

August 29, 2016

VIA EDGAR AND FEDEX

Mr. Jonathan Burr  
United States Securities and Exchange Commission  
Division of Corporation Finance  
100 F Street, N.E.  
Mail Stop 4720  
Washington, D.C. 20549

**Re: Biocept, Inc.  
Preliminary Proxy Statement on Schedule 14A  
Filed August 11, 2016  
File No. 001-36284**

Ladies and Gentlemen:

On behalf of Biocept, Inc. (the “**Company**”), this letter is being transmitted in response to a comment received from the staff (the “**Staff**”) of the Securities and Exchange Commission, by letter dated August 25, 2016 (the “**Comment Letter**”), regarding the Company’s Preliminary Proxy Statement on Schedule 14A, filed on August 11, 2016 (the “**Proxy Statement**”). The text of the Staff’s comment has been included in this letter in italics for your convenience, and we have numbered the paragraph below to correspond to the numbering of the Comment Letter.

Proposal 1: Approval of Increase in Number of Authorized Shares of Common Stock, page 6

1. *It appears that approval is necessary for the issuance of shares contemplated by the Form S-1 filed on August 12. Please provide the information required by Item 11 of Schedule 14A. Refer to Note A to Schedule 14A.*

Response:

The Company acknowledges the Staff’s comment and proposes to add the following text into Proposal 1 of the Proxy Statement under the header “General” (added text underlined):

“Our board of directors desires to have the additional shares of common stock available to provide additional flexibility to use its capital stock for business and financial purposes in the future. The additional shares may be used for various purposes without further stockholder approval. These purposes may include raising capital; establishing strategic relationships with other companies; expanding our business through the acquisition of other businesses or products; providing additional equity incentives to employees, officers or directors; and other purposes. If this proposal is not approved by our stockholders, it is possible that capital-raising alternatives for us may be limited by the lack of unissued and unreserved authorized shares of common stock, and stockholder value may be harmed by this limitation.

For example, on August 12, 2016 we filed a Registration Statement on Form S-1 with the SEC, or the Registration Statement, registering the public sale by us of up to \$10 million of our common stock. While neither the specific terms of any offering to be conducted pursuant to the Registration Statement nor the amount of common stock to be sold by us pursuant to the Registration Statement are known by us at this time, any such potential offering will be dependent on this Proposal 1 or Proposal 2 being approved in order to have a sufficient number of shares of common stock available for issuance. In the event that this Proposal 1 or Proposal 2 is approved by our stockholders at the Special Meeting, no further authorization for the issuance of securities pursuant to the Registration Statement by the vote of our stockholders will be solicited in connection with such offering.

In addition, our success depends in part on our continued ability to attract, retain and motivate highly qualified management and scientific personnel, and if this proposal is not approved by our stockholders, the

lack of unissued and unreserved authorized shares of common stock to provide future equity incentive opportunities could adversely impact our ability to achieve these goals. In short, if our stockholders do not approve this proposal, we may not be able to access the capital markets, complete corporate collaborations or partnerships, attract, retain and motivate employees, and pursue other business opportunities integral to our growth and success.”

The Company also proposes to add the following text into Proposal 2 of the Proxy Statement under the header “Purpose and Material Effects of Proposed Reverse Split” (added text underlined):

“Because our authorized common stock will not be reduced by the reverse stock split, the overall effect will be an increase in authorized but unissued shares of common stock. These shares may be issued by our board of directors in its discretion. Any future issuances will have the effect of diluting the percentage of stock ownership and voting rights of the present holders of common stock. On August 12, 2016 we filed the Registration Statement, registering the public sale by us of up to \$10 million of our common stock. While neither the specific terms of any offering to be conducted pursuant to the Registration Statement nor the amount of common stock to be sold by us pursuant to the Registration Statement are known by us at this time, any such potential offering will be dependent on this Proposal 2 or Proposal 1 being approved in order to have a sufficient number of shares of common stock available for issuance. In the event that this Proposal 2 or Proposal 1 is approved by our stockholders at the Special Meeting, no further authorization for the issuance of securities pursuant to the Registration Statement by the vote of our stockholders will be solicited in connection with such offering.”

Please note that the Company has elected not to include the disclosures contemplated by Item 11(e) of Schedule 14A because, in accordance with Instruction 1 to Item 13 of Schedule 14A, the information is not deemed material because the matter to be acted upon and described in the Proxy Statement relates to the authorization of Common Stock, and does not involve an exchange, merger, consolidation, acquisition or similar transaction.

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Please contact me at (858) 550-6051 with any questions or further comments regarding the Company’s response to the Comment Letter.

Sincerely,

**COOLEY LLP**

Nathan Nouskajian, Esq.

cc:Michael Nall, Biocept, Inc.  
Timothy Kennedy, Biocept, Inc.  
Charles Bair, Cooley LLP