



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

Mail Stop 3030

April 27, 2009

Via Facsimile and U.S. Mail

Mr. Jeff Feuer  
Chief Executive Officer  
SPO Medical Inc.  
Beit Hapa'amon, Suite 209  
20 Hata'as Street  
Kfar Saba, Israel

**Re: SPO Medical Inc.  
Form 10-K for the Year Ended December 31, 2008  
Filed March 31, 2009  
File No. 000-11772**

Dear Mr. Feuer:

We have reviewed your filing and have the following comments. We have limited our review to only your financial statements and related disclosures and will make no further review of your documents. Where indicated, we think you should revise your documents in future filings in response to these comments. If you disagree, we will consider your explanation as to why our comments are inapplicable or a revision is unnecessary. Please be as detailed as necessary in your explanation. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure. After reviewing this information, we may raise additional comments.

Please understand that the purpose of our review process is to assist you in your compliance with the applicable disclosure requirements and to enhance the overall disclosure in your filing. We look forward to working with you in these respects. We welcome any questions you may have about our comments or any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Form 10-K for the Year Ended December 31, 2008

Item 9A(T) Controls and Procedures, page 23

1. The language that is currently included after the word “effective” in your disclosure appears to be superfluous, since the meaning of “disclosure controls and procedures” is established by Rule 13a-15(e) of the Exchange Act. Please remove the language in your future filings or revise the disclosure so that the language that appears after the word “effective” is substantially similar in all material respects to the language that appears in the entire two-sentence definition of “disclosure controls and procedures” set forth in Rule 13a-15(e).

Consolidated Financial Statements, page F-1

Notes to the Financial Statements, page F-8

Note 3. Significant Accounting Policies, page F-9

-M. Stock-based Compensation, page F-11

2. We note from page 18 and throughout the filing that you issued equity instruments for services to non-employees during fiscal 2008. Please revise your future filings to disclose how you are accounting for your equity instruments issued to non-employees. Refer to the guidance in EITF 96-18 and SFAS 123(R).
3. We note from your disclosures that you utilize the Black-Scholes option pricing model to determine the fair value of your stock options. Please revise future filings to explain how you determined the assumptions utilized in this models including volatility, risk free interest rate, expected life, etc. Refer to the guidance in paragraphs A240-242 of SFAS 123(R) and SAB Topic 14.

Note 13. Stockholder’s Equity, page F-19

4. We note here and throughout the filing that you issued warrants to your short-term note holders, investors, and service providers. Please revise this note in future filings to disclose how you accounted for the warrants issued or modified, if applicable, and the valuation methodology used to value the warrants. Please also provide the significant assumptions utilized within these valuation models.

As appropriate, please respond to these comments within 10 business days or tell us when you will provide us with a response. Please furnish a cover letter that keys your responses to our comment and provides any requested information. Detailed cover letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your responses to our comments.

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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 all information required under the Securities Exchange Act of 1934 and that they have provided all information investors require for an informed investment decision. 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.

In connection with responding to our comments, please provide, in writing, a statement from the company acknowledging that:

- the company is responsible for the adequacy and accuracy of the disclosure in the filing;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filing; and
- the company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

In addition, please be advised that the Division of Enforcement has access to all information you provide to the staff of the Division of Corporation Finance in our review of your filing or in response to our comments on your filing.

You may contact Tara Harkins, Staff Accountant, at (202) 551-3639 or me at (202) 551-3643 if you have questions regarding these comments. In this regard, do not hesitate to contact Martin James, Senior Assistant Chief Accountant, at (202) 551-3671.

Sincerely,

Kevin L. Vaughn  
Accounting Branch Chief