Filed Pursuant to Rule 433
Issuer Free Writing Prospectus dated October 25, 2013
Relating to Preliminary Prospectus issued October 17, 2013
Registration Statement No. 333-191282

VERACYTE, INC.

Free Writing Prospectus

This free writing prospectus relates to the shares of common stock of Veracyte, Inc. (the "**Company**") and should be read together with the preliminary prospectus dated October 17, 2013 (the "**Preliminary Prospectus**"), included in Amendment No. 3 to the Registration Statement on Form S-1 (Registration No. 333-191282) relating to the offering of these securities. On October 25, 2013, the Company filed Amendment No. 4 to the Registration Statement ("**Amendment No. 4**"), which may be accessed through the following link:

http://www.sec.gov/Archives/edgar/data/1384101/000104746913009938/a2217118zs-1a.htm

The following information is set forth in Amendment No. 4 and updates the information contained in the Preliminary Prospectus.

The Company has amended the disclosure set forth in the Preliminary Prospectus in the section entitled "Risk Factors — Our management will have broad discretion in the use of the net proceeds from this offering and may not use them in a way which increases the value of your investment." on page 33 to delete the word "broad" before "discretion" both in the title and in the second sentence of the risk factor.

The Company has deleted the fifth paragraph of the "Use of Proceeds" section of the Preliminary Prospectus on page 37 and has amended the third and fourth paragraphs of the "Use of Proceeds" section of the Preliminary Prospectus on pages 36 and 37 to read as follows:

The expected use of the net proceeds from this offering represents our intentions based upon our current plans and business conditions, which could change in the future as our plans and business conditions evolve. As of the date of this prospectus, we cannot specify with certainty all of the particular uses for the net proceeds to be received upon the closing of this offering. We will have discretion in the way that we use the net proceeds and investors will be relying on our judgment regarding the application of the net proceeds of this offering. The amounts and timing of our actual expenditures depend on numerous factors, including the following: the timing and amount of our cash receipts from the sale of Afirma; the timing and amount of our expenses related to the sale of Afirma, including the payments we are required to make as a result of our co-promotion agreement and costs related to geographical expansion of our sales efforts; the completion or termination of our clinical trials and other studies and the results of such trials or studies; costs related to sample acquisition for clinical trials; the progress of our preclinical research efforts; changes in the level of FDA regulation applicable to Afirma or future tests we may develop, and costs of compliance with regulation of Afirma outside of the United States; identification of opportunities to acquire businesses or assets or license technologies that we believe are in the best interests of our stockholders; or other material unforeseen cash needs.

Depending on the outcome of these factors, our plans and priorities may change, and we may be required to apply the net proceeds of this offering differently than we currently anticipate, and it may be necessary to allocate more or less of the net proceeds to the categories described above. We do not expect that we will decrease our estimated allocations to research and development or selling and marketing to fund potential acquisitions or for general and administrative expenses if doing so would have an adverse effect on the financial resources we believe will be necessary for us to pursue our business goals.

Alternative uses for the net proceeds include:

- increased allocation to research and development in the event we decide to focus our efforts on new disease indications, new products or the acceleration of the development of products in our pipeline, or that we are required to conduct additional clinical trials or other research and development activities in response to changes in FDA regulations applicable to Afirma or other tests we may develop, or regulations related to selling Afirma outside of the United States;

- decreased allocation to research and development in the event we abandon or are unable to continue any of our current research and development activities, trials or studies, or complete current research and development activities and elect not to begin new research and development efforts;

- increased allocation to selling and marketing to drive increased adoption of Afirma, accelerate our international expansion efforts or to address unanticipated challenges in connection with our international expansion, or in order to comply with payment obligations under our co-promotion agreement;

- decreased allocation to selling and marketing in the event we decide to forego, scale-back or delay our expansion into international markets, or decide not to increase our internal selling and marketing efforts;

- increased allocation to general and administrative in the event we increase our billing and collections and customer service capabilities to address increased adoption of and reimbursement for Afirma; and

- increased allocation to research and development or selling and marketing, as applicable, in the event we license complementary technologies or acquire complementary businesses or other assets, although we have no current commitments, understandings or agreements with respect to any material acquisition or license.

* * *

The Company has filed a registration statement including a prospectus with the U.S. Securities and Exchange Commission (the "**SEC**") for the offering to which this communication relates. Before you invest, you should read the prospectus in that registration statement and other documents the Company has filed with the SEC for more complete information about the Company and this offering.

You may obtain these documents free of charge by visiting EDGAR on the SEC website at www.sec.gov. Alternatively, the Company, any underwriter or any dealer participating in the offering will arrange to send you the prospectus if you request it by contacting Morgan Stanley & Co. LLC, Attention: Prospectus Department, 180 Varick Street, New York, NY 10014, telephone: 1-866-718-1649, or email: prospectus@morganstanley.com; or Leerink Swann LLC, Attention: Syndicate Department, One Federal Street, 37th Floor, Boston, MA 02110, telephone: 1-800-808-7525 or email: Syndicate@Leerink.com.