

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.
Registration Statement on Form S-1
Filed August 12, 2016
File No. 333-213111**

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 Registration Statement on Form S-1, filed on August 12, 2016 (the "**Form S-1**"). 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.

General

1. *We note that you are authorized to issue up to 40,000,000 shares of common stock and as of August 8, 2016 it appears there were 5,173,941 shares available for use. Based on recent trading prices, it appears you seek to issue approximately 17,241,379 shares in this offering. Please advise us whether you have sufficient authorized and outstanding shares for this offering.*

Response:

The Company acknowledges that it does not currently have a sufficient number of shares of Common Stock authorized pursuant to the terms of the Company's Certificate of Amendment of Certificate of Incorporation for issuance pursuant to the Form S-1.

On August 11, 2016, the Company filed a preliminary proxy statement related to a special meeting of the Company's stockholders (the "**Special Meeting**"). At the Special Meeting, the Company is seeking stockholder approval for (i) an amendment to the Company's Certificate of Amendment of Certificate of Incorporation to increase the authorized number of shares of Common Stock from 40,000,000 to 150,000,000 shares and (ii) an amendment to the Company's Certificate of Amendment of Certificate of Incorporation to effect a reverse stock split of the outstanding Common Stock at a ratio in the range of 1:3 to 1:5 (collectively, the "**Stockholder Proposals**"). Approval of either of the Stockholder Proposals at the Special Meeting would provide the Company with a sufficient number of authorized shares of Common Stock for issuance pursuant to the Form S-1.

Until such time as the Company has a sufficient number of authorized shares of Common Stock for issuance pursuant to the Form S-1, the Company will not request effectiveness of the Form S-1.

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