

Via Facsimile and U.S. Mail
Mail Stop 6010

August 31, 2006

Mr. Peter T. Kissinger
President, Chairman and CEO
Bioanalytical Systems, Inc.
2701 Kent Avenue
West Lafayette, Indiana 47906

**Re: Form 10-K for Fiscal Year Ended September 30, 2005
Filed January 18, 2006
Form 10-Q and 10-Q/A for the quarter ended June 30, 2006
File No. 0-23357**

Dear Mr. Kissinger:

We have reviewed your June 20, 2006 response to our verbal comment issued June 6, 2006 and have the following comments. We have limited our review of your Form 10-Q and Form 10-Q/A for the quarter ended June 30, 2006 to only the issues addressed below and do not intend to expand our review to other portions of your documents. In our comments, we ask you to provide us with information so we may better understand your disclosure. Please be as detailed as necessary in your explanation. 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 on any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Form 10-Q and 10-Q/A for the six months ended June 30, 2006

Note 3. Intangible Assets and Impairment Loss

1. We noted that you recorded the cumulative amortization for the FDA compliant facilities for the periods since acquisition in the March 31, 2006 Form 10-Q. Please address the following:
 - a) Tell us how you determined the fair value of the “non-employee intangible asset” including whether or not you used an independent valuation expert. In

- your response also describe the valuation technique and assumptions you used.
- b) Explain to us why you believe a ten year life is appropriate for your “non-employee intangible asset.”
 - c) We have read your SAB 99 analysis. Explain to us why you believe a revision to record the amortization of your intangible assets in prior periods is not material to net income.
 - d) Please address why you believe recording the cumulative amortization in the first quarter of 2006 would not have affected a “reasonable investor”. We note your stock price has decreased since you filed the Form 10-Q for the March 31, 2006.
 - e) Tell us whether or not your independent auditors concur with your SAB 99 analysis.
2. With regards to the impairment recorded in the June 30, 2006 Form 10-Q/A, please address the following:
- a) Tell us why you believe the impairment in the June 30, 2006 Form 10-Q was recorded in the appropriate period. You state that the Baltimore clinic had been experiencing losses since acquisition. Provide us a chronology since acquisition that led to recording the impairment.
 - b) Clarify, in disclosure-type format, why the acquisition of a major customer by a company that had other clinical study providers and subsequent cancellation of previously scheduled studies seriously impacted your current operating results for PKLB. In this respect, also clarify if you had offsetting new revenues from other customers.
 - c) Quantify for us the effect that the acquisition of a major customer by a company that had other clinical study providers, as referred to above, had on your results of operations.
 - d) Clarify for us how much of the intangible asset that was reclassified to an amortizable asset in the second quarter of 2006 was written off in the third quarter of 2006.
 - e) Provide us a detailed analysis of why the impairment amount and allocation as reported in your Form 10-Q as originally filed changed in your 10-Q as amended for the period ended June 30, 2006.
 - f) Provide us, in disclosure type format, the disclosures required by paragraph 26 of SFAS 154.
 - g) You state that PKLB now constitutes your Baltimore clinical research unit. Based on Item 1. Acquisitions in your Form 10-K, PKLB also included a site in Oregon and the United Kingdom. Tell us the status of those two sites and clarify for us how you accounted for any goodwill or other intangible assets relating to those units and any associated impairments.

Peter T. Kissinger
Bioanalytical Systems, Inc.
August 31, 2006
Page 3 of 3

* * * *

Please respond to this comment within 10 business days or tell us when you will provide us with a response. Please furnish a letter that keys your response to our comment and provide the requested information. Detailed letters greatly facilitate our review. Please file your letter on EDGAR under the form type label CORRESP.

You may contact Sasha Parikh, Staff Accountant, at (202) 551-3627 or Mary Mast, Review Accountant, at (202) 551-3613 if you have questions regarding the comments. In this regard, do not hesitate to contact me, at (202) 551-3679.

Sincerely,

Jim B. Rosenberg
Senior Assistant Chief Accountant