



UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549-3561

Mail Stop 3561

November 2, 2009

Lex Cowsert
President and Chief Executive Officer
CytoGenix, Inc.
3100 Wilcrest Drive
Suite 140
Houston, TX 77042

Re: CytoGenix, Inc.
Form 10-K for Fiscal Year Ended December 31, 2008
Filed May 15, 2009
Form 10-Q for the Fiscal Quarter Ended March 31, 2009
Filed May 20, 2009
File No. 000-26807

Dear Mr. Cowsert:

We have reviewed your filings and have the following comments. Where indicated, we think you should revise your documents in response to these comments. If you disagree, we will consider your explanation as to why our comment is inapplicable or a revision is unnecessary. Please be as detailed as necessary in your explanation. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure. After reviewing this information, we may raise additional comments.

Please understand that the purpose of our review process is to assist you in your compliance with the applicable disclosure requirements and to enhance the overall disclosure in your filing. We look forward to working with you in these respects. We welcome any questions you may have about our comments or any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Form 10-K for the Fiscal Year Ended December 31, 2008

Item 1. Description of Business

1. We note the statements on pages 13 and 42 regarding your three employees, including the statement on page 42 that they "are no longer employed by the company." It is unclear how the company is developing the commercialization of the technologies identified in detail on pages 4-13 without employees. Please revise future filings, including any amendment to

- this Form 10-K, to clarify any material dependence on consultants or others to conduct your operations. For example, we note the page 36 reference to your former CEO acting as a consultant.
2. We note the following statement in Note 12 to the financial statements: "The Company had one customer that represented 100% of the gross sales for the year ended December 31, 2008 and two customers that represented 100% of the gross sales for the year ended December 31, 2007." As these relationships appear to be material, please file as exhibits any agreements or arrangements with these customers and revise to identify the material terms.

Item 5. Market for Common Equity and Related Stockholder Matters

Changes in Securities, page 15

3. We note your statement that all of your sales of unregistered securities have been reported in the Form 10-K or previously filed Exchange Act reports. Please revise future filings, including any amendment to this Form 10-K, to comply fully with Item 701 of Regulation S-K. For example, for many of the transactions you do not name the persons or identify the class of persons to whom the securities were sold; you do not give the date of sale; or you do not indicate the exemption claimed or briefly state the facts relied upon to make the exemption available.

Financial Statements

General

4. We note your disclosure that the financial statements for the year ended December 31, 2007 have been restated. If the financial statements for the year ended December 31, 2007 have been restated, please provide disclosures required by FASB ASC 250-10-50-7. Otherwise, please revise to remove the heading "restated" from the face of your financial statements and elsewhere as appropriate.

Report of Independent Registered Public Accounting Firm, page 22

5. We note your independent accountants issued a qualified opinion on your financial statements for the year ended December 31, 2008. Your financial statements are not considered audited and do not satisfy the requirements of Article 8-02 of Regulation S-X. Please tell us how you plan to remedy this issue in order to be in compliance with the financial statement requirements of Regulation S-X. Refer to SAB Topic 1E2 and Section 607.01 of the Codification of Accounting Series Releases and Financial Reporting Releases for further guidance.

6. Please revise to include the audit report dated April 4 2008 issued by LBB & Associates LTD, LLP for the year ended December 31, 2007 in accordance with Article 8-02 of Regulation S-X.

Item 9A. – Controls and Procedures

Management’s Annual Report on Internal Control over Financial Reporting, page 38

7. We note your management has not concluded on the effectiveness of your internal control over financial reporting. Considering the material weaknesses identified, please revise your disclosure to indicate clearly your conclusions on the effectiveness of your internal control over financial reporting. Please note that the existence of a material weakness precludes an effective conclusion.

Note 9 – Stock-Based Compensation, page 32

8. It appears that you have not provided the minimum disclosure requirements for share-based payments (i.e. required disclosures for each period an income statement is presented including 2007, recognized tax benefit related to compensation costs, total compensation cost related to non-vested awards not yet recognized, the weighted average period over which awards are expected to be recognized, etc.). Refer to FASB ASC 718-10-50-2 for guidance and revise your disclosures accordingly. In addition, please reconcile for us the stock based compensation cost for each period presented in your statement of stockholders’ equity on page 25 to your disclosures in Note 9.

Item 11. Executive Compensation

Summary of Executive Compensation for 2008, page 40

9. We note the dollar amounts in the “All Other Compensation” column of the table on page 41, which appear to be material. Please revise your disclosure to comply with Item 402(o)(7) of Regulation S-K.

Executive Employment Agreements, page 42

10. We note that you discuss three employees, one of whom is Lex Cowsert. We also note the following statement: “As the date of this Form 10-K, these three employees are no longer employed by the Company.” It is unclear in what capacity Mr. Cowsert signed the Form 10-K if he was no longer an employee. Please revise or advise.

Outstanding Grant Awards at Fiscal Year-End, page 42

11. We note that the footnote to the “Outstanding Grant Awards” table refers to disclosure located elsewhere in your filing. We are unable to locate this disclosure. Please revise to provide a narrative description of the grants of restricted stock and warrants to the extent material. See Item 402(q) of Regulation S-K.

Item 15. Exhibits, Financial Statement Schedules and Reports

12. We note your statement on page 42 indicating that as of December 31, 2008, you had three employment agreements. We also note that two of the agreements became effective in 2008, and the other one became effective in 2007. Please file these three agreements as an exhibit to your amended filing. See Instruction 2 to Item 601(b)(10) of Regulation S-K.
13. We note that your certifications required by Exchange Act Rule 13a-14(a) differ from the form of certification set forth in Item 601(b)(31)(i) of Regulation S-K. As non-exclusive examples, see the definition citations in paragraph 4 and “end of the” period in paragraph 4(c). Please confirm that future filings, including any amendment to the Form 10-K, will include corrected certifications.

Signatures

14. We note that none of the signatories to the Form 10-K is designated as your controller or principal accounting officer. See Instruction D.(2) to Form 10-K. Please revise accordingly.

Form 10-Q for the Quarter Ended March 31, 2009

Item 4. Controls and Procedures

Changes in Internal Controls, page 12

15. We note you are attempting to remediate your control deficiencies. As a result, please disclose clearly any change in internal control over financial reporting that occurred during your last fiscal quarter that has materially affected, or is reasonably likely to materially affect, your internal control over financial reporting. If there were no material changes in your internal control over financial reporting, disclose this fact. Refer to Item 308(T)(b) of Regulation S-K.

Signatures

16. Please amend your Form 10-Q to include the signatures of both the Principal Financial Officer and a duly authorized officer of the Registrant. Refer to Instruction G to Form 10-Q.

Exhibit 31.1 and Exhibit 31.2 – Section 302 Certifications

17. We note your Section 302 certifications do not comply with Item 601(31) of Regulation S-K in the following respects:
- the head notes to paragraphs 4 and 5 do not provide the language required by Item 601(31) of Regulation S-K,
 - paragraphs 4(a), 4(c), 4(d) and 5(a) do not provide the language required by Item 601(31) of Regulation S-K,
 - Remove paragraph 6 as it is not consistent with Item 601(31) of Regulation S-K.

Please revise your Section 302 certifications to address the issues noted above.

Exchange Act Reports

18. We note that your Form 10-Q for the quarter ended June 30, 2009 was due on August 14, 2009 and has not been filed to date. Please file the report immediately or tell us when such report will be filed.

As appropriate, please amend your filings and respond to these comments within 10 business days or tell us when you will provide us with a response. You may wish to provide us with marked copies of the amendments to expedite our review. Please furnish a cover letter with your amendments that keys your responses to our comments and provides any requested information. Detailed cover letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your amendments and responses to our comments.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filings to be certain that the filings include all information required under the Securities Exchange Act of 1934 and that they have provided all information investors require for an informed investment decision. 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.

In connection with responding to our comments, please provide, in writing, a

statement from the company acknowledging that:

- the company is responsible for the adequacy and accuracy of the disclosure in the filing;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filing; and
- the company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

In addition, please be advised that the Division of Enforcement has access to all information you provide to the staff of the Division of Corporation Finance in our review of your filings or in response to our comments on your filings.

You may contact Raj Rajan at (202) 551-3388 or Brian Bhandari at (202) 551-3390 if you have questions regarding comments on the financial statements and related matters. Please contact Damon Colbert at (202) 551-3581 or Jim Lopez at (202) 551-3536 with any other questions.

Sincerely,

John Reynolds
Assistant Director