



DIVISION OF
CORPORATION FINANCE

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

February 12, 2014

Via E-mail

Phillip Chan, MD, PhD
Chief Executive Officer
CytoSorbents Corporation
7 Deer Park Drive, Suite K
Monmouth Junction, New Jersey 08852

**Re: CytoSorbents Corporation
Amendment No. 2 to Registration Statement on Form S-1
Filed February 10, 2014
File No. 333-193053**

Dear Dr. Chan:

We have limited our review of your registration statement to those issues we have addressed in our comments. In our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter by amending your registration statement and providing the requested information. Where you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your registration statement and the information you provide in response to our comments, we may have additional comments.

Registration Statement Fee Table

1. From your revisions in response to prior comment 1, we see that you are registering for sale an aggregate of \$8,500,000 of Units and \$5,312,500 of common stock issuable upon exercise of the warrants underlying the Units. Based upon those amounts, it would appear that the proposed maximum aggregate offering price of all of the securities in your fee table would equal \$13,812,500. As such, please show us how you calculated the total offering price of \$13,964,285.60 that is currently disclosed in your fee table.

Prospectus Cover

2. Your table added on the prospectus cover in response to prior comment 3 suggests that the common stock and warrants will each have offering prices; however, your registration fee table on the Form S-1 facing page suggests that there is no additional consideration

that you will receive for the common stock or warrants after investors purchase the units. Please reconcile.

Use of proceeds, pages 6 and 17

3. Regarding your revisions in response to prior comment 6:

- your disclosure regarding the use of proceeds of this offering should not suggest that you are conducting an offering larger than the maximum amount that you say you are seeking to raise per your registration fee table and prospectus cover;
- given your disclosure that there is no minimum offering size, it is unclear why you concluded that disclosing use of proceeds for only 20% below your \$8.5 million targeted offering amount shows a reasonable range of potential amounts that you could receive from the offering; please revise or advise; and
- given your disclosure that you intend to spend \$2 million to “further develop [y]our products” and \$2.8 million to “fund clinical studies,” it is unclear why you will not need other funds to accomplish these purposes if you raise less than the maximum amount of the offering and allocate fewer proceeds to these purposes as you disclose. Please clarify. Refer to instruction 3 to Regulation S-K Item 504.

Risk Factors, page 7

4. Your response to prior comment 7 appears to address your conclusions regarding your disclosure controls and procedures, a term defined in Exchange Act Rule 13a-15(e); however, our comment sought disclosure in the risk factors that also addressed the conclusions in your Exchange Act filings regarding your internal control over financial reporting, a term defined in Exchange Act Rule 13a-15(f). Please expand your disclosure accordingly.

Description of Business, page 18

5. Please balance your disclosure added in response to prior comment 5 to provide a measure of net income (loss). See Regulation S-K Item 10(b)(2).

Unit Warrants, page 66

6. Refer to your disclosure about the beneficial ownership limit that can be adjusted upon 61 days’ notice. With a view toward risk factor or other appropriate disclosure, if the original purchaser decides to resell the warrant, please tell us how the subsequent purchaser of the warrant will know whether and to what extent the beneficial ownership limitation was adjusted by the original purchaser.

Exhibit 4.2

7. We note your response to prior comment 13. Please tell us the purpose of section 5.f of the warrant. If you began offering the shares underlying the warrants in this registered offering, it is unclear why you believe it would be consistent with Section 5 of the Securities Act for you to complete the sale of the underlying shares for cash without registration under the Act. Please provide us your analysis, citing all authority on which you rely.

Exhibit 5.1

8. Please file an opinion of counsel that addresses the legality of the Units you are offering. For guidance, please refer to Section II.B.1.h of Staff Legal Bulletin No. 19 (October 14, 2011) available on the Commission's website.
9. We note multiple clauses in this exhibit that appear to assume away relevant issues or facts by conditioning the opinion on the occurrence of events. For example, we note the assumptions regarding corporate action, the sale of securities being consistent with board action, and the authorization of governing documents. We also note the assumption in the parenthetical clause of the paragraph numbered 1 of this exhibit that the shares will be "duly issued." For guidance, please refer to Section II.B.3.a of Staff Legal Bulletin No. 19. Please file a revised opinion as appropriate. If you believe these assumptions or conditions are appropriate, please explain and support your conclusion in your response to this comment.
10. It is unclear why the condition regarding execution and delivery of documents is necessary and appropriate for the opinion required by Regulation S-K Item 601(b)(5). Will the warrants not be binding obligations of the registrant if the warrant agent or warrant holder does not sign an agreement related to a security that the registrant sells? Please advise or file a revised exhibit. In this regard, please tell us which exhibit to this registration statement is the Warrant Agreement that the investor would sign as contemplated by this opinion.
11. We note that this opinion is limited to the laws of the State of Nevada and the United States. However, it appears that the warrants are governed by the laws of New York. Please file an exhibit that addresses whether the warrants are binding obligations of the registrant under the law of the jurisdiction governing the warrants.

Exhibit 10.5

12. As requested by prior comment 15, please provide us with your analysis of how the investor acknowledgements, representations or warranties, contained in the agreement are consistent with the Securities Act, including Section 14 of the Securities Act, and are appropriate for the registered offering you describe. We note as examples only

Sections 3.2, 4.4, 4.12, 5.3, 5.5, 5.9, 5.15 (with respect to purchasers), 5.17 (with respect to purchaser being represented by counsel and purchaser's communications) and 5.21.

13. If, after addressing the comment above, you believe this exhibit is appropriate for your offering, please ensure that you file the complete exhibit, including all attachments such as "Exhibit B."

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes the information the Securities Act of 1933 and all applicable Securities Act rules require. Since the company and its management are in possession of all facts relating to a company's disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

Notwithstanding our comment, in the event you request acceleration of the effective date of the pending registration statement please provide a written statement from the company acknowledging that:

- should the Commission or the staff, acting pursuant to delegated authority, declare the filing effective, it does not foreclose the Commission from taking any action with respect to the filing;
- the action of the Commission or the staff, acting pursuant to delegated authority, in declaring the filing effective, does not relieve the company from its full responsibility for the adequacy and accuracy of the disclosure in the filing; and
- the company may not assert staff comments and the declaration of effectiveness as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

Please refer to Rules 460 and 461 regarding requests for acceleration. We will consider a written request for acceleration of the effective date of the registration statement as confirmation of the fact that those requesting acceleration are aware of their respective responsibilities under the Securities Act of 1933 and the Securities Exchange Act of 1934 as they relate to the proposed public offering of the securities specified in the above registration statement. Please allow adequate time for us to review any amendment prior to the requested effective date of the registration statement.

Phillip Chan, MD, PhD
CytoSorbents Corporation
February 12, 2014
Page 5

Please contact Tim Buchmiller at (202) 551-3635 or me at (202) 551-3617 with any questions.

Sincerely,

/s/ Russell Mancuso

Russell Mancuso
Branch Chief

cc (via e-mail): Gregg Jaclin, Esq.
Szaferman Lakind Blumstein & Blader, PC