UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM S-3

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

VERACYTE, INC.

(Exact Name of Registrant as Specified in Its Charter)

Delaware

(State or Other Jurisdiction of Incorporation or Organization)

20-5455398 (I.R.S. Employer Identification Number)

7000 Shoreline Court, Suite 250 South San Francisco, California, 94080 (650) 243- 6300

(Address, Including Zip Code, and Telephone Number, Including Area Code, of Registrant's Principal Executive Offices)

Bonnie H. Anderson President and Chief Executive Officer VERACYTE, INC. 7000 Shoreline Court, Suite 250 South San Francisco, California, 94080 (650) 243- 6300

(Name, Address, Including Zip Code, and Telephone Number, Including Area Code, of Agent for Service)

Copies to:

Gabriella A. Lombardi Pillsbury Winthrop Shaw Pittman LLP 2550 Hanover Street Palo Alto, California 94304 Telephone: (650) 233-4500 Stanton D. Wong Pillsbury Winthrop Shaw Pittman LLP P.O. Box 2824 San Francisco, California 94126 Telephone: (415) 983-1000 Julie A. Brooks
Executive Vice President, General Counsel and Secretary
Veracyte, Inc.
7000 Shoreline Court, Suite 250
South San Francisco, California 94080
(650) 243- 6300

Approximate date of commencement of proposed sale to the public:

From time to time after this registration statement becomes effective, as determined by market conditions and other factors.

If the only securities being registered on this form are being offered pursuant to dividend or interest reinvestment plans, please check the following box. o

If any of the securities being registered on this form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box. x

If this form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. o

If this form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. o

If this form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to

Rule 462(e) under the Securities Act, check the following box. o

If this form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box. o

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 o

Accelerated filer o

 $\label{eq:Non-accelerated} Non-accelerated filer x \\ \mbox{(Do not check if a smaller reporting company)}$

Smaller reporting company \Box

CALCULATION OF REGISTRATION FEE

			Proposed	
		Proposed	Maximum	
	Amount to be	Maximum Offering	Aggregate Offering	Amount of
Title of Each Class of Securities to be Registered	Registered	Price Per Share(1)	Price(1)	Registration Fee
Common Stock, par value \$0.001 per share	4,907,975 shares	\$ 10.14	\$ 49,766,866.50	\$ 5782.91

(1) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(c) under the Securities Act of 1933 based on the average of the high and low prices of the Registrant's Common Stock on The NASDAQ Global Market on May 18, 2015.

The Registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment which specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until the registration statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.

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The information in this prospectus is not complete and may be changed. The selling stockholders may not sell these securities until the registration statement filed with Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities and is not soliciting an offer to buy these securities in any state where the offer or sale is not permitted.

PROSPECTUS

4,907,975 Shares

VERACYTE, INC.

Common Stock

The selling stockholders identified in this prospectus may sell up to an aggregate of 4,907,975 shares of our common stock.

Our registration of the shares of our common stock covered by this prospectus does not mean that the selling stockholders will offer or sell any of the shares of our common stock. The selling stockholders may sell the shares of our common stock covered by this prospectus in a number of different ways and at varying prices. For additional information on the possible methods of sale that may be used by the selling stockholders, you should refer to the information under the heading "Plan of Distribution" on page 4 of this prospectus. We will not receive any of the proceeds from the sale of the shares of our common stock by the selling stockholders.

Our common stock is listed on The NASDAQ Global Market under the symbol "VCYT." On May 20, 2015, the last reported sale price of our common stock on The NASDAQ Global Market was \$10.79 per share.

Investing in our securities involves risks. See the section entitled "Risk Factors" beginning on page 2 and in the documents we incorporate by reference in this prospectus before making your investment decision.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus. Any representation to the contrary is a criminal offense.

The date of this prospectus is

, 2015

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We have not authorized anyone to provide any information other than that contained or incorporated by reference in this prospectus, any applicable prospectus supplement or any free writing prospectus prepared by or on behalf of us or to which we have referred you. We take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. We are not making an offer to sell these securities in any jurisdiction where the offer or sale is not permitted. You should assume that the information in this prospectus and any prospectus supplement, or incorporated by reference, is accurate only as of the dates of those documents. Our business, financial condition, results of operations and prospects may have changed since those dates.

Unless the context otherwise requires, references in this prospectus to "Veracyte," the "company," "we," "us" and "our" refer to Veracyte, Inc. and its subsidiaries.

Veracyte, Afirma, Percepta, the Veracyte logo and the Afirma logo are our trademarks or registered trademarks. This prospectus and the documents incorporated by reference into this prospectus may also contain trademarks and trade names that are the property of their respective owners. We do not intend our use or display of other companies' trade names, trademarks or service marks to imply relationships with, or endorsements or sponsorship of us by, these other companies.

When we refer to the selling stockholders in this prospectus, we are referring to the stockholder identified in the table under the heading "Selling Stockholders" herein as well as its donees, pledgees, transferees or other successors-in-interest that received shares of our common stock after the date of this prospectus from the selling stockholders pursuant to a gift, a pledge, a partnership distribution or other transfer (other than a public sale).

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RISK FACTORS

Investing in our common stock involves risk. Prior to making a decision about investing in our common stock, you should carefully consider all of the information appearing or incorporated by reference in this prospectus, including the risk factors incorporated by reference to our most recent Annual Report on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K. The occurrence of any of these risks or additional risks and uncertainties that are not currently known to us or that we currently consider immaterial may cause you to lose all or part of your investment in our common stock.

VERACYTE, INC.

We are a molecular diagnostics company, pioneering the field of molecular cytology with genomic solutions that resolve diagnostic ambiguity and enable physicians to make more informed treatment decisions at an early stage in patient care. We believe that diagnostic ambiguity is a significant problem impacting our healthcare system, resulting in hundreds of thousands of patients undergoing unnecessary, invasive procedures and wasting billions of healthcare dollars each year. We target diseases in which large numbers of patients undergo invasive and costly diagnostic procedures that could be avoided with a more accurate diagnosis from a cytology sample taken preoperatively. By improving diagnosis preoperatively, we help patients avoid unnecessary invasive procedures and surgeries while reducing healthcare costs. We are focused on the continued growth of our endocrinology franchise, and we recently entered into our second clinical indication, pulmonology, with the launch of our Percepta Bronchial Genomic Classifier in April 2015.

We were incorporated in Delaware as Calderome, Inc. in August 2006. Calderome operated as an incubator until early 2008. We changed our name to Veracyte, Inc. in March 2008. Our principal executive offices are located at 7000 Shoreline Court, Suite 250, South San Francisco, California 94080 and our telephone number is (650) 243-6300. Our website address is www.veracyte.com. We do not incorporate the information on, or accessible through, our website into this prospectus, and you should not consider any information on, or accessible through, our website as part of this prospectus.

FORWARD-LOOKING STATEMENTS

When used in this prospectus, the words "expects," "believes," "anticipates," "estimates," "may," "could," "intends," and similar expressions are intended to identify forward-looking statements. These statements are subject to known and unknown risks and uncertainties that could cause actual results to differ materially from those projected or otherwise implied by the forward-looking statements. These forward-looking statements speak only as of the date of this prospectus. Given these risks and uncertainties, you should not place undue reliance on these forward-looking statements. We will discuss many of these risks and uncertainties in greater detail in any prospectus supplement under the heading "Risk Factors." Additional cautionary statements or discussions of risks and uncertainties that could affect our results or the achievement of the expectations described in forward-looking statements may also be contained in the documents we incorporate by reference into this prospectus.

These forward-looking statements speak only as of the date of this prospectus. We expressly disclaim any obligation or undertaking to release publicly any updates or revisions to any forward-looking statements contained herein to reflect any change in our expectations with regard thereto or any change in events, conditions or circumstances on which any such statement is based. You should, however, review additional disclosures we make in our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, and Current Reports on Form 8-K filed with the SEC.

USE OF PROCEEDS

We will not receive any proceeds from the sale of the shares by the selling stockholders. All proceeds from the sale of the shares will be for the accounts of the selling stockholders. See "Selling Stockholders" and "Plan of Distribution."

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SELLING STOCKHOLDERS

On April 28, 2015, we sold to the selling stockholders 4,907,975 shares of our common stock in a private placement, pursuant to a securities purchase agreement with the selling stockholders. The registration statement to which this prospectus relates is being filed pursuant to a registration rights agreement we entered into with the selling stockholders.

The following table sets forth, to our knowledge, certain information as of May 11, 2015 regarding the beneficial ownership of our common stock by the selling stockholders and the shares being offered by the selling stockholders. Information with respect to beneficial ownership is based upon information obtained from the selling stockholders. Information with respect to shares owned beneficially after the offering assumes the sale of all of the shares offered and no other purchases or sales of our common stock. The selling stockholders may offer and sell some, all or none of their shares.

Shares Beneficially
Owned
Prior to Offering (1)(2)
Number Percent

Shares Being Offered

Shares Beneficially
Owned After Offering
Number Percent

Deerfield Special Situations Fund, L.P. (3)	736,196	2.7%	736,196	_	_
Entities affiliated with Longwood Capital Partners LLC					
(4)	710,077	2.6%	613,497	96,580	*
2B LLC (5)	42,945	*	42,945	_	_
venBio Select Fund LLC (6)	570,552	2.1%	570,552	_	_
Entities affiliated with Camber Capital Management,					
LLC (7)	1,226,994	4.5%	1,226,994	_	_
P Consonance Opportunities LTD (8)	61,350	*	61,350	_	_
Altairis Offshore Levered (9)	429,447	1.6%	429,447	_	_
Eventide Asset Management, LLC (10)	2,008,298	7.3%	490,798	1,517,500	5.5%
Broadfin Healthcare Master Fund, LTD (11)	736,196	2.7%	736,196	_	_

- * Less than 1%.
- (1) Based on 27,462,532 shares of our common stock outstanding as of May 1, 2015.
- (2) To our knowledge, the persons named in the table have sole voting and investment power with respect to all shares of common stock shown as beneficially owned by them, subject to community property laws, where applicable, and the information contained in the footnotes to this table.
- (3) James E. Flynn has voting and investment power over of all of the shares held by Deerfield Special Situations Fund, L.P. Mr. Flynn disclaims beneficial ownership over all of the shares held by Deerfield Special Situations Fund, L.P., except to the extent of his pecuniary interest therein. The address for Deerfield Special Situations Fund, L.P is 780 Third Avenue, 37th Floor, New York, New York 10017.
- (4) Shareholdings consist of 429,672 shares held by Longwood Capital, LP, 184,141 shares held by Longwood Shares Opportunity Fund, LP and 96,264 shares held by 2B LLC. Shares offered consist of 429,448 shares held by Longwood Capital, LP and 184,049 shares held by Longwood Opportunity Fund, LP. Richard Lin is the Managing Member of Longwood Capital Partners LLC, the general partner of Longwood Capital, LP and Longwood Opportunity Fund, LP and an investment manager for 2B LLC and has voting and investment power over all of the shares held by Longwood Capital, LP and Longwood Opportunity Fund, LP and the 96,264 shares held by 2B LLC but does not have voting or investment power over the shares held by 2B LLC described in footnote 5 below. Mr. Lin disclaims beneficial ownership over all of the shares held by Longwood Capital, LP, Longwood Opportunity Fund, LP and 2B LLC, except to the extent of his pecuniary interest therein.
- (5) J. Darius Bikoff, a Member of 2B LLC, has voting and investment control over all the shares held by 2B LLC. Mr. Bikoff disclaims beneficial ownership over all the shares held by 2B LLC, except to the extent of his pecuniary interest therein.
- (6) Behzad Aghazadeh, the portfolio manager of venBio Select Fund LLC, has voting and investment power over all of the shares held by venBio Select Fund LLC. Mr. Aghazadeh disclaims beneficial ownership over all of the shares held by venBio Select Fund LLC, except to the extent of his pecuniary interest therein.
- (7) Shareholdings consist of 1,181,718 shares held by Camber Capital Master Fund, LP, 8,834 shares held by Camber Capital Fund II, LP, and 36,442 shares held by Arthur J. Remillard Jr. Trust. Camber Capital Management, LLC has voting and investment power over all of the shares held by Camber Capital Master Fund, LP, Camber Capital Fund II, LP and Arthur J. Remillard Jr. Trust. Camber Capital Management, LLC disclaims beneficial ownership over all of the shares held by Camber Capital Master Fund, LP, Camber Capital Fund II, LP and Arthur J. Remillard Jr. Trust, except to the extent of any pecuniary interest therein.
- (8) Consonance Capital Opportunity Fund Management LP has voting and investment power over all the shares held by P Consonance Opportunities LTD. Consonance Capital Opportunity Fund Management LP disclaims beneficial ownership over all of the shares held by P Consonance Opportunities LTD, except to the extent of any pecuniary interest therein.

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- (9) Polar Securities Inc. serves as investment advisor to Altairis Offshore Levered and has voting and investment control over all the shares held by Altairis Offshore Levered. Polar Securities Inc. disclaims beneficial ownership over all of the shares held by Altairis Offshore Levered except to the extent of its pecuniary interest therein.
- (10) Shareholdings consist of 1,193,431 shares held by Eventide Gilead Fund and 814,867 shares held by Eventide Healthcare & Life Sciences Fund, each of which is a registered investment company for which Eventide Asset Management, LLC acts as investment adviser. Eventide Asset Management, LLC has voting and investment power with respect to all of such shares. The address of Eventide Asset Management, LLC is 60 State Street, Suite 700, Boston, Massachusetts, 02109. Of the shares offered, Eventide Gilead Fund holds 381,731 shares and Eventide Healthcare & Life Sciences Fund holds 109,067 shares.
- (11) Broadfin Capital, LLC serves as investment adviser to Broadfin Healthcare Master Fund, LTD with the power to direct investments and/or sole power to vote the shares owned by Broadfin Healthcare Master Fund, LTD. Kevin Kotler is the Managing Member of Broadfin Capital, LLC. Mr. Kotler has voting and dispositive power over the shares held by Broadfin Healthcare Master Fund, LTD. Mr. Kotler disclaims beneficial ownership of all shares beneficially owned, except to the extent of his pecuniary interests in such shares.

PLAN OF DISTRIBUTION

We are registering the shares of common stock issued to the selling stockholders to permit the resale of these shares of common stock by the holders of the shares of common stock from time to time after the date of this prospectus. We will not receive any of the proceeds from the sale by the selling stockholders of the shares of common stock. We will bear all fees and expenses incident to our obligation to register the shares of common stock.

The selling stockholders may sell all or a portion of the shares of common stock beneficially owned by them and offered hereby from time to time directly or through one or more underwriters, broker-dealers or agents. If the shares of common stock are sold through underwriters or broker-dealers, the selling stockholders will be responsible for underwriting discounts or commissions or agent's commissions. The shares of common stock may be sold on any national securities exchange or quotation service on which the securities may be listed or quoted at the time of sale, in the over-the-counter market or in transactions otherwise than on these exchanges or systems or in the over-the-counter market and in one or more transactions at fixed prices, at prevailing market prices at the time of the sale, at varying prices determined at the time of sale, or at negotiated prices. These sales may be effected in transactions which may involve crosses or block transactions. The selling stockholders may use any one or more of the following methods when selling shares:

· ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;

- block trades in which the broker-dealer will attempt to sell the shares as agent but may position and resell a portion of the block as principal to facilitate the transaction;
- purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
- · an exchange distribution in accordance with the rules of the applicable exchange;
- privately negotiated transactions;
- · settlement of short sales entered into after the effective date of the registration statement of which this prospectus is a part;
- broker-dealers may agree with the selling stockholders to sell a specified number of such shares at a stipulated price per share;
- · through the writing or settlement of options or other hedging transactions, whether such options are listed on an options exchange or otherwise;
- a combination of any such methods of sale; and
- · any other method permitted pursuant to applicable law.

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The selling stockholders also may resell all or a portion of the shares in open market transactions in reliance upon Rule 144 under the Securities Act, as permitted by that rule, or Section 4(1) under the Securities Act, if available, rather than under this prospectus, provided that they meet the criteria and conform to the requirements of those provisions.

Broker-dealers engaged by the selling stockholders may arrange for other broker-dealers to participate in sales. If the selling stockholders effect such transactions by selling shares of common stock to or through underwriters, broker-dealers or agents, such underwriters, broker-dealers or agents may receive commissions in the form of discounts, concessions or commissions from the selling stockholders or commissions from purchasers of the shares of common stock for whom they may act as agent or to whom they may sell as principal. Such commissions will be in amounts to be negotiated, but, except as set forth in a supplement to this prospectus, in the case of an agency transaction will not be in excess of a customary brokerage commission in compliance with FINRA Rule 2440; and in the case of a principal transaction a markup or markdown in compliance with FINRA IM-2440.

In connection with sales of the shares of common stock or otherwise, the selling stockholders may enter into hedging transactions with broker-dealers or other financial institutions, which may in turn engage in short sales of the shares of common stock in the course of hedging in positions they assume. The selling stockholders may also sell shares of common stock short and if such short sale shall take place after the date that this registration statement is declared effective by the Securities and Exchange Commission, or SEC, the selling stockholders may deliver shares of common stock covered by this prospectus to close out short positions and to return borrowed shares in connection with such short sales. The selling stockholders may also loan or pledge shares of common stock to broker-dealers that in turn may sell such shares, to the extent permitted by applicable law. The selling stockholders may also enter into option or other transactions with broker-dealers or other financial institutions or the creation of one or more derivative securities which require the delivery to such broker-dealer or other financial institution of shares offered by this prospectus, which shares such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction). Notwithstanding the foregoing, the selling stockholders have been advised that they may not use shares registered on this registration statement to cover short sales of our common stock made prior to the date the registration statement, of which this prospectus forms a part, has been declared effective by the SEC.

The selling stockholders may, from time to time, pledge or grant a security interest in some or all of the shares of common stock owned by them and, if they default in the performance of their secured obligations, the pledgees or secured parties may offer and sell the shares of common stock from time to time pursuant to this prospectus or any amendment to this prospectus under Rule 424(b)(3) or other applicable provision of the Securities Act, amending, if necessary, the list of selling stockholders to include the pledgee, transferee or other successors in interest as selling stockholders under this prospectus. The selling stockholders also may transfer and donate the shares of common stock in other circumstances in which case the transferees, donees, pledgees or other successors in interest will be the selling beneficial owners for purposes of this prospectus.

The selling stockholders and any broker-dealer or agents participating in the distribution of the shares of common stock may be deemed to be "underwriters" within the meaning of Section 2(11) of the Securities Act in connection with such sales. In such event, any commissions paid, or any discounts or concessions allowed to, any such broker-dealer or agent and any profit on the resale of the shares purchased by them may be deemed to be underwriting commissions or discounts under the Securities Act. Selling stockholders who are "underwriters" within the meaning of Section 2(11) of the Securities Act will be subject to the applicable prospectus delivery requirements of the Securities Act including Rule 172 thereunder and may be subject to certain statutory liabilities of, including but not limited to, Sections 11, 12 and 17 of the Securities Act and Rule 10b-5 under the Securities Exchange Act of 1934, or the Exchange Act.

Each selling stockholder has informed us that it is not a registered broker-dealer and does not have any written or oral agreement or understanding, directly or indirectly, with any person to distribute the common stock. Upon a selling stockholder notifying us in writing that any material arrangement has been entered into with a broker-dealer for the sale of common stock through a block trade, special offering, exchange distribution or secondary distribution or a purchase by a broker or dealer, a supplement to this prospectus will be filed, if required, pursuant to Rule 424(b) under the Securities Act, disclosing (i) the name of each such selling stockholder and of the participating broker-dealer(s), (ii) the number of shares involved, (iii) the price at which such the shares of common stock were sold, (iv) the commissions paid or discounts or concessions allowed to such broker-dealer(s), where applicable, (v) that such broker-dealer(s) did not conduct any investigation to verify the information set out or incorporated by reference in this prospectus, and (vi) other facts material to the transaction. In no event shall any broker-dealer receive fees, commissions and markups, which, in the aggregate, would exceed eight percent (8.0%).

Under the securities laws of some states, the shares of common stock may be sold in such states only through registered or licensed brokers or dealers. In addition, in some states the shares of common stock may not be sold unless such shares have been registered or qualified for sale in such state or an exemption from registration or qualification is available and is complied with.

There can be no assurance that any selling stockholder will sell any or all of the shares of common stock registered pursuant to the shelf registration statement, of which this prospectus forms a part.

Each selling stockholder and any other person participating in such distribution will be subject to applicable provisions of the Exchange Act and the rules and regulations thereunder, including, without limitation, to the extent applicable, Regulation M of the Exchange Act, which may limit the timing of purchases and sales of any of the shares of common stock by the selling stockholder and any other participating person. To the extent applicable, Regulation M may also restrict the ability of any person engaged in the distribution of the shares of common stock to engage in market-making activities with respect to the shares of common stock and the ability of any person or entity to engage in market-making activities with respect to the shares of common stock.

We will pay all expenses of the registration of the shares of common stock pursuant to the registration rights agreement, including, without limitation, SEC filing fees and expenses of compliance with state securities or "blue sky" laws; provided, however, that each selling stockholder will pay all underwriting discounts and selling commissions, if any and any related legal expenses incurred by it. We will indemnify the selling stockholders against certain liabilities, including some liabilities under the Securities Act, in accordance with the registration rights agreement, or the selling stockholders will be entitled to contribution. We may be indemnified by the selling stockholders against civil liabilities, including liabilities under the Securities Act, that may arise from any written information furnished to us by the selling stockholders specifically for use in this prospectus, in accordance with the registration rights agreement, or we may be entitled to contribution.

LEGAL MATTERS

The validity of the common stock offered by this prospectus is being passed upon for us by Pillsbury Winthrop Shaw Pittman LLP, San Francisco and Palo Alto, California.

EXPERTS

Ernst & Young LLP, independent registered public accounting firm, has audited our consolidated financial statements as of and for the year ended December 31, 2014 included in our Annual Report on Form 10-K for the year ended December 31, 2014, as set forth in their report, which is incorporated by reference in this prospectus and elsewhere in the registration statement. Our consolidated financial statements are incorporated by reference in reliance on Ernst & Young LLP's report, given on their authority as experts in accounting and auditing.

The financial statements as of December 31, 2013 and for each of the two years in the period ended December 31, 2013 incorporated in this Prospectus by reference to the Annual Report on Form 10-K for the year ended December 31, 2014 have been so incorporated in reliance on the report of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

The audited historical financial statements of Allegro Diagnostics Corp. included in Veracyte, Inc.'s Current Report on Form 8-K/A dated September 16, 2014 have been so incorporated in reliance on the report (which contains an explanatory paragraph relating to the Company's ability to continue as a going concern as described in Note 1 to the financial statements) of PricewaterhouseCoopers LLP, independent accountants, given on the authority of said firm as experts in auditing and accounting.

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WHERE YOU CAN FIND MORE INFORMATION

We have filed a registration statement on Form S-3 with the SEC under the Securities Act. This prospectus is part of the registration statement but the registration statement includes and incorporates by reference additional information and exhibits. We file annual, quarterly and current reports, proxy statements and other information with the SEC. You may read and copy the registration statement and any other document we file with the SEC at the public reference room maintained by the SEC at 100 F Street, N.E., Washington, D.C. 20549. You may obtain information on the operation of the public reference room by calling the SEC at 1-800-SEC-0330. The SEC also maintains a web site that contains reports, proxy and information statements and other information regarding companies, such as ours, that file documents electronically with the SEC. The address of that site on the world wide web is http://www.sec.gov. The information on the SEC's web site is not part of this prospectus, and any references to this web site or any other web site are inactive textual references only.

The SEC permits us to "incorporate by reference" the information contained in documents we file with the SEC, which means that we can disclose important information to you by referring you to those documents rather than by including them in this prospectus. Information that is incorporated by reference is considered to be part of this prospectus and you should read it with the same care that you read this prospectus. Later information that we file with the SEC will automatically update and supersede the information that is either contained, or incorporated by reference, in this prospectus, and will be considered to be a part of this prospectus from the date those documents are filed. We have filed with the SEC, and incorporate by reference in this prospectus:

- our Annual Report on Form 10-K for the year ended December 31, 2014;
- · our Quarterly Report on Form 10-Q for the quarter ended March 31, 2015;
- · our Current Reports on Form 8-K filed with the SEC on September 14, 2014 (as amended on November 6, 2014, December 10, 2014 and May 21, 2015), January 12, 2015, March 5, 2015, March 13, 2015, March 31, 2015, April 7, 2015, April 24, 2015 and May 1, 2015; and
- the description of our common stock contained in our Registration Statement on Form 8-A filed on October 28, 2013 including any amendment or report filed for the purpose of updating such description.

We also incorporate by reference all additional documents that we file with the SEC under the terms of Section 13(a), 13(c), 14 or 15(d) of the Exchange Act that are made after the initial filing date of the registration statement of which this prospectus is a part and the effectiveness of the registration statement, as well as between the date of this prospectus and the termination of any offering of securities offered by this prospectus. We are not, however, incorporating, in each case, any documents or information that we are deemed to furnish and not file in accordance with SEC rules.

You may request a copy of any or all of the documents incorporated by reference but not delivered with this prospectus, at no cost, by writing or telephoning us at the following address and number: Investor Relations, Veracyte, Inc., 7000 Shoreline Court, Suite 250, South San Francisco, California, 94080. We will not, however, send exhibits to those documents, unless the exhibits are specifically incorporated by reference in those documents.

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PART II Information Not Required In Prospectus

Item 14. Other Expenses of Issuance and Distribution.

The following is a statement of estimated expenses in connection with the issuance and distribution of the securities being registered. Normal commission expenses and brokerage fees are payable individually by the selling stockholders. All amounts are estimated except the SEC registration fee.

SEC Registration Fee	\$ 5,782.91
Legal fees and expenses	20,000.00
Accounting fees and expenses	30,000.00
Printing and miscellaneous fees and expenses	14,217.09
	\$ 70,000.00

Item 15. Indemnification of Directors and Officers.

Section 145 of the General Corporation Law of the State of Delaware (the "DGCL") provides for the indemnification of officers, directors, and other corporate agents in terms sufficiently broad to indemnify such persons under certain circumstances for liabilities (including reimbursement for expenses incurred) arising under the Securities Act of 1933. Article VIII of the Registrant's Restated Certificate of Incorporation and Article 6 of the Registrant's Amended and Restated Bylaws provide for indemnification of the Registrant's directors, officers, employees and other agents to the extent and under the circumstances permitted by the DGCL. The Registrant has also entered into agreements with its directors and officers that will require the Registrant, among other things, to indemnify them against certain liabilities that may arise by reason of their status or service as directors or officers to the fullest extent not prohibited by law.

Item 16. Exhibits.

Exhibit No.	Description
4.2	Registration Rights Agreement, dated as of April 22, 2015 (Incorporated by reference to Exhibit 10.2 of the Registrant's Current Report
	on Form 8-K filed on April 24, 2015).
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23.1	Consent of Pillsbury Winthrop Shaw Pittman LLP (included in Exhibit 5.1).
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23.3	Consent of PricewaterhouseCoopers LLP, Independent Registered Public Accounting Firm.
23.4	Consent of PricewaterhouseCoopers LLP, Independent Registered Public Accounting Firm.
24.1	Power of Attorney (included on the signature page hereof).

Item 17. Undertakings.

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:
 - (i) To include any prospectus required by section 10(a)(3) of the Securities Act of 1933;
- (ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Securities and Exchange Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and

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(iii) 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;

provided, *however*, that paragraphs (i), (ii) and (iii) above do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Securities and Exchange Commission by the registrant pursuant to section 13 or section

15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement.

- (2) That, for the purpose of determining any liability under the Securities Act of 1933, 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.
 - (4) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser:
 - (A) Each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and
 - (B) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii), or (x) for the purpose of providing the information required by section 10(a) of the Securities Act of 1933 shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof. *Provided, however*, that no statement made in a registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date.
- (5) That, for the purpose of determining liability of the registrant under the Securities Act of 1933 to any purchaser in the initial distribution of the securities:

The undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

- (i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424:
- (ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;

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- (iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and
 - (iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.
- That, for the purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the 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.

Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to any charter provision, by law 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 Securities Act of 1933 and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than payment by the registrant of 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 Securities Act and will be governed by the final adjudication of such issue.

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SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized in the City of South San Francisco, State of California, on May 21, 2015.

By: /s/ Bonnie H. Anderson

Bonnie H. Anderson

President and Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below hereby constitutes and appoints Bonnie H. Anderson and Shelly D. Guyer, and each of them, his or her true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution, for him or her and in his or her 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 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, as fully for all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that each of said attorneys in fact and agents or their substitute or substitutes may lawfully do or cause to be done by virtue hereof.

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

Name	Name Title	
/s/ Bonnie H. Anderson Bonnie H. Anderson	President, Chief Executive Officer (Principal Executive Officer) and Director	May 21, 2015
/s/ Shelly D. Guyer Shelly D. Guyer	Chief Financial Officer (Principal Financial and Accounting Officer)	May 21, 2015
/s/ Brian G. Atwood Brian G. Atwood	Chairman of Board of Directors	May 21, 2015
/s/ John L. Bishop John L. Bishop	Director	May 21, 2015
/s/ Fred E. Cohen Fred E. Cohen, M.D., D.Phil.	Director	May 21, 2015
/s/ Karin Eastham Karin Eastham	Director	May 21, 2015
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/s/ Robert S. Epstein Robert S. Epstein, M.D., M.S.	Director	May 21, 2015
/s/ Evan Jones Evan Jones	Director	May 21, 2015
/s/ Jesse I. Treu Jesse I. Treu, Ph.D.	Director	May 21, 2015
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EXHIBIT INDEX

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PILLSBURY WINTHROP SHAW PITTMAN LLP

4 Embarcadero Center San Francisco, California, 94111

May 21, 2015

Veracyte, Inc. 7000 Shoreline Court, Suite 250 South San Francisco, California, 94080

Re: Registration Statement on Form S-3

Ladies and Gentlemen:

We are acting as counsel for Veracyte, Inc., a Delaware corporation (the "Company"), in connection with the Registration Statement on Form S-3 relating to the registration under the Securities Act of 1933 (the "Act") of 4,907,975 shares of common stock, par value \$0.001 per share (the "Common Stock"), of the Company, all of which are to be offered and sold by certain stockholders of the Company (the "Selling Stockholders"). (Such Registration Statement, as amended, is herein referred to as the "Registration Statement.")

We have reviewed and are familiar with such corporate proceedings and other matters as we have considered relevant or necessary for the opinions expressed in this letter. Based upon the foregoing, we are of the opinion that the shares of Common Stock to be offered and sold by the Selling Stockholders have been duly authorized and validly issued and are fully paid and nonassessable. The opinions set forth in this letter are limited to the General Corporation Law of the State of Delaware, as in effect on the date hereof.

We hereby consent to the filing of this opinion letter as Exhibit 5.1 to the Registration Statement and to the use of our name under the caption "Legal Matters" in the Registration Statement and in the Prospectus included 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 Act or the rules and regulations of the Securities and Exchange Commission promulgated thereunder.

Very truly yours,

/s/ PILLSBURY WINTHROP SHAW PITTMAN LLP

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the reference to our firm under the caption "Experts" in this Registration Statement (Form S-3) and the related prospectus of Veracyte, Inc. for the registration of 4,907,975 shares of its common stock and to the incorporation by reference therein of our report dated March 24, 2015, with respect to the consolidated financial statements of Veracyte, Inc., included in its Annual Report (Form 10-K) for the year ended December 31, 2014, filed with the Securities and Exchange Commission.

/s/ Ernst & Young LLP

Redwood City, California May 21, 2015

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in this Registration Statement on Form S-3 of Veracyte, Inc. of our report dated March 20, 2014, relating to the financial statements which appears in Veracyte, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2014. We also consent to the reference to us under the heading "Experts" in such Registration Statement.

/s/ PricewaterhouseCoopers LLP

San Jose, California

May 21, 2015

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in this Registration Statement on Form S-3 of Veracyte, Inc. of our report dated August 22, 2014, relating to the financial statements of Allegro Diagnostics Corp., which appears in Veracyte, Inc.'s Current Report on Form 8-K/A dated September 16, 2014. We also consent to the reference to us under the heading "Experts" in such Registration Statement.

/s/ PricewaterhouseCoopers LLP

Boston, Massachusetts

May 21, 2015