

CHEMBIO DIAGNOSTICS, INC.

Form 424B3

February 10, 2017

Prospectus

Filed Pursuant to Rule 424(b)(3)

Registration No. 333-215813

291,066 Shares

Chembio Diagnostics, Inc.

Common Stock

The selling stockholders named in this prospectus may use this prospectus to offer and resell from time to time up to an aggregate of 291,066 shares of our common stock, which common stock includes underlying Preferred Share Purchase Rights. We will not receive any of the proceeds from the sale of our common stock by the selling stockholders.

The selling stockholders have acquired or agreed to acquire the shares of common stock offered for resale hereunder from us in a private offering exempt from registration under the Securities Act of 1933, as amended, or the Securities Act, pursuant to a first Amended and Restated Stock Purchase Agreement, or the Amended Stock Purchase Agreement, as described in this prospectus. We are registering the offer and resale of the shares of our common stock to satisfy a provision in the Amended Stock Purchase Agreement pursuant to which we agreed to register the resale of the shares issued to the selling stockholders pursuant to the Amended Stock Purchase Agreement. This prospectus relates to the resale of (i) 261,959 shares of our common stock that have been issued to the selling stockholders pursuant to the Amended Stock Purchase Agreement, (ii) up to 7,277 shares of our common stock that have been issued in the names of the selling stockholders that we are holding back to satisfy certain potential claims under the Amended Stock Purchase Agreement and that will be transferred to the selling stockholders, if at all, on or after January 9, 2018 and (iii) up to 21,830 shares of our common stock that will become issuable to the selling stockholders, if at all, upon the achievement of certain performance goals. Any shares subject to resale hereunder will have been issued by us and acquired by the selling stockholders prior to any resale of such shares pursuant to this prospectus.

The selling stockholders named in this prospectus, or their donees, pledgees, transferees or other successors-in-interest, may offer or resell the shares from time to time through public or private transactions at prevailing market prices, at prices related to prevailing market prices or at privately negotiated prices.

The selling stockholders may resell the common stock to or through underwriters, broker-dealers or agents, who may receive compensation in the form of discounts, concessions or commissions. The selling stockholders will bear all commissions and discounts, if any, attributable to the sale of shares. We will bear all costs, expenses and fees in connection with the registration of the shares. For additional information on the methods of sale that may be used by the selling stockholders, see "Plan of Distribution" beginning on page 8 of this prospectus.

Our common stock, together with the associated Preferred Share Purchase Rights, is listed on The NASDAQ Stock Market, or NASDAQ, under the symbol "CEMI." On February 9, 2017, the last reported sale price of our common stock on NASDAQ was \$5.85 per share.

An investment in our common stock involves risks. See "Risk Factors" beginning on page 3 of this prospectus and "Risk Factors" in our most recent Annual Report on Form 10-K, which is incorporated by reference in this prospectus, and in any applicable prospectus supplement.

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 February 10, 2017.

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ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement on Form S-3 that we have filed with the Securities and Exchange Commission, or the SEC, using a "shelf" registration process. The selling stockholders named in this prospectus may resell, from time to time, in one or more offerings, the common stock offered by this prospectus. Information about the selling stockholders may change over time. When the selling stockholders sell shares of common stock under this prospectus, we will, if necessary and required by law, provide a prospectus supplement that will contain specific information about the terms of that offering. Any prospectus supplement may also add to, update, modify or replace information contained in this prospectus. If a prospectus supplement is provided and the description of the offering in the prospectus supplement varies from the information in this prospectus, you should rely on the information in the prospectus supplement. You should carefully read this prospectus and the accompanying prospectus supplement, if any, along with all of the information incorporated by reference herein and therein, before making an investment decision.

You should rely only on the information contained or incorporated by reference in this prospectus. We have not, and the selling stockholders have not, authorized any other person to provide you with different or additional information. If anyone provides you with different or additional information, you should not rely on it. This prospectus is not an offer to sell, nor are the selling stockholders seeking an offer to buy, the shares offered by this prospectus in any jurisdiction where the offer or sale is not permitted. No offers or sales of any of the shares of common stock are to be made in any jurisdiction in which such an offer or sale is not permitted. You should assume that the information contained in this prospectus is accurate only as of the date on the front cover of this prospectus or the date of the document incorporated by reference, regardless of the time of delivery of this prospectus or any sales of the shares of common stock offered hereby.

Except where the context otherwise requires or as otherwise indicated, all references in this prospectus to "Chembio," the "Company," "we," "us" and "our" refer to Chembio Diagnostics, Inc. and its wholly owned subsidiary. In the discussion of our common stock and related matters, these terms refer solely to Chembio Diagnostics, Inc.

FORWARD-LOOKING STATEMENTS

This prospectus and the documents incorporated herein by reference contain forward-looking statements, as defined in Section 27A of the Securities Act and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act. Any statements contained in this prospectus that are not statements of historical fact may be forward-looking statements. When we use the words "intends," "estimates," "predicts," "potential," "continues," "anticipates," "plans," "expects," "believes," "should," "could," "may," "will" or the negative of these terms or other comparable terminology, we are identifying forward-looking statements. Forward-looking statements involve risks and uncertainties, which may cause our actual results, performance or achievements to be materially different from those expressed or implied by forward-looking statements. The following factors, among others, could cause our financial performance to differ materially from that expressed in such forward-looking statements:

our research and development activities;

distributor channels;

market demand for our products;

compliance with regulatory impositions;

our capital needs;

the strength of the United States economy in general and the strength of the local economies in which we conduct operations;

geopolitical conditions, including acts or threats of terrorism, actions taken by the United States or other governments in response to acts or threats of terrorism and/or military conflicts, which could impact business and economic conditions in the United States and abroad;

the effects of, and changes in, trade, monetary and fiscal policies and laws, including interest rate policies of the Board of Governors of the Federal Reserve System, as well as inflation, interest rate, market and monetary fluctuations;

the timely development of competitive new products and services, and the acceptance of these products and services by new and existing customers;

the impact of changes in financial services policies, laws and regulations, including laws, regulations and policies concerning taxes, banking, securities and insurance, and the application thereof by regulatory bodies;

technological changes;

the effect of acquisitions we may make, including, without limitation, the failure to achieve the expected revenue growth and/or expense savings from such acquisitions;

the growth and profitability of non-interest or fee income being less than expected;

changes in consumer spending and savings habits; and

unanticipated regulatory or judicial proceedings.

We believe that it is important to communicate our expectations of future performance to our investors. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future results, levels of activity, performance or achievements. Events may occur in the future that we are unable to accurately predict, or over which we have no control. We caution users of the financial statements not to place undue reliance on any forward-looking statements. When considering our forward-looking statements, keep in mind the risk factors and other cautionary statements in this prospectus and the documents incorporated herein by reference. The risk factors noted in this prospectus and the documents incorporated herein by reference provide examples of risks, uncertainties and events that may cause our actual results to differ materially from those contained in any forward-looking statement. Please see "Risk Factors" beginning on page 3 of this prospectus and in our most recent Annual Report on Form 10-K, Quarterly Reports on Form 10-Q and in any applicable prospectus supplement for a discussion of certain risks related to our business and an investment in our common stock.

Except as may be required by applicable law, we do not undertake or intend to update or revise our forward-looking statements, and we assume no obligation to update any forward-looking statements contained in this prospectus as a result of new information or future events or developments. Thus, you should not assume that our silence over time means that actual events are bearing out as expressed or implied in such forward-looking statements. You should carefully review and consider the various disclosures we make in this report and our other reports filed with the SEC that attempt to advise interested parties of the risks, uncertainties and other factors that may affect our business.

SUMMARY

This summary highlights selected information contained elsewhere or incorporated by reference in this prospectus. This summary does not contain all of the information that you should consider before investing in our common stock. You should carefully read the entire prospectus, especially the risks of investing in our common stock discussed under "Risk Factors" in this prospectus beginning on page 3 and in our most recent Annual Report on Form 10-K, Quarterly Reports on Form 10-Q and any accompanying prospectus supplement and the risk factors discussed in the documents incorporated by reference herein.

Our Company

Chembio was formed in 1985. Since inception we have been involved in developing, manufacturing, selling and distributing medical diagnostic tests, including rapid tests that detect a number of infectious diseases. Shares of our common stock trade on NASDAQ under the symbol "CEMI." Our principal executive offices are located at 3661 Horseblock Road, Medford, New York 11763. Our telephone number is (631) 924-1135. Our website address is www.chembio.com. The information available on or through our website is not part of this prospectus.

The Offering

Common stock offered by the selling stockholders: Up to 291,066 shares of our common stock, consisting of (i) 261,959 shares of our common stock that have been issued to the selling stockholders pursuant to the Amended Stock Purchase Agreement, (ii) up to 7,277 shares of our common stock that have been issued and are being held back by Chembio to satisfy certain potential claims under the Amended Stock Purchase Agreement and that will be transferred to the selling stockholders, if at all, on or after January 9, 2018 and (iii) up to 21,830 shares of our common stock that will become issuable to the selling stockholders, if at all, upon the achievement of certain performance goals.

Selling stockholders: All of the shares of common stock are being offered by the selling stockholders named herein. See "Selling stockholders" for more information on the selling stockholders.

Use of proceeds: We will not receive any proceeds from the sale of the shares in this offering.

Plan of distribution: The selling stockholders named in this prospectus, or their pledgees, donees, transferees or other successors-in-interest, may offer or sell the shares from time to time through public or private transactions at prevailing market prices, at prices related to prevailing market prices or at privately negotiated prices. The selling stockholders may resell the common stock to or through underwriters, broker-dealers or agents, who may receive compensation in the form of discounts, concessions or commissions. See "Plan of Distribution" for additional information on the methods of sale that may be used by the selling stockholders.

NASDAQ symbol: CEMI

Risk Factors: Investing in our common stock involves risks. For a discussion of certain risks associated with an investment in our common stock, please see "Risk Factors" contained in Part I, Item 1A. of our Annual Report on Form 10-K for the fiscal year ended December 31, 2015, and the risk factors discussed in the documents incorporated by reference herein.

RISK FACTORS

An investment in our securities involves certain risks. Before investing in our securities, you should carefully consider the risk factors set forth in our most recent Annual Report on Form 10-K, or any updates in our Quarterly Reports on Form 10-Q or Current Reports on Form 8-K, together with all of the other information appearing in this prospectus or incorporated by reference into this prospectus. The risks so described are not the only risks facing our company. Additional risks not presently known to us or that we currently deem immaterial may also impair our business operations. Any of these risks could materially and adversely affect our business, financial condition, results of operations and cash flows and could result in a loss of all or part of your investment. In any case, the value of the securities offered by means of this prospectus could decline due to any of these risks, and you may lose all or part of your investment.

USE OF PROCEEDS

We will not receive any proceeds from the sale of shares of our common stock by the selling stockholders.

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SELLING STOCKHOLDERS

General

The registration statement, of which this prospectus forms a part, relates to the registration for resale of up to an aggregate of 291,066 shares of our common stock, consisting of (i) a total of 261,959 shares of our common stock that have been issued in the aggregate to Avijit Roy and Magentiren Vajuram, each, a selling stockholder, or together, the selling stockholders, pursuant to the Amended Stock Purchase Agreement, or the Initial Shares, (ii) up to 7,277 shares of our common stock that have been issued in the names of the selling stockholders and that are being held back to satisfy certain potential claims under the Amended Stock Purchase Agreement, and that will be transferred to the selling stockholders, if at all, on or after January 9, 2018, or the Holdback Shares, and (iii) up to 21,830 shares of our common stock that will become issuable to the selling stockholders, if at all, upon the achievement of certain performance goals, or the Milestone Shares.

Under the Amended Stock Purchase Agreement, we are required to register for resale the Initial Shares, the Holdback Shares and the Milestone Shares and to take commercially reasonable steps to file a registration statement related to such resale with the SEC and to pursue the effectiveness of such registration statement as soon as reasonably possible after the closing date of the transaction, which was January 9, 2017.

The table below sets forth the names of the selling stockholders, the number of shares of common stock beneficially owned by each of them as of January 25, 2017, the number of shares of common stock being offered by each of them, the number of shares of common stock each selling stockholder will beneficially own if such selling stockholder sells all of the shares being registered and each selling stockholder's percentage of ownership of our common stock if all of their shares in the offering are sold.

The shares being offered hereby are being registered to permit public secondary trading. The selling stockholders, including their respective donees, pledgees, transferees or other successors-in-interest may offer all or part of the shares for resale from time to time. However, the selling stockholders are under no obligation to resell all or any portion of such shares, nor are the selling stockholders obligated to resell any shares immediately, under this prospectus.

All information with respect to share ownership has been furnished by or on behalf of the selling stockholders. We believe, based on information supplied by the selling stockholders, that except as may otherwise be indicated in the notes to the table below, each of the selling stockholders has sole voting and investment power with respect to the shares of common stock owned by them. Because the selling stockholders may resell all or part of their shares, no estimates can be given as to the number of shares of common stock that will be held by each selling stockholder upon termination of any offering made hereby. For purposes of the table below, however, we have assumed that after termination of this offering none of the shares covered by this prospectus will be held by the selling stockholders.

To our knowledge, the selling stockholders have not had any position with, held any office of, or had any other material relationship with us during the past three years, except as described below under "Material Relationships" and elsewhere in this prospectus and in Chembio's other filings with the SEC.

Beneficial ownership is determined in accordance with Rule 13d-3(d) promulgated by the SEC under the Exchange Act. The percentages of shares beneficially owned are based on 12,296,083 shares of our common stock outstanding as of January 20, 2017 as set forth in the following table and more fully described in the applicable footnotes.

In computing the number of shares beneficially owned by a person and the percentage ownership of that person, shares of common stock subject to options, warrants or rights held by that person that are currently exercisable or exercisable within 60 days of January 20, 2017 are deemed outstanding, but are not deemed outstanding for computing the percentage ownership of any other person.

Shares beneficially owned
prior to offering

Name and address of selling stockholders	Number days	Options, warrants or rights exercisable within 60	Number of shares being offered	Shares beneficially owned after the offering	
				Number	Percent
Avijit Roy (1)	128,433 -		128,433	-	*
Magentiren Vajuram (2)	162,633 -		162,633	-	*

(1) Includes 113,880 Initial Shares, 3,638 Holdback Shares and 10,915 Milestone Shares. The Milestone Shares will be issued, if at all, prior to any resale of such shares pursuant to this prospectus. The principal address for Mr. Roy is 2-1, 2nd Floor, N-TATT Building, Jalan TP5, Taman Perindustrian UEP, Subang Jaya, 47600, Selangor Darul Ehsan, Malaysia.

(2) Includes 148,080 Initial Shares, 3,638 Holdback Shares and 10,915 Milestone Shares. The Milestone Shares will be issued, if at all, prior to any resale of such shares pursuant to this prospectus. The principal address for Mr. Vajuram is 2-1, 2nd Floor, N-TATT Building, Jalan TP5, Taman Perindustrian UEP, Subang Jaya, 47600, Selangor Darul Ehsan, Malaysia.

Material Relationships

Amended Stock Purchase Agreement. On November 4, 2016, Chembio, the selling stockholders and RVR Diagnostics Sdn Bhd, a Malaysia corporation, or RVR, entered into a Stock Purchase Agreement, which agreement was amended and restated in its entirety by the Amended Stock Purchase Agreement that was entered into on December 7, 2016, between and among the same parties. Pursuant to the Amended Stock Purchase Agreement, Chembio acquired all of the stock and other equity interests in RVR from the selling stockholders in exchange for a cash payment of \$1,400,000 to the selling stockholders, issuing the selling stockholders the Initial Shares, agreeing to issue the selling stockholders the Holdback Shares and the Milestone Shares and agreeing to make certain additional cash payments to the selling stockholders upon the achievement of performance goals, all as described below pursuant to the Amended Stock Purchase Agreement.

On January 9, 2017, the closing date of the transaction contemplated by the Amended Stock Purchase Agreement, an aggregate of 269,236 Initial Shares and Holdback Shares were issued in the names of the selling stockholders. Pursuant to the terms of the Amended Stock Purchase Agreement, the aggregate of 7,277 Holdback Shares have been held back by the Company from the selling stockholders until January 9, 2018 to serve as collateral for payment of any undisclosed liabilities of RVR not set forth in the Amended Stock Purchase Agreement. After January 9, 2018, Chembio may transfer the Holdback Shares to the selling shareholders or use part or all of the Holdback Shares to settle any of its other obligations under the Amended Stock Purchase Agreement, including any indemnification claims.

Pursuant to the Amended Stock Purchase Agreement, as promptly as practicable after December 31, 2017, but in any event no later than March 15, 2018, Chembio shall prepare and deliver a statement to the selling stockholders setting forth RVR's actual sales for the 12 months ending December 31, 2017, or the Milestone Payment Statement. RVR's actual sales in the Milestone Payment Statement will be used to determine the "Milestone Proration Amount," which is a fraction that (i) the numerator of which is the positive amount, if any, by which actual sales for calendar year 2017 are greater than \$2,250,000, up to a maximum overage of \$250,000, and (ii) the denominator of which is \$250,000. Based on the actual sales set forth Milestone Payment Statement, the selling stockholders will be entitled to receive (i) a cash milestone payment equal to \$100,000 multiplied by the Milestone Proration Amount, for a maximum cash milestone payment of \$100,000, and (ii) a number of Milestone Shares equal to 21,830 multiplied by the Milestone Proration Amount, for a maximum of 21,830 Milestone Shares.

At the closing, each of the selling stockholders entered into an employment agreement with RVR, pursuant to which, among other things, each of the selling stockholders agreed to serve as an employee of RVR for the one-year period following the closing in exchange for a monthly base salary of \$10,000. In addition, at the closing, John J. Sperzel III, Chembio's President, Chief Executive Officer and a member of Chembio's board of directors, Richard J. Larkin, Chembio's Chief Financial Officer and Executive Vice President, and Katherine L. Davis, Chembio's Chairman of the Board and a member of Chembio's board of directors, were appointed as the directors of RVR, with each of the selling stockholders continuing as the other two directors of RVR.

The foregoing is only a brief description of the material terms of the Amended Stock Purchase Agreement and does not purport to be a complete description of the rights and obligations of the parties thereunder and is qualified in its entirety by reference to the full text of the Amended Stock Purchase Agreement, which is incorporated by reference herein.

Stock Assignment. On January 24, 2017, subsequent to the closing of the transaction under the Amended Stock Purchase Agreement, Mr. Vajuram assigned 16,954 Initial Shares, 947 Holdback Shares and 2,838 Milestone Shares issued or issuable to him pursuant to the Amended Stock Purchase Agreement to Mr. Roy in a private transaction exempt from the registration requirements of the Securities Act. The selling stockholder table set forth above reflects the assignment of these shares to Mr. Roy.

Technology Transfer and License Agreement. In February 2014, Chembio entered into a technology transfer and license agreement with RVR. The agreement grants exclusive distribution rights to RVR in certain countries in Southeast Asia and enables RVR to manufacture Chembio's DPP® HIV 1/2 Assay and DPP® HIV-Syphilis Assay, and potentially other products developed by Chembio, such as Dengue, incorporating its patented DPP® technology as indicated in the DPP® Technology & Development. The agreement was modified in September 2014 and September 2015. For additional information on Chembio's Technology Transfer and License Agreement with RVR, please see its Annual Report on Form 10-K and Quarterly Reports on Form 10-Q, which are incorporated herein by reference.

PLAN OF DISTRIBUTION

We are registering shares of common stock to permit the resale of these shares by the selling stockholders, which as used herein includes donees, pledgees, transferees or other successors-in-interest selling shares of common stock or interests in shares of common stock received after the date of this prospectus from the selling stockholders as a gift, pledge, partnership distribution or other transfer, from time to time. 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, or otherwise. 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 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, at negotiated prices, or otherwise. These sales may be effected in transactions, which may involve, without limitation:

crosses or block transactions

o on any national securities exchange or quotation service on which the securities may be listed or quoted at the time of sale;

o in the over-the-counter market;

o in transactions otherwise than on these exchanges or systems or in the over-the-counter market;

o through the writing of options, whether such options are listed on an options exchange or otherwise;

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

o 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;

o purchases by a broker-dealer as principal and resale by the broker-dealer for its account;

o an exchange distribution in accordance with the rules of the applicable exchange;

o privately negotiated transactions;

o short sales;

o the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise;

o sales pursuant to Rule 144;

o broker-dealers may agree with the selling stockholders to sell a specified number of such shares at a stipulated price per share;

o underwritten offerings;

o a combination of any such methods of sale; and

any other method permitted pursuant to applicable law.

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 (which discounts, concessions or commissions as to particular underwriters, broker-dealers or agents may be in excess of those customary in the types of transactions involved). 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 deliver shares of common stock covered by a 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 common stock to broker-dealers that in turn may sell such shares. 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 such prospectus.

The aggregate proceeds to the selling stockholders from the sale of the common stock offered by them will be the purchase price of the common stock less discounts or commissions, if any. The selling stockholders reserve the right to accept and, together with their agents from time to time, to reject, in whole or in part, any proposed purchase of common stock to be made directly or through agents. We will not receive any of the proceeds from this offering.

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, provided that it meets the criteria and conform to the requirements of that rule.

The selling stockholders may 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 a prospectus or any amendment to such 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 such 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 such prospectus.

The selling stockholders and any broker-dealer participating in the distribution of the shares of common stock may be deemed to be an "underwriter" within the meaning of the Securities Act with respect to any securities such entity sells pursuant to this prospectus. At the time a particular offering of the shares of common stock is made, a prospectus, if required, will be distributed which will set forth the aggregate amount of shares of common stock being offered and the terms of the offering, including the name or names of any broker-dealers or agents, any discounts, commissions and other terms constituting compensation from the selling stockholders and any discounts, commissions or concessions allowed or reallocated or paid to broker-dealers. If the selling stockholders are deemed to be an underwriter, the selling stockholders may be subject to certain statutory liabilities under the Securities Act and other applicable securities laws.

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 the selling stockholders will sell any or all of the shares of common stock registered pursuant to this registration statement.

The selling stockholders and any other person participating in such distribution will be subject to applicable provisions of the Exchange Act, including, without limitation, 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 stockholders and any other participating person. 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. In addition, as employees of a subsidiary of Chembio, the selling stockholders will be subject to Chembio's Insider Trading Policy, which generally restricts purchases and sales of Chembio's common stock during quarterly "blackout" periods and at any other time when the selling stockholders are in possession of material nonpublic information concerning Chembio. All of the foregoing may affect the marketability of 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, including, without limitation, SEC filing fees and expenses of compliance with federal securities or state "blue sky" or securities laws; provided, however, that the selling stockholders will pay all discounts and commissions, if any, to underwriters, selling brokers, dealer managers and similar persons.

Once sold under the registration statement, the shares of common stock will be freely tradable in the hands of persons other than our affiliates.

DESCRIPTION OF CAPITAL STOCK

The following description of our capital stock is intended to be a summary, and you should read it in conjunction with our articles of incorporation, as amended, and bylaws, as amended, each of which has been filed with the SEC.

Common stock

Under our articles of incorporation, as amended, we may issue up to 100,000,000 shares of common stock, par value of \$0.01 per share. As of January 20, 2017, there were 12,296,083 shares of our common stock outstanding.

Our authorized common stock may be increased and altered from time to time in the manner prescribed by Nevada law upon the vote of at least a majority of the shares entitled to vote on the matter. Our shares of common stock are traded on NASDAQ under the symbol "CEMI."

Holders of our common stock are entitled to one vote for each share held by them of record on our books in all matters to be voted on by the stockholders. Holders of our common stock are entitled to receive dividends as may be legally declared from time to time by the board of directors, and in the event of our liquidation, dissolution or winding up, to share ratably in all assets remaining after payment of liabilities and amounts owed with respect to any preferred stock or other senior securities. Declaration of dividends on common stock is subject to the discretion of the board of directors and will depend upon a number of factors, including our future earnings, capital requirements, financial condition, restrictions, if any, imposed by debt instruments or senior securities. We have not declared dividends on our common stock in the past and we currently anticipate that retained earnings, if any, in the future will be applied to our expansion and development rather than the payment of dividends.

The holders of common stock have no preemptive or conversion rights and are not subject to further calls or assessments. There are no redemption or sinking fund provisions applicable to the common stock. Under our corporate documents and Nevada law, the election of directors requires a plurality of the votes cast by holders of our outstanding common stock at the annual meeting while other fundamental corporate actions, such as mergers and sales of substantial assets, or amendments to our articles of incorporation require the approval of the holders of a majority of our outstanding common stock.

Other than the potential issuance of preferred stock as described below, there exists no provision in our articles of incorporation or our bylaws that would delay, defer or prevent a change in control of the Company.

Preferred stock

Our articles of incorporation authorize the issuance of up to 10,000,000 shares of preferred stock, par value \$0.01 per share. As of January 20, 2017, we did not have any shares of preferred stock outstanding.

Under our articles of incorporation, as amended, we may issue shares of preferred stock in one or more series, as may be determined by our board of directors or a duly authorized committee thereof. Our board of directors or a duly authorized committee thereof also may establish, from time to time, the number of shares to be included in each series and may fix the designation, powers, preferences and rights of the shares of each such series and any qualifications, limitations or restrictions thereof, and may increase or decrease the number of shares of any series without any further vote or action by the stockholders. Any preferred stock we may issue will rank senior to our common stock with respect to the payment of dividends or amounts paid upon liquidation, dissolution or winding up of our Company, or both. In addition, any shares of our preferred stock may have class or series voting rights.

The issuance of additional preferred stock could adversely affect the voting power of holders of our common stock and the likelihood that holders of our common stock will receive dividend payments and payments upon liquidation and could have the effect of delaying, deferring or preventing a change in control.

Transactions with Interested Persons

Under the Nevada Revised Statutes, or NRS, a transaction with the Company (i) in which a Company director or officer has a direct or indirect interest, or (ii) involving another corporation, firm or association in which one or more of the Company's directors or officers are directors or officers of the corporation, firm or association or have a financial interest in the corporation firm or association, is not void or voidable solely because of the director's or officer's interest or common role in the transaction if any one of the following circumstances exists:

the fact of the common directorship, office or financial interest is known to the board of directors or a committee of the board of directors and a majority of disinterested directors on the board of directors (or on the committee) authorized, approved or ratified the transaction;

the fact of the common directorship, office or financial interest is known to the stockholders and disinterested stockholders holding a majority of the shares held by disinterested stockholders authorized, approved or ratified the transaction;

the fact of the common directorship, office or financial interest is not known to the director or officer at the time the transaction is brought to the board of directors for action; or

the transaction was fair to the Company at the time it is authorized or approved.

Control Share Acquisition Provisions

Nevada law precludes an acquirer of the shares of a Nevada corporation who crosses one of three ownership thresholds (20%, 33 1/3% or 50%) from obtaining voting rights with respect to those shares unless the disinterested holders of a majority of the shares of the Company held by disinterested stockholders vote to accord voting power to those shares.

Combinations with Interested Stockholders

Under the NRS, except under certain circumstances, a corporation is not permitted to engage in a business combination with any "interested stockholder" for a period of two years following the date such stockholder became an interested stockholder. An "interested stockholder" is a person or entity who owns 10% or more of the outstanding shares of voting stock. Nevada permits a corporation to opt out of the application of these business combination provisions by so providing in the articles of incorporation. The Company did not opt out of the application of these business combination provisions in its articles of incorporation, as amended.

Stockholder Rights Agreement

On March 8, 2016, the Company entered into a rights agreement between the Company and Action Stock Transfer Corp., as rights agent, or the Rights Agreement. Pursuant to the Rights Agreement, the Company declared a dividend distribution of one preferred share purchase right, or a right, for each outstanding share of common stock of the Company in the manner described below. The Company's board of directors set the payment date for the distribution of the Rights as March 8, 2016, and the Rights were distributed to the Company's shareholders of record on that date. The description and terms of the Rights are set forth in the Rights Agreement.

Rights Initially Not Exercisable. The Rights are not exercisable until a Distribution Date (as defined below). Until a Right is exercised, the holder thereof, as such, has no rights as a shareholder of the Company, including, without limitation, the right to vote or to receive dividends.

Separation and Distribution of Rights. The Rights are to be evidenced by the certificates for shares of common stock registered in the names of the holders thereof, and not by separate rights certificates until the earlier to occur of (i) the close of business on the tenth business day following a public announcement that an Acquiring Person (as defined in the Rights Agreement) has acquired a Combined Ownership (as defined in the Rights Agreement) of 20% or more of the outstanding shares of our common stock or (ii) the later of (A) the close of business on the tenth business day (or such later date as may be determined by action of the board of directors prior to such time as any person or group of affiliated or associated persons becomes an Acquiring Person) after the date that a tender or exchange offer or intention to commence a tender or exchange offer by any person is first published, announced, sent or given within the meaning of Rule 14d-4(A) under the Exchange Act, the consummation of which would result in any person having Combined Ownership of 20% or more of the outstanding shares of our common stock, or (B) if such a tender or exchange offer has been published, announced, sent or given before the date of the Rights Agreement, then the close of business on the tenth business day after the date the Rights Agreement was entered into (or such later date as may be determined by action of the board of directors prior to such time as any person becomes an Acquiring Person); (the earlier of such dates referred to in (i) and (ii), which date may include any such date that is after the date of the Rights Agreement but prior to the issuance of the Rights, being called the Distribution Date).

Transfer Agent

The transfer agent and registrar for the Company's common stock is Action Stock Transfer Corp.

EXPERTS

The consolidated financial statements as of December 31, 2015 and 2014 and for each of the two years in the period ended December 31, 2015 incorporated by reference in this prospectus have been so incorporated in reliance on the report of BDO USA, LLP, an independent registered public accounting firm, incorporated herein by reference, given on the authority of said firm as experts in auditing and accounting.

LEGAL MATTERS

The validity of the shares of common stock offered hereby have been passed upon for us by Ballard Spahr LLP. Haynes and Boone, LLP will serve as our counsel. A partner of Haynes and Boone, LLP owns 29,497 shares of our common stock.

INCORPORATION BY REFERENCE

The SEC allows us to "incorporate by reference" the information we have filed with it, which means that we can disclose important information to you by referring you to those documents. The information we incorporate by reference is an important part of this prospectus. We incorporate by reference the documents listed below and any future filings we make with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act subsequent to the date hereof and prior to the effectiveness of the registration statement and prior to the termination of the offering (excluding any disclosures that are furnished and not filed):

our Annual Report on Form 10-K for the year ended December 31, 2015 filed with the SEC on March 8, 2016, along with the consolidated financial statements and related notes thereto;

our Quarterly Report on Form 10-Q for the quarter ended March 31, 2016 filed with the SEC on May 12, 2016, as amended by our Amendment No. 1 to Form 10-Q filed with the SEC on June 3, 2016;

our Quarterly Report on Form 10-Q for the quarter ended June 30, 2016 filed with the SEC on August 11, 2016;

our Quarterly Report on Form 10-Q for the quarter ended September 30, 2016 filed with the SEC on November 10, 2016;

our Current Reports on Form 8-K filed with the SEC on March 8, 2016, March 14, 2016, April 7, 2016, April 22, 2016, June 14, 2016, July 25, 2016, July 27, 2016, July 29, 2016, August 3, 2016, November 9, 2016, December 13, 2016, January 10, 2017, and January 17, 2017 (excluding any information furnished pursuant to Item 2.02 or Item 7.01 of any such Current Report on Form 8-K);

the description of our common stock contained in our Form 8-A filed with the SEC on June 6, 2012; and

the description of our Preferred Share Purchase Rights contained in our Form 8-A filed with the SEC on March 8, 2016, including any amendment to that form that we may file in the future for the purpose of updating the description of our Preferred Share Purchase Rights.

Information contained in this prospectus modifies or supersedes, as applicable, the information contained in earlier-dated documents incorporated by reference. Information contained in later-dated documents incorporated by reference will automatically supplement, modify or supersede, as applicable, the information contained in this prospectus or in earlier-dated documents incorporated by reference.

We will furnish without charge to each person, including any beneficial owner, to whom a copy of this prospectus is delivered, upon request in writing, by telephone or via the internet, a copy of the information that has been

incorporated by reference in this prospectus (other than an exhibit to these filings, unless we have specifically incorporated that exhibit by reference in this prospectus). You should direct any requests for copies to:

Chembio Diagnostic Systems, Inc.
3661 Horseblock Road
Medford, New York 11763
(631) 924-1135
ATTN: Susan Norcott
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WHERE YOU CAN FIND MORE INFORMATION

This prospectus does not contain all of the information included in the registration statement and all of the exhibits and schedules thereto. For further information about Chembio, you should refer to the registration statement. Summaries of agreements or other documents in this prospectus are not necessarily complete. Please refer to the exhibits to the registration statement for complete copies of such documents.

We are subject to the informational requirements of the Exchange Act, and in accordance with the requirements of the Exchange Act, we file annual, quarterly and current reports, proxy statements and other information with the SEC. Our SEC filings, including this registration statement, are available over the Internet at the SEC's website at www.sec.gov. You may also read and copy any document we file with the SEC at the Public Reference Room of the SEC at 100 F. Street, N.E., Washington, D.C. 20549. You may also obtain copies of the documents at prescribed rates by writing to the SEC at that address. Please call 1-800-SEC-0330 for further information on the operations of the Public Reference Room.

Our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act are made available free of charge on our website at www.chembio.com as soon as reasonably practicable after we electronically file such material with, or otherwise furnish it to, the SEC. Information on our website is not incorporated by reference in this prospectus and is not a part of this prospectus.

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291,066 Shares

Chembio Diagnostics, Inc.

Common Stock
