

October 29, 2010

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

Attn: Aslynn Hogue

Re: Oculus Innovative Sciences, Inc.  
Form 10-K for the fiscal year ended March 31, 2010  
Filed June 8, 2010  
File No. 001-33216

Dear Ms. Hogue:

In response to comments received from the staff of the Securities and Exchange Commission (the "Staff") on the Form 10-K for the fiscal year ended March 31, 2010, the undersigned, being the Chief Operating Officer and General Counsel of Oculus Innovative Sciences, Inc., hereby certifies the following:

- Oculus Innovative Sciences, Inc. is responsible for both the adequacy and accuracy of the disclosure in the Form 10-K filed June 8, 2010;
- Oculus Innovative Sciences, Inc. acknowledges that the Staff comments or changes made in response to Staff comments do not foreclose the Commission from taking any action with respect to the Form 10-K; and
- Oculus Innovative Sciences, Inc. acknowledges that it may not assert Staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

/s/ Jim Schutz

Jim Schutz  
Chief Operating Officer and General Counsel

Date: October 29, 2010

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Attn: Aslynn Hogue

Re: Oculus Innovative Sciences, Inc.  
Form 10-K for the fiscal year ended March 31, 2010  
Filed June 8, 2010  
File No. 001-33216

Dear Ms. Hogue:

I am securities counsel for Oculus Innovative Sciences, Inc. (the "Company"). Set forth below is the Company's response to comments received from the staff of the Securities and Exchange Commission (the "Staff") in their letter dated September 30, 2010. The numbering of the response corresponds to the numbering of the comment in the letter from the Staff.

Item 10. Directors, Executive Officers and Corporate Governance, page 75

Comment 1: Please revise future filings to discuss briefly, for each director, the specific experience, qualifications, attributes or skills that led to the conclusion that the person should serve as a director, in light of your business and structure. Refer to Regulation S-K Item 401(e).

Response 1: The Company will comply with this comment in future filings.

Item 11. Executive Compensation, page 75

Comment 2: Please revise future filings to describe any material factors necessary to an understanding of the information disclosed in the summary compensation table. For example, we note that you did not discuss the \$23,000 cash bonus awarded to Mr. Schutz on pages 15-17 of the definitive proxy statement, which was incorporated by reference. Refer to Regulation S-K Item 402(o).

Response 2: The Company will comply with this comment in future filings.

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Item 12. Security Ownership of Certain Beneficial Owners..., page 75

Comment 3: We note that your disclosure on page 18 of your definitive proxy statement, which was incorporated by reference. Please tell us how you determined that Robert Burlingame and Seamus Burlingame did not beneficially own more than 5% of your outstanding common stock. We note your previous disclosure on page 19 of your definitive proxy statement filed July 29, 2009 that as of July 29, 2009 these two individuals owned 1,755,486 and 1,580,504 shares, respectively and it appears that you have had multiple direct transactions with these individuals.

Response 3: As disclosed in the Company's proxy statement dated July 29, 2010, as of July 15, 2010, there were 26,277,458 shares of the Company's common stock outstanding.

Robert Burlingame previously filed Form 4s with the Company due to his status as a director of the Company. He resigned as a director on February 10, 2010. Robert Burlingame disclosed in his Form 4 dated June 16, 2009 that he beneficially owned 1,294,931 shares, or 4.93% of the Company's outstanding common stock on July 15, 2010. Mr. Robert Burlingame disclosed in his Form 4 dated January 5, 2010 that he owned 1,386,667 of derivative securities, in the form of warrants and options. However, as disclosed on pages 19-20 of the Company's proxy statement dated July 27, 2009, Robert Burlingame's warrants may be exercised only to the extent that Mr. Burlingame would not own more than 4.99% of the Company's outstanding common stock. Additionally, due to his resignation as a director, his options have expired. The Company has confirmed with Robert Burlingame that he has not acquired any shares of the Company such that his percentage ownership would exceed 5% of the Company's common stock. Therefore, the Company believes Robert Burlingame is under the 5% threshold.

Seamus Burlingame filed a Schedule 13D on July 8, 2009, in which he disclosed that he beneficially owned 1,580,504 shares of common stock and warrants to acquire 2,333,333 shares of common stock. Similarly to the warrants held by Robert Burlingame, the warrants held by Seamus Burlingame may not be exercised to the extent that such exercise would result in Seamus Burlingame owning more than 4.99% of the Company's outstanding common stock. The Company has confirmed with Seamus Burlingame that he had not acquired any additional shares of the Company's common stock. As of July 15, 2010, Seamus Burlingame beneficially owned approximately 6.0% of the Company's common stock. The Company undertakes to consider the shares of stock held by Seamus Burlingame in determining disclosures in its future filings.

The Company notes that Robert and Seamus Burlingame are father and son, respectively. The Company, however, does not believe aggregation of their shares is appropriate to determine beneficial ownership because Robert Burlingame was 75 years old at the time of his resignation from the Company's Board of Directors, and Seamus, his adult son, does not live in the same household.

Furthermore, the Company acknowledges that it has entered into transactions with Robert and Seamus Burlingame, in addition to transactions with entities partially or wholly-controlled by Robert and/or Seamus Burlingame, but it did not believe those transactions were material as of July 29, 2010. Subsequent to July 2010, such transactions have increased in importance to the Company and the Company will continue to monitor the situation as it relates to the Company's disclosures.

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Item 13. Certain Relationships, Related Transactions..., page 75

Comment 4: Please revise future filings to include the approximate dollar value of the listed related party transactions, the largest aggregate amount outstanding during the period, the amount paid during the period, and the amount outstanding at the latest practicable date. Refer to Regulation S-K Item 404(a).

Response 4: The Company will comply with this comment in future filings.

Comment 5: We note that you do not appear to have described all of your related party transactions. For example, it is unclear why you have not:

- Described the terms of your purchase agreement with Robert Burlingame dated January 26, 2009;
- Disclosed your agreements with Seamus Burlingame on January 26, 2009 and February 24, 2009; and
- Explained the impact of the termination of the January 26, 2009 purchase agreements with Robert Burlingame and Seamus Burlingame in the February 24, 2009 purchase agreement, which are included as exhibits to your filing. For example, had Robert or Seamus Burlingame purchased shares under the January 26, 2009 purchase agreements? What were the changes in the material terms of the purchase agreements?

Please tell us why you have not provided such disclosure and how you intend to address this in future filings.

Response 5: As disclosed in the Company's Current Report on Form 8-K filed February 27, 2009, the stock purchase agreement with Robert Burlingame and Seamus Burlingame dated February 24, 2009 (the "Agreement") rescinds and replaces the Purchase Agreements the Company entered into on January 26, 2009. No shares were purchased under the rescinded January 26, 2009 agreements because such agreements were voided as though they never occurred. The Agreement was disclosed as to Robert Burlingame on pages 65 and 67 of the Annual Report on Form 10-K dated June 8, 2010, and in the Schedule 14A Proxy Statement dated July 29, 2010 on page 12.

The material changes made to the January 26, 2009 agreement that were reflected in the Agreement were as follows:

- The parties agreed to terminate the January 26, 2009 purchase agreements "as though those Purchase Agreements had not been entered into." (See Clause 2.1 of the Purchase Agreement by and between the Company and Robert Burlingame and Seamus Burlingame, included as Exhibit 10.4 to the Current Report on Form 8-K filed February 27, 2009.) The separate purchase agreements with Robert Burlingame and Seamus Burlingame were replaced by a single new agreement.
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- The total number of shares of common stock to be issued decreased by 2,622 shares from 2,566,725 to 2,564,103.
- The Company agreed to issue the shares in two tranches, instead of three.

The Company did not further disclose the January 26, 2010 agreements because they were rescinded in their entirety and the Company believed that, once they were rescinded, they were not material and because they were rescinded and replaced, disclosure in the 10-K for the fiscal year ended March 31, 2010 as a related party transaction was not required. Furthermore, the Company did not believe Seamus Burlingame was a related party at the time it filed its Definitive Proxy dated July 29, 2010. While Robert Burlingame was a director of the Company, Seamus Burlingame has never been a director, officer or employee of the Company. Additionally, Seamus Burlingame beneficially owns significantly less than 10% of the Company's common stock.

Comment 6: Please tell us why you did not file as exhibits your July 24, 2009 amendment to your commercial agreement to sell your Vetericyn products or your September 15, 2009 commercial agreement to sell your Microcyn over-the-counter liquid and gel products. Refer to Regulation S-K Item 601(b)(10).

Response 6: At the time the Company entered into the agreement with Vetericyn, Inc., the agreement was not generating a material level of revenue. Additionally, the Company believed that Amendment 2 did not materially alter the original contract such that further disclosure was required. As such, the Company determined not to file Amendment 2 with its periodic filings. The Company intends to file Amendment No. 2 to the Revenue Sharing, Partnership and Distribution Agreement between the Company and Vetericyn, Inc. as Exhibit 10.44 to the Quarterly Report on Form 10-Q, for the quarter ended September 30, 2010 because the Company believes Amendment 2 has become more material as the original contract has generated significantly more revenue in the most recent fiscal quarter.

Through the quarter ended March 31, 2010, the Company earned only nominal revenues from the September 15, 2009 commercial agreement to sell Microcyn and therefore determined that it was not material. The Company continues to believe such agreement is not material.

#### Exhibits

Comment 7: Please file complete Exhibits 10.41, 10.42, 10.49, and 10.50, including all exhibits and signature pages. We note that Exhibits 10.41, 10.42, and 10.49 did not include the signature pages with names and signatures of the purchasers or investors and that Exhibits 10.49 and 10.50 do not list any investors in Schedule A.

Response 7: The Company will file amended Exhibits. The Exhibits to the Annual Report on Form 10-K for the year ended December 31, 2009 will be re-filed as the following Exhibits to the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2010:

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- Form 10-K Exhibit 10.41 will be re-filed as Exhibit 10.26 to the Form 10-Q, amended so as to include the signature pages of the purchasers.
- Form 10-K Exhibit 10.42 will be re-filed as Exhibit 10.27 to the Form 10-Q, amended so as to include the signature pages of the purchasers.
- Form 10-K Exhibit 10.49 will be re-filed as Exhibit 10.32 to the Form 10-Q, amended to include the Exhibit A investor list and the signature pages of the purchasers.

The Company will not amend Exhibit 10.50. In the final executed version of the Purchase Agreement between the Company and Robert Burlingame and Seamus Burlingame dated February 24, 2009, Schedule A was never completed and the Exhibit as filed with the SEC is a correct representation of the final document.

Exhibit 21.1

Comment 8: Tell us, with a view towards revising your disclosure, what are your current subsidiaries. We note that the list of subsidiaries incorporated by reference is not consistent with your disclosure in "Principles of Consolidation" on page 52.

Response 8: The list of subsidiaries disclosed in the Company's 10-K for the year ended March 31, 2010 was correct. The Company will file an updated list of subsidiaries as Exhibit 21.1 to its Quarterly Report on Form 10-Q for the quarter ended September 30, 2010.

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

Amy M. Trombly, Esq.

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