

Mail Stop 6010

December 19, 2006

Hojabr Alimi  
Chief Executive Officer and President  
Oculus Innovative Sciences, Inc.  
1129 N. McDowell Blvd.  
Petaluma, California 94954

**Re: Oculus Innovative Sciences, Inc.  
Amendment No. 4 to Registration Statement on Form S-1  
Filed December 18, 2006  
File No. 333-135584**

Dear Mr. Alimi:

We have reviewed your registration statement 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 on any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Prospectus Summary, page 1

1. We note your revised disclosure in response to prior comment 1 and we reissue the comment. We note, for example, your disclosure in the third sentence of the second paragraph on page 1 and page 38 and the first paragraph on page 55 that Microcyn is a non-toxic solution.

Use of Proceeds, page 31

2. We note your revised disclosure in response to prior comment 2. Given the requirement that you repay the bridge loan in full if the gross proceeds of this offering will exceed \$30 million and your assumption in the first paragraph that this requirement will be met, tell us why you state that you will repay only \$1.5 million in principal with proceeds from this offering. Clarify how you intend to repay the other \$2.5 in principal outstanding under this loan.

Revenues, page 39

3. We note your response to prior comment 3. Please expand the appropriate section to provide the disclosure required by Item 101(d)(ii) of Regulation S-K.

Overview, page 55

4. We note your response to prior comment 6. Please tell us with specificity where the Kalorama reports you provided support the market data on page 55.

Exhibit 5.1

5. Please ask your counsel to confirm to us in writing that it concurs with our understanding that the reference and limitation to “the General Corporation Law of the State of Delaware” includes the statutory provisions and also all applicable provisions of the Delaware Constitution and reported judicial decisions interpreting these laws. Please ask counsel to submit this written confirmation as correspondence on the EDGAR system. See the section VIII.A.14 of the Division Of Corporation Finance’s outline of “Current Issues and Rulemaking Projects” (November 14, 2000) available on our web site at [www.sec.gov](http://www.sec.gov).

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As appropriate, please amend your registration statement in response to these comments. You may wish to provide us with marked copies of the amendment to expedite our review. Please furnish a cover letter with your amendment that keys your responses to our comments and provides any requested supplemental information. Detailed cover letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your amendment and responses to our comments.

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You may contact at Kristin Lochhead at (202) 551-3664 or Brian Cascio, Branch Chief, at (202) 551-3676 if you have questions regarding comments on the financial statements and related matters. Please contact Donald C. Hunt at (202) 551-3647 or me at (202) 551-3602 with any other questions.

Sincerely,

Thomas A. Jones  
Senior Attorney

cc (via fax): Sylvia K. Burks, Esq., Pillsbury Winthrop Shaw Pittman LLP  
Gabriella A. Lombardi, Esq., Pillsbury Winthrop Shaw Pittman LLP