

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

FORM S-8

REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

Semler Scientific, Inc.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

26-1367393
(I.R.S. Employer
Identification No.)

Semler Scientific, Inc.
2330 NW Everett St.
Portland, Oregon 97210
(877) 774-4211

2014 Stock Incentive Plan
(Full title of the plan)

(Address, including zip code, and telephone number, including area code, of registrant's principal executive office)

Douglas Murphy-Chutorian, M.D.
Chief Executive Officer
Semler Scientific, Inc.
2330 NW Everett St.
Portland, OR 97210
Telephone: (877) 774-4211

(Telephone number, including area code, of agent for service)

Copy to:

Yvan-Claude Pierre, Esq.
Marianne C. Sarrazin, Esq.
Reed Smith LLP
599 Lexington Avenue
New York, NY 10022
Telephone: (212) 521-5400
Facsimile: (212) 521-5450

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer
Non-accelerated filer
(Do not check if a smaller reporting company.)

Accelerated filer
Smaller reporting company

CALCULATION OF REGISTRATION FEE

Title of securities to be registered	Amount to be registered ⁽¹⁾	Proposed maximum offering price per share	Proposed maximum aggregate offering price	Amount of registration fee
Common stock, \$0.001 par value per share, issuable under the 2014 Stock Incentive Plan	450,000	\$ 3.40 ⁽²⁾	\$ 1,530,000 ⁽²⁾	\$ 197.07

- (1) Pursuant to Rule 416(a) under the Securities Act of 1933, as amended (the "Securities Act"), this Registration Statement includes an indeterminate number of additional shares which may be offered and issued to prevent dilution from stock splits, stock dividends or similar transactions as provided in the above-referenced plan.
- (2) Estimated solely for the purpose of calculating the amount of the registration fee pursuant to Rules 457(c) and 457(h) under the Securities Act, based upon the average of the high and low prices per share of the registrant's common stock on September 22, 2014 as reported on the NASDAQ Capital

Market.

PART I

INFORMATION REQUIRED IN THE SECTION 10(a) PROSPECTUS

The document(s) containing the information specified in Part I are not required to be filed with the Securities and Exchange Commission (the "Commission") as part of this Registration Statement on Form S-8 in accordance with Rule 428 of the Securities Act of 1933, as amended (the "Securities Act") and will be delivered to participants in accordance with such rule.

PART II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference

The following documents filed by Semler Scientific, Inc. (the "Registrant") with the Commission are incorporated in this Registration Statement by reference and made a part of this Registration Statement:

- (a) The Registrant's prospectus filed on February 21, 2014 relating to the Registration Statement on Form S-1, as amended (File No. 333-192362), which contains audited financial statements for the Registrant's latest fiscal year for which such statements have been filed;
- (b) The description of the Registrant's Common Stock contained in the Company's Registration Statement on Form 8-A (File No. 001-36305) filed with the Commission on February 7, 2014, pursuant to Section 12(b) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), including any amendment or report filed for the purpose of updating such description;
- (c) The Registrant's Quarterly Reports on Form 10-Q for the quarters ended March 31, 2014 and June 30, 2014, respectively; and
- (d) All other reports filed by the Registrant pursuant to Section 13(a) or 15(d) of the Exchange Act since the end of the fiscal year covered by the audited financial statements included in the Registration Statement referred to in paragraph (a) above.

All documents filed by the Registrant pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act on or after the date of this Registration Statement and prior to the filing of a post-effective amendment to this Registration Statement that indicates that all securities offered have been sold or that deregisters all securities then remaining unsold shall be deemed to be incorporated by reference in this Registration Statement and to be part hereof from the date of filing of such documents; provided, however, that documents or information deemed to have been furnished and not filed in accordance with the rules of the Commission shall not be deemed incorporated by reference into this Registration Statement. Any statement contained in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for purposes of this Registration Statement to the extent that a statement contained herein or in any subsequently filed document which also is deemed to be incorporated by reference herein modifies or supersedes such statement. Any such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this Registration Statement.

You may read and copy registration statements, reports, proxy statements and other information filed by the Registrant at the public reference room maintained by the Commission at 100 F Street, N.E., Washington, D.C. 20549. You can call the Commission for further information about its public reference room at 1-800-732-0330. Such material is also available at the Commission's website at <http://www.sec.gov>.

Item 4. Description of Securities

Not applicable.

Item 5. Interests of Named Experts and Counsel.

Not applicable.

Item 6. Indemnification of Directors and Officers.

Section 145 of the Delaware General Corporation Law authorizes a court to award, or a corporation's board of directors to grant, indemnity to directors and officers in terms sufficiently broad to permit such indemnification under certain circumstances for liabilities, including reimbursement for expenses incurred, arising under the Securities Act.

The Registrant's amended and restated certificate of incorporation and amended and restated bylaws provide that the Registrant will indemnify its directors and officers, and may indemnify its employees and other agents, to the fullest extent permitted by the Delaware General Corporation Law. However, Delaware law prohibits the Registrant's certificate of incorporation from limiting the liability of the Registrant's directors for the following:

- any breach of the director's duty of loyalty to the corporation or to its stockholders;
- acts or omissions not in good faith or that involve intentional misconduct or a knowing violation of law;
- unlawful payment of dividends or unlawful stock repurchases or redemptions; and
- any transaction from which the director derived an improper personal benefit.

The Registrant has entered into indemnification agreements with each of its directors and officers and some of its employees. These agreements provide for the indemnification of such persons for all reasonable expenses and liabilities incurred in connection with any action or proceeding brought against them by reason of the fact that they are or were serving in such capacity.

The Registrant may maintain insurance policies that indemnify its directors and officers against various liabilities arising under the Securities Act and the Exchange Act that might be incurred by any director or officer in his capacity as such. The Registrant has obtained director and officer liability insurance to cover liabilities directors and officers may incur in connection with their services to the Registrant.

Item 7. Exemption From Registration Claimed.

Not applicable.

Item 8. Exhibits.

<u>Number</u>	<u>Exhibit</u>
4.1	Amended and Restated Certificate of Incorporation (incorporated by reference to Exhibit 3.1 of the Registrant's Form S-1 Registration Statement, as amended (File No. 333-192362), filed with the Securities and Exchange Commission on November 15, 2013)).
4.2	Bylaws (incorporated by reference to Exhibit 3.2 of the Registrant's Form S-1 Registration Statement, as amended (File No. 333-192362), filed with the Securities and Exchange Commission on November 15, 2013).
4.3	Form of common stock certificate of the Registrant (incorporated by reference to Exhibit 4.1 of the Registrant's Form S-1 Registration Statement, as amended (File No. 333-192362), filed with the Securities and Exchange Commission on November 15, 2013).
5.1	Opinion of Reed Smith LLP.
23.1	Consent of Independent Registered Public Accounting Firm.
23.2	Consent of Reed Smith LLP (included in Exhibit 5.1).
24.1	Power of Attorney (included on the signature page of this Registration Statement).
99.1	2014 Stock Incentive Plan (incorporated by reference to Exhibit 10.1 of the Registrant's Form 8-K filed with the Securities and Exchange Commission on September 2, 2014).

Item 9. Undertakings

(a) The undersigned registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this Registration Statement to include any material information with respect to the plan of distribution not previously disclosed in the Registration Statement or any material change to such information in the Registration Statement.

(2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(b) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the registrant's annual report pursuant to Section 13(a) or 15(d) of the Exchange Act that is incorporated by reference in this Registration Statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(c) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of the expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Portland, State of Oregon, on this 23rd day of September, 2014.

SEMLER SCIENTIFIC, INC.

By: /s/ Douglas Murphy-Chutorian, M.D.
Name: Douglas Murphy-Chutorian, M.D.
Title: Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitute and appoint Douglas Murphy-Chutorian and James M. Walker, and each one of them, as his or her true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution, for him or her and in their name, place, and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) to this registration statement, and to file the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them, or his or her substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, as amended, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Douglas Murphy-Chutorian, M.D.</u> Douglas Murphy-Chutorian, M.D.	Chief Executive Officer and Director (Principal Executive Officer)	September 23, 2014
<u>/s/ James M. Walker</u> James M. Walker	Chief Financial Officer (Principal Accounting Officer)	September 23, 2014
<u>/s/ Herbert J. Semler, M.D.</u> Herbert J. Semler, M.D.	Chairman of the Board of Directors	September 23, 2014
<u>/s/ Bruce J Barclay</u> Bruce J Barclay	Director	September 23, 2014
<u>/s/ Aidan M. Collins</u> Aidan M. Collins	Director	September 23, 2014
<u>/s/ Greg S. Garfield</u> Greg S. Garfield	Director	September 23, 2014
<u>/s/Arthur N. Leibowitz, M.D., F.A.A.P</u> Arthur N. Leibowitz, M.D., F.A.A.P.	Director	September 23, 2014
<u>/s/ Wayne T. Pan, M.D., Ph.D.</u> Wayne T. Pan, M.D., Ph.D.	Director	September 23, 2014
<u>/s/ Shirley Semler</u> Shirley Semler	Director	September 23, 2014

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New York, NY 10022
+1 212 521 5400
Fax +1 212 521 5450
reedsmith.com

September 23, 2014

Semler Scientific, Inc.
2330 NW Everett St.
Portland, Oregon 97210

Ladies and Gentlemen:

We have acted as counsel to Semler Scientific, Inc., a Delaware corporation (the “Company”) in connection with the filing by the Company on the date hereof of a Registration Statement on Form S-8 (the “Registration Statement”) with the Securities and Exchange Commission covering the offer and sale of up to 450,000 shares of the Company’s Common Stock, \$0.001 par value per share (the “Shares”), issuable pursuant to its 2014 Stock Incentive Plan (the “Plan”). This opinion is being furnished at the Company’s request in connection with the requirements of Item 601(b)(5) of Regulation S-K under the Securities Act of 1933, as amended, and no opinion is expressed herein as to any matter pertaining to the contents of the Registration Statement or the prospectus forming a part thereof, other than as to the issue of the Shares.

In rendering the opinion hereinafter expressed, we have made such legal and factual examinations and inquiries, including an examination of originals or copies certified or otherwise identified to our satisfaction as being true reproductions of originals, of all such documents, records, agreements and other instruments, including the Registration Statement, the Plan, the Certificate of Incorporation, as amended, of the Company, the Bylaws of the Company, and corporate minutes of the Company as we have deemed necessary and appropriate for the purpose of this opinion. We have assumed that there are no agreements or understandings between or among the Company and any participants in the Plan that would expand, modify or otherwise affect the terms of the Plan or the respective rights or obligations of any participants thereunder. We have further assumed the genuineness of all signatures, the authenticity of all documents, certificates and records submitted to us as originals, the conformity to original documents, certificates and records of all documents, certificates and records submitted to us as copies, and the truthfulness of all statements of fact contained therein.

Based upon the foregoing, and having regard to legal considerations and other information that we deem relevant, we are of the opinion that, as of the date hereof, when the Shares shall have been duly registered on the books of the transfer agent and registrar therefor in the name or on behalf of the purchasers, and have been issued by the Company against payment therefor in the circumstances contemplated by the Plan and assuming in each case that the individual issuances, grants or awards under the Plan are duly authorized by all necessary corporate action of the Company and duly issued, granted or awarded and exercised and paid for, for consideration at least equal to the par value thereof, in accordance with the requirements of law and the Plan (and the agreements and awards duly adopted thereunder and in accordance therewith), the issue and sale of the Shares shall have been duly authorized and, when and to the extent that the Shares are issued in accordance with the foregoing, such Shares will be validly issued, fully paid and non-assessable.

We express no opinion regarding the effectiveness of any waiver (whether or not stated as such) contained in the Plan of rights of any party, or duties owing to it, that is broadly or vaguely stated or does not describe the right or duty purportedly waived with reasonable specificity or any provision in the Plan relating to indemnification, exculpation or contribution.

We express no opinion herein as to the laws of any state or jurisdiction other than the General Corporation Law of the State of Delaware.

NEW YORK LONDON HONG KONG CHICAGO WASHINGTON, D.C. BEIJING PARIS LOS ANGELES SAN FRANCISCO PHILADELPHIA SHANGHAI PITTSBURGH HOUSTON SINGAPORE MUNICH
ABU DHABI PRINCETON NORTHERN VIRGINIA WILMINGTON SILICON VALLEY DUBAI CENTURY CITY RICHMOND GREECE KAZAKHSTAN

We hereby consent to the filing of this opinion as an exhibit to the Registration Statement and the reference to this firm therein. In giving this consent, we do not thereby admit that we are within the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations of the Commission.

Very truly yours,

/s/ Reed Smith LLP

Consent of Independent Registered Public Accounting Firm

Semler Scientific, Inc.
Portland, Oregon

We hereby consent to the incorporation by reference in the Prospectus constituting a part of this Registration Statement of our report dated February 17, 2014, relating to the financial statements of Semler Scientific, Inc. appearing in the Company's Form S-1, as amended (No. 333-192362), filed on February 18, 2014.

/s/ BDO USA, LLP
New York, New York

September 22, 2014
