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

DIVISION OF
CORPORATION FINANCE

December 2, 2013

Douglas Murphy-Chutorian, M.D.
Chief Executive Officer
Semler Scientific, Inc.
2330 NW Everett St.
Portland, OR 97210

Re: Semler Scientific, Inc.
Registration Statement on Form S-1
Filed November 15, 2013
File No. 333-192362

Dear Dr. Murphy-Chutorian:

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. Where 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.

Our Product, page 1

1. We note your response to prior comment 2 and your disclosures on pages 3, 39, and 43. Please revise your summary to explain the ankle brachial index (ABI), and briefly describe the difference between blood pressure and blood flow. Please revise to clarify how measurements taken by FloChec differ from those taken by competitive products and indicate, if true, whether the algorithm used in diagnosing PAD is a standard one within the medical profession or is proprietary to your business. Also, please revise to clarify how "traditional analog" ABI, Doppler and/or imaging systems differ from your own technology in terms of what they measure and how they measure it.

2. We note your new disclosure that you expect your product to be used as part of a routine office visit, like a thermometer or stethoscope. However, given that physicians likely make a one-time minimal payment for these products, it is unclear whether your product would be viewed by physicians the same way in making purchasing decisions. Please tell

us what consideration you have given to this and/revise to disclose risks associated with the uniqueness of your product in this regard.

Market Opportunity, page 2

3. We note your revised disclosures in response to prior comment 3. Please revise your summary to explain that FloChec is not approved under a third-party payor code, that you do not track reimbursement, and that your customers may or may not be successful in receiving reimbursement. Please also revise the heading on page 13 to clarify that your product is not approved under any payor codes.

Although part of our business strategy…, page 18

4. We note your response to prior comment 19. Please revise to explain briefly how the health care device tax is applied to products, such as FloChec, that are leased as opposed to sold to customers.

Use of Proceeds, page 27

5. We note your revised disclosure in response to prior comment 17. Please refer to Regulation S-K, Item 504 and revise to disclose the approximate dollar amount of proceeds intended for each stated purpose. Also, please revise, as applicable, to disclose that the proceeds will be used to pay accrued expenses owed to your chief executive officer.

Our Product, page 39

6. We note your response to prior comment 16 and your revised disclosure on page 40. Please revise to explain briefly the 2007 and 2011 assignments that you reference. Please also revise your related-party transaction disclosure, as applicable, to describe material terms of the 2011 assignment. Please also file both assignments as material contracts pursuant to Regulation S-K, Item 601(b)(10).

Market Opportunity, page 40

7. With respect to the materials provided in response to prior comment 21, please tell us:
   - whether the article included in tab 1 was published by the National Institute of Health;
   - which published study supports the statement on page 2 that persons with PAD are four times more likely to die of a heart attack, and two to three times more likely to die of a stroke; and
   - what section of the A.T. Hirsch et al. article included in tab 5 supports the 75% figure cited on page 2.

Manufacturing, page 42

8. We note your response to prior comment number 23; however, it appears that an agreement with your sole supplier is material. Please revise your disclosure and file the agreement as an exhibit or advise.

Research and Development Program, page 43

9. We note your revised disclosure in response to prior comment 24. To the extent that you choose to reference clinical studies in the prospectus, please revise to include material information about these studies, including what each study assessed, who conducted the studies, when they were conducted, whether there were any material limitations to the research, and whether you provided funding for the research and/or whether the authors had any competing interests. You should also explain the results of each study so that it is clear how it was determined that these results were "frequently concordant" as compared to competitive technologies.

Summary Compensation Table, page 55

10. We note your revised disclosure in response to prior comment 27. Please revise footnote 4 to clarify the nature of the $482,026 in accrued expenses owed to Dr. Murphy-Chutorian and discuss this compensation in your narrative summary on page 56. Also, please revise your disclosure on page 65 to describe briefly the consulting services he performed for you. Finally, please file the sales representative agreement and any material consulting arrangements with Dr. Murphy-Chutorian pursuant to Regulation S-K, Item 601(b)(10).

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.

You may contact Dennis Hult at (202) 551-3618 or Jay Webb at (202) 551-3603 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) 551-3528 with any other questions.

Sincerely,

/s/ Kevin L. Vaughn for

Amanda Ravitz
Assistant Director

cc (via email): Yvan-Claude Pierre, Esq. – Reed Smith LLP