

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, DC 20549**

**FORM S-8  
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)

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

**80-0943522**  
(IRS Employer Identification No.)

**92121**  
(Zip Code)

**2013 Equity Incentive Plan**  
(Full title of the plan)

**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)

*Copies to:*

**William G. Kachioff**  
**Senior Vice-President, Finance and Chief Financial Officer**  
**Biocept, Inc.**  
**5810 Nancy Ridge Drive**  
**San Diego, CA 92121**  
**(858) 320-8200**

**Charles J. Bair**  
**Nathan J. Nouskajian**  
**Cooley LLP**  
**4401 Eastgate Mall**  
**San Diego, CA 92121**  
**(858) 550-6142**

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.

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

**CALCULATION OF REGISTRATION FEE**

Title of Securities To Be Registered	Amount To Be Registered (1)	Proposed Maximum Offering Price Per Share (2)	Proposed Maximum Aggregate Offering Price (2)	Amount of Registration Fee
Common Stock, \$0.0001 par value	222,480 shares (3)	\$3.42	\$760,882	\$88.42

- (1) Pursuant to Rule 416(a) under the Securities Act of 1933, as amended (the “**Securities Act**”), this Registration Statement shall also cover any additional shares of Registrant’s common stock (the “**Common Stock**”) that become issuable under the Registrant’s 2013 Equity Incentive Plan (the “**EIP**”) by reason of any stock dividend, stock split, recapitalization or other similar transaction.
- (2) This estimate is made pursuant to Rule 457(c) and Rule 457(h)(1) of the Securities Act solely for purposes of calculating the registration fee. The price per share and aggregate offering price are based upon the average of the high and low prices of the Common Stock on March 4, 2015, as reported on the Nasdaq Capital Market.
- (3) Represents shares of Common Stock that were automatically added to the shares authorized for issuance under the EIP on January 1, 2015 pursuant to an “evergreen” provision contained in the EIP. Pursuant to such provision, on January 1<sup>st</sup> of each year commencing in 2015, the number of shares authorized for issuance under the EIP is automatically increased by a number equal to the lesser of: 5% of the outstanding Common Stock of the Registrant on such January 1, or (b) such number of shares determined by the Registrant’s board of directors in its discretion for use on such particular January 1.

# INCORPORATION BY REFERENCE OF CONTENTS OF REGISTRATION

## STATEMENT ON FORM S-8

This Registration Statement on Form S-8 is being filed for the purpose of increasing the number of securities of the same class as other securities for which a Registration Statement on Form S-8 relating to the same benefit plan is effective. The Registrant previously registered shares of its Common Stock for issuance under the EIP under a Registration Statement on Form S-8 filed with the Securities and Exchange Commission on March 31, 2014 (File No. 333-194930). Pursuant to General Instruction E to Form S-8, this Registration Statement hereby incorporates by reference the contents of the Registration Statement referenced above.

Item 8. Exhibits.

Exhibit No.	Description of Exhibit
4.1	Certificate of Amendment of Certificate of Incorporation of the Registrant. (1)
4.2	Amended and Restated Bylaws of the Registrant. (2)
4.3	Specimen Common Stock certificate of the Registrant. (3)
4.4	Form of Representative's Warrant, dated February 10, 2014. (4)
4.5	Form of Warrant issued to the lenders under the Loan and Security Agreement, dated as of April 30, 2014, by and among the Registrant, Oxford Finance LLC, as collateral agent, and the lenders party thereto from time to time, including Oxford Finance LLC. (5)
4.6	Form of Warrant to Purchase Common Stock. (6)
5.1	Opinion of Cooley LLP.
23.1	Consent of Mayer Hoffman McCann P.C., an Independent Registered Public Accounting Firm.
23.2	Opinion of Cooley LLP. Reference is made to Exhibit 5.1.
24.1	Power of Attorney. Reference is made to the signature page hereto.
99.1	2013 Equity Incentive Plan. (4)
99.2	Form of Notice of Stock Option Grant under 2013 Equity Incentive Plan. (2)
99.3	Form of Stock Option Agreement under 2013 Equity Incentive Plan. (2)
99.4	Form of Restricted Stock Unit Agreement under 2013 Equity Incentive Plan. (2)
99.5	Form of Restricted Stock Unit Agreement under 2013 Equity Incentive Plan (for senior officers). (2)
99.6	Form of Restricted Stock Unit Agreement under 2013 Equity Incentive Plan (for non-employee directors). (2)

- (1) Incorporated by reference to the Registrant's Current Report on Form 8-K (File No. 001-36284), filed with the SEC on February 14, 2014.
- (2) Incorporated by reference to the Registrant's Registration Statement on Form S-1 (File No. 333-191323), filed with the SEC on September 23, 2013.
- (3) Incorporated by reference to the Registrant's Registration Statement on Form S-1 (File No. 333-191323), as amended, filed with the SEC on November 5, 2013.
- (4) Incorporated by reference to the Registrant's Registration Statement on Form S-1 (File No. 333-191323), as amended, filed with the SEC on November 20, 2013.
- (5) Incorporated by reference to the Registrant's Current Report on Form 8-K (File No. 001-36284), filed with the SEC on May 6, 2014.
- (6) Incorporated by reference to the Registrant's Registration Statement on Form S-1 (File No. 333-201437), filed with the SEC on February 6, 2015.

## SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of San Diego, State of California, on March 11, 2015.

Biocept, Inc.

By: /s/ Michael W. Nall

Michael W. Nall, Chief Executive Officer and President

KNOW ALL BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Michael W. Nall and William G. Kachioff, and each of them, as his true and lawful attorneys-in-fact and agents, each with the full power of substitution, for him and in his name, place or stead, in any and all capacities, to sign any and all amendments to this Registration Statement (including post-effective amendments), and to file the same, with exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or their or his substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, as amended, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

<u>/s/ Michael W. Nall</u> Michael W. Nall	Chief Executive Officer, President and Director (Principal Executive Officer)	March 11, 2015
<u>/s/ William G. Kachioff</u> William G. Kachioff	Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)	March 11, 2015
<u>/s/ David F. Hale</u> David F. Hale	Chairman and Director	March 11, 2015
<u>/s/ Marsha A. Chandler</u> Marsha A. Chandler	Director	March 11, 2015
<u>/s/ Bruce E. Gerhardt</u> Bruce E. Gerhardt	Director	March 11, 2015
<u>/s/ Bruce A. Huebner</u> Bruce A. Huebner	Director	March 11, 2015
<u>/s/ Edward Neff</u> Edward Neff	Director	March 11, 2015
<u>/s/ Ivor Royston</u> Ivor Royston	Director	March 11, 2015
<u>/s/ M. Faye Wilson</u> M. Faye Wilson	Director	March 11, 2015

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Charles J. Bair  
T: +1 858 550 6142  
cbair@cooley.com

March 11, 2015

Biocept, Inc.  
5810 Nancy Ridge Drive, Suite 150  
San Diego, CA 92121

Ladies and Gentlemen:

You have requested our opinion, as counsel to Biocept, Inc., a Delaware corporation (the “Company”), with respect to certain matters in connection with the filing by the Company of a Registration Statement on Form S-8 (the “Registration Statement”) with the Securities and Exchange Commission, covering the offering of an aggregate of up to 222,480 shares of the Company's Common Stock, \$0.0001 par value (the “Shares”), pursuant to the Company’s 2013 Equity Incentive Plan (the “Incentive Plan”).

In connection with this opinion, we have examined and relied upon the Registration Statement and related prospectuses, the Incentive Plan, the Company's Certificate of Amendment of Certificate of Incorporation and Amended and Restated Bylaws, and the originals or copies certified to our satisfaction of such records, documents, certificates, memoranda and other instruments as in our judgment are necessary or appropriate to enable us to render the opinion expressed below. We have assumed the genuineness and authenticity of all documents submitted to us as originals and the conformity to originals of all documents submitted to us as copies thereof. Our opinion is expressed only with respect to the General Corporation Law of the State of Delaware.

On the basis of the foregoing, and in reliance thereon, we are of the opinion that the Shares, when issued and sold in accordance with the Incentive Plan, the Registration Statement and related prospectus, will be validly issued, fully paid and nonassessable (except as to shares issued pursuant to certain deferred payment arrangements, which will be fully paid and nonassessable when such deferred payments are made in full).

We consent to the filing of this opinion as an exhibit to the Registration Statement.

Sincerely,

Cooley LLP

By: /s/ Charles J. Bair

Charles J. Bair

**CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

We consent to the incorporation by reference in the Registration Statement on Form S-8 of Biocept, Inc., of our report dated March 10, 2015, with respect to the financial statements of Biocept, Inc. included in the Annual Report on Form 10-K of Biocept, Inc. for the year ended December 31, 2014.

/s/ Mayer Hoffman McCann P.C.

San Diego, California

March 11, 2015