



DIVISION OF
CORPORATION FINANCE

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

August 30, 2013

Dr. Michael Pellini, M.D.,
President, Chief Executive Officer and Director
Foundation Medicine, Inc.
One Kendall Square, Suite B3501
Cambridge, MA 02139

**Re: Foundation Medicine, Inc.
Amendment No. 3 to Registration Statement on Form S-1
Filed August 27, 2013
File No. 333-190226**

Dear Dr. Pellini:

We have reviewed your amended 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 revised disclosure in response to comment 1 of our letter dated August 23, 2013. With a view to clarifying disclosure, please advise us (1) how you calculated the \$4 billion market and (2) whether or not you believe a significant number of patients in that market currently receive testing services from other companies, explaining the basis for your belief. We may have further comment.
2. Additionally, please revise further to clarify your discussion of prospective patients. For instance, it is unclear, when you say that your assumption is based on "one million" patients, whether and on what basis you expect to get one million new patients annually.
3. We note the additional disclosure in the second full paragraph on page 3 regarding your revenue derived from test results. Please revise the first paragraph on page 1 of the summary overview to provide similar disclosure where you currently reference your

“proprietary molecular information platform.” Please refer to prior comments 1 and 3 of our letter dated August 23, 2013.

Other

4. Please note that we will require sufficient time to review exhibits to be filed by amendment. In addition, please note that the confidential treatment request, most recently amended on August 27, 2013, should be resolved prior to requesting acceleration.

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 Myra Moosariparambil at (202) 551-3796 or John Archfield at (202) 551-3315 if you have questions regarding comments on the financial statements and related matters. Please contact Erin Wilson at (202) 551-6047 or James Lopez at (202) 551-3536 with any other questions.

Sincerely,

/s/ James Lopez (for)

John Reynolds
Assistant Director