

November 22, 2006

Alan L. Talesnick
303-894-6378
atalesnick@pattonboggs.com

VIA EDGAR AND OVERNIGHT COURIER

Mr. Jeffrey P. Riedler
Division of Corporation Finance
U.S. Securities and Exchange Commission
450 Fifth Street, N.W.
Washington, D.C. 20549-0405

**Re: Chembio Diagnostics, Inc.
Registration Statement on Form SB-2
Filed on October 27, 2006
File Number 333-138266**

Dear Mr. Riedler:

On behalf of Chembio Diagnostics, Inc. (the "Company"), this letter provides the Company's response to the Staff's comment in its letter dated November 2, 2006 concerning the Company's Registration Statement on Form SB-2 (the "Registration Statement") filed with the Commission on October 27, 2006. All information in this response was provided to us by the Company.

1. *We note that the securities you are registering on your Form SB-2 are being made on a shelf basis under Rule 415. Given the nature and size of the transaction being registered, please advise the staff of the company's basis for determining that the transaction is appropriately characterized as a transaction that is eligible to be made on a shelf basis under Rule 415(a)(1)(i).*

Response to Comment 1:

The Registration Statement intends to register 26,024,217 shares of the Company's common stock. (As indicated below, other previously registered shares are included in the

November 22, 2006

Page 2

prospectus under Rule 429). Unless otherwise indicated, references in this letter to the shares being registered, and references to the selling shareholders, will be made only with respect to the 26,024,217 shares not previously registered. The remainder of the shares shown as covered by the Registration Statement were registered by the Company on prior registration statements (333-116219, 333-123600 and 333-125942). Pursuant to Rule 429 of the Securities Act of 1933, as amended, the prospectus included in the Registration Statement is a joint prospectus that updates and replaces the prospectuses included in the previously filed registration statements.

Rule 415(a)(1)(i) provides in relevant part that securities may be registered for an offering to be made on a continuous or delayed basis in the future, provided that the registration statement pertains only to securities which are to be offered or sold solely by or on behalf of persons other than the registrant. The Company respectfully submits that all the shares registered for resale under the Registration Statement are covered by Rule 415(a)(1)(i) because (i) all the securities will be offered or sold solely by security holders of the Company and not by the Company; and (ii) none of the security holders is acting on behalf of the Company.

Each of the selling stockholders is acting on its own behalf and not on behalf of the Company. Each of the selling stockholders has the full economic and market risk at least for the period from the date of purchase to the effective date of the Registration Statement, which has not yet occurred. The selling stockholders purchased the shares for investment purposes and not with a view to distribution. There are no indicia that any of the selling stockholders is engaged in a "distribution." A distribution is defined under Regulation M as an offering of securities that differs from normal trading activities for reasons that include special selling efforts and selling methods. To the knowledge of the Company, none of the selling stockholders is making any special selling efforts, utilizing any special selling methods, or entering into any agreements, understandings or arrangements with any underwriter, broker-dealer, or other person or entity with respect to the sale of the shares covered by the Registration Statement. To the contrary, as discussed below, only two of the selling stockholders own previously registered shares that were acquired 22 months ago in a prior private placement. The previously owned shares could have been sold during the past 16 months (after the applicable registration statement became effective), but neither of those selling shareholders has made any selling efforts, and neither of them has entered into any other arrangement with respect to the sale of those shares.

Even if a selling stockholder desired to sell its shares immediately upon registration, it would not be feasible because the average daily trading volume is approximately 23,000 shares per day (for three month period ended November 17, 2006).

November 22, 2006

Page 3

Because none of the selling stockholders is acting on behalf of the Company, and because the Registration Statement pertains only to securities being offered or sold by persons other than the Company, the transaction is appropriately characterized as a transaction that is eligible to be made on a shelf basis under Rule 415(a)(1)(i).

Item D.29 of the SEC's Manual of Publicly Available Telephone Interpretations sets forth six factors which an issuer should analyze to determine the application of Rule 415. The Company has analyzed these factors, and believes this analysis provides further confirmation that the sales of securities being registered are appropriately characterized as a transaction that is eligible to be made on a shelf basis under Rule 415(a)(1)(i).

A. How long the selling shareholders have held the shares.

The selling stockholders have held the shares for time periods that range from six weeks to eight months. (As indicated under paragraph/section E below, some of the selling stockholders have held previously registered shares for approximately 22 months without any sales). In each case, during the entire period since the date of acquisition, the selling stockholder has been subject to the full economic and market risks of ownership, with no assurance of the stockholder's ability to sell the shares, either in a liquid market — or at all. This situation is contrary to that of a stockholder that undertakes the purchase of stock "with a view to distribution" or otherwise on behalf of the Company.

B. The circumstances under which the selling shareholders acquired the shares.

Substantially all the shares being registered are issuable to security holders pursuant to the terms of three private placement offerings made by the Company to accredited investors within the past eight months. In each of these private offerings, interests were purchased by security holders for cash at a fixed price, and each investor represented to the Company that it was acquiring the securities for its own account, not as nominee or agent, and not with a view toward resale or distribution. From the date of purchase, each of the selling stockholders has borne, and continues to bear, the full economic and market risk of ownership. In addition, since the date of purchase, security holders have had no mechanism to redeem, put or otherwise require the Company to repurchase the securities. All of these securities were issued to "accredited investors," and were exempt from registration under Section 4(2) of the Securities Act of 1933, as amended.

C. The selling shareholders' relationship to the issuer.

None of the investors in the private placements had any prior relationship with the Company except for Crestview Capital Master LLC ("Crestview") and Midtown Partners & Co., LLC ("Midtown"). Crestview's relationship, both prior and current, is not in an underwriting capacity or as a conduit on behalf of the Company. As disclosed in the Registration Statement, one of the Company's outside directors, Dr. Gary Meller, is a limited partner and a member of the Advisory Board of Crestview, which invested \$3 million in the Company's Series B Placement in January 2005 and \$1 million in the Series B Follow-On in March 2006. In September 2006, Crestview invested \$2 million in the Series C Placement. Prior to its investment in the Company, Crestview had no relationship with the Company, and its only current relationship with the Company, other than as described above concerning Dr. Meller, is as a shareholder.

Although not an investor, Midtown, a registered member of the NASD, is registering 83,146 previously unregistered shares in the Registration Statement. Midtown also owns 116,639 previously registered shares that it received as compensation for services in connection with a prior private placement. Midtown did not participate in any of the Company's private placements, but instead received these shares as compensation for services rendered to the Company in connection with the private placement.

On or about September 29, 2006, Inverness Medical Innovations, Inc. ("Inverness") and the Company entered into a marketing and license agreement, pursuant to which Inverness will exclusively market the Company's two FDA approved products in the U.S., and the Company's SURE CHECK HIV 1/2 product globally.

D. The amount of shares involved.

Currently, there are 48,752,216 shares of the Company's common stock registered with the SEC, and if the Registration Statement were declared effective, there would be approximately 74,776,433 shares registered, and an additional 3,485,580 outstanding shares (excluding unregistered option and warrants), for a total registered plus unregistered of 78,262,013. 26,024,217 shares, or approximately 33.2 percent of this total, are being registered under this Registration Statement.

E. Whether the selling shareholders are in the business of underwriting securities.

Among the investors that purchased shares being registered, none is involved in the business of underwriting securities. Crestview and Inverness invest in numerous other companies.

Although Midtown is a registered NASD member, it did not purchase any securities as an investor, but rather received its shares as part of its compensation in connection with its services regarding the private placements.

F. Whether, under all the circumstances, it appears that the selling shareholders are acting as a conduit for the issuer.

None of the selling stockholders is acting as a conduit for the issuer. Not only do the Company's relationships — or lack of relationships — confirm this, but there is no indication of any kind relevant to acting as a conduit. Crestview and Midtown originally acquired securities of the Company in January 2005. Although those securities became registered more than 16 months ago (in June 2005), neither Crestview nor Midtown has sold any of those shares.

As indicated above, even if a selling stockholder desired to act as a conduit for the issuer, it would not be possible because of the low trading volume for the shares, which was an average of 23,000 shares per day for the three month period ended November 17, 2006.

Each selling stockholder is an investor and made an independent investment decision to acquire the shares. The selling stockholders are not in the underwriting business. The private placements were negotiated at arm's length terms with immediate and continuing economic and market risk.

Based on all the facts, circumstances and other matters related to the Registration Statement, including those set forth above, the Company believes and respectfully submits that the transaction covered by the Registration Statement is appropriately characterized as a transaction that is eligible to be made on a shelf basis under Rule 415(a)(1)(i).

November 22, 2006

Page 6

If you have any further questions, do not hesitate to contact me at (303) 830-1776 or Lawrence Siebert at (631) 924-1135.

Very truly yours,

PATTON BOGGS LLP

By: /s/ Alan L. Talesnick

Alan L. Talesnick

cc: Chembio Diagnostics, Inc.
c/o Lawrence A. Siebert, Chief Executive Officer