



DIVISION OF
CORPORATION FINANCE

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

June 11, 2015

Via E-mail
Herm Rosenman
Chief Financial Officer
Natera, Inc.
201 Industrial Road, Suite 410
San Carlos, California 94070

Re: Natera, Inc.
Registration Statement on Form S-1
Filed June 1, 2015
File No. 333-204622

Dear Mr. Rosenman:

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.

General

1. Please update the amount of common stock outstanding for beneficial ownership as of the most recent practicable date throughout the document as appropriate.

Management's Discussion and Analysis of Financial Condition and Results of Operations, page 65

Results of Operations, page 75

Comparison of Three Months Ended March 31, 2014 and 2015, page 75

Revenues, page 75

2. On page 77, you discuss a) the number of total tests and the number of Panorama tests accessioned in years 2014 and 2013 as compared to the number of each for which you recognized revenue in the same year that the test was performed; and b) the number of total tests and the number of Panorama tests for which revenue was recognized in years 2014 and 2013 related to tests performed in earlier periods. Please expand your results of operations discussion here to provide similar information that conveys the proportion of tests accessioned for which you ultimately recognized revenue during your latest reporting period.

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

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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 Suying Li at (202) 551-3335 or Rufus Decker at (202) 551-3769 if you have questions regarding comments on the financial statements and related matters. Please contact Ronald E. Alper at (202) 551-3329 or Pamela Howell at (202) 551-3357 with any other questions.

Sincerely,

/s/ Pamela Howell
for

John Reynolds
Assistant Director

cc: Robert V. Gunderson, Jr., Esq.
Gunderson Dettmer Stough Villeneuve Franklin & Hachigian, LLP