



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

DIVISION OF
CORPORATION FINANCE

November 14, 2013

Via E-mail

Mr. William G. Kachioff
Chief Financial Officer
Biocept, Inc.
5810 Nancy Ridge Drive
San Diego, CA 92121

**Re: Biocept, Inc.
Amended Registration Statement on Form S-1
Filed November 5, 2013
File No. 333-191323**

Dear Mr. Kachioff:

We have reviewed your registration statement and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter by amending your registration statement and providing the requested information. If you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your registration statement and the information you provide in response to these comments, we may have additional comments.

Summary, page 1

Our Tests and Services, page 5

1. We note your response to comment 3 and revised disclosure on pages 6, 25 and elsewhere. It is unclear on what basis—in addition to the market data about Medicare enrollment—you project a 50% rate of Medicare coverage. For example, it is unclear if 50% of your current patients are 65 and older. Additionally, it is unclear if you have received feedback from Palmetto GBA and Noridian regarding your recent submission or other indications that the negative coverage determination will be reversed. Please revise to delete the 50% projection or advise us why you believe it is appropriate.
2. We also note your response to comment 4 and revised disclosure regarding your belief that the FISH analysis will receive coverage “when and as” you bill Medicare. Please

revise here and where appropriate to clarify the extent to which your revenue for FISH analyses is currently paid by Medicare.

Management's Discussion and Analysis, page 46

3. We note your revised disclosure regarding the lack of data collection from Clariant. As you appear to have had several months of operations since that agreement expired, please revise to address data about the payor mix, reimbursement history and collectability as experienced by you.

Capitalization, page 41

4. As the reverse stock split was effected on November 1, 2013 and has been reflected retrospectively throughout the financial statements, please remove reference to the stock split in your pro forma disclosure in the Capitalization and Dilution (page 42) calculations.

Business, page 57

Our Tests and Services, page 68

5. We note your revised disclosure and response to comment 7. Please revise the narrative preceding the table to further clarify the principal assumptions regarding milestone activities. For example, it is unclear if the expected commercialization dates assume that you are able to timely raise, in addition to this offering, \$2 million, \$5 million or some other amount to cover each test's expenses, including research and development.

Narrative Disclosure to Summary Compensation Table, page 97

6. We note the revised disclosure regarding employment agreements with management. Please revise to clarify if the current offering, if completed, will constitute a "sales of equity securities" and trigger the bonuses and other additional compensation contemplated by those agreements.

Other

7. Please fill in the brackets in the Capitalization, Risk Factors and other disclosure. We also note that the legal opinion and other exhibits are marked "to be filed." We may have further comments after you provide the exhibits and additional disclosure.

You may contact Myra Moosariparambil at (202) 551-3796 or Tia Jenkins at (202) 551-3871 if you have questions regarding comments on the financial statements and related matters.

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Please contact Adam F. Turk at 202-551-3657 or Jim Lopez at (202) 551-3536 with any other questions.

Sincerely,

/s/ James Lopez (for)

John Reynolds
Assistant Director

cc: Hayden J. Trubitt, Esq.
Stradling, Yocca, Carlson & Rauth