



DIVISION OF  
CORPORATION FINANCE

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

March 6, 2012

Via E-mail

Anthony S. Chilton  
President and Chief Executive Officer  
Bioanalytical Systems, Inc.  
2701 Kent Avenue  
West Lafayette, Indiana 47906

**Re: Bioanalytical Systems, Inc.  
Form 10-K  
Filed December 29, 2011  
File No. 000-23357**

Dear Mr. Chilton:

We have reviewed your filing and have the following comment. Please respond to this letter within ten business days by amending your filing or by advising us when you will provide the requested response. If you do not believe our comment applies 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 filing and the information you provide in response to this comment, we may have additional comments.

**Form 10-K, filed December 29, 2011**

Clients, page 6

1. We note that you entered into a Preferred Provider Agreement with Pharmasset, Inc., which has become your largest client, and that in 2011 it accounted for 14.5% of your revenues. Please revise your disclosure to describe the material terms of your agreement with Pharmasset including, but not limited to any payment provisions, material obligations that must be met by both parties to keep the agreement in place, duration and termination provisions. Also, please file the agreement as an exhibit pursuant to Item 601(b)(10) of Regulation S-K.

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 Exchange Act of 1934 and all applicable Exchange 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.

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In responding to our comment, please provide a written 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.

Please contact Johnny Gharib at (202) 551-3170, Jennifer Riegel at (202) 551-3575 or me at (202) 551-3715 with any questions.

Sincerely,

/s/ Jennifer Riegel for

Jeffrey Riedler  
Assistant Director

cc: Stephen J. Hackman  
Ice Miller LLP  
One American Square, Suite 2900  
Indianapolis, IN 46282