

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

**FORM S-1  
REGISTRATION STATEMENT  
UNDER  
THE SECURITIES ACT OF 1933**

**Biocept, Inc.**

(Exact name of registrant as specified in its charter)

Delaware  
(State or other jurisdiction of  
incorporation or organization)

8071  
(Primary Standard Industrial  
Classification Code Number)

80-0943522  
(I.R.S. Employer  
Identification Number)

5810 Nancy Ridge Drive  
San Diego, CA 92121  
(858) 320-8200  
(Address, including zip code, and telephone number, including  
area code, of registrant's principal executive offices)

Michael W. Nall  
Chief Executive Officer and President  
Biocept, Inc.  
5810 Nancy Ridge Drive  
San Diego, CA 92121  
(858) 320-8200  
(Name, address, including zip code, and telephone number, including area code, of agent for service)

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Timothy C. Kennedy  
Chief Financial Officer  
Biocept, Inc.  
5810 Nancy Ridge Drive  
San Diego, CA 92121  
(858) 320-8200

**Approximate date of commencement of proposed sale to the public:** As soon as practicable after the effective date of this registration statement.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, check the following box.

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration number of the earlier effective registration statement for the same offering.

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 under the Securities Exchange Act of 1934. (Check one):

Large Accelerated Filer

Accelerated Filer

Non-accelerated Filer

Smaller Reporting Company

**CALCULATION OF REGISTRATION FEE**

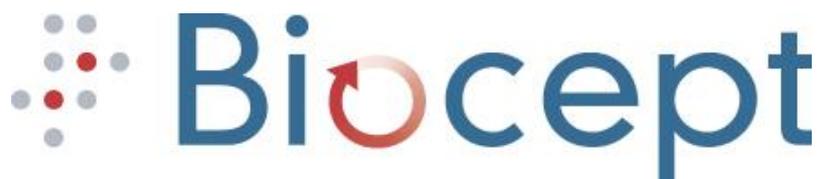
Title of Securities being Registered	Proposed Maximum Aggregate Offering Price (1)	Amount of Registration Fee
Shares of common stock, \$0.0001 par value per share	\$10,000,000	\$1,007

(1) Estimated solely for the purpose of calculating the amount of the registration fee in accordance with Rule 457(o) under the Securities Act. Includes the offering price of shares that the underwriters have the option to purchase to cover over-allotments, if any.

The Registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment that specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933, as amended, or until the registration statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to said Section 8(a), may determine.

The information in this prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities and we are not soliciting offers to buy these securities in any state where the offer or sale is not permitted.

PRELIMINARY PROSPECTUS, SUBJECT TO COMPLETION, DATED AUGUST 12, 2016



## Shares

### Common Stock

Biocept, Inc. is offering \_\_\_\_\_ shares of our common stock. Our common stock is listed on The NASDAQ Capital Market under the symbol "BIOC." On August 11, 2016, the last reported sale price of our common stock on The NASDAQ Capital Market was \$0.63 per share.

We are an "emerging growth company" as that term is used in the Jumpstart Our Business Startups Act of 2012, and, as such, we have elected to take advantage of certain reduced public company reporting requirements for this prospectus and future filings.

You should read this prospectus, together with additional information described under the headings "Incorporation of Certain Information by Reference" and "Where You Can Find More Information," carefully before you invest in any of our securities.

**Investing in our common stock involves a high degree of risk. See "[Risk Factors](#)" beginning on page 6 of this prospectus for a discussion of information that should be considered in connection with an investment in our common stock.**

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

	<u>Per Share</u>	<u>Total</u>
Public offering price	\$	\$
Underwriting discounts and commissions(1)	\$	\$
Offering proceeds to us, before expenses	\$	\$

(1) We have agreed to reimburse the underwriters for certain expenses. See "Underwriting."

We have granted a \_\_\_\_\_ -day option to the underwriters to purchase up to \_\_\_\_\_ additional shares of common stock at a purchase price of \$ \_\_\_\_\_ per share to cover over-allotments, if any.

The underwriters expect to deliver the shares to purchasers in this offering on or about \_\_\_\_\_, 2016.

The date of this prospectus is \_\_\_\_\_.



**The CEE Solution**  
**Personalized Medicine from a Liquid Biopsy**

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We have not authorized anyone to provide you with information that is different from that contained in this prospectus or in any free writing prospectus we may authorize to be delivered or made available to you. When you make a decision about whether to invest in our common stock, you should not rely upon any information other than the information in this prospectus or in any free writing prospectus that we may authorize to be delivered or made available to you. Neither the delivery of this prospectus nor the sale of our common stock means that the information contained in this prospectus or any free writing prospectus is correct after the date of this prospectus or such free writing prospectus. This prospectus is not an offer to sell or the solicitation of an offer to buy the shares of common stock in any circumstances under which the offer or solicitation is unlawful.

Unless otherwise indicated, information contained in this prospectus concerning our industry and the markets in which we operate, including our general expectations and market position, market opportunity and market share, is based on information from our own management estimates and research, as well as from industry and general publications and research, surveys and studies conducted by third parties. Management estimates are derived from publicly available information, our knowledge of our industry and assumptions based on such information and knowledge, which we believe to be reasonable. Our management estimates have not been verified by any independent source, and we have not independently verified any third-party information. In addition, assumptions and estimates of our and our industry's future performance are necessarily subject to a high degree of uncertainty and risk due to a variety of factors, including those described in "[Risk Factors](#)." These and other factors could cause our future performance to differ materially from our assumptions and estimates. See "[Special Note Regarding Forward-Looking Statements](#)."

We use in this prospectus our BIOCEPT logo, for which a United States trademark application has been filed. This prospectus also includes trademarks, tradenames and service marks that are the property of other organizations. Solely for convenience, trademarks and tradenames referred to in this prospectus appear (after the first usage) without the ® and ™ symbols, but those references are not intended to indicate, in any way, that we will not assert, to the fullest extent under applicable law, our rights or that the applicable owner will not assert its rights, to these trademarks and tradenames.

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## SUMMARY

*This summary highlights information contained elsewhere in this prospectus. This summary does not contain all of the information you should consider before investing in our common stock. You should read this entire prospectus carefully, especially the “[Risk Factors](#)” section of this prospectus before making an investment decision.*

### **Our Company**

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 under CLIA regulations.

### **Risks That We Face**

An investment in our common stock involves a high degree of risk. You should carefully consider the risks summarized below. The risks are discussed more fully in the “[Risk Factors](#)” section of this prospectus immediately following this prospectus summary. These risks include, but are not limited to, the following:

- we are an early commercial-stage company with a history of substantial net losses. We have never been profitable and we have an accumulated deficit of approximately \$164.7 million (as of June 30, 2016);
- we expect to incur net losses in the future, and we may never achieve sustained profitability;
- we need to raise additional capital to continue as a going concern;
- our failure to meet the continued listing requirements of The NASDAQ Capital Market could result in a de-listing of our common stock;
- our financial condition may be materially adversely affected in an event of default under our credit facility;
- our sale of our common stock may cause substantial dilution to our existing stockholders and could cause the price of our common stock to decline;
- our business depends upon our ability to increase sales of our current assays and to develop and commercialize other assays;
- our business depends on executing on our sales and marketing strategy for cancer diagnostic assays and gaining acceptance of our current assays and future assays in the market, for which we expect to continue to incur significant expenses;
- our business depends on our ability to continually develop new cancer diagnostic assays and enhance our current assays and future assays, for which we expect to continue to incur significant expenses;
- our business depends on our ability to effectively compete with other diagnostic assays, methods and services that now exist or may hereafter be developed;

- our business depends on our senior management and in July 2016 we hired a new chief financial officer;
- our business depends on our ability to attract and retain scientists, clinicians and sales personnel with extensive experience in oncology, who are in short supply;
- our business depends on our ability to enter into agreements with commercialization partners, who may not perform adequately or be locatable, for the sales, marketing and commercialization of our current assays and our planned future assays;
- we expect to expand our business internationally, which would increase our exposure to business, regulatory, political, operational, financial and economic risks associated with doing business outside of the United States;
- our financial condition may be materially adversely affected by healthcare policy changes, including recently enacted legislation reforming the United States health care system;
- our business depends on being able to obtain coverage and adequate reimbursement from governmental and other third-party payors for assays and services;
- our business depends on satisfying any applicable United States (including Food and Drug Administration) and international regulatory requirements with respect to assays and services, and many of these requirements are new and still evolving; and
- we need to obtain or maintain patents or other appropriate protection for the intellectual property utilized in our current and planned assays and services, and we must avoid infringement of third-party intellectual property.

### **Company Information**

We maintain our principal executive offices at 5810 Nancy Ridge Drive, San Diego, California 92121. Our telephone number is (858) 320-8200 and our website address is [www.biocept.com](http://www.biocept.com). The information contained in, or that can be accessed through, our website is not incorporated into and is not part of this prospectus. We were incorporated in California on May 12, 1997 and reincorporated as a Delaware corporation on July 30, 2013.

### **Implications of Being an Emerging Growth Company**

As a company with less than \$1.0 billion in revenue during our last fiscal year, we qualify as an “emerging growth company” as defined in the Jumpstart Our Business Startups Act, or JOBS Act, enacted in April 2012. An “emerging growth company” may take advantage of reduced reporting requirements that are otherwise applicable to public companies. These provisions include, but are not limited to:

- not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act;
- reduced disclosure obligations regarding executive compensation in our periodic reports, proxy statements and registration statements; and
- exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved.

We may take advantage of these provisions until December 31, 2019. However, if certain events occur prior to December 31, 2019, including if we become a “large accelerated filer,” our annual gross revenues exceed \$1.0 billion or we issue more than \$1.0 billion of non-convertible debt in any three-year period, we will cease to be an emerging growth company before such date.

We have elected to take advantage of certain of the reduced disclosure obligations and may elect to take advantage of other reduced reporting requirements in future filings. As a result, the information that we provide to our stockholders may be different than the information you might receive from other public reporting companies in which you hold equity interests.

## The Offering

<b>Common stock offered by us</b>	shares.
<b>Common stock outstanding after this offering</b>	shares.
<b>Over-allotment option</b>	We have granted the underwriters a -day option to purchase up to additional shares of our common stock at a purchase price of \$ per share.
<b>Use of proceeds</b>	Based on an assumed public offering price of \$ per share (the last reported sale price of our common stock on The NASDAQ Capital Market on , 2016), we estimate that the net proceeds from our sale of shares of our common stock in this offering will be approximately \$ million, or approximately \$ million if the underwriters exercise their over-allotment option in full, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. We currently expect to use the net proceeds from this offering for general corporate purposes and to fund ongoing operations and expansion of our business. For additional information please refer to the section entitled " <a href="#">Use of Proceeds</a> " on page 8 of this prospectus.
<b>Risk Factors</b>	Investing in our securities involves a high degree of risk. You should carefully review and consider the " <a href="#">Risk Factors</a> " section of this prospectus for a discussion of factors to consider before deciding to invest in shares of our common stock.
<b>NASDAQ Capital Market Symbol</b>	BIOC

The number of shares of our common stock to be outstanding after this offering is based on 24,969,975 shares of our common stock outstanding as of June 30, 2016 and excludes as of such date:

- 2,194,201 shares of our common stock issuable upon the exercise of stock options, with a weighted average exercise price of \$3.47 per share;
- 260,269 shares of our common stock issuable upon the settlement of outstanding restricted stock units;
- 5,692,214 shares of our common stock issuable upon the exercise of outstanding warrants, with a weighted average exercise price of \$2.08 per share;
- any shares of our common stock issuable upon exercise of the underwriters' over-allotment option; and
- 489,961 other shares of our common stock reserved for future issuance under our 2013 Amended and Restated Equity Incentive Plan.

Unless otherwise indicated, all information contained in this prospectus assumes no exercise by the underwriters of their over-allotment option to purchase up to an additional shares of our common stock.

## SUMMARY FINANCIAL DATA

The following tables set forth a summary of our historical financial data as of, and for the period ended on, the dates indicated. We have derived the statement of operations data for the years ended December 31, 2014 and 2015 and the balance sheet data as of December 31, 2015 from our audited financial statements incorporated by reference in this prospectus. We have derived the statements of operations data for the six months ended June 30, 2015 and 2016 and balance sheet data as of June 30, 2016 from our unaudited condensed financial statements incorporated by reference in this prospectus. The unaudited condensed financial statements have been prepared on a basis consistent with our audited financial statements included in this prospectus and, in the opinion of management, reflect all adjustments, consisting only of normal recurring adjustments, necessary to fairly state our financial position as of June 30, 2016 and results of operations for the six months ended June 30, 2015 and 2016. You should read this data together with our financial statements and related notes incorporated by reference in this prospectus. Our historical results for any prior period are not necessarily indicative of our future results.

	Year ended December 31, 2014	Year ended December 31, 2015	For the six months ended June 30, 2015 (unaudited)	For the six months ended June 30, 2016 (unaudited)
<b>Statement of Operations Data:</b>				
Revenues:	\$ 133,415	\$ 609,909	\$ 226,770	\$ 884,229
Costs and expenses:				
Cost of revenues	2,170,548	4,596,158	2,160,757 <sup>(1)</sup>	3,144,361
Research and development expenses	4,497,790	2,857,770	1,395,662	1,444,355
General and administrative expenses	5,201,997	5,686,398	2,651,275	3,004,888
Sales and marketing expenses	2,137,004	3,880,386	1,560,565	2,596,608
Total costs and expenses	14,007,339	17,020,712	7,768,259	10,190,212
Loss from operations	(13,873,924)	(16,410,803)	(7,541,489)	(9,305,983)
Total other income/(expense)	(1,990,616)	(537,115)	(293,065)	(161,336)
Loss before income taxes	(15,864,540)	(16,947,918)	(7,834,554)	(9,467,319)
Income tax expense	(1,506)	(1,608)	(1,279)	(2,053)
Net loss and comprehensive loss	<u>\$ (15,866,046)</u>	<u>\$ (16,949,526)</u>	<u>\$ (7,835,833)</u>	<u>\$ (9,469,372)</u>
Weighted-average shares outstanding used in computing net loss per common share:				
Basic	3,997,797	16,538,963	14,206,885	21,403,917
Diluted	3,997,797	16,538,963	14,206,885	21,403,917
Net loss per common share:				
Basic	<u>\$ (3.97)</u>	<u>\$ (1.02)</u>	<u>\$ (0.55)</u>	<u>\$ (0.44)</u>
Diluted	<u>\$ (3.97)</u>	<u>\$ (1.02)</u>	<u>\$ (0.55)</u>	<u>\$ (0.44)</u>

(1) A total of \$318,565 of revenue-generating costs previously allocated to research and development expenses during the six months ended June 30, 2015 were reclassified to cost of revenues in the current period presentation of the unaudited condensed statement of operations and comprehensive loss.

	As of December 31, 2015		As of June 30, 2016	
	Actual		Actual (Unaudited)	Pro Forma(1) (Unaudited)
<b>Balance Sheet Data (in thousands):</b>				
Cash and cash equivalents	\$	8,821	\$	3,752
Total assets	\$	10,587	\$	6,303
Credit facility, net of discount	\$	4,409	\$	3,677
Total liabilities	\$	6,894	\$	6,723
Total shareholders' equity/(deficit)	\$	3,693	\$	(419)

- (1) A \$1.00 increase (decrease) in the assumed public offering price of \$ \_\_\_\_\_ per share, the last reported sale price of our common stock on The NASDAQ Capital Market on \_\_\_\_\_, 2016, would increase (decrease) each of cash and cash equivalents, total assets and total stockholders' equity/(deficit) by \$ \_\_\_\_\_ million, assuming the number of shares offered by us as stated on the cover page of this prospectus remain unchanged and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us. Similarly, a one million share increase (decrease) in the number of shares offered by us, as set forth on the cover page of this prospectus, would increase (decrease) each of cash and cash equivalents, total assets and total stockholders' equity/(deficit) by \$ \_\_\_\_\_ million, assuming the public offering price of \$ \_\_\_\_\_ per share, the last reported sale price of our common stock on The NASDAQ Capital Market on \_\_\_\_\_, 2016, remains the same, and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us. The pro forma information discussed above is illustrative only and will be adjusted based on the actual public offering price and other terms of this offering determined at pricing.

## RISK FACTORS

A purchase of shares of our common stock is an investment in our securities and involves a high degree of risk. You should carefully consider the risks and uncertainties and all other information contained in or incorporated by reference in this prospectus, including the risks and uncertainties discussed under “Risk Factors” in our Annual Report on Form 10-K for the year ended December 31, 2015, our Quarterly Report on Form 10-Q for the quarter ended March 31, 2016 and our Quarterly Report on Form 10-Q for the quarter ended June 30, 2016. All of these risk factors are incorporated by reference herein in their entirety. If any of these risks actually occur, our business, financial condition and results of operations would likely suffer. In that case, the market price of our common stock could decline, and you may lose part or all of your investment in our company. Additional risks of which we are not presently aware or that we currently believe are immaterial may also harm our business and results of operations.

### Risks Relating to This Offering

***If you purchase our common stock in this offering, you will incur immediate and substantial dilution in the book value of your shares.***

Investors purchasing common stock in this offering will pay a price per share that substantially exceeds the pro forma book value (deficit) per share of our tangible assets after subtracting our liabilities. As a result, investors purchasing common stock in this offering will incur immediate dilution of \$ \_\_\_\_\_ per share, based on an assumed public offering price of \$ \_\_\_\_\_ per share (the last reported sale price of our common stock on The Nasdaq Capital Market on \_\_\_\_\_, 2016) and our net tangible book value (deficit) as of June 30, 2016.

***We have broad discretion in the use of the net proceeds we receive from this offering and may not use them effectively.***

Our management will have broad discretion in the application of the net proceeds we receive in this offering, including for any of the purposes described in the section entitled “[Use of Proceeds](#),” and you will not have the opportunity as part of your investment decision to assess whether our management is using the net proceeds appropriately. Because of the number and variability of factors that will determine our use of our net proceeds from this offering, their ultimate use may vary substantially from their currently intended use. The failure by our management to apply these funds effectively could result in financial losses that could have a material adverse effect on our business and cause the price of our common stock to decline. Pending their use, we may invest our net proceeds from this offering in short-term, investment-grade, interest-bearing securities. These investments may not yield a favorable return to our stockholders.

## SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains forward-looking statements. All statements other than statements of historical facts contained in this prospectus, including statements regarding our future results of operations and financial position, business strategy, prospective products, product approvals, timing and likelihood of success, plans and objectives of management for future operations, and future results of current and anticipated products are forward-looking statements. These statements involve known and unknown risks, uncertainties and other important factors that may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements.

In some cases, you can identify forward-looking statements by terms such as “may,” “will,” “should,” “expect,” “plan,” “anticipate,” “could,” “intend,” “target,” “project,” “contemplates,” “believes,” “estimates,” “predicts,” “potential” or “continue” or the negative of these terms or other similar expressions. The forward-looking statements in this prospectus are only predictions. We have based these forward-looking statements largely on our current expectations and projections about future events and financial trends that we believe may affect our business, financial condition and results of operations. These forward-looking statements speak only as of the date of this prospectus and are subject to a number of risks, uncertainties and assumptions described under the sections entitled “Risk Factors” and “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and elsewhere in our Annual Report on Form 10-K for the year ended December 31, 2015, our Quarterly Report on Form 10-Q for the quarter ended March 31, 2016 and our Quarterly Report on Form 10-Q for the quarter ended June 30, 2016, which are incorporated by reference herein. Because forward-looking statements are inherently subject to risks and uncertainties, some of which cannot be predicted or quantified and some of which are beyond our control, you should not rely on these forward-looking statements as predictions of future events. The events and circumstances reflected in our forward-looking statements may not be achieved or occur and actual results could differ materially from those projected in the forward-looking statements. Moreover, we operate in an evolving environment. New risk factors and uncertainties may emerge from time to time, and it is not possible for management to predict all risk factors and uncertainties. Except as required by applicable law, we do not plan to publicly update or revise any forward-looking statements contained herein, whether as a result of any new information, future events, changed circumstances or otherwise. The forward-looking statements contained in this prospectus are excluded from the safe harbor protection provided by the Private Securities Litigation Reform Act of 1995 and Section 27A of the Securities Act.

This prospectus also incorporates by reference estimates and other statistical data made by independent parties and by us relating to market size and growth and other data about our industry. This data involves a number of assumptions and limitations, and you are cautioned not to give undue weight to such estimates. In addition, projections, assumptions and estimates of our future performance and the future performance of the markets in which we operate are necessarily subject to a high degree of uncertainty and risk.

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## USE OF PROCEEDS

We will receive net proceeds of approximately \$ \_\_\_\_\_ million, or approximately \$ \_\_\_\_\_ million if the underwriters exercise their over-allotment option in full, from the sale of the shares of common stock offered by us in this offering, based on an assumed public offering price of \$ \_\_\_\_\_ per share (the last reported sale price of our common stock on The NASDAQ Capital Market on \_\_\_\_\_, 2016), and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us. Each \$1.00 increase (decrease) in the assumed public offering price of \$ \_\_\_\_\_ per share would increase (decrease) the net proceeds to us from this offering by approximately \$ \_\_\_\_\_ million, or approximately \$ \_\_\_\_\_ million if the underwriters exercise their over-allotment option in full, assuming the assumed public offering price of \$ \_\_\_\_\_ per share (the last reported sale price of our common stock on The NASDAQ Capital Market on \_\_\_\_\_, 2016), the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. We currently intend to use the net proceeds of the offering for general corporate purposes and to fund ongoing operations and expansion of our business.

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## **DIVIDEND POLICY**

We have never declared dividends on our equity securities, and currently do not plan to declare dividends on shares of our common stock in the foreseeable future. We expect to retain our future earnings, if any, for use in the operation and expansion of our business. Subject to the foregoing, the payment of cash dividends in the future, if any, will be at the discretion of our board of directors and will depend upon such factors as earnings levels, capital requirements, our overall financial condition and any other factors deemed relevant by our board of directors.



We and our executive officers and directors, together with their affiliates, have agreed not to sell or transfer any common stock or securities convertible into or exchangeable or exercisable for common stock, for \_\_\_\_\_ days after the date of this prospectus without first obtaining the written consent of the representatives on behalf of the underwriters. Specifically, we and these other persons have agreed, with certain limited exceptions, not to offer, sell, contract to sell, pledge or otherwise dispose of, (or enter into any transaction which is designed to, or might reasonably be expected to, result in the disposition (whether by actual disposition or effective economic disposition due to cash settlement or otherwise)), directly or indirectly, including the filing (or participation in the filing) of a registration statement with the SEC in respect of, or establish or increase a put equivalent position or liquidate or decrease a call equivalent position within the meaning of Section 16 of the Securities Exchange Act of 1934, as amended, and the rules and regulations of the SEC promulgated thereunder with respect to any shares of our common stock or any securities convertible into, or exercisable or exchangeable for our common stock.

### **NASDAQ Capital Market Listing**

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

### **Price Stabilization, Short Positions and Penalty Bids**

Until the distribution of the shares is completed, SEC rules may limit underwriters and selling group members from bidding for and purchasing our common stock. However, the representatives may engage in transactions that stabilize the price of the common stock, such as bids or purchases to peg, fix or maintain that price.

In connection with the offering, the underwriters may purchase and sell our common stock in the open market. These transactions may include short sales, purchases on the open market to cover positions created by short sales and stabilizing transactions. Short sales involve the sale by the underwriters of a greater number of shares than they are required to purchase in the offering. "Covered" short sales are sales made in an amount not greater than the underwriters' option described above. The underwriters may close out any covered short position by either exercising their option or purchasing shares in the open market. In determining the source of shares to close out the covered short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market as compared to the price at which they may purchase shares through the option granted to them. "Naked" short sales are sales in excess of such option. The underwriters must close out any naked short position by purchasing shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of our common stock in the open market after pricing that could adversely affect investors who purchase in the offering. Stabilizing transactions consist of various bids for or purchases of shares of common stock made by the underwriters in the open market prior to the closing of the offering.

The underwriters may also impose a penalty bid. This occurs when a particular underwriter repays to the underwriters a portion of the underwriting discount received by it because the representatives have repurchased shares sold by or for the account of such underwriter in stabilizing or short covering transactions.

Similar to other purchase transactions, the underwriters' purchases to cover the syndicate short sales may have the effect of raising or maintaining the market price of our common stock or preventing or retarding a decline in the market price of our common stock. As a result, the price of our common stock may be higher than the price that might otherwise exist in the open market. The underwriters may conduct these transactions on The NASDAQ Global Select Market, in the over-the-counter market or otherwise.

Neither we nor any of the underwriters make any representation or prediction as to the direction or magnitude of any effect that the transactions described above may have on the price of our common stock. In addition, neither we nor any of the underwriters make any representation that the representatives will engage in these transactions or that these transactions, once commenced, will not be discontinued without notice.

The underwriters may also engage in passive market making transactions in our common stock on The NASDAQ Global Select Market in accordance with Rule 103 of Regulation M during a period before the commencement of offers or sales of shares of our common stock in this offering and extending through the completion of distribution. A passive market maker must display its bid at a price not in excess of the highest independent bid of that security. However, if all independent bids are lowered below the passive market maker's bid, that bid must then be lowered when specified purchase limits are exceeded.

### **Electronic Distribution**

In connection with the offering, certain of the underwriters or securities dealers may distribute prospectuses by electronic means, such as e-mail.

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## **Other Relationships**

The underwriters and certain of their affiliates are full service financial institutions engaged in various activities, which may include securities trading, commercial and investment banking, financial advisory, investment management, investment research, principal investment, hedging, financing and brokerage activities. Some of the underwriters and certain of their affiliates may in the future engage in investment banking and other commercial dealings in the ordinary course of business with us and our affiliates, for which they may in the future receive customary fees, commissions and expenses.

In addition, in the ordinary course of their business activities, the underwriters and their affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments (including bank loans) for their own accounts and for the accounts of their customers. Such investments and securities activities may involve securities and/or instruments of ours or our affiliates. The underwriters and their affiliates may also make investment recommendations and/or publish or express independent research views in respect of such securities or financial instruments and may hold, or recommend to clients that they acquire, long and/or short positions in such securities and instruments.

## LEGAL MATTERS

The validity of the shares of common stock being offered by this prospectus will be passed upon for us by Cooley LLP, San Diego, California. The underwriters are being represented by

## EXPERTS

Mayer Hoffman McCann P.C., our independent registered public accounting firm, has audited our balance sheets as of December 31, 2014 and 2015, and the related statements of operations and comprehensive loss, changes in shareholders' equity/(deficit) and cash flows for each of the two years in the period ended December 31, 2015, as set forth in their report. We have incorporated by reference our financial statements in this prospectus and in this registration statement in reliance on the report of Mayer Hoffman McCann P.C. given on their authority as experts in accounting and auditing.

## WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC a registration statement on Form S-1 under the Securities Act with respect to the shares of common stock being offered by this prospectus. This prospectus does not contain all of the information in the registration statement and its exhibits. For further information with respect to us and the common stock offered by this prospectus, we refer you to the registration statement and its exhibits. Statements contained in this prospectus as to the contents of any contract or any other document referred to are not necessarily complete, and in each instance, we refer you to the copy of the contract or other document filed as an exhibit to the registration statement. Each of these statements is qualified in all respects by this reference.

You can read our SEC filings, including the registration statement, over the Internet at the SEC's website at [www.sec.gov](http://www.sec.gov). You may also read and copy any document we file with the SEC at its public reference facilities at 100 F Street NE, Washington, D.C. 20549. You may also obtain copies of these documents at prescribed rates by writing to the Public Reference Section of the SEC at 100 F Street N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the operation of the public reference facilities. You may also request a copy of these filings, at no cost, by writing us at 5810 Nancy Ridge Drive, San Diego, California 92121 or telephoning us at (858) 320-8200.

We are subject to the information and periodic reporting requirements of the Exchange Act, and we file periodic reports, proxy statements and other information with the SEC. These periodic reports, proxy statements and other information are available for inspection and copying at the public reference room and website of the SEC referred to above. We maintain a website at <http://www.biocept.com>. You may access our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act with the SEC free of charge at our website as soon as reasonably practicable after such material is electronically filed with, or furnished to, the SEC. The information contained in, or that can be accessed through, our website is not incorporated by reference in, and is not part of, this prospectus.

## INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

The SEC allows us to incorporate by reference the information and reports we file with it, which means that we can disclose important information to you by referring you to these documents. The information incorporated by reference is an important part of this prospectus. We incorporate by reference, as of their respective dates of filing, the documents listed below that we have filed with the SEC and any documents that we file with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date of this prospectus and prior to the termination of the last offering of common stock under this prospectus (except in each case the information contained in such documents to the extent “furnished” and not “filed”):

- our Annual Report on Form 10-K for the year ended December 31, 2015;
- our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2016 and June 30, 2016;
- the information specifically incorporated by reference into our Annual Report on Form 10-K for the fiscal year ended December 31, 2015 from our definitive proxy statement on Schedule 14A (other than information furnished rather than filed) filed with the SEC on May 18, 2016;
- our Current Reports on Form 8-K filed with the SEC on February 26, 2016, April 29, 2016, May 26, 2016, June 17, 2016, June 29, 2016, July 7, 2016, July 27, 2016, August 1, 2016, August 2, 2016 and August 3, 2016 (in each case, except for information contained therein which is furnished rather than filed); and
- the description of our common stock, which is registered under Section 12 of the Exchange Act, in our registration statement on Form 8-A, filed with the SEC on January 28, 2014, including any amendments or reports filed for the purpose of updating such description.

Upon request, we will provide, without charge, to each person, including any beneficial owner, to whom a copy of this prospectus is delivered a copy of the documents incorporated by reference into this prospectus. You may request a copy of these filings, and any exhibits we have specifically incorporated by reference as an exhibit in this prospectus, at no cost by writing or telephoning us at the following address:

Biocept, Inc.  
5810 Nancy Ridge Drive  
San Diego, California 92121  
Telephone: (858) 320-8200

You also may access these filings on our Internet site at [www.biocept.com](http://www.biocept.com). Our web site and the information contained on that site, or connected to that site, are not incorporated into this prospectus or the Registration Statement on Form S-1.

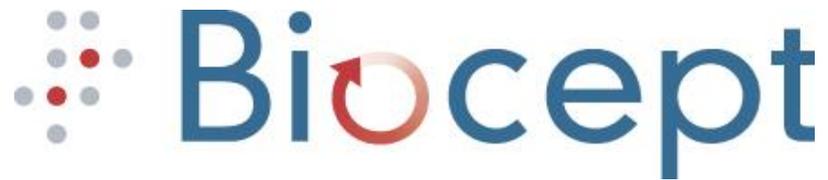
This prospectus is part of a registration statement we filed with the SEC. We have incorporated exhibits into this registration statement. You should read the exhibits carefully for provisions that may be important to you.

You should rely only on the information incorporated by reference or provided in this prospectus or any prospectus. We have not authorized anyone to provide you with different information. We are not making an offer of these securities in any state where the offer is not permitted. You should not assume that the information in this prospectus or in the documents incorporated by reference is accurate as of any date other than the date on the front of this prospectus or those documents.

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## Shares of Common Stock



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### PROSPECTUS

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Through and including \_\_\_\_\_, 2016 (the 25th day after the date of this offering), all dealers effecting transactions in these securities, whether or not participating in this offering, may be required to deliver a prospectus. This is in addition to a dealer's obligation to deliver a prospectus when acting as an underwriter and with respect to an unsold allotment or subscription.

**PART II**  
**INFORMATION NOT REQUIRED IN PROSPECTUS**

**Item 13. Other Expenses of Issuance and Distribution**

The following table sets forth the costs and expenses, other than underwriting discounts and commissions, payable by Biocept, Inc., or the Registrant, in connection with the sale and distribution of the securities being registered. All amounts are estimated except the SEC registration fee and the NASDAQ listing fee.

<u>Item</u>	<u>Amount</u>
SEC registration fee	\$ 1,007
Legal fees and expenses	
Accounting fees and expenses	
Printing and engraving expenses	
Transfer agent and registrar fees and expenses	
Miscellaneous fees and expenses	
<i>Total</i>	<u>\$</u>

**Item 14. Indemnification of Directors and Officers**

Section 145 of the Delaware General Corporation Law authorizes a court to award, or a corporation's board of directors to grant, indemnity to directors and officers in terms sufficiently broad to permit such indemnification under certain circumstances for liabilities, including reimbursement for expenses incurred, arising under the Securities Act.

The Registrant's amended certificate of incorporation provides for indemnification of its directors and executive officers to the maximum extent permitted by the Delaware General Corporation Law, and the Registrant's amended and restated bylaws provide for indemnification of its directors and executive officers to the maximum extent permitted by the Delaware General Corporation Law.

In addition, the Registrant has entered into indemnification agreements with each of its current directors and executive officers. These agreements will require the Registrant to indemnify these individuals to the fullest extent permitted under Delaware law against liabilities that may arise by reason of their service to the Registrant and to advance expenses incurred as a result of any proceeding against them as to which they could be indemnified. The Registrant also intends to enter into indemnification agreements with its future directors and executive officers.

**Item 15. Recent Sales of Unregistered Securities.**

Since January 1, 2011, the Registrant made sales of the unregistered securities discussed below. The offers, sales and issuances of the securities described below were exempt from registration under the Securities Act by virtue of Section 4(a)(2) of the Securities Act and/or, in the case of compensatory issuances, Securities Act Rule 701, and/or, in the case of conversions, Section 3(a)(9) of the Securities Act. No commissions were paid.

***Aspire Capital, LLC Transaction***

On December 21, 2015, the Registrant issued to Aspire Capital, LLC 165,000 shares of common stock as a commitment fee and sold to Aspire Capital, LLC 625,000 shares of common stock at \$1.60 per share for gross proceeds of \$1,000,000. Subsequently, the Registrant sold to Aspire Capital, LLC an aggregate of 519,439 shares of common stock for total proceeds of \$544,051.

***Note and Warrant Financings***

In 30 closings from February 2011 to November 2012, the Registrant sold secured convertible promissory notes with an aggregate principal amount of \$12,336,247, together with warrants that subsequently became exercisable for 108,786 shares of its common stock at an exercise price of \$10.00 per share, to 11 accredited investors, for aggregate gross proceeds of \$12,336,247.

In 21 closings from January 2012 to December 2012, the Registrant sold promissory notes with an aggregate principal amount of \$5,960,000, together with warrants that subsequently became exercisable for 52,557 shares of the Registrant's common

stock to five accredited investors at an exercise price of \$10.00 per share, for aggregate gross proceeds of \$5,960,000. These promissory notes were converted into shares of the Registrant's common stock upon the closing of its initial public offering.

In 56 closings from December 2012 through January 2014, the Registrant sold promissory notes with an aggregate principal amount of \$5,165,000, together with warrants that subsequently became exercisable for 258,249 shares of the Registrant's common stock at an exercise price of \$10.00 per share, to 14 accredited investors, for aggregate gross proceeds of \$5,165,000.

### ***Compensatory Issuances***

In 2011 the Company issued 36,260 common stock options (at a \$4.62 weighted average exercise price per share) and 23,874 preferred stock restricted stock units (number of common stock equivalents) to service providers.

In 2012 the Registrant issued 330 common stock options (at a \$4.62 weighted average exercise price per share) and 32,769 common stock restricted stock units to service providers.

In 2013, the Registrant issued 300,438 common stock options (at a \$5.18 weighted average exercise price per share) and 101,202 common stock restricted stock units to service providers.

In 2014, the Registrant issued 647,298 common stock options (at a \$6.71 weighted average exercise price per share) and 44,496 common stock restricted stock units to service providers. Upon the completion of the Registrant's initial public offering in February 2014, a total of 73,151 preferred stock restricted stock units (number of common stock equivalents) vested in accordance with underlying agreements, including the 23,874 preferred stock restricted stock units (number of common stock equivalents) issued in 2011.

In 2015, the Registrant issued 1,323,926 common stock options (at a \$2.00 weighted average exercise price per share) and 44,496 common stock restricted stock units to service providers.

In the six months ended June 30, 2016, the Registrant issued 329,823 common stock options (at a \$1.21 weighted average exercise price per share) and 227,500 common stock restricted stock units to service providers. Of the 44,496 common stock restricted units issued to service providers in 2014, 13,348 were declared vested by the Registrant's Board of Directors and settled in the six months ended June 30, 2016.

### ***Inducement Warrants and Issuances***

In September 2012, the Registrant issued 66,666 Series A preferred stock warrants, at an exercise price of \$0.60 per share, to its landlord in exchange for certain real estate lease accommodations. The Series A preferred stock warrants are exercisable until September 2019 for 1,587 shares of the Registrant's common stock at an exercise price of \$25.20 per share.

In June 2013, the Registrant issued 23,809 common stock warrants, at an exercise price to be determined in accordance with contract, to a lender (a 5% beneficial holder) in connection with a note conversion. Upon the completion of the Registrant's initial public offering in February 2014, the exercise price of these common stock warrants was fixed at \$10.00 per share, which are exercisable until February 2019.

In July 2013 through January 2014, the Registrant issued common stock warrants which became exercisable upon the completion of the Registrant's initial public offering in February 2014 for an aggregate 128,903 shares of the Registrant's common stock, at an exercise price of \$10.00 per share, to five guarantors in connection with their guaranties of its UBS Bank USA revolving line of credit. These common stock warrants were exercisable until February 10, 2016, and were not exercised.

In September 2013, the Registrant issued an indeterminate number of common stock warrants, at an exercise price to be determined in accordance with contract, to its landlord in connection with a lease amendment. Upon the completion of the Registrant's initial public offering in February 2014, the exercise price of the common stock warrants issued to its landlord was fixed at \$10.00 per share for an aggregate 50,260 shares of the Registrant's common stock, which are exercisable until February 2019.

Upon the completion of the Registrant's initial public offering in February 2014, warrants for an aggregate 95,000 shares of the Registrant's common stock were issued to the underwriters of the Registrant's initial public offering and are exercisable until February 2020 at a price of \$12.50 per share.

In April 2014, the Registrant issued Oxford Finance LLC a warrant to purchase up to 52,966 shares of the Registrant's common stock, at an exercise price of \$4.72 per share. The warrant was issued in connection with a loan and security agreement between the Registrant and Oxford Finance LLC dated April 30, 2014, and is exercisable until April 2024.

### **Recapitalization**

In November 2011, the Registrant effected a recapitalization in which all outstanding shares of, and warrants to purchase and restricted stock units to obtain, the Registrant's outstanding Series AA preferred stock and Series BB preferred stock were converted into the same number of shares of, warrants to purchase and restricted stock units to obtain, Series A preferred stock. At the same time, the Registrant effected the 1-for-3 reverse split of its common stock.

### **Conversions and Exercises**

In November 2011, the Registrant's Executive Chairman exercised 10,204 common stock options, paying an aggregate exercise price of \$47,183.

In October 2011, a major stockholder converted 2,064,520 shares of Series AA preferred stock into 49,155 shares of common stock.

In March and April 2013, two employees exercised stock options for 85 shares of common stock, paying an aggregate exercise price of \$395.

In June 2013, the holders of promissory notes with an aggregate principal balance of approximately \$20,231,000 and accrued but unpaid interest of approximately \$2,581,000 voluntarily converted such principal and interest into 42,245,834 shares of the Registrant's Series A preferred stock. Such shares of Series A preferred stock were subsequently converted into 1,652,851 shares of the Registrant's common stock upon completion of the Registrant's initial public offering in February 2014.

In the fourth quarter of 2013, four employees exercised 3,936 common stock options, paying an aggregate exercise price of \$19,710.

In February 2014:

- The \$1,400,000 principal amount of and the \$233,982 accrued interest on the Registrant's 2008 convertible note held by a trust affiliated with the Registrant's majority stockholder, Claire K. T. Reiss, were converted at \$10.00 per share into a total of 163,399 shares of common stock.
- The \$5,165,000 principal amount of and the \$313,017 accrued interest on our "2013" convertible notes held by various persons, including several insiders, were converted at \$10.00 per share into a total of 547,801 shares of common stock. The following persons received the following numbers of such shares:
  - o Affiliates of Claire K. T. Reiss, majority stockholder—270,484
  - o Affiliate of David F. Hale, Chairman—47,181
  - o Affiliate of Edward Neff, Director—108,140
  - o Marsha Chandler, Director—5,078
  - o M. Faye Wilson, Director—2,650
  - o Bruce E. Gerhardt, Director—1,055

In February 2015:

Warrants for an aggregate 8,000,000 shares of the Registrant's common stock were issued to participants, including several insiders, of the Registrant's February 2015 public offering and are exercisable at a price of \$1.56 per share, with total proceeds of \$9,760,060 received from the exercises of such warrants subsequent to February 13, 2015. Each of the members of the Registrant's Board of Directors participated in the Registrant's February 2015 public offering, purchasing an aggregate 142,000 shares of the Registrant's common stock and warrants to purchase up to an aggregate of 142,000 shares of the Registrant's common stock for a total purchase price of \$177,500. The following persons received the following numbers of such warrants:

- o Affiliate of David F. Hale, Chairman—40,000
- o Affiliate of Edward Neff, Director—40,000
- o Bruce A. Huebner, Director—12,000
- o Bruce E. Gerhardt, Director—20,000
- o Marsha A. Chandler, Director—2,000
- o Michael W. Nall, President and CEO, Director—12,000
- o M. Faye Wilson, Director—4,000
- o Retirement account of Ivor Royston, M.D., Director—12,000

**Item 16. Exhibits and Financial Statement Schedules.**

*(a) Exhibits*

See the Exhibit Index attached to this Registration Statement, which is incorporated by reference herein.

*(b) Financial Statement Schedules*

No financial statement schedules are provided because the information called for is not required or is shown either in the financial statements or the notes thereto.

**Item 17. Undertakings**

The undersigned registrant hereby undertakes:

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

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

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the SEC pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement;

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

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

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

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(4) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser: each prospectus filed pursuant to Rule 424(b) as part of a registration statement relating to an offering, other than registration statements relying on Rule 430B or other than prospectuses filed in reliance on Rule 430A, shall be deemed to be part of and included in the registration statement as of the date it is first used after effectiveness; provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such first use, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such date of first use.

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

## SIGNATURES

Pursuant to the requirements of the Securities Act, the Registrant has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in San Diego, California, on the 12<sup>th</sup> day of August, 2016.

BIOCEPT, INC.

By: /s/ Michael W. Nall  
Michael W. Nall  
Chief Executive Officer and President

## POWER OF ATTORNEY

KNOW ALL BY THESE PRESENTS, that each person whose signature appears below hereby constitutes and appoints David F. Hale, Michael W. Nall and Timothy C. Kennedy, and each and either of them, his or her true and lawful agent, proxy and attorney-in-fact, with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to (i) act on, sign and file with the Securities and Exchange Commission any and all amendments (including post-effective amendments) to this registration statement together with all schedules and exhibits thereto and any subsequent registration statement filed pursuant to Rule 462(b) under the Securities Act, together with all schedules and exhibits thereto, (ii) act on, sign and file such certificates, instruments, agreements and other documents as may be necessary or appropriate in connection therewith, (iii) act on and file any supplement to any prospectus included in this registration statement or any such amendment or any subsequent registration statement filed pursuant to Rule 462(b) under the Securities Act and (iv) take any and all actions which may be necessary or appropriate to be done, as fully for all intents and purposes as he or she might or could do in person, hereby approving, ratifying and confirming all that such agent, proxy and attorney-in-fact or any of his substitutes may lawfully do or cause to be done by virtue thereof.

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

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Michael W. Nall</u> Michael W. Nall	Chief Executive Officer, President and Director (Principal Executive Officer)	August 12, 2016
<u>/s/ Timothy C. Kennedy</u> Timothy C. Kennedy	Chief Financial Officer, Senior VP of Operations and Secretary (Principal Financial Officer and Principal Accounting Officer)	August 12, 2016
<u>/s/ David F. Hale</u> David F. Hale	Chairman and Director	August 12, 2016
<u>/s/ Marsha A. Chandler</u> Marsha A. Chandler	Director	August 12, 2016
<u>/s/ Bruce E. Gerhardt</u> Bruce E. Gerhardt	Director	August 12, 2016
<u>/s/ Bruce A. Huebner</u> Bruce A. Huebner	Director	August 12, 2016
<u>/s/ Edward Neff</u> Edward Neff	Director	August 12, 2016
<u>/s/ Ivor Royston</u> Ivor Royston	Director	August 12, 2016
<u>/s/ M. Faye Wilson</u> M. Faye Wilson	Director	August 12, 2016

## EXHIBIT INDEX

Exhibit No.	Description of Exhibit
1.1†	Form of Underwriting Agreement.
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 Current Report on Form 8-K, filed with the SEC on February 14, 2014).
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 5, 2013).
4.4	Form of Warrant issued to the lenders 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).
5.1†	Opinion of Cooley LLP.
10.1+	2007 Equity Incentive Plan (incorporated by reference to Exhibit 10.1 of the Registrant's Registration Statement on Form S-1 (File No. 333-191323), filed with the SEC on September 23, 2013).

Exhibit No.	Description of Exhibit
10.2+	Form of Stock Option Grant Notice and Option Agreement under 2007 Equity Incentive Plan (incorporated by reference to Exhibit 10.1.1 of the Registrant's Registration Statement on Form S-1 (File No. 333-191323), filed with the SEC on September 23, 2013).
10.3+	Form of Restricted Stock Unit Grant Notice and Restricted Stock Unit Agreement under 2007 Equity Incentive Plan (incorporated by reference to Exhibit 10.1.2 of the Registrant's Registration Statement on Form S-1 (File No. 333-191323), filed with the SEC on September 23, 2013).
10.4+	2013 Equity Incentive Plan (incorporated by reference to Exhibit 10.2 of the Registrant's Registration Statement on Form S-1 (File No. 333-191323), as amended, filed with the SEC on November 20, 2013)
10.5+	Form of Notice of Stock Option Grant under 2013 Equity Incentive Plan (incorporated by reference to Exhibit 10.2.1 of the Registrant's Registration Statement on Form S-1 (File No. 333-191323), filed with the SEC on September 23, 2013).
10.6+	Form of Stock Option Agreement under 2013 Equity Incentive Plan (incorporated by reference to Exhibit 10.2.2 of the Registrant's Registration Statement on Form S-1 (File No. 333-191323), filed with the SEC on September 23, 2013).
10.7+	Form of Restricted Stock Unit Agreement under 2013 Equity Incentive Plan (incorporated by reference to Exhibit 10.2.3 of the Registrant's Registration Statement on Form S-1 (File No. 333-191323), filed with the SEC on September 23, 2013).
10.8+	Form of Restricted Stock Unit Agreement under 2013 Equity Incentive Plan (for senior officers: as used August 8, 2013) (incorporated by reference to Exhibit 10.2.4 of the Registrant's Registration Statement on Form S-1 (File No. 333-191323), filed with the SEC on September 23, 2013).
10.9+	Form of Restricted Stock Unit Agreement under 2013 Equity Incentive Plan (for non-employee directors: as used August 8, 2013) (incorporated by reference to Exhibit 10.2.5 of the Registrant's Registration Statement on Form S-1 (File No. 333-191323), filed with the SEC on September 23, 2013).
10.10+	Restricted Stock Unit Grant Notice / Agreement with David F. Hale, dated as of March 10, 2011 ("Performance-Based") (incorporated by reference to Exhibit 99.3 of the Registrant's Registration Statement on Form S-8 (File No. 333-194930), filed with the SEC on March 31, 2014).
10.11+	Restricted Stock Unit Grant Notice / Agreement with David F. Hale, dated as of March 10, 2011 ("Time-Based") (incorporated by reference to Exhibit 99.4 of the Registrant's Registration Statement on Form S-8 (File No. 333-194930), filed with the SEC on March 31, 2014).
10.12+	Restricted Stock Unit Grant Notice / Agreement with Ivor Royston, dated as of November 8, 2010, as amended on February 15, 2012 (incorporated by reference to Exhibit 10.23 to the Registrant's Registration Statement on Form S-1 (File No. 333-191323), filed with the Commission on September 23, 2013).
10.13+	2014 Annual Incentive Plan (incorporated by reference to Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q, filed with the SEC on August 8, 2014).
10.14+	Form of Indemnification Agreement between the Registrant and its officers and directors (incorporated by reference to Exhibit 10.3 of the Registrant's Registration Statement on Form S-1 (File No. 333-191323), filed with the SEC on September 23, 2013).
10.15+	Form of Indemnity Agreement between Biocept, Inc., a California corporation, and its officers and directors (incorporated by reference to Exhibit 10.4 of the Registrant's Registration Statement on Form S-1 (File No. 333-191323), filed with the SEC on September 23, 2013).
10.16+	Employment Agreement, between the Registrant and Lyle J. Arnold, dated April 30, 2011 (incorporated by reference to Exhibit 10.7 of the Registrant's Registration Statement on Form S-1 (File No. 333-191323), filed with the SEC on September 23, 2013).
10.17+	Employment Agreement, between the Registrant and Raaj Trivedi, dated March 1, 2014 (incorporated by reference to Exhibit 10.19 of the Registrant's Registration Statement on Form S-1 (File No. 333-201437), filed with the SEC on January 9, 2015).
10.18	Lease, between the Registrant and Nexus Equity VIII LLC, dated March 31, 2004 (incorporated by reference to Exhibit 10.1.1 of the Registrant's Registration Statement on Form S-1 (File No. 333-191323), as amended, filed with the SEC on November 5, 2013).
10.19	First Amendment to Lease, between the Registrant and ARE-SD Region No. 18, LLC, dated November 1, 2011 (incorporated by reference to Exhibit 10.11.1 of the Registrant's Registration Statement on Form S-1 (File No. 333-191323), filed with the SEC on September 23, 2013).

Exhibit No.	Description of Exhibit
10.20	Second Amendment to Lease, between the Registrant and ARE-SD Region No. 18, LLC, dated September 10, 2012 (incorporated by reference to Exhibit 10.11.2 of the Registrant's Registration Statement on Form S-1 (File No. 333-191323), filed with the SEC on September 23, 2013).
10.21	Third Amendment to Lease, between the Registrant and ARE-SD Region No. 18, LLC, dated as of January 31, 2013, and effective as of January 1, 2013 (incorporated by reference to Exhibit 10.11.4 of the Registrant's Registration Statement on Form S-1 (File No. 333-191323), filed with the SEC on September 23, 2013).
10.22	Fourth Amendment to Lease, between the Registrant and ARE-SD Region No. 18, LLC, dated as of September 10, 2013, and effective as of August 1, 2013 (incorporated by reference to Exhibit 10.11.5 of the Registrant's Registration Statement on Form S-1 (File No. 333-191323), filed with the SEC on September 23, 2013).
10.23*	Collaboration Agreement dated as of November 2, 2012 between the Registrant and Life Technologies Corporation (incorporated by reference to Exhibit 10.13 of the Registrant's Registration Statement on Form S-1 (File No. 333-191323), as amended, filed with the SEC on January 30, 2014).
10.24	Collaboration Agreement dated as of August 17, 2011 between the Registrant and Clariant Diagnostic Services, Inc. (incorporated by reference to Exhibit 10.14 of the Registrant's Registration Statement on Form S-1 (File No. 333-191323), as amended, filed with the SEC on January 8, 2014).
10.25	Assignment and Exclusive Cross-License Agreement between the Registrant and Aegea Biotechnologies, Inc. dated June 2, 2012 (incorporated by reference to Exhibit 10.22 of the Registrant's Registration Statement on Form S-1 (File No. 333-191323), as amended, filed with the SEC on January 30, 2014).
10.26*	Master Laboratory Research Support and Services Agreement dated as of July 9, 2012 between the Registrant and Dana Farber Partners Cancer Care, Inc. (incorporated by reference to Exhibit 10.15 of the Registrant's Registration Statement on Form S-1 (File No. 333-191323), as amended, filed with the SEC on November 5, 2013).
10.27	Laboratory Services Agreement dated July 29, 2013, effective as of May 1, 2013, between the Registrant and Clariant Diagnostic Services, Inc. (incorporated by reference to Exhibit 10.14.1 of the Registrant's Registration Statement on Form S-1 (File No. 333-191323), filed with the SEC on September 23, 2013).
10.28	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 April 30, 2014 (incorporated by reference to Exhibit 10.1 of the Registrant's Current Report on Form 8-K, filed with the SEC on May 6, 2014).
10.29	Separation Agreement between the Registrant and William G. Kachioff, dated August 17, 2015 (incorporated by reference to Exhibit 99.1 to the Registrant's Current Report on Form 8-K (File No. 001-36284), filed with the SEC on August 21, 2015).
10.30+	Employment Agreement between the Registrant and Mark G. Foletta, dated August 18, 2015 (incorporated by reference to Exhibit 99.3 to the Registrant's Current Report on Form 8-K (File No. 001-36284), filed with the SEC on August 21, 2015).
10.31+	Employment Agreement Amendment between the Registrant and Michael W. Nall, dated November 6, 2015 (incorporated by reference to Exhibit 10.4 to the Registrant's Quarterly Report on Form 10-Q (File No. 001-36284), filed with the SEC on November 9, 2015).
10.32	Biocept, Inc. 2013 Amended and Restated Equity Incentive Plan, Form of Stock Option Grant Notice, Option Agreement and Restricted Stock Unit Agreement for use thereunder (incorporated by reference to Exhibit 99.3 to the Registrant's Current Report on Form 8-K (File No. 001-36284), filed with the SEC on July 27, 2016).
10.33	Common Stock Purchase Agreement, dated as of December 21, 2015 between the Registrant and Aspire Capital Fund, LLC (incorporated by reference to Exhibit 10.1 of the Registrant's Current Report on Form 8-K, filed with the SEC on December 21, 2015).
10.34	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).
10.35	Form of 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).
10.36	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 (incorporated by reference to Exhibit 10.3 of the Registrant's Quarterly Report on Form 10-Q (File No. 001-36284), filed with the SEC on August 5, 2016).

Exhibit No.	Description of Exhibit
10.37+	Employment Agreement between the Registrant and Timothy Kennedy, dated July 25, 2016 (incorporated by reference to Exhibit 99.2 to the Registrant's Current Report on Form 8-K (File No. 001-36284), filed with the SEC on July 27, 2016).
21.1	List of Subsidiaries (incorporated by reference to Exhibit 21.1 of the Registrant's Registration Statement on Form S-1 (File No. 333-191323), filed with the SEC on September 23, 2013).
23.1	Consent of Mayer Hoffman McCann P.C.
23.2†	Consent of Cooley LLP (included in Exhibit 5.1).
24.1	Power of Attorney (included on the signature page hereto).

† To be filed by amendment.

+ Indicates management contract or compensatory plan.

\* Portions of this exhibit (indicated by asterisks) have been omitted pursuant to Rule 406 under the Securities Act of 1933.

**CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

As independent registered public accountants, we hereby consent to the incorporation by reference in this Registration Statement on Form S-1 and related Prospectus, of our report dated March 10, 2016, relating to the financial statements of Biocept, Inc., as of and for the years ended December 31, 2015 and 2014. We also consent to the reference to our Firm under the caption "Experts" in the Prospectus, which is part of said Registration Statement.

/s/ Mayer Hoffman McCann P.C.

San Diego, California  
August 12, 2016