

Mail Stop 6010

November 27, 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. 2 to Registration Statement on Form S-1  
Filed November 13, 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.

General

1. Please amend your filing to include all non-Rule 430A information, including the number of securities to be offered. Refer to Item B.90 of our Manual of Publicly Available Telephone Interpretations available on our website at [www.sec.gov](http://www.sec.gov). Also, revise the fee table if necessary.
2. We reissue comment 1. If you must include technical terms in the body of your prospectus that are understood only by industry experts, you should explain these terms where you first use them. In addition, do not use technical terms or industry jargon in your explanations. We note, for example your references to “oxidized

chemical species,” “receptor binding, molecular transport,” hypochlorite-based solution,” “adhesive matrix,” “histamine production and cytokine release,” and “in vitro” on page 59 and “bacterial load reduction,” “log 10 reduction” and “baseline” on page 61. Please note that these are merely examples and do not constitute a comprehensive list.

We may face intellectual property infringement claims, page 19

3. Please tell us why you have not filed as exhibits the settlement agreements disclosed in the last paragraph of this section.

Use of Proceeds, page 30

4. We note your disclosure that you plan to repay your bridge loan with proceeds from this offering. Please provide the disclosure required by Instruction 4 to Item 504 of Regulation S-K.

Dilution, page 33

5. Regarding your dilution table, please make sure you start with historical net tangible book value per share. Then show how you derived the pro forma amounts before the offering (reflecting conversion of preferred to common) that you are using for comparison to net tangible book value per share after the offering.

Our dependence on distributors for sales could limit or prevent us from selling, page 16

6. Please file as an exhibit your agreement with your Indian distributor.

Revenues, page 42

7. Please expand the last paragraph on page 42 to explain why the revenues increased. Also, expand the second full paragraph on page 44 to explain why the expenses increased.

Business, page 53

8. Please tell us why you deleted the disclosure on pages 55 and 56 about your products.

Overview, page 54

9. We note your disclosure regarding milestones you hope to achieve through 2009. Please balance your disclosure here by addressing the material hurdles to

achieving these milestones and/or assumptions made in estimating your timetable for achieving these milestones.

Industry Background, page 54

10. Please provide us with copies of the industry reports you cite on pages 54-56 and page 65. Also, clearly mark the relevant sections that support the data you have included in your prospectus and the page number of your prospectus where such data has been used.
11. Please revise pages 56 and 65 to clarify which portion of the billion dollar and multi-million dollar markets are related to your business.

Physician Clinical Studies, page 62

12. We note your disclosure in the first full paragraph on page 62 regarding clinical studies of Microcyn. Please address in your risk factors any risk in relying on the results of those studies, given your disclosure in the last sentence of that paragraph.
13. We reissue comment 19 from our letter dated July 28, 2006. We note, for example, your reference to a study conducted by Fermin Martinez de Jesus.

Equity Compensation Plans, page 87

14. Please discuss the material terms of the plans. For example, we note the reference on page 14 to the “right of rescission” granted under certain stock option plans.

Financial Statements, page F-1

Report of Independent Registered Public Accounting Firm, page F-2

15. We note your “draft” report for the effect of a reverse stock split of your stock. Prior to going effective, the audit report should be signed and the draft language should be removed.

Note 1 – The Company, page F-11

Stock Split, page F-11

16. Since your board of directors has not approved the actual reverse stock split ratio, please tell us why it is appropriate to retroactively adjust your consolidated financial statements to reflect a 1 for 4 reverse stock split.

Note 3. Summary of Significant Accounting Policies, page F-12

Convertible Instruments, page F-20

17. We note your response to prior comment 13 in our letter dated October 12, 2006. Your disclosure on page F-20 states that your convertible preferred stock is conventionally convertible because the stock is convertible into a fixed number of shares. However, we note on page F-32 that the conversion rate of your preferred stock will be adjusted in the event of future issuances of equity securities or convertible instruments that feature prices more favorable than the conversion rates specified in the preferred shares. Please tell us how this feature impacts your assessment of whether the preferred shares are conventional convertible instruments in your EITF 00-19 analysis. If the instrument does not qualify as conventional convertible, paragraphs 12-32 of EITF 00-19 must be analyzed to determine whether the conversion feature should be accounted for as a liability or equity.
18. Additionally, we refer to your disclosure that you record the embedded conversion options as a discount to convertible notes and that you record as deemed dividends the intrinsic value of conversion options embedded in preferred shares. Please revise to identify the embedded derivatives you have identified, disclose the value of these derivatives at each balance sheet date and discuss the related accounting treatment in your footnotes.

Note 11 – Commitments, Contingencies and Other Matters, page F-29

Legal Matters, page F-29

19. We see that you entered into a settlement agreement in November 2006 with a former employee which provides for the issuance of a warrant to purchase 50,000 shares of common stock at \$3.00 per share. Please revise to disclose the accounting treatment and the expense expected to be recognized from the issuances of the warrants. We note that the exercise price is significantly lower than the mid-point of the IPO filing range.
20. Please revise to disclose the amount, if any, accrued for the recall of Cidalcyn. If no amounts are accrued as of September 30, 2006 for the recall, please tell us why you do not believe a liability is necessary.

Note 12 – Stockholders’ Equity, page F-28

Stock Purchase Warrants Issued in Financing Transactions, page F-34

21. We see that the exercise price on warrants issued with financing is equal to the lesser of a stated exercise price or the price offered to any other investor in subsequent stock offerings prior to the expiration date of the warrants. Please tell us how this impacted your assessment of whether the warrant liability should be bifurcated since it appears the number of shares issuable upon conversion of the convertible instrument is variable. Additionally, please tell us whether there is a cap on the number of shares which could be issued. If there is no explicit limit on the number of shares that are to be delivered upon exercise of the conversion feature, you would not be able to assert that you will have sufficient authorized and unissued shares to settle the conversion option. As a result, the conversion feature would be accounted for as a derivative liability, with changes in fair value recorded in earnings each period. Refer to paragraphs 20-24 of EITF 00-19.

Valuation of Common Stock, page F-31

22. We see your response to prior comment 10 in our letter dated October 12, 2006. Please further demonstrate why you believe that there was no change in the fair value of your stock from the valuation received in July 2005 for options issued through January 2006. Please reference significant events or changes in your business to support your conclusion.
23. On page F-35, you disclose that warrants issued during the six month period ended September 30, 2006 were valued using a fair value of underlying stock of \$18.00 per share. Yet, on page F-36, you disclose that all equity transactions completed during the six months ended September 30, 2006 were based on a fair value of \$13.00 per share, the mid point of the IPO filing range. Please explain this discrepancy.

Note 13 – Stock Compensation Plans, page F-37

Stock-Based Compensation Before Adoption of SFAS No. 123(R), page F-38

24. Please revise to disclose the weighted average fair value of options granted during each year for which an income statement is provided, as required by paragraph 47(b) of SFAS 123.
25. Please revise to remove the pro forma disclosures of the effect on net loss if you had applied the fair value provisions of SFAS 123 to stock-based compensation arrangements for the six months ended September 30, 2005 and 2006. Refer to paragraph 85 of SFAS 123(R).

Item 15. Recent Sales of Unregistered Securities, page II-1

26. Please revise your disclosure to include all of the information required by Item 701 of Regulation S-K for the debt transaction referenced on page 4.

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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.

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