



DIVISION OF  
CORPORATION FINANCE

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

February 7, 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. 1 to Registration Statement on Form S-1  
Filed January 28, 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. Please address the first sentence of prior comment 1. As indicated in the Note to the Registration Fee table of Form S-1: if the filing fee is calculated pursuant to Rule 457(o), the aggregate offering price for each class of securities registered for sale and the amount of registration fee for that class must appear in the fee table. Currently, you have included a total amount to be registered and a total registration fee, but have not provided that information for each class of securities in the fee table.

Prospectus Cover Page

2. Please update the disclosure in the second paragraph of your prospectus cover page regarding the price of your common stock.

3. We note your response to prior comment 2; however, it is unclear where and how the prospectus cover will disclose the net proceeds you will receive, the total dollar amount of the offering and the total net proceeds as required by Regulation S-K Item 501(b). Please revise.

Prospectus

4. Refer to prior comment 6. Please complete the remaining blanks on pages 6 and 68, and provide the information required by Regulation S-K Item 303 for the required full fiscal years. Please also disclose how you will determine the date to disclose in the blank on the prospectus cover page regarding when the offering of the units will terminate; in this regard, please note Rule 415(a)(1)(ix).
5. Please address prior comment 7 as it applies to your January 15, 2014 press release.

Use of proceeds, pages 6 and 17

6. Please address that part of prior comment 8 that asked you to show your intended use of proceeds over a reasonable range of potential amounts that you could receive from the best efforts offering. If you do not sell all offered shares, it is unclear how you will use the proceeds. Also, from your response to prior comment 8, it is unclear how you addressed instructions 1 and 3 of Regulation S-K Item 504; please advise.

Risk Factors, page 7

7. Please expand your disclosure added in response to prior comment 10 to address clearly the conclusions regarding your internal control over financial reporting in your recent reports.

Unit Warrants, page 66

8. Please tell us the steps you took to ensure that your prospectus complies with Regulation S-K Item 202(c). We note for example that the document you filed as exhibit 4.3 includes beneficial ownership limitations that you have not disclosed in the prospectus.

Plan of Distribution, page 68

9. From the last sentence of your response to prior comment 5, it appears that there may be a disparity between the offering price and the market price of your common equity. Therefore, please provide the disclosure required by Regulation S-K Item 505.

Undertakings, page 88

10. We note your revision in response to prior comment 12. Please include the undertaking in the form required by Regulation S-K Item 512(a)(2). Please also include the first clause of Item 512(a)(5).

Exhibits

11. We may have additional comments after you file the opinion mentioned in your response to prior comment 13.
12. Your revisions in response to prior comment 15 that deleted references to amendments to your charter do not address the concern in that comment. As required by Regulation S-K Item 601(b)(3), please file a complete copy of your Articles of Incorporation and bylaws as amended to date. You should not require investors to locate documents from multiple filings to assemble your Articles of Incorporation or bylaws.

Exhibit 4.3

13. If the document filed as exhibit 4.3 is the warrant that you intend to sell in this registered offering, please tell us why it includes language regarding an unregistered offering. We note for example, and not as a complete list of such language, the legend at the top of the exhibit and the accredited investor representation in the Notice of Exercise.
14. Please reconcile your prospectus disclosure regarding cashless exercise with the provisions of this exhibit.

Exhibit 10.6

15. The document that you have filed appears to be related to an unregistered offering where funds are placed in escrow, rather than the offering that you describe in your prospectus. Please file the purchase agreement related to the offering that you describe in the prospectus. In this regard, if the purchase agreement you file in response to this comment includes provisions requiring investors to make acknowledgements, representations or warranties, please provide us your analysis of how each such provision is consistent with the Securities Act, including Section 14 of the Securities Act.

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.

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