



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

DIVISION OF
CORPORATION FINANCE

October 21, 2013

Via E-mail

David J. Drachman
Chairman and Chief Executive Officer
BioSig Technologies, Inc.
12424 Wilshire Boulevard, Suite 745
Los Angeles, CA 90025

**Re: BioSig Technologies, Inc.
Amendment No. 2 to Registration Statement on Form S-1
Filed October 4, 2013
File No. 333-190080**

Dear Mr. Drachman:

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.

Prospectus Cover

1. We note your revision in response to prior comment 1. However, the disclosure about sales “not in the public market” that remains as the last clause in the relevant sentence no longer addresses the price at which the shares will be sold – which appears to be the point of the sentence. If you mean that the selling stockholders will sell their securities at the disclosed fixed price until your common shares are quoted on the OTC Bulletin Board and thereafter at prevailing market prices or privately negotiated prices, please say so clearly and directly here and throughout your prospectus where relevant. Also ensure that the sentence refers to the price at which the securities will be sold, not merely the price at which they are offered.

Business, page 21

2. We note your additional disclosure that cites studies and reports. Please update your response to comment 17 in our letter to you dated August 16, 2013.

Initial Analysis, page 26

3. We note that your revised disclosure in response to prior comment 12 indicates that the recording came from a “real-life challenging recording environment”; however, your response and disclosure do not indicate whether this environment is typical. Accordingly, please address this aspect of the prior comment. If the data you depict is not typical of data recorded on currently sold equipment, please revise your disclosure to make this clear and indicate the portion of the current recording market that generates data of the type of depict.

Intellectual Property, page 29

4. We note your disclosure added in response to prior comment 15. If the absence of a clear agreement assigning the technology to the registrant creates risks or uncertainties concerning the registrant’s ownership of the technology that you identify throughout the prospectus as belonging to the registrant, please provide us your analysis supporting your conclusion that you need not highlight this issue in your prospectus summary and include a risk factor to explain.

Biographical Information, page 32

5. We note your response to prior comment 16 indicating that Mr. Chaussy has not served as an executive officer during the past five years; however, your disclosure that he has acted as a chief financial officer “since 2001” suggests that he still serves as an executive officer at a public company. Please revise your disclosure to provide more specific information regarding when he served in the roles and at each company you have highlighted. Ensure that your disclosure fully addresses the executive officers’ business experience during the last five years. In this regard, the experience of your CEO from September 2012 to September 2013 also is unclear; please revise.

BioSig Technologies, Inc. 2012 Equity Incentive Plan, page 36

6. According to the first paragraph of this section, it appears that you have granted options for more shares than are reserved under your 2012 plan. Please tell us how such excess grants are possible and the status of those grants.

Selling Stockholders, page 39

7. Your response to prior comment 18 suggests that warrants issued as consideration for amending the registration rights agreement and securities purchase agreement are included in the shares offered by the selling stockholders. If true, please revise this section to clarify, and ensure that your disclosure in this section makes clear the number of shares offered by each selling stockholder that underlie those warrants.

Rule 144, page 46

8. Please apply the rules that you cite in response to prior comment 21 to your facts and circumstances to tell us, with a view toward clarified disclosure, on what dates material amounts of your securities will be eligible for sale in reliance on Rule 144 and the number of shares eligible for sale on those dates.

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.

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You may contact Praveen Kartholy at (202) 551-3778 or 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.