



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

DIVISION OF
CORPORATION FINANCE

June 6, 2014

Via E-mail

Kenneth Londoner
Executive Chairman
BioSig Technologies, Inc.
12424 Wilshire Boulevard, Suite 745
Los Angeles, CA 90025

**Re: BioSig Technologies, Inc.
Amendment No. 6 to Registration Statement on Form S-1
Filed May 22, 2014
File No. 333-190080**

Dear Mr. Londoner:

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.

Overview, page 1

1. We note your revisions in response to prior comment 1. If Mr. Drachman alleges that the study data he *received* indicated that your system would not perform in the manner that was communicated to him, please clarify your disclosure which currently states that he alleges that the *withheld* data led him to doubt the communications.

Certain Relationships and Related Party Transactions, page 57

2. We note your response to prior comment 3. Please tell us:
 - where you have revised your disclosure in this section to reflect the transaction mentioned in the third paragraph to Note 3 on page F-12.
 - where you have disclosed the composition of the amount mentioned in the second paragraph to Note 3 on page F-12 as you have in your response such that investors

can understand the amount and terms under which disclosed compensation has been deferred.

- why your revised disclosure on page 57 no longer discloses the November 21, 2012 transaction with Mr. Londoner.
- who provided the \$10,500 related-party advance that is reflected on your March 31, 2014 balance sheet and where this transaction is reflected in your disclosure concerning related-party transactions.

Rule 144 Shares, page 59

3. We note your response to prior comment 4. However, it remains unclear how this section fully complies with Regulation S-K Item 201(a)(2)(ii) since your disclosure currently addresses only a fraction of the outstanding shares. Please advise or revise.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes the information the Securities Act of 1933 and all applicable Securities Act rules require. Since the company and its management are in possession of all facts relating to a company's disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

Notwithstanding our comments, in the event you request acceleration of the effective date of the pending registration statement please provide a written statement from the company acknowledging that:

- should the Commission or the staff, acting pursuant to delegated authority, declare the filing effective, it does not foreclose the Commission from taking any action with respect to the filing;
- the action of the Commission or the staff, acting pursuant to delegated authority, in declaring the filing effective, does not relieve the company from its full responsibility for the adequacy and accuracy of the disclosure in the filing; and
- the company may not assert staff comments and the declaration of effectiveness as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

Please refer to Rules 460 and 461 regarding requests for acceleration. We will consider a written request for acceleration of the effective date of the registration statement as confirmation of the fact that those requesting acceleration are aware of their respective responsibilities under the Securities Act of 1933 and the Securities Exchange Act of 1934 as they relate to the proposed public offering of the securities specified in the above registration statement. Please allow adequate time for us to review any amendment prior to the requested effective date of the registration statement.

Kenneth Londoner
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You may contact Gary Todd at (202) 551-3605 if you have questions regarding comments on the financial statements and related matters. Please contact Joseph McCann at (202) 551-6262 or me at (202) 551-3617 with any other questions.

Sincerely,

/s/ Russell Mancuso

Russell Mancuso
Branch Chief

cc (via e-mail): Rick A. Werner, Esq.