

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

SCHEDULE 13G

Under the Securities Exchange Act of 1934

Biocept, Inc.

(Name of Issuer)

Common Stock

(Title of Class of Securities)

09072V 105

(CUSIP Number)

February 10, 2015

(Date of Event which Requires Filing of this Statement)

Check the appropriate box to designate the rule pursuant to which this Schedule is filed:

- ☐ Rule 13d-1(b)
☒ Rule 13d-1(c)
☐ Rule 13d-1(d)

* The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter disclosures provided in a prior cover page.

The information required on the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

1	NAMES OF REPORTING PERSONS I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY) E. Jeffrey Peierls		
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/>		
3	SEC USE ONLY		
4	CITIZENSHIP OR PLACE OF ORGANIZATION USA		
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	5	SOLE VOTING POWER 140,000 (1) (2)	
	6	SHARED VOTING POWER 750,000 (3)	
	7	SOLE DISPOSITIVE POWER 140,000 (2)	
	8	SHARED DISPOSITIVE POWER 750,000 (3)	
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 890,000		
10	CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS) <input type="checkbox"/>		
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9) 7.149%		
12	TYPE OF REPORTING PERSON (SEE INSTRUCTIONS) IN		

- (1) Joint filing pursuant to Rule 13d-1(k)(1). This Schedule 13G is filed by E. Jeffrey Peierls and Brian E. Peierls. E. Jeffrey Peierls may be deemed the beneficial owner of securities held by trusts of which E. Jeffrey Peierls is an individual trustee. E. Jeffrey Peierls and Brian E. Peierls may be deemed to share indirect ownership of securities held by a foundation in which they both serve as officers and directors, and trusts of which they are co-trustees.
- (2) Consists of 140,000 shares of common stock. This does not include 381,000 shares of common stock which may be acquired upon exercise of warrants. These warrants are subject to a limitation on exercise as detailed in Section 1(d) of the Form of Warrant to Purchase Common Stock filed as Exhibit 4.5 to Amendment No. 2 to Biocept, Inc.'s Form S-1 Registration Statement, filed with the Securities and Exchange Commission on February 6, 2015.
- (3) Consists of 750,000 shares of common stock over which both E. Jeffrey Peierls and Brian E. Peierls have shared voting and dispositive power. This does not include 509,000 shares of common stock which may be acquired upon exercise of warrants over which both E. Jeffrey Peierls and Brian E. Peierls have shared voting and dispositive power. These warrants are subject to a limitation on exercise as detailed in Section 1(d) of the Form of Warrant to Purchase Common Stock filed as Exhibit 4.5 to Amendment No. 2 to Biocept, Inc.'s Form S-1 Registration Statement, filed with the Securities and Exchange Commission on February 6, 2015.

1	NAMES OF REPORTING PERSONS I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY) Brian E. Peierls	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/>	
3	SEC USE ONLY	
4	CITIZENSHIP OR PLACE OF ORGANIZATION USA	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	5	SOLE VOTING POWER 68,000 (1)
	6	SHARED VOTING POWER 750,000 (2)
	7	SOLE DISPOSITIVE POWER 68,000 (1)
	8	SHARED DISPOSITIVE POWER 750,000 (2)
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 818,000	
10	CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS) <input type="checkbox"/>	
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9) 6.57%	
12	TYPE OF REPORTING PERSON (SEE INSTRUCTIONS) IN	

- (1) Consists of 68,000 shares of common stock. This does not include 68,000 shares of common stock which may be acquired upon exercise of warrants. These warrants are subject to a limitation on exercise as detailed in Section 1(d) of the Form of Warrant to Purchase Common Stock filed as Exhibit 4.5 to Amendment No. 2 to Biocept, Inc.'s Form S-1 Registration Statement, filed with the Securities and Exchange Commission on February 6, 2015.
- (2) Consists of 750,000 shares of common stock over which both E. Jeffrey Peierls and Brian E. Peierls have shared voting and dispositive power. This does not include 509,000 shares of common stock which may be acquired upon exercise of warrants over which both E. Jeffrey Peierls and Brian E. Peierls have shared voting and dispositive power. These warrants are subject to a limitation on exercise as detailed in Section 1(d) of the Form of Warrant to Purchase Common Stock filed as Exhibit 4.5 to Amendment No. 2 to Biocept, Inc.'s Form S-1 Registration Statement, filed with the Securities and Exchange Commission on February 6, 2015.

Item 1.

- (a) Name of Issuer

Biocept, Inc.

- (b) Address of Issuer's Principal Executive Offices

The principal executive offices are located at 5810 Nancy Ridge Drive, San Diego, California 92121.

Item 2.E. Jeffrey Peierls

- (a) Name of Person Filing

E. Jeffrey Peierls

- (b) Address of the Principal Office or, if none, residence

73 S. Holman Way
Golden, CO 80401

- (c) Citizenship

USA

- (d) Title of Class of Securities

Common Stock

- (e) CUSIP Number

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Brian E. Peierls

- (a) Name of Person Filing
Brian E. Peierls
- (b) Address of the Principal Office or, if none, residence
7808 Harvestman Cove
Austin, TX 78731
- (c) Citizenship
USA
- (d) Title of Class of Securities
Common Stock
- (e) CUSIP Number
09072V 105

Item 3. If this statement is filed pursuant to §§240.13d-1(b) or 240.13d-2(b) or (c), check whether the person filing is a:

- (a) ☐ Broker or dealer registered under section 15 of the Act (15 U.S.C. 78o).
- (b) ☐ Bank as defined in section 3(a)(6) of the Act (15 U.S.C. 78c).
- (c) ☐ Insurance company as defined in section 3(a)(19) of the Act (15 U.S.C. 78c).
- (d) ☐ Investment company registered under section 8 of the Investment Company Act of 1940 (15 U.S.C. 80a-8).
- (e) ☐ An investment adviser in accordance with §240.13d-1(b)(1)(ii)(E);
- (f) ☐ An employee benefit plan or endowment fund in accordance with §240.13d-1(b)(1)(ii)(F);
- (g) ☐ A parent holding company or control person in accordance with §240.13d-1(b)(1)(ii)(G);
- (h) ☐ A savings associations as defined in Section 3(b) of the Federal Deposit Insurance Act (12 U.S.C. 1813);
- (i) ☐ A church plan that is excluded from the definition of an investment company under section 3(c)(14) of the Investment Company Act of 1940 (15 U.S.C. 80a-3);
- (j) ☐ Group, in accordance with §240.13d-1(b)(1)(ii)(J).
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Item 4. Ownership.

Provide the following information regarding the aggregate number and percentage of the class of securities of the issuer identified in Item 1.

- (a) Amount beneficially owned: See Item 9 of Cover Pages.
- (b) Percent of class: See Item 11 of Cover Pages.
- (c) Number of shares as to which the person has:
 - (i) Sole power to vote or to direct the vote: See Item 5 of Cover Pages
 - (ii) Shared power to vote or to direct the vote: See Item 6 of Cover Pages
 - (iii) Sole power to dispose or to direct the disposition of: See Item 7 of Cover Pages
 - (iv) Shared power to dispose or to direct the disposition of: See Item 8 of Cover Pages

Instruction. For computations regarding securities which represent a right to acquire an underlying security *see* §240.13d-3(d)(1).

Item 5. Ownership of Five Percent or Less of a Class.

If this statement is being filed to report the fact that as of the date hereof the reporting person has ceased to be the beneficial owner of more than five percent of the class of securities, check the following ☐ ☐

Instruction. Dissolution of a group requires a response to this item.

Item 6. Ownership of More than Five Percent on Behalf of Another Person.

Not applicable.

Item 7. Identification and Classification of the Subsidiary Which Acquired the Security Being Reported on By the Parent Holding Company.

Not applicable.

Item 8. Identification and Classification of Members of the Group.

Not applicable.

Item 9. Notice of Dissolution of Group.

Not applicable.

Item 10. Certification.

By signing below I certify that, to the best of my knowledge and belief, the securities referred to above were not acquired and are not held for the purpose of or with the effect of changing or influencing the control of the issuer of the securities and were not acquired and are not held in connection with or as a participant in any transaction having that purpose or effect.

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

/s/ E. Jeffrey Peierls

E. Jeffrey Peierls, Individually

/s/ Brian E. Peierls

Brian E. Peierls, Individually