

October 17, 2013

Via EDGAR
Securities and Exchange Commission
Division of Corporation Finance
100 F Street, N.E.
Washington, D.C. 20549-2001

Attention: John Reynolds
Assistant Director

RE: Veracyte, Inc.
Amendment No. 2 to the Registration Statement on Form S-1
Filed October 15, 2013
File No. 333-191282

Dear Mr. Reynolds:

Veracyte, Inc. (the "Registrant") hereby provides the following information in response to the comments received from the staff (the "Staff") of the Securities and Exchange Commission (the "Commission") in its letter to the Registrant dated October 15, 2013. The number of the responses and the headings set forth below correspond to the numbered comments and headings in the letter from the Staff.

On behalf of the Registrant, we are concurrently filing via EDGAR Amendment No. 3 to the Registration Statement on Form S-1 ("Amendment No. 3"), and for the convenience of the Staff, we are providing to the Staff by courier, a copy of this letter, a copy of Amendment No. 3 with exhibits, and a marked copy of Amendment No. 3 (against Amendment No. 2 to the Registration Statement on Form S-1 filed on October 15, 2013).

Prospectus Summary, page 1

1. Please provide an expanded response and revise the prospectus to address clearly the first bullet point of comment 1 from our letter dated October 10, 2013:

www.pillsburylaw.com

- Clarify how you determined that molecular diagnostic solutions represent a \$4.0 billion opportunity, as it is unclear why you are using the amount saved by avoiding surgery rather than the amount that you would receive from the additional testing

Response: In response to the Staff's comment, the Registrant has revised pages 1, 2 and 65 of the Registration Statement to clarify how it determined the potential market opportunity for molecular diagnostic solutions.

2. The statement added on page two that "90% of the 52% of patients receiving a GEC benign result made the decision to avoid a surgery" is not consistent with the disclosure in the same paragraph that surgery was recommended in only 7.6% of these cases. Please reconcile.

Response: In response to the Staff's comment, the Registrant has revised pages 2 and 66 of the Registration Statement to indicate that the 90% is an approximation.

Use of Proceeds, page 34

3. We reissue comment three from our letter dated October 10, 2013. We note the disclosure in this section, and the risk factors section regarding the broad discretion of management in using the net proceeds from the offering and the disclosure regarding the potential allocation of proceeds to acquisitions. The company may reserve the right to change the use of proceeds, provided that such reservation is due to certain contingencies that are discussed specifically and the alternatives to such use are indicated. See Instruction 7 to item 504 of Regulation S-K. Please revise the disclosure in this section accordingly.

Response: In response to the Staff's comment, the Registrant has revised page 37 of the Registration Statement.

Financial Statements

Condensed Balance Sheets, page F-30

4. Please revise to complete the pro forma information for stockholders' equity as of June 30, 2013 giving effect to the conversion of convertible preferred stock. Please also revise your disclosure under the "Unaudited Pro Forma Stockholder's Equity" on page F-33 to reflect the retroactive effect of the four-for-one reverse stock split on the common stock shares to be issued for the conversion of your convertible preferred stock as of June 30, 2013.

Response: In response to the Staff's comment, the Registrant has revised pages F-30 and F-33 of the Registration Statement.

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The Registrant acknowledges the following:

- the Registrant 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 Registrant 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.

We trust the forgoing to be responsive to the Staff's comments. Should you have questions or require additional information, please call me at (650) 233-4670. You may also direct any further comments to me via facsimile at (650) 233-4545 or via email.

Very truly yours,

/s/ Gabriella A. Lombardi

Gabriella A. Lombardi

cc: Veracyte, Inc.:
Bonnie H. Anderson, President and Chief Executive Officer
Shelly D. Guyer, Chief Financial Officer

Simpson Thacher & Bartlett LLP:
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