

Mail Stop 6010

March 27, 2007

VIA U.S. MAIL and FACSIMILE (925) 288-0194

William J. Dawson
Chief Financial Officer
Cerus Corporation
2411 Stanwell Dr.
Concord, California 94520

RE: Cerus Corporation
Form 10-K for the fiscal year ended December 31, 2006
Filed February 26, 2007
File No. 000-21937

Dear Mr. Dawson:

We have reviewed your filing and have the following comments. Where indicated, we think you should revise your document 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, 2006

Consolidated Financial Statements

Note 2. Summary of Significant Accounting Policies, page 61

General

1. In future filings please include a discussion of your accounting policy for equity and cost method investments.

Revenue and Research and Development Expenses, page 61

2. We note that you recognize development contract revenues based on separate contract milestones. Please tell us and disclose in future filings specific details of how you determined the amount of revenue recognized during the period. Include an identification of contract payment milestones and explain how they relate to substantive performance and revenue recognition events. Please refer to SAB Topic 13.B and Section II.F.3, Revenue Disclosure of the Current Issues and Rulemaking Projects dated November 30, 2006 available on our website at <http://www.sec.gov/divisions/corpfin/cfacctdisclosureissues.pdf>
3. We reference your disclosure that you evaluate licenses and research and developments that contain multiple elements in accordance with EITF 00-21. Please revise future filings to disclose the multiple elements identified in your agreements and to state how you determine the relative fair values of the elements.
4. We see that you had \$11 million of deferred revenue at December 31, 2005 and no deferred revenue at December 31, 2006. In future filings, please disclose the nature of deferred revenue and the circumstances that resulted in no revenue being deferred at December 31, 2006.

Note 11. Development and License Agreements, page 76

Restructured Agreements with Baxter, page 76

5. You state that under the 2005 agreements with Baxter, \$2.2 million of the \$13.1 million commitment may be applied to activities directed toward obtaining CE mark approval of and launch preparation for the plasma system. You then disclose that for the years ended December 31, 2006 and 2005, \$2.0 million and \$1.2 million (total of \$3.2 million) was recognized as development funding revenue related to obtaining CE mark approval of the plasma system. Please reconcile these two statements.

6. Please disclose in future filings and tell us the nature of the gains and deferred gains recorded as a result of the February 2006 agreements with Baxter. Tell us how the deferred gains resulted from payments made to vendors by December 31, 2006 for commercialization activities.

Agreements with BioOne, page 78

7. Regarding the two \$5 million payments under the definitive agreement with BioOne that was received as BioOne's equity in December 2005 and December 2006, please tell us and revise future filings to specifically disclose how you determined the value of the equity received. As a related matter, please tell us how you determined the measurement date since the performance criteria have not yet been met. By analogy, please reference EITF 96-18.
8. We see that 58% of your revenue in 2006 was from BioOne and that you own 20% of BioOne at December 31, 2006. Please tell us why you should not separately disclose the related party revenue on the face of your income statement, in accordance with Rules 4-08(k)(1) of Regulation S-X.
9. We note your disclosure that although you hold 20% interest in BioOne, you do not exercise significant influence over the company and continue to account for your investment using the cost method. Please tell us and revise future filings to disclose the specific evidence you considered in concluding that you do not exercise significant influence over BioOne. We refer you to footnote 13 to paragraph 20 of APB 18.
10. Please provide us with your analysis of whether you are required to file financial statements of BioOne under Rule 3-09 of Regulation S-X. Tell us your consideration of the significance criteria of Rule 1-02(2) of Regulation S-X.

As appropriate, please respond to these comments within 10 business days or tell us when you will provide us with a response. Please furnish a cover letter with your response 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 responses to our comments.

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 all information required under the Securities Exchange Act of 1934 and that they have provided all information investors require for an informed 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.

Mr. William Dawson
Cerus Corporation
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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 filing or in response to our comments on your filing.

You may contact Kristin Lochhead at (202) 551-3664 or me at (202) 551-3676 if you have questions. In this regard, please do not hesitate to contact Martin James, Senior Assistant Chief Accountant, at (202) 551-3671 with any other questions.

Sincerely,

Brian Cascio
Accounting Branch Chief