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July 24, 2009

United States Securities and Exchange Commission
Division of Corporation Finance
100 F Street, N.E., Mail Stop 3030
Washington, DC 20549

Attn: Geoffrey Kruczek

Re: Oculus Innovative Sciences, Inc.
Post-Effective Amendment to Form S-1
File No. 333-157776

Dear Mr. Kruczek:

I am securities counsel for Oculus Innovative Sciences, Inc. (the "Company"). I enclose for filing under the Securities Act of 1933, as amended, Post-Effective Amendment No. 2 to Form S-1, File No. 333-157776, together with certain exhibits thereto (the "Amendment").

The Amendment contains revisions that have been made in response to comments received from the staff (the "Staff") of the Securities and Exchange Commission (the "Commission") in their letter dated July 20, 2009.

Set forth below are the Company's responses to the Staff's comments. The numbering of the responses corresponds to the numbering of the comments in the letter from the Staff.

Comment 1. Please revise your document to comply with all applicable comments in our letter dated July 16, 2009 and any follow-up letters regarding your registration statement on Form S-1, File No. 333-158539. In your response to this letter, please clearly indicate how and where you have applied each of those comments in this registration statement.

Response 1. The Company has revised the Amendment to comply with all applicable comments contained in the Staff's letter dated July 16, 2009 (the "July 16th Letter"). The following indicates how and where the Company has applied each comment which required revision to the document.

July 16th Letter	**Corresponding Change**
Comment 2:	The Company has made the disclosure in the Prospectus Summary more prominent by including it as a standalone paragraph and reversing the order of the sentences so it now reads: "We do not have the necessary regulatory approvals to market Microcyn in the United States as a drug, nor do we have the necessary regulatory clearance or

<table>
<tr><th>July 16th Letter</th><th>Corresponding Change</th></tr>
<tr><td></td><td>
approval to market Microcyn in the United States as a medical device for an antimicrobial or wound healing indication. Our device product is cleared for sale in the United States as a 510(k) medical device for wound cleaning, debridement, lubricating, moistening and dressing; is a device under CE Mark in Europe; is approved by the State Food and Drug Administration, or SFDA, in China as a technology that reduces the propagation of microbes in wounds and creates a moist environment for wound healing; and is approved as a drug in India and Mexico.”

The Company notes that the disclosure is made prominent by its positioning in a box with substantial white space. The Company also believes that relocating the statement that the Company does not have the necessary regulatory approvals to market Microcyn as a drug or a medical device for an antimicrobial or wound healing indication as the first sentence, in a separate paragraph, as one of just four short paragraphs under the heading “About Us” and as part of a single page summary, prominently features the disclosure.

Additionally, the Company has revised the disclosure under the heading “Description of Business” to address the second bullet point of Staff Comment 2. To assist the Staff’s review, the following table indicates under which heading disclosure addressing each regulatory issue raised by the Staff in its Comment 2 appears:

<table>
<tr><th>Regulatory Issue</th><th>Under Heading</th></tr>
<tr><td>• the FDA’s statutory and regulatory requirements for approval of a new drug and the requirements of a New Drug Application;</td><td>Government Regulation</td></tr>
<tr><td>• device classification information;</td><td>Medical Device Regulation</td></tr>
<tr><td>• investigational device exemption requirements;</td><td>Medical Device Regulation</td></tr>
<tr><td>• obligations of a sponsor of an investigational device exemption;</td><td>Medical Device Regulation</td></tr>
<tr><td>• pre-market approval application requirements and conditions of approval;</td><td>Medical Device Regulation</td></tr>
<tr><td>• duration of the process;</td><td>Government Regulation
Pharmaceutical Product Regulation</td></tr>
<tr><td>• registration and labeling requirements;</td><td>Medical Device Regulation
Pharmaceutical Product Regulation</td></tr>
<tr><td>• advertising and promotion;</td><td>Medical Device Regulation</td></tr>
<tr><td>• quality system regulation and manufacturing of the product;</td><td>Medical Device Regulation</td></tr>
<tr><td>• post-market reporting and record-keeping requirements, including medical device reporting and reports of corrections or removals;</td><td>Medical Device Regulation</td></tr>
<tr><td>• import and export requirements; and</td><td>Medical Device Regulation</td></tr>
<tr><td>• potential sanctions for violations.</td><td>Medical Device Regulation</td></tr>
</table>

As described in the revised disclosure, particularly under the heading Market Device Regulation, FDA regulations prohibit the advertising and promotion of a medical device for any use outside the scope of a 510(k) clearance, pre-market approval or for unsupported safety or effectiveness claims. The Company respectfully notes that the Amendment is not intended to advertise or promote the
</td></tr>
</table>

July 16th Letter	Corresponding Change
	Company's product. Rather, the Amendment's purpose is to provide investors with adequate information about the Company's business to enable them to make an informed investment decision. To that end, Form S-1 requires that the Company include, among other things, the information required by Item 101 of Regulation S-K. Item 101 requires, in part, that the Company provide investors with a narrative description of the business. In order to comply with this disclosure requirement, the Company must include information about its business, including its products. This requires the Company to make statements which are necessarily broader than those it may make when marketing and promoting its products. The second paragraph under the heading "Our Business" clearly lists the indications for which the Company's product has received 510(k) clearance. Further, statements that are consistent with the 510(k) clearances are clearly marked as such. On the other hand, statements that are based on the Company's reasonable beliefs and conclusions use language such as "we believe" and "suggests." For instance, under the heading "Our Solution," bullets four and five each include a claim that "[o]ur 510(k) label states," indicating such statement is consistent with our 510(k) clearances. In contrast, the remaining bullets indicate that "we believe" the stated claim or that a set of facts "suggest" such claim is true.

Common Stock to be registered, page 1

Comment 2. Please clarify the number of shares registered for sale on this registration statement that underlie each class of your warrants.

Response 2. The Company has revised the Amendment to clarify that it registered an aggregate of 3,035,290 shares of common stock which is comprised of 996,088 shares of common stock, 869,658 shares of common stock underlying the Series A Warrants and 1,169,544 shares of common stock underlying the Series B Warrants.

Selling Security Holders, page 17

Comment 3. According to your explanatory note, you are deregistering 473,410 shares of common stock underlying Series C warrants. However, your response to prior comment 3 in your letter dated July 9, 2009 regarding registration statement file number 333-158539 indicated that you would "deregister 584,772 shares of common stock" issuable upon exercise of the Series C warrants. Please tell us the reason for the difference. Also tell us how you arrived at the 584,772 number mentioned in your response.

Response 3. The Company is deregistering an aggregate of 584,772 shares of common stock underlying the Series C Warrants that may be issued pursuant to the Purchase Agreement dated February 6, 2009 (the "Purchase Agreement"). Of the shares underlying the Series C Warrants, 473,410 were originally registered on the registration statement file number 333-157776 and the remaining 111,362 were originally registered on the registration statement file number 333-158539. In the current Amendment, the Company has reduced the total number of shares registered to reflect the removal of 473,410 shares. The reference to the 584,772 number in the Company's response to comment 3 in its letter dated July 9, 2009 was intended to capture the aggregate number of shares underlying Series C Warrants that may be issued if all of the Series B Warrants issued pursuant to the Purchase Agreement are exercised. Upon closer examination, the Company determined that only 473,410 of those shares were registered on the registration statement file number 333-157776.

Comment 4. Please tell us whether any shares underlying the Series C warrants were sold by the selling security holders.

Response 4. Pursuant to the Purchase Agreement, for every two shares of common stock an investor purchases upon exercise of a Series B Warrant, the investor will receive one Series C Warrant. The Series B Warrants will not be exercisable until August 6, 2009, which is six months after issuance, and therefore are not currently exercisable. As a result, the Company has not issued any Series C Warrants and the selling security holders have not sold any shares underlying the Series C Warrants.

Comment 5. Please disclose the identity of the natural person who exercises the sole or shared voting and/or dispositive powers with respect to the shares to be offered by Cranshire Capital. It appears from note 5 to your table that you have only identified the natural person who has voting control over Downsview. Also disclose the identity of the natural persons who exercise sole or shared voting power with respect to the shares offered by Rockmore. It appears from note 7 to your table that you have only identified natural persons who share dispositive power over the shares held by Rockmore. Alternatively, tell us how Rockmore and its affiliates operate their business such that no natural person directly or indirectly exercises sole or shared voting power.

Response 5. The Company has complied with the Staff's comment.

Comment 6. Please tell us whether any of the selling stockholders is a broker-dealer or affiliate of a broker-dealer.

Response 6. Based upon information provided to the Company by the Selling Stockholders, none of the Selling Stockholders is a broker-dealer or an affiliate of a broker dealer.

Comment 7. Please revise the information in the fourth column of your table regarding the number of shares Seamus Burlingame will own after this offering. Given the number of shares disclosed in columns two and three, it is unclear how you determined that he will hold only 16,667 shares after this offering.

Response 7. The Company has complied with the Staff's comment.

Executive Compensation, page 41

Comment 8. Please revise to include the disclosures required by Item 402(r) of Regulation S-K, including all required tables.

Response 8. The Company has complied with the Staff's comment.

Security Ownership, page 45

Comment 9. It appears from your disclosure here and notes 5 and 6 to the table that the number of shares beneficially owned by Robert and Seamus Burlingame do not include the shares underlying the Series A and B warrants they acquired in February 2009. Given your disclosure on page 2 regarding when those warrants become exercisable, it appears that the Burlingames may now acquire the shares underlying those warrants within 60 days. Also, given the exercise period for the Series A and B warrants issued by you to the investors in the February 6, 2009 offering, it appears that those investors may now acquire the shares underlying those warrants within 60 days. Please update your beneficial ownership and selling stockholders tables to include the shares underlying the warrants as appropriate; see Rule 13d-3(d)(1)(i).

Response 9. The Company has complied with the Staff's comment.

Undertakings, page II-8

Comment 10. Please include the undertakings required by Regulation S-K Item 512(a)(5)(ii) and (a)(6).

Response 10. The Company has complied with the Staff's comment.

Exhibits

Comment 11. Please tell us why exhibit 23.1 is not signed by the same auditor that signed the report appearing on page F-1.

Response 11. The auditor whose report appears on page F-1 and who signed the consent is the same firm, Marcum LLP. The consent included as exhibit 23.1 to the Amendment includes the correct name.

If you have further questions or comments, please feel free to contact us. We are happy to cooperate in any way we can.

Regards,

/s/ Amy M. Trombly