



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

DIVISION OF
CORPORATION FINANCE

Mail Stop 4720

March 16, 2011

Mr. Michael R. Cox
Chief Financial Officer
Bioanalytical Systems, Inc.
2701 Kent Avenue
West Lafayette, Indiana 47906

**Re: Bioanalytical Systems, Inc.
Registration Statement on Form S-1
Amendment no. 1 filed March 14, 2011
File No. 333-172508**

Dear Mr. Cox:

We have reviewed the amendment filed March 14, 2011 and have the following comments.

Please respond to this letter by amending your registration statement and providing the requested information. Where you do not believe our comments apply 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 registration statement and the information you provide in response to these comments, we may have additional comments.

Cover Page

1. Please revise the cover page to indicate the preferred shares are redeemable. In this regard, we note the discussion under "Redemption" on page 13.
2. We note the statement that the preferred shares will not have a dividend rate but will participate in any dividends payable upon common shares on an "as converted" basis. We also note the disclosure under "Dividend Policy" on page 11 that you have not paid any cash dividends and do not anticipate paying any cash dividends in the foreseeable future. Please revise your cover page disclosure accordingly.
3. Please revise the disclosure to indicate the range you anticipate the conversion price per share will be, for example, no less than 120%, nor more than 125%, of the market price per share of your common stock on the pricing date. In addition, please indicate when the pricing date will occur.

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4. Please expand the disclosure to indicate the extent to which there is a public market for your Series A convertible preferred stock.

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 Act of 1933 and all applicable Securities 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.

Notwithstanding our comments, in the event you request acceleration of the effective date of the pending registration statement please provide a written statement from the company acknowledging that:

- should the Commission or the staff, acting pursuant to delegated authority, declare the filing effective, it does not foreclose the Commission from taking any action with respect to the filing;
- the action of the Commission or the staff, acting pursuant to delegated authority, in declaring the filing effective, does not relieve the company from its full responsibility for the adequacy and accuracy of the disclosure in the filing; and
- the company may not assert staff comments and the declaration of effectiveness as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

Please refer to Rules 460 and 461 regarding requests for acceleration. We will consider a written request for acceleration of the effective date of the registration statement as confirmation of the fact that those requesting acceleration are aware of their respective responsibilities under the Securities Act of 1933 and the Securities Exchange Act of 1934 as they relate to the proposed public offering of the securities specified in the above registration statement. Please allow adequate time for us to review any amendment prior to the requested effective date of the registration statement.

You may contact John L. Krug, Senior Counsel, at (202) 551-3862 or me at (202) 551-3715 with any questions.

Sincerely,

Jeffrey Riedler
Assistant Director

cc: Stephen J. Hackman, Esq.