



DIVISION OF
CORPORATION FINANCE
Mail Stop 3030

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549-3030

August 13, 2009

Via facsimile and U.S. mail

Howard G. Ervin, Esq.
Vice President, Legal Affairs
Cerus Corporation
2411 Stanwell Drive
Concord, California 94520

**Re: Cerus Corporation
Annual Report on Form 10-K
for the fiscal year ended December 31, 2008
Filed March 13, 2009
File No. 000-21937**

Dear Mr. Ervin:

We have reviewed your letter dated August 10, 2009 and have the following comments. Where indicated, we think you should revise your document in future filings in response to our comments. If you disagree, we will consider your explanation as to why our comments are 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.

Form 10-K for the period ended December 31, 2008

1. We have reviewed your response to comment 1 in your letter dated August 10, 2009. First, with respect to your belief that the average investor does not have the level of scientific training or background that would make a more detailed disclosure of the technical aspects of your products meaningful in a decision to buy or sell the company's stock, we note that registrants always have the option of conveying information that is material to making an informed investment decision to their investors in a clear, concise and understandable manner. Second, we note your acknowledgement that the company is responsible for the adequacy and accuracy of the disclosure in the filing and your representation in the first sentence of your response stating that you will revise your future filings to include

greater detail as to how your product works. Although we do not necessarily agree with the conclusions in your response, we do not anticipate commenting further on these issues at this time.

2. We note from Dr. Larry Corash's presentation during your webcast of your 2009 second quarter results that the data you have collected to date with respect to platelet and plasma transfusions shows no reports of transfusion transmission of any pathogens for which you claim to inactivate. Please tell us if that data has shown any transfusion transmissions of any pathogens whether you claim to inactivate those pathogens or not.

Form 10-Q for the period ended June 30, 2009

3. We note that your disclosure on page 18 in Note 13 to your financial statements now identifies your significant customers. Now that your significant customers have been identified, it appears from your disclosure on page 31 that you have contracts with some of those significant customers, including the Establishment Francais du Sang. Please file as exhibits to your filing any agreements with any of the significant customers identified on page 18 upon which you are substantially dependent, or provide us with a detailed legal analysis explaining your basis for not filing those agreements. Refer to Item 601(b)(10) of Regulation S-K.

Other

4. We understand from your counsel that as part of the due diligence process being conducted in connection with your anticipated shelf take-down offering that you have made the underwriters'/placement agent's counsel aware of the pending SEC review of your filings and provided such counsel with our comment letters and your response letters. Please provide us with your analysis as to how those actions comply with Regulation FD.

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 that keys your responses to our comments and provides any requested supplemental information. Detailed cover letters greatly facilitate our review. Please file your letter on EDGAR. Please understand that we may have additional comments after reviewing your responses to our comments.

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You may contact Joe McCann, Staff Attorney, at (202) 551-6262, or me, at (202) 551-3635, with any questions.

Sincerely,

Tim Buchmiller
Senior Attorney