipate that we will continue to incur net losses for the foreseeable future. Management expects that the Company will need additional financing to execute on its current or future business strategies beyond September 2016.

On February 13, 2015, we received net cash proceeds of \$9.1 million as a result of the closing of a follow-on public offering, before deducting \$0.3 million of additional non-underwriting costs incurred. Subsequent to the closing of this follow-on public offering on February 13, 2015, additional cash proceeds of approximately \$9.8 million have been received from the exercise of warrants sold in such offering, while approximately \$2.7 million in gross warrant proceeds remain outstanding and available to be exercised at \$1.56 per share until their expiration in February 2020.

In May 2015, the SEC declared effective a shelf registration statement filed by us. The shelf registration statement allows us to issue any combination of our common stock, preferred stock, debt securities and warrants from time to time for an aggregate initial offering price of up to \$50 million, subject to certain limitations for so long as our public float is less than \$75 million. Pursuant to an exclusive placement agent agreement dated April 25, 2016 between us and H.C. Wainwright & Co., LLC, or Wainwright, and a securities purchase agreement dated April 29, 2016 between us and the purchasers signatory thereto, a public offering of 4,986,573 shares of our common stock and warrants to purchase up to an aggregate of 3,490,601 shares of common stock was effected under this registration statement at a combined offering price of \$1.00. All warrants sold in this offering have a per share exercise price of \$1.30, are exercisable immediately and expire five years from the date of issuance. The closing of the sale of these securities to the purchasers occurred on May 4, 2016, pursuant to which we received, after deducting the placement agent's fees and non-accountable expense reimbursements paid to Wainwright, as well as advisory service fees paid to ROTH Capital Partners, LLC and certain other transactional fees paid to third parties, approximately \$4.6 million of net cash proceeds. The total increase in capital as a result of the sale of these shares and warrants was approximately \$4.4 million after deducting an estimated \$0.2 million of additional third party costs incurred in connection with this offering. An aggregate balance of approximately \$0.6 million related to placement agent's fees, advisory service expenses and non-placement agent costs associated with this offering was recorded to common stock issuance costs upon closing under applicable accounting guidance. Subsequent to the closing of this public offering on May 4, 2016, no warrants sold in such offering have been exercised, with approximately \$4.5 million in gross warrant proceeds remaining outstanding and available to be exercised at \$1.30 per share until their expiration in May 2021. Following this offering and through the date that our June 30, 2016 unaudited condensed financial statements are available to be issued, given the limitations that apply for so long as our public float is less than \$75 million, no additional common stock, preferred stock, debt securities or warrants may be sold by us under this shelf registration statement. In connection with its May 2016 public offering, we have agreed to certain contractual terms that limit our ability to issue variable rate securities for a period of one year. The specific terms of additional future offerings, if any, under this shelf registration statement would be established at the time of such offerings.

On December 21, 2015, we entered into a common stock purchase agreement with Aspire Capital, which committed to purchase up to an aggregate of \$15.0 million of shares of our common stock over the 30-month term of the common stock purchase agreement. Upon execution of the common stock purchase agreement, we sold to Aspire Capital 625,000 shares of common stock at \$1.60 per share for gross proceeds of \$1,000,000, before deducting approximately \$0.1 million of associated costs incurred by third parties, and we concurrently also entered into a registration rights agreement with Aspire Capital, pursuant to which we filed a registration statement registering the sale of the shares of our common stock that have been and may be issued to Aspire Capital under the common stock purchase agreement. In consideration for entering into, and concurrently with the execution of, the common stock purchase agreement, we issued to Aspire Capital 165,000 shares of our common stock. During the six months ended June 30, 2016, we submitted purchase notices to Aspire Capital for an aggregate of 300,000 shares of common stock for gross proceeds of \$403,000. Subsequent to June 30, 2016, we submitted purchase notices to Aspire Capital for an aggregate of 219,439 shares of common stock for gross proceeds of \$141,051. The lesser of approximately \$13.5 million, or up to 2,464,683 shares, may be issued to Aspire Capital under this agreement as of August 2, 2016, subject to certain contractual limitations that prohibit our ability to sell our common stock to Aspire Capital.

We expect that we will need additional financing to execute on our current or future business strategies. Until we can generate significant cash from operations, including assay revenues, we expect to continue to fund operations with the proceeds from offerings of our equity securities or debt, or transactions involving product development, technology licensing or collaboration. For example, we have an effective shelf registration statement on file with the SEC which allows us to issue any combination of our common stock, preferred stock, debt securities and warrants from time to time with an available remaining aggregate initial offering price of up to

approximately \$39.2 million, subject to certain limitations for so long as our public float is less than \$75.0 million. In connection with our May 2016 public offering, we have agreed to certain contractual terms that limit our ability to issue variable rate securities for a period of one year. We also have entered into a common stock purchase agreement with Aspire Capital pursuant to which we can sell up to \$15.0 million of shares of our common stock to Aspire Capital over the 30-month term of the common stock purchase agreement. The lesser of approximately \$13.5 million, or up to 2,464,683 shares, may be issued to Aspire Capital under this agreement as of August 2, 2016, subject to certain contractual limitations that prohibit our ability to sell our common stock to Aspire Capital. We can provide no assurances that any sources of a sufficient amount of financing will be available to us on favorable terms, if at all. If we are unable to raise a sufficient amount of financing in a timely manner, we would likely need to scale back our general and administrative activities and certain of our research and development activities. Our forecast pertaining to our current financial resources and the costs to support our general and administrative and research and development activities are forward-looking statements and involve risks and uncertainties. Actual results could vary materially and negatively as a result of a number of factors, including:

- our ability to secure financing and the amount thereof;
- the costs of operating and enhancing our laboratory facilities;
- the costs of developing our anticipated internal sales and marketing capabilities;
- the scope, progress and results of our research and development programs, including clinical utility studies;
- the scope, progress, results, costs, timing and outcomes of the clinical utility studies for our cancer diagnostic assays;
- our ability to manage the costs for manufacturing our microfluidic channels;
- the costs of maintaining, expanding and protecting our intellectual property portfolio, including potential litigation costs and liabilities;
- our ability to obtain adequate reimbursement from governmental and other third-party payors for our assays and services;
- the costs of additional general and administrative personnel, including accounting and finance, legal and human resources, as a result of becoming a public company;
- our ability to collect revenues; and
- other risks discussed in our other filings with the SEC.

We may raise additional capital to fund our current operations and to fund expansion of our business to meet our long-term business objectives through public or private equity offerings, our common stock purchase agreement with Aspire Capital, debt financings, borrowings or strategic partnerships coupled with an investment in our company or a combination thereof. If we raise additional funds through the issuance of convertible debt securities, or other debt securities, these securities could be secured and could have rights senior to those of our common stock. In addition, any new debt incurred by us could impose covenants that restrict our operations. The issuance of any new equity securities will also dilute the interest of our current stockholders. Given the risks associated with our business, including our unprofitable operating history and our ability or inability to develop additional assays, additional capital may not be available when needed on acceptable terms, or at all. If adequate funds are not available, we will need to curb our expansion plans or limit our research and development activities, which would have a material adverse impact on our business prospects and results of operations.

Off-Balance Sheet Arrangements

We have not engaged in any off-balance sheet arrangements as defined in Item 303(a)(4) of Regulation S-K.

Critical Accounting Policies and Significant Judgments and Estimates

For a discussion of accounting policies that we consider critical to our business operations and understanding of our results of operations, and that affect the more significant judgments and estimates used in the preparation of our financial statements, see Part II, Item 7, “Management’s Discussion and Analysis of Financial Condition and Results of Operations—Critical Accounting Policies and Significant Judgments and Estimates” contained in our Annual Report on Form 10-K for the year ended December 31, 2015. There have been no material changes to our critical accounting policies and estimates from the information provided in our Annual Report on Form 10-K for the year ended December 31, 2015.

Item 3. Quantitative and Qualitative Disclosures about Market Risk

Not applicable.

Item 4. Controls and Procedures

We maintain disclosure controls and procedures that are designed to ensure that information required to be disclosed in our periodic and current reports that we file with the SEC 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 our management, including our principal executive officer and principal financial officer, as appropriate, to allow timely decisions regarding required disclosure. In designing and evaluating the disclosure controls and procedures, management recognized that any controls and procedures, no matter how well designed and operated, can provide only reasonable and not absolute assurance of achieving the desired control objectives. In reaching a reasonable level of assurance, management necessarily was required to apply its judgment in evaluating the cost-benefit relationship of possible controls and procedures. In addition, the design of any system of controls also is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions; over time, control may become inadequate because of changes in conditions, or the degree of compliance with policies or procedures may deteriorate. Because of the inherent limitations in a cost-effective control system, misstatements due to error or fraud may occur and not be detected.

As of June 30, 2016, we carried out an evaluation, under the supervision and with the participation of our management, including our principal executive officer and principal financial officer, of the effectiveness of the design and operation of our disclosure controls and procedures, as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act. Based on this evaluation, our principal executive officer and principal financial officer concluded that our disclosure controls and procedures were effective at the reasonable assurance level as of June 30, 2016. There were no changes in our internal control over financial reporting that occurred during the six months ended June 30, 2016 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Item 1. Legal Proceedings

None.

Item 1A. Risk Factors

For a discussion of our potential risks and uncertainties, please see the information listed below, along with the information listed in the item captioned “Risk Factors” in our Annual Report on Form 10-K for the year ended December 31, 2015. Except as provided below, there have been no material changes to the risk factors as disclosed in the Form 10-K. You should carefully consider the risk factors discussed below and in our Annual Report on Form 10-K for the year ended December 31, 2015, which could materially affect our business, financial position and results of operations.

We need to raise additional capital to continue as a going concern.

We expect to continue to incur losses for the foreseeable future and will have to raise additional capital to fund our planned operations and to meet our long-term business objectives. As a result, there is substantial doubt about our ability to continue as a going concern unless we are able to successfully raise additional capital. Until we can generate significant cash from operations, including assay revenues, we expect to continue to fund our operations with the proceeds from offerings of our equity securities or debt, or transactions involving product development, technology licensing or collaboration. We can provide no assurances that any sources of a sufficient amount of financing will be available to us on favorable terms, if at all. Failure to raise additional capital in sufficient amounts would significantly impact our ability to continue as a going concern. The actual amount of funds that we will need and the timing of any such investment will be determined by many factors, some of which are beyond our control. For further discussion of our liquidity requirements as they relate to our ability to continue as a going concern and our long-term plans, see the section entitled “Management’s Discussion and Analysis of Financial Condition and Results of Operations—Liquidity and Capital Resources.”

Our failure to meet the continued listing requirements of The NASDAQ Capital Market could result in a de-listing of our common stock.

If we fail to satisfy the continued listing requirements of The NASDAQ Capital Market, such as the corporate governance requirements, the minimum closing bid price requirement, or the minimum stockholders’ equity requirement, NASDAQ may take steps to de-list our common stock. For example, in May 2016, we received a letter from NASDAQ indicating that we are not in compliance with the minimum stockholders’ equity requirement of NASDAQ Listing Rule 5550(b)(1), and in June 2016, we received a letter from NASDAQ indicating that we are not in compliance with the minimum bid price requirement of NASDAQ Listing Rule 5550(a)(2). If we fail to regain compliance with these, or any other of the continued listing requirements of The NASDAQ Capital Market, NASDAQ may take steps to de-list our common stock. Such a de-listing would likely have a negative effect on the price of our common stock and would impair your ability to sell or purchase our common stock when you wish to do so. In the event of a de-listing, we would take actions to restore our compliance with NASDAQ’s listing requirements, but we can provide no assurance that any such action taken by us would allow our common stock to become listed again, stabilize the market price or improve the liquidity of our common stock, or prevent future non-compliance with NASDAQ’s listing requirements.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds**Unregistered Sales of Equity Securities**

None.

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

The exhibits listed on the accompanying index to exhibits immediately preceding the exhibits are filed as part of, or hereby incorporated by reference into, this Quarterly Report.

Exhibit Index

The exhibits listed below are hereby filed with the SEC as part of this Quarterly Report on Form 10-Q.

EXHIBITS

Exhibit No.	Description of Exhibit
3.1	Certificate of Amendment of Certificate of Incorporation (incorporated by reference to Exhibit 3.1.4 of the Registrant's Current Report on Form 8-K, filed with the SEC on February 14, 2014).
3.2	Amended and Restated Bylaws (incorporated by reference to Exhibit 3.2.1 of the Registrant's Registration Statement on Form S-1 (File No. 333-191323), filed with the SEC on September 23, 2013).
4.1	Reference is made to Exhibits 3.1 and 3.2.
4.2	Specimen Common Stock certificate of Biocept, Inc. (incorporated by reference to Exhibit 4.1 of the Registrant's Registration Statement on Form S-1 (File No. 333-191323), as amended, filed with the SEC on November 5, 2013).
4.3	Form of Representative's Warrant, dated February 10, 2014 (incorporated by reference to Exhibit 4.2 of the Registrant's Registration Statement on Form S-1 (File No. 333-191323), as amended, filed with the SEC on November 20, 2013).
4.4	Form of Warrant issued to the lender under the Loan and Security Agreement, dated as of April 30, 2014, by and among Biocept, Inc., Oxford Finance LLC, as collateral agent, and the lenders party thereto from time to time, including Oxford Finance LLC (incorporated by reference to Exhibit 4.1 of the Registrant's Current Report on Form 8-K, filed with the SEC on May 6, 2014).
4.5	Form of Warrant to Purchase Common Stock (incorporated by reference to Exhibit 4.5 of the Registrant's Registration Statement on Form S-1 (File No. 333-201437), filed with the SEC on February 6, 2015).
4.6	Warrant to Purchase Preferred Stock, dated September 10, 2012, issued by the Registrant in favor of ARE-SD Region No. 18, LLC (incorporated by reference to Exhibit 10.11.3 of the Registrant's Registration Statement on Form S-1 (File No. 333-191323), filed with the SEC on September 23, 2013).
4.7	Warrant to Purchase Common Stock, dated September 10, 2013, issued by the Registrant in favor of ARE-SD Region No. 18, LLC (incorporated by reference to Exhibit 10.11.6 of the Registrant's Registration Statement on Form S-1 (File No. 333-191323), filed with the SEC on September 23, 2013).
4.8	Warrant to Purchase Preferred Stock dated as of January 21, 2009, issued by the Registrant in favor of Goodman Co. Ltd. (incorporated by reference to Exhibit 10.17.1 of the Registrant's Registration Statement on Form S-1 (File No. 333-191323), filed with the SEC on September 23, 2013).
4.9	Warrant to Purchase Common Stock dated as of July 31, 2013, issued by the Registrant in favor of Goodman Co. Ltd. (incorporated by reference to Exhibit 10.17.3 of the Registrant's Registration Statement on Form S-1 (File No. 333-191323), filed with the SEC on September 23, 2013).
4.10	Form of Warrant to Purchase Preferred Stock, issued by the Registrant in favor of various investors under the Note and Warrant Purchase Agreement dated as of January 13, 2012 (incorporated by reference to Exhibit 10.19.3 of the Registrant's Registration Statement on Form S-1 (File No. 333-191323), filed with the SEC on September 23, 2013).
4.11	Form of Amendment of Warrant to Purchase Preferred Stock, dated as of September 13, 2013 (incorporated by reference to Exhibit 10.19.4 of the Registrant's Registration Statement on Form S-1 (File No. 333-191323), filed with the SEC on September 23, 2013).
4.12	Form of Warrant to Purchase Common Stock, issued by the Registrant in favor of various investors under the Note and Warrant Purchase Agreement dated as of June 28, 2013 (incorporated by reference to Exhibit 10.20.2 of the Registrant's Registration Statement on Form S-1 (File No. 333-191323), filed with the SEC on September 23, 2013).
4.13	Form of Warrant to Purchase Common Stock, issued by the Registrant in favor of various guarantors under the Reimbursement Agreement dated as of July 11, 2013 (incorporated by reference to Exhibit 10.21.1 of the Registrant's Registration Statement on Form S-1 (File No. 333-191323), filed with the SEC on September 23, 2013).
4.14	Amended and Restated Investor Rights Agreement, dated as of October 31, 2011, among the Registrant and certain investors named therein (incorporated by reference to Exhibit 10.12 of the Registrant's Registration Statement on Form S-1 (File No. 333-191323), filed with the SEC on September 23, 2013).
4.15	Form of Common Stock Purchase Warrant issued to the investors under the Securities Purchase Agreement, dated April 29, 2016, by and among Biocept, Inc. and the purchasers signatory thereto (incorporated by reference to Exhibit 4.1 of the Registrant's Current Report on Form 8-K, filed with the SEC on April 29, 2016).
10.1	Letter Agreement, dated April 25, 2016, by and between Biocept, Inc. and H.C. Wainwright & Co., LLC (incorporated by reference to Exhibit 10.1 of the Registrant's Current Report on Form 8-K, filed with the SEC on April 29, 2016).
10.2	Securities Purchase Agreement, dated April 29, 2016, by and among Biocept, Inc. and the Purchasers signatory thereto (incorporated by reference to Exhibit 10.2 of the Registrant's Current Report on Form 8-K, filed with the SEC on April 29, 2016).
10.3	Second Amendment to Loan and Security Agreement by and among Biocept, Inc., Oxford Finance LLC, as collateral agent, and the lenders party thereto from time to time, including Oxford Finance LLC, dated as of June 30, 2016.

Exhibit No.	Description of Exhibit
31.1	Certification of Michael Nall, Chief Executive Officer, pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certification of Timothy Kennedy, Chief Financial Officer, pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1	Certification of Michael Nall, Chief 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 Timothy Kennedy, Chief 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

+ Indicates management contract or compensatory plan.

SECOND AMENDMENT TO LOAN AND SECURITY AGREEMENT

THIS SECOND AMENDMENT to Loan and Security Agreement (this “**Amendment**”) is entered into as of June 30, 2016 (the “**Amendment Date**”), by and among OXFORD FINANCE LLC, a Delaware limited liability company with an office located at 133 North Fairfax Street, Alexandria, Virginia 22314 (in its individual capacity, “**Oxford**”; and in its capacity as Collateral Agent, “**Collateral Agent**”), the Lenders listed on Schedule 1.1 to the Loan Agreement (as defined herein) from time to time including Oxford in its capacity as a Lender (each a “**Lender**” and collectively, the “**Lenders**”) and BIOCEPT, INC., a Delaware corporation with offices located at 5810 Nancy Ridge Drive, San Diego, California 92121 (“**Borrower**”).

WHEREAS, Collateral Agent, Borrower and Lenders party thereto from time to time have entered into that certain Loan and Security Agreement, dated as of April 30, 2014 (as amended, supplemented or otherwise modified from time to time, the “**Loan Agreement**”) pursuant to which Lenders have provided to Borrower certain loans in accordance with the terms and conditions thereof; and

WHEREAS, Borrower, Lenders and Collateral Agent desire to amend certain provisions of the Loan Agreement as provided herein and subject to the terms and conditions set forth herein;

NOW, THEREFORE, in consideration of the premises, covenants and agreements contained herein, and other good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, Borrower, Lenders and Collateral Agent hereby agree as follows:

1. Capitalized terms used herein but not otherwise defined shall have the respective meanings given to them in the Loan Agreement.
2. Section 2.2(b) of the Loan Agreement is hereby amended and restated in its entirety to read as follows:

Repayment. Borrower shall make monthly payments of interest only commencing on the first (1st) Payment Date following the Funding Date of each Term Loan, and continuing on the Payment Date of each successive month thereafter through and including the Payment Date immediately preceding the First Amortization Date. Borrower agrees to pay, on the Funding Date of each Term Loan, any initial partial monthly interest payment otherwise due for the period between the Funding Date of such Term Loan and the first Payment Date thereof. Commencing on the First Amortization Date, and continuing on the Payment Date of each month thereafter through and including June 1, 2016, Borrower shall make consecutive equal monthly payments of principal and interest, in arrears, to each Lender, as calculated by Collateral Agent (which calculations shall be deemed correct absent manifest error) based upon: (1) the amount of such Lender’s Term Loan, (2) the effective rate of interest, as determined in Section 2.3(a), and (3) a repayment schedule equal to thirty-six months. Commencing on the Interest-Only Date, Borrower shall make monthly payments of interest only, and continuing on the Payment Date of each successive month thereafter through and including the Payment Date immediately preceding the Second Amortization Date. Commencing on the Second Amortization Date, and continuing on the Payment Date of each month thereafter, Borrower shall make consecutive equal monthly payments of principal and interest, in arrears, to each Lender, as calculated by Collateral Agent (which calculations shall be deemed correct absent manifest error) based upon: (1) the then outstanding amount of such Lender’s Term Loan, (2) the effective rate of interest, as determined in Section 2.3(a), and (3) a repayment schedule equal to either (i) twenty-two months (if the Second Amortization Date is October 1, 2016) or (ii) nineteen months (if the Second Amortization Date is January 1, 2017). All unpaid principal and accrued and unpaid interest with respect to each Term Loan is due and payable in full on the Maturity Date of such Term Loan. Each Term Loan may only be prepaid in accordance with Sections 2.2(c) and 2.2(d).

3. Section 2.5 of the Loan Agreement is hereby amended by deleting the word “and” at the end of subsection (c) thereof, replacing “.” at the end of subsection (d) thereof with “; and” and adding the following subsection (e) thereto:

(e) Second Amendment Fee. Second Amendment Fee which shall be due and payable on the earlier of (i) the Maturity Date, (ii) the date on which when the then aggregate outstanding principal amount of the Term Loans becomes payable under Section 2.2(c) or (iii) the date on which the then aggregate outstanding principal amount of the Term Loans is paid by Borrower under Section 2.2(d).

4. Section 13.1 of the Loan Agreement is hereby amended by deleting the term “**Amortization Date**.”

5. Section 13.1 of the Loan Agreement is hereby amended by adding the following definitions thereto in alphabetical order:

“**Additional I/O Event**” is the occurrence, after the Second Amendment Date and on or before September 30, 2016, of either (i) an Equity Event or (ii) the receipt by the Borrower of a signed letter of intent relating to a Sale of the Borrower, in form and substance satisfactory to Collateral Agent.

“**Equity Event**” is the receipt by Borrower of unrestricted net cash proceeds of not less than Seven Million Dollars (\$7,000,000) from the issuance and sale by Borrower of its equity securities.

“**First Amortization Date**” is August 1, 2015.

“**Interest-Only Date**” is July 1, 2016.

“**Sale of the Borrower**” is any of the following: (a) a sale or other disposition by Borrower of all or substantially all of its assets; (b) a merger or consolidation of Borrower into or with another person or entity, where the holders of Borrower’s outstanding voting equity securities as of immediately prior to such merger or consolidation hold less than a majority of the issued and outstanding voting equity securities of the successor or surviving person or entity as of immediately following the consummation of such merger or consolidation; or (c) any sale, in a single transaction or series of related transactions, by the holders of Borrower’s outstanding voting equity securities, to one or more buyers, of such securities, where such holders do not, as of immediately following the consummation of such transaction(s), continue to hold at least a majority of Borrower’s issued and outstanding voting equity securities.

“**Second Amendment Date**” is June 30, 2016.

“**Second Amendment Fee**” is (i) Fifty Thousand Dollars (\$50,000.00), if the Additional I/O Event does not occur or (ii) Seventy-Five Thousand Dollars (\$75,000.00), if the Additional I/O Event occurs.

“**Second Amortization Date**” is (i) October 1, 2016, if the Additional I/O Event does not occur or (ii) if the Additional I/O Event occurs, January 1, 2017.

6. Section 13.1 of the Loan Agreement is hereby amended by amending and restating the following definitions therein as follows:

“**Obligations**” are all of Borrower’s obligations to pay when due any debts, principal, interest, Lenders’ Expenses, the Prepayment Fee, the Final Payment, the Second Amendment Fee, and other amounts Borrower owes the Lenders now or later, in connection with, related to, following, or arising from, out of or under, this Agreement or, the other Loan Documents (other than the Warrants or any equity instrument), or otherwise, and including interest accruing after Insolvency Proceedings begin (whether or not allowed) and debts, liabilities, or obligations of Borrower assigned to the Lenders and/or Collateral Agent, and the performance of Borrower’s duties under the Loan Documents (other than the Warrants or any equity instrument).

“**Maturity Date**” is July 1, 2018.

7. Subsection (e) of the definition of “**Permitted Indebtedness**” set forth in Section 13.1 of the Loan Agreement is hereby amended and restated in its entirety to read as follows:

- “(e) Indebtedness consisting of capitalized lease obligations and purchase money Indebtedness, in each case incurred by Borrower or any of its Subsidiaries to finance the acquisition, repair, improvement or construction of fixed or capital assets of such person, provided that (i) the aggregate outstanding principal amount of all such Indebtedness does not exceed One Million Two Hundred Thousand Dollars (\$1,200,000.00) at any time and (ii) the principal amount of such Indebtedness does not exceed the lower of the cost or fair market value of the property so acquired or built or of such repairs or improvements financed with such Indebtedness (each measured at the time of such acquisition, repair, improvement or construction is made);”
8. The amortization table attached to the Disbursement Letter dated April 30, 2014 is hereby amended and restated in its entirety as set forth on Exhibit A hereto and shall be further amended and restated in its entirety upon the occurrence (if any) of the Additional I/O Event to reflect the change to the Second Amortization Date (in accordance with its definition).
9. Limitation of Amendment.
- a. The amendments set forth in Sections 2 through 7, above, are effective for the purposes set forth herein and shall be limited precisely as written and shall not be deemed to (a) be a consent to any amendment, waiver or modification of any other term or condition of any Loan Document, or (b) otherwise prejudice any right or remedy which Lenders may now have or may have in the future under or in connection with any Loan Document.
 - b. This Amendment shall be construed in connection with and as part of the Loan Documents and all terms, conditions, representations, warranties, covenants and agreements set forth in the Loan Documents, except as herein amended, are hereby ratified and confirmed and shall remain in full force and effect.
10. To induce Collateral Agent and Lenders to enter into this Amendment, Borrower hereby represents and warrants to Collateral Agent and Lenders as follows:
- a. Immediately after giving effect to this Amendment (a) the representations and warranties contained in the Loan Documents are true, accurate and complete in all material respects as of the date hereof (except to the extent such representations and warranties relate to an earlier date, in which case they are true and correct in all material respects as of such date), and (b) no Event of Default has occurred and is continuing;
 - b. Borrower has the power and due authority to execute and deliver this Amendment and to perform its obligations under the Loan Agreement, as amended by this Amendment;
 - c. The organizational documents of Borrower delivered to Collateral Agent on the Effective Date remain true, accurate and complete and have not been amended, supplemented or restated and are and continue to be in full force and effect;
 - d. The execution and delivery by Borrower of this Amendment and the performance by Borrower of its obligations under the Loan Agreement, as amended by this Amendment, do not and will not contravene (i) any law or regulation binding on or affecting Borrower, (ii) any contractual restriction with a Person binding on Borrower, (iii) any order, judgment or decree of any court or other governmental or public body or authority, or subdivision thereof, binding on Borrower, or (iv) the organizational documents of Borrower;
 - e. The execution and delivery by Borrower of this Amendment and the performance by Borrower of its obligations under the Loan Agreement, as amended by this Amendment, do not require any order, consent, approval, license, authorization or validation of, or filing, recording or registration with, or exemption by any governmental or public body or authority, or subdivision thereof, binding on Borrower, except as already has been obtained or made; and

- f. This Amendment has been duly executed and delivered by Borrower and is the binding obligation of Borrower, enforceable against Borrower in accordance with its terms, except as such enforceability may be limited by bankruptcy, insolvency, reorganization, liquidation, moratorium or other similar laws of general application and equitable principles relating to or affecting creditors' rights.
11. Except as expressly set forth herein, the Loan Agreement shall continue in full force and effect without alteration or amendment. This Amendment and the Loan Documents represent the entire agreement about this subject matter and supersede prior negotiations or agreements.
 12. This Amendment shall be deemed effective as of the Amendment Date upon (a) the due execution and delivery to Collateral Agent of this Amendment by each party hereto and (b) Borrower's payment of all Lenders' Expenses incurred through the date hereof, which may be debited from any of Borrower's accounts with Lenders.
 13. This Amendment may be executed in any number of counterparts, each of which shall be deemed an original, and all of which, taken together, shall constitute one and the same instrument.
 14. This Amendment and the rights and obligations of the parties hereto shall be governed by and construed in accordance with the laws of the State of California.

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IN WITNESS WHEREOF, the parties hereto have caused this Second Amendment to Loan and Security Agreement to be executed as of the date first set forth above.

BORROWER:

BIOCEPT, INC.

By /s/Michael W. Nall

Name: Michael W. Nall

Title: President and Chief Executive Officer

COLLATERAL AGENT AND LENDER:

OXFORD FINANCE LLC

By /s/ Mark Davis

Name: Mark Davis

Title: VP - Finance, Secretary & Treasurer

[Signature Page to Second Amendment to Loan and Security Agreement]

CERTIFICATION

I, Michael W. Nall, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Biocept, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiary, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: August 5, 2016

/s/ Michael W. Nall

Michael W. Nall
President and Chief Executive Officer
(Principal Executive Officer)

CERTIFICATION

I, Timothy Kennedy, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Biocept, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiary, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: August 5, 2016

/s/ Timothy Kennedy

Timothy Kennedy

Chief Financial Officer, Senior Vice President of Operations
(Principal Financial and Accounting Officer)

CERTIFICATION

I, Michael W. Nall, hereby certify pursuant to Rule 13a-14(b) or Rule 15d-14(b) of the Securities Exchange Act of 1934 and 18 U.S.C. Section 1350, that, to my knowledge, the Quarterly Report on Form 10-Q of Biocept, Inc. for the period ended June 30, 2016 (the "Report") fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of Biocept, Inc.

Date: August 5, 2016

/s/ Michael W. Nall

Michael W. Nall
President and Chief Executive Officer
(Principal Executive Officer)

This certification accompanies the Report pursuant to Rule 13a-14(b) or Rule 15d-14(b) under the Securities Exchange Act of 1934 and 18 U.S.C. Section 1350 and shall not be deemed filed by the Company for purposes of Section 18 of the Securities Exchange Act of 1934.

CERTIFICATION

I, Timothy Kennedy, hereby certify pursuant to Rule 13a-14(b) or Rule 15d-14(b) of the Securities Exchange Act of 1934 and 18 U.S.C. Section 1350, that, to my knowledge, the Quarterly Report on Form 10-Q of Biocept, Inc. for the period ended June 30, 2016 (the "Report") fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of Biocept, Inc.

Date: August 5, 2016

/s/ Timothy Kennedy

Timothy Kennedy

Chief Financial Officer, Senior Vice President of Operations
(Principal Financial and Accounting Officer)

This certification accompanies the Report pursuant to Rule 13a-14(b) or Rule 15d-14(b) under the Securities Exchange Act of 1934 and 18 U.S.C. Section 1350 and shall not be deemed filed by the Company for purposes of Section 18 of the Securities Exchange Act of 1934.