

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549**

**AMENDMENT NO. 1
TO THE FORM S-3**

**REGISTRATION STATEMENT UNDER
THE SECURITIES ACT OF 1933**

OCULUS INNOVATIVE SCIENCES, INC.

(Exact Name of Registrant as Specified in Its Charter)

Delaware
*(State or Other Jurisdiction of
Incorporation or Organization)*

68-0423298
*(I.R.S. Employer
Identification Number)*

**1129 N. McDowell Blvd.
Petaluma, California 94954
(707) 782-0792**

(Address, Including Zip Code, and Telephone Number, Including Area Code, of Registrant's Principal Executive Offices)

**Hojabr Alimi
President and Chief Executive Officer
1129 N. McDowell Blvd.
Petaluma, California 94954
(707) 782-0792**

(Name, Address, Including Zip Code, and Telephone Number, Including Area Code, of Agent for Service)

Copies to:

**Amy Trombly, Esq.
Trombly Business Law, PC
1320 Centre St., Ste 202
Newton, Massachusetts 02459
(617) 243-0060**

Approximate date of commencement of proposed sale to the public: From time to time after this registration statement becomes effective, as determined by market conditions and other factors.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, check the following box.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box.

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box.

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act (Check One):

Large Accelerated Filer

Accelerated Filer

Non-Accelerated Filer
(Do not check if a smaller
reporting company)

Smaller Reporting
Company

CALCULATION OF REGISTRATION FEE

Title of securities to be registered (1)	Proposed maximum aggregate offering Price (2)(4)	Amount of registration fee (3)
Common Stock, \$0.0001 par value(4)		
Preferred Stock, \$0.0001 par value(4)		
Warrants(4)		
Units(4)		
Total	\$ 75,000,000	\$ 5,347.50*

* Previously paid.

- (1) Any securities registered hereunder may be sold separately or as units with other securities registered hereunder.
- (2) Such indeterminate number or amount of common stock, preferred stock, warrants and units to purchase any combination of the foregoing securities, as may from time to time be issued at indeterminate prices, with an aggregate initial offering price not to exceed \$75,000,000 or the equivalent thereof in one or more foreign currencies, foreign currency units or composite currencies.
- (3) The registration fee has been calculated in accordance with Rule 457(o) under the Securities Act of 1933, as amended. Rule 457(o) permits the registration fee to be calculated on the basis of the maximum offering price of all of the securities listed and, therefore, the table does not specify by each class information as to the amount registered, the proposed maximum offering price per unit, or the proposed maximum aggregate offering price.
- (4) Subject to footnote (1), there is being registered hereunder such indeterminate amount of common stock, preferred stock, warrants, and units as may from time to time be issued by the registrant at indeterminate prices and as may be issuable upon conversion, redemption, exchange, exercise or settlement of any securities registered hereunder, including under any applicable anti-dilution provisions. In no event will the aggregate initial offering price of all securities issued from time to time pursuant to this registration statement exceed \$75,000,000.

The registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the registrant shall file a further amendment which specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until the Registration Statement shall become effective on such date as the Commission acting pursuant to said Section 8(a), may determine.

The information in this prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities and is not soliciting an offer to buy these securities in any state where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED FEBRUARY 18, 2011

PROSPECTUS

\$75,000,000



OCULUS INNOVATIVE SCIENCES, INC.

**Common Stock
Preferred Stock
Warrants
Units**

We may, from time to time, offer and sell common stock, preferred stock or warrants, either separately or in units, in one or more offerings. The preferred stock and warrants may be convertible into or exercisable or exchangeable for common or preferred stock. We will specify in the accompanying prospectus supplement more specific information about any such offering. The aggregate initial offering price of all securities sold under this prospectus will not exceed \$75,000,000, including the U.S. dollar equivalent if the public offering of any such securities is denominated in one or more foreign currencies, foreign currency units or composite currencies.

We may offer these securities independently or together in any combination for sale directly to investors or through underwriters, dealers or agents. We will set forth the names of any underwriters, dealers or agents and their compensation in the accompanying prospectus supplement.

This prospectus may not be used to sell any of these securities unless accompanied by a prospectus supplement.

Our common stock is traded on the NASDAQ Global Market under the symbol "OCLS." On December 21, 2010, the closing price of our common stock on the NASDAQ Global Market was \$1.73 per share. The market value of our outstanding common equity held by non-affiliates on December 21, 2010 was \$38,439,866. We have sold \$664,475 of our securities pursuant to General Instruction I.B.6 of Form S-3 during the prior 12 calendar month period that ends on and includes the date of this prospectus.

Investing in our securities involves a high degree of risk. See the section entitled "Risk Factors" beginning on page 3.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus. Any representation to the contrary is a criminal offense.

The date of this prospectus is February 18, 2011.

TABLE OF CONTENTS

	<u>Page</u>
About This Prospectus	2
Our Company	2
Risk Factors	3
Forward-Looking Statements	15
Use of Proceeds	15
Description of Common Stock	15
Description of Preferred Stock	17
Description of Warrants	18
Description of Units	18
Plan of Distribution	19
Legal Matters	19
Experts	20
Where You Can Find More Information	20
Incorporation of Certain Documents by Reference	20

You should rely only on the information incorporated by reference or provided in this prospectus, any prospectus supplement and the registration statement. We have not authorized anyone else to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. We are not making an offer to sell these securities in any state where the offer or sale is not permitted. You should assume that the information in this prospectus and any prospectus supplement, or incorporated by reference, is accurate only as of the dates of those documents. Our business, financial condition, results of operations and prospects may have changed since those dates.

PROSPECTUS SUMMARY

This summary highlights information contained elsewhere in this prospectus or incorporated by reference. This summary does not contain all of the information you should consider before buying shares of our common stock, preferred stock, warrants, or units or any combination of these securities. You should read the entire prospectus carefully, especially the risks of investing in our securities that we describe under “Risk Factors” and our consolidated financial statements appearing in our annual and periodic reports incorporated in this prospectus by reference, before deciding to invest in our securities. Unless the context requires otherwise, references to “Oculus,” “the Company,” “the Registrant,” “we,” “our” and “us” refer to Oculus Innovative Sciences, Inc.

ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that we filed with the Securities and Exchange Commission, or SEC, using a “shelf” registration, or continuous offering, process. Under this shelf registration process, we may, from time to time, issue and sell any combination of preferred stock, common stock or warrants, either separately or in units, in one or more offerings with a maximum aggregate offering price of \$75,000,000, including the U.S. dollar equivalent if the public offering of any such securities is denominated in one or more foreign currencies, foreign currency units or composite currencies.

This prospectus provides you with a general description of the securities we may offer. Each time we sell securities, we will provide a prospectus supplement that will contain specific information about the terms of that offering and the offered securities. Any prospectus supplement may also add, update or change information contained in this prospectus. Any statement that we make in this prospectus will be modified or superseded by any inconsistent statement made by us in a prospectus supplement. The registration statement we filed with the SEC includes exhibits that provide more detail of the matters discussed in this prospectus. You should read this prospectus and the related exhibits filed with the SEC and any prospectus supplement, together with additional information described under the heading “Where You Can Find More Information,” before making your investment decision.

RISK FACTORS

Investing in our securities involves a high degree of risk. The prospectus supplement relating to a particular offering will contain a discussion of risks applicable to an investment in the securities offered. Prior to making a decision about investing in our securities, you should carefully consider the specific factors discussed under the heading “Risk Factors” in the applicable prospectus supplement together with all of the other information contained in the prospectus supplement or appearing or incorporated by reference in this prospectus.

OUR COMPANY

We develop, manufacture and market a family of tissue care products that cure infections and, through a separate mechanism of action, enhance healing while reducing the need for antibiotics. Infection is a serious potential complication in both chronic and acute wounds, and controlling infection is a critical step in wound healing. Our platform technology, called Microcyn®, is a proprietary solution of electrically charged oxychlorine small molecules designed to treat a wide range of organisms that cause disease (pathogens). These include viruses, fungi, spores and antibiotic-resistant strains of bacteria, such as methicillin-resistant *Staphylococcus aureus*, or MRSA, and vancomycin-resistant *Enterococcus*, or VRE, in wounds, as well as *Clostridium difficile*, or C. diff, a highly contagious bacteria spread by human contact.

We do not have the necessary regulatory approvals to market Microcyn in the United States as a drug. In the United States our product does, however, have six clearances as a 510(k) medical device for the following summary indications:

- 1) moistening and lubricating absorbent wound dressings for traumatic wounds requiring a prescription;
- 2) moistening and debriding acute and chronic dermal lesions requiring a prescription;
- 3) moistening absorbent wound dressings and cleaning minor cuts as an over-the-counter product;
- 4) management of exuding wounds such as leg ulcers, pressure ulcers and diabetic ulcers, and for the management of mechanical or surgical debridement of wounds in a gel form and required as a prescription;
- 5) debridement of wounds, such as stage I-IV pressure ulcers, diabetic foot ulcers, post surgical wounds, first and second degree burns, grafted and donor sites as a preservative, which can kill listed bacteria such as MRSA & VRE and required as a prescription; and

- 6) as a hydrogel, for management of wounds including itch and pain relief associated with dermal irritation, sores, injuries and ulcers of dermal tissue as a prescription. As an over-the-counter product, the hydrogel is intended to relieve itch and pain from minor skin irritations, lacerations, abrasions and minor burns. It is also indicated for management of irritation and pain from minor sunburn.

We do not have the necessary regulatory clearance or approval to market Microcyn in the U.S. as a medical device for an antimicrobial or wound healing indication. In the future we expect to apply to the FDA for clearance as an antimicrobial in a liquid and a hydrogel form and as conducive to wound healing via a 510(k) medical device clearance.

Outside the United States, our product has a CE Mark device approval in Europe for debriding, irrigating and moistening acute and chronic wounds in comprehensive wound treatment by reducing microbial load and creating a moist environment. In Mexico, we are approved as a drug for antiseptic treatment of wounds and infected areas. In India, our technology has a drug license for cleaning and debriding in wound management while in China there is a medical device approval by the State Food and Drug Administration for reducing the propagation of microbes in wounds and creating a moist environment for wound healing.

While in the U.S. we do not have the necessary regulatory clearance for an antimicrobial or wound healing indication, clinical and laboratory testing we conducted in connection with our submissions to the FDA, as well as physician clinical studies and scientific papers, suggest that our Microcyn Technology may help reduce a wide range of pathogens from acute and chronic wounds while curing or improving infection and concurrently enhancing wound healing through modes of action unrelated to the treatment of infection. These physician clinical studies suggest that our Microcyn is safe, easy to use and complementary to many existing treatment methods in wound care. Physician clinical studies and usage in the United States suggest that our 510(k) cleared products may shorten hospital stays, lower aggregate patient care costs and, in certain cases, reduce the need for systemic antibiotics. We are also pursuing the use of our Microcyn platform technology in other markets outside of wound and skin care, including the respiratory, ophthalmology, dental, dermatology, animal healthcare and industrial markets.

We incorporated under the laws of the State of California in April 1999 as Micromed Laboratories, Inc. In August 2001, we changed our name to Oculus Innovative Sciences, Inc. In December 2006, we reincorporated under the laws of the State of Delaware. Our principal executive offices are located at 1129 N. McDowell Blvd., Petaluma, California, 94954, and our telephone number is (707) 782-0792. We have two principal subsidiaries: Oculus Technologies of Mexico, S.A. de C.V., organized in Mexico, and Oculus Innovative Sciences Netherlands, B.V., organized in the Netherlands. On January 20, 2009, we dissolved our subsidiary, Oculus Innovative Sciences Japan, KK., which was organized under Japanese law. Our fiscal year end is March 31. Our website is www.oculusis.com. Information contained on our website does not constitute part of this prospectus.

RISK FACTORS

Risks Related to Our Business

We have a history of losses, we expect to continue to incur losses and we may never achieve profitability.

We incurred net losses of \$8,232,000 and \$17,656,000 for the years ended March 31, 2010 and 2009, respectively. At March 31, 2010, our accumulated deficit amounted to \$117,037,000. During the year ended March 31, 2010, net cash used in operating activities amounted to \$6,639,000. At March 31, 2010, our working capital amounted to \$6,315,000. We expect to continue incurring losses for the foreseeable future and may raise additional capital to pursue product development initiatives, penetrate markets for the sale of our products and continue as a going concern. We believe that we have access to capital resources through possible public or private equity offerings, debt financings, corporate collaborations or other means. If the economic climate in the U.S. does not improve or continues to deteriorate, our ability to raise additional capital could be negatively impacted. If we are unable to secure additional capital, we may be required to curtail our research and development initiatives and take additional measures to reduce costs in order to conserve our cash in amounts sufficient to sustain operations and meet our obligations. These measures could cause significant delays in our efforts to commercialize our products in the U.S., which are critical to the realization of our business plan and to future operations.

Declining general economic or business conditions may have a negative impact on our business.

Concerns over inflation, energy costs, geopolitical issues, the availability and cost of credit, the U.S. mortgage market and a declining real estate market in the U.S. have contributed to increased volatility and diminished expectations for the global economy and expectations of slower global economic growth going forward. These factors, combined with volatile oil prices, declining business and consumer confidence and increased unemployment, have precipitated a global economic slowdown. If the economic climate in the U.S. does not improve or continues to deteriorate, our business, including our patient population, our suppliers and our third-party payors, could be negatively affected, resulting in a negative impact on our business.

Our inability to raise additional capital on acceptable terms in the future may cause us to curtail certain operational activities, including regulatory trials, sales and marketing, and international operations, in order to reduce costs and sustain the business, and would have a material adverse effect on our business and financial condition.

We expect capital outlays and operating expenditures to increase over the next several years as we work to conduct regulatory trials, commercialize our products and expand our infrastructure. We may need to raise additional capital to, among other things:

- fund our clinical trials and preclinical studies;
- sustain commercialization of our current products or new products;
- expand our manufacturing capabilities;
- increase our sales and marketing efforts to drive market adoption and address competitive developments;
- acquire or license technologies; and
- finance capital expenditures and our general and administrative expenses.

Our present and future funding requirements will depend on many factors, including but not limited to:

- the progress and timing of our clinical trials;
- the level of research and development investment required to maintain and improve our technology position;
- the costs of filing, prosecuting, defending and enforcing patent claims and other intellectual property rights;
- our efforts to acquire or license complementary technologies or acquire complementary businesses;
- changes in product development plans needed to address any difficulties in commercialization;
- competing technological and market developments; and
- changes in regulatory policies or laws that affect our operations.

If we raise additional funds by issuing equity securities, dilution to our stockholders could result. Any equity securities issued may also provide for rights, preferences or privileges senior to those of holders of our common stock. If we raise additional funds by issuing debt securities, these debt securities would have rights, preferences and privileges senior to those of holders of our common stock, and the terms of the debt securities issued could impose significant restrictions on our operations. If we raise additional funds through collaborations or licensing arrangements, we might be required to relinquish significant rights to our technologies or products, or grant licenses on terms that are not favorable to us. A failure to obtain adequate funds may cause us to curtail certain operational activities, including regulatory trials, sales and marketing, and international operations, in order to reduce costs and sustain the business, and would have a material adverse effect on our business and financial condition.

We do not have the necessary regulatory approvals to market Microcyn as a drug in the United States.

We have obtained six 510(k) clearances in the United States that permit us to sell Microcyn-based products as medical devices. Before we are permitted to sell Microcyn as a drug in the United States, we must, among other things, successfully complete additional preclinical studies and well-controlled clinical trials, submit a new drug application to the FDA and obtain FDA approval.

The FDA approval process is expensive and uncertain, requires detailed and comprehensive scientific and other data and generally takes several years. Despite the time and expense exerted, approval is never guaranteed. Even if we obtain FDA approval to sell Microcyn as a drug, we may not be able to successfully commercialize Microcyn as a drug in the United States and may never recover the substantial costs we have invested in the development of our Microcyn-based products.

Delays or adverse results in clinical trials could result in increased costs to us and could delay our ability to generate revenue.

Clinical trials can be long and expensive, and the outcome of clinical trials is uncertain and subject to delays. It may take several years to complete clinical trials, if at all, and a product candidate may fail at any stage of the clinical trial process. The length of time required varies substantially according to the type, complexity, novelty and intended use of the product candidate. Interim results of a preclinical study or clinical trial do not necessarily predict final results, and acceptable results in preclinical studies or early clinical trials may not be repeatable in later subsequent clinical trials. The commencement or completion of any of our clinical trials may be delayed or halted for a variety of reasons, including the following:

- insufficient funds to continue our clinical trials;
- changes in the FDA requirements for approval, including requirements for testing efficacy or safety;
- lack of FDA or other regulatory authority approvals of a clinical trial protocol;
- patients not enrolling in clinical trials at the rate we expect;
- delays in reaching agreement on acceptable clinical trial agreement terms with prospective sites;
- delays in obtaining institutional review board approval to conduct a study at a prospective site;
- third party clinical investigators not performing our clinical trials on our anticipated schedule or consistent with the clinical trial protocol and good clinical practices, or the third party organizations not performing data collection and analysis in a timely or accurate manner; and
- changes in governmental regulations or administrative actions.

We do not know whether future clinical trials will demonstrate safety and efficacy sufficiently to result in additional FDA approvals. While a number of physicians have conducted clinical studies assessing the safety and efficacy of Microcyn for various indications, the data from these studies are not sufficient to support approval of Microcyn as a drug in the United States.

The FDA and other regulatory bodies may also change standards and acceptable trial procedures required for a showing of safety and efficacy. For example, until recently, the FDA accepted non-inferiority clinical trials, or clinical trials that show that a new treatment is equivalent to standard treatment, as the standard for anti-infective drug approvals. On October 12, 2007, the FDA released draft guidance entitled Antibacterial Drug Products: Use of Non-inferiority Studies to Support Approval. This new agency guidance requires either placebo-controlled or superiority trial designs, which are designed to test whether, and to what extent, a new treatment is better than the placebo. The uncertainty of clinical trial protocols and changes within FDA guidelines could have a negative impact on the timelines and milestones for our clinical program.

If we fail to obtain, or experience significant delays in obtaining additional regulatory clearances or approvals to market our current or future products, we may be unable to commercialize these products.

The developing, testing, manufacturing, marketing and selling of medical technology products are subject to extensive regulation by numerous governmental authorities in the United States and other countries. The process of obtaining regulatory clearance and approval of medical technology products is costly and time consuming. Even though the underlying product formulation may be the same or similar, our products are subject to different regulations and approval processes depending upon their intended use.

To obtain regulatory approval of our products as drugs in the United States, we must first show that our products are safe and effective for target indications through preclinical studies (laboratory and animal testing) and clinical trials (human testing). The FDA generally clears marketing of a medical device through the 510(k) pre-market clearance process if it is demonstrated that the new product has the same intended use and the same or similar technological characteristics as another legally marketed Class II device, such as a device already cleared by the FDA through the 510(k) premarket notification process, and otherwise meets the FDA's requirements. Product modifications, including labeling the product for a new intended use, may require the submission of a new 510(k) clearance and FDA approval before the modified product can be marketed.

The outcomes of clinical trials are inherently uncertain. In addition, we do not know whether the necessary approvals or clearances will be granted or delayed for future products. The FDA could request additional information, changes to formulation or clinical testing that could adversely affect the time to market and sale of products as drugs. If we do not obtain the requisite regulatory clearances and approvals, we will be unable to commercialize our products as drugs or devices and may never recover any of the substantial costs we have invested in the development of Microcyn.

Distribution of our products outside the United States is subject to extensive government regulation. These regulations, including the requirements for approvals or clearance to market, the time required for regulatory review and the sanctions imposed for violations, vary from country to country. We do not know whether we will obtain regulatory approvals in such countries or that we will not be required to incur significant costs in obtaining or maintaining these regulatory approvals. In addition, the export by us of certain of our products that have not yet been cleared for domestic commercial distribution may be subject to FDA export restrictions. Failure to obtain necessary regulatory approvals, the restriction, suspension or revocation of existing approvals or any other failure to comply with regulatory requirements would have a material adverse effect on our future business, financial condition, and results of operations.

If our products do not gain market acceptance, our business will suffer because we might not be able to fund future operations.

A number of factors may affect the market acceptance of our products or any other products we develop or acquire, including, among others:

- the price of our products relative to other treatments for the same or similar treatments;
- the perception by patients, physicians and other members of the health care community of the effectiveness and safety of our products for their indicated applications and treatments;
- our ability to fund our sales and marketing efforts; and
- the effectiveness of our sales and marketing efforts.

If our products do not gain market acceptance, we may not be able to fund future operations, including developing, testing and obtaining regulatory approval for new product candidates and expanding our sales and marketing efforts for our approved products, which would cause our business to suffer.

If our competitors develop products similar to Microcyn, we may need to modify or alter our business strategy, which may delay the achievement of our goals.

Competitors may develop products with similar characteristics to Microcyn. Such similar products marketed by larger competitors can hinder our efforts to penetrate the market. As a result, we may be forced to modify or alter our business and regulatory strategy and sales and marketing plans, as a response to changes in the market, competition and technology limitations, among others. Such modifications may pose additional delays in achieving our goals.

We intend to license or collaborate with third parties in various potential markets, and events involving these strategic partners or any future collaboration could delay or prevent us from developing or commercializing products.

Our business strategy and our short- and long-term operating results will depend in part on our ability to execute on existing strategic collaborations and to license or partner with new strategic partners. We believe collaborations allow us to leverage our resources and technologies and to access markets that are compatible with our own core areas of expertise while avoiding the cost of establishing or maintaining a direct sales force in each market. We may incur significant costs in the use of third parties to identify and assist in establishing relationships with potential collaborators.

To penetrate our target markets, we may need to enter into additional collaborative agreements to assist in the development and commercialization of products. For example, depending upon our analysis of the time and expense involved in obtaining FDA approval to sell a product to treat open wounds, we may choose to license our technology to a third party as opposed to pursuing commercialization ourselves. Establishing strategic collaborations is difficult and time-consuming. Potential collaborators may reject collaborations based upon their assessment of our financial, regulatory or intellectual property position and our internal capabilities. Our discussions with potential collaborators may not lead to the establishment of new collaborations on favorable terms and may have the potential to provide collaborators with access to our key intellectual property filings and next generation formations. We have limited control over the amount and timing of resources that our current collaborators or any future collaborators devote to our collaborations or potential products. These collaborators may breach or terminate their agreements with us or otherwise fail to conduct their collaborative activities successfully and in a timely manner. Further, our collaborators may not develop or commercialize products that arise out of our collaborative arrangements or devote sufficient resources to the development, manufacture, marketing or sale of these products. By entering into collaboration, we may preclude opportunities to collaborate with other third parties who do not wish to associate with our existing third party strategic partners. Moreover, in the event of termination of a collaboration agreement, termination negotiations may result in less favorable terms.

If we are unable to expand our direct domestic sales force, we may not be able to successfully sell our products in the United States.

We have very limited commercialization capability and make Microcyn-based products available primarily through our website and several regional distributors. We plan for a more aggressive commercialization and product launch in the event we obtain drug approval from the FDA or obtain other clearance or approval with wound healing claims. Developing a sales force is expensive and time consuming, and the lack of qualified sales personnel could delay or limit the success of our product launch. Our domestic sales force, if established, will be competing with the sales operations of our competitors, which are better funded and more experienced. We may not be able to develop domestic sales capacity on a timely basis or at all.

Our dependence on a commission-based sales force and distributors for sales could limit or prevent us from selling our products and from realizing long-term revenue growth.

We currently depend on a commission-based sales force and distributors to sell Microcyn in the United States, Europe and other countries and intend to continue to sell our products primarily through a commission-based sales force and distributors in Europe and the United States for the foreseeable future. If we are unable to expand our direct sales force, we will continue to rely on a commission-based sales force and distributors to sell Microcyn. Our existing commission-based sales force and distribution agreements are generally short-term in duration and we may need to pursue alternate partners if the other parties to these agreements terminate or elect not to renew their agreements. If we are unable to retain our current commission-based sales force and distributors for any reason, we must replace them with alternate salespeople and distributors experienced in supplying the wound care market, which could be time-consuming and divert management's attention from other operational matters. In addition, we will need to attract additional distributors to expand the geographic areas in which we sell Microcyn. Distributors may not commit the necessary resources to market and sell our products at the level of our expectations, which could harm our ability to generate revenues. In addition, some of our distributors may also sell products that compete with ours. In some countries, regulatory licenses must be held by residents of the country. For example, the regulatory approval for one product in India is owned and held by our Indian distributor. If the licenses are not in our name or under our control, we might not have the power to ensure their ongoing effectiveness and use by us. If current or future distributors do not perform adequately, or we are unable to locate distributors in particular geographic areas, we may not realize long-term revenue growth.

If we fail to comply with ongoing regulatory requirements, or if we experience unanticipated problems with our products, these products could be subject to restrictions or withdrawal from the market.

Regulatory approvals or clearances that we currently have and that we may receive in the future are subject to limitations on the indicated uses for which the products may be marketed, and any future approvals could contain requirements for potentially costly post-marketing follow-up studies. If the FDA determines that our promotional materials or activities constitute promotion of an unapproved use or we otherwise fail to comply with FDA regulations, we may be subject to regulatory enforcement actions, including a warning letter, injunction, seizure, civil fines or criminal penalty. In addition, the manufacturing, labeling, packaging, adverse event reporting, storing, advertising, promoting, distributing and record-keeping for approved products are subject to extensive regulation. Our manufacturing facilities, processes and specifications are subject to periodic inspection by the FDA, European and other regulatory authorities and from time to time, we may receive notices of deficiencies from these agencies as a result of such inspections. Our failure to continue to meet regulatory standards or to remedy any deficiencies could result in restrictions being imposed on our products or manufacturing processes, fines, suspension or loss of regulatory approvals or clearances, product recalls, termination of distribution, product seizures or the need to invest substantial resources to comply with various existing and new requirements. In the more egregious cases, criminal sanctions, civil penalties, disgorgement of profits or closure of our manufacturing facilities are possible. The subsequent discovery of previously unknown problems with Microcyn, including adverse events of unanticipated severity or frequency, may result in restrictions on the marketing of our products, and could include voluntary or mandatory recall or withdrawal of products from the market.

New government regulations may be enacted and changes in FDA policies and regulations and, their interpretation and enforcement, could prevent or delay regulatory approval of our products. We cannot predict the likelihood, nature or extent of adverse government regulation that may arise from future legislation or administrative action, either in the United States or abroad. Therefore, we do not know whether we will be able to continue to comply with any regulations or that the costs of such compliance will not have a material adverse effect on our future business, financial condition, and results of operations. If we are not able to maintain regulatory compliance, we will not be permitted to market our products and our business would suffer.

We may experience difficulties in manufacturing Microcyn, which could prevent us from commercializing one or more of our products.

The machines used to manufacture our Microcyn-based products are complex, use complicated software and must be monitored by highly trained engineers. Slight deviations anywhere in our manufacturing process, including quality control, labeling and packaging, could lead to a failure to meet the specifications required by the FDA, the Environmental Protection Agency, European notified bodies, Mexican regulatory agencies and other foreign regulatory bodies, which may result in lot failures or product recalls. If we are unable to obtain quality internal and external components, mechanical and electrical parts, if our software contains defects or is corrupted, or if we are unable to attract and retain qualified technicians to manufacture our products, our manufacturing output of Microcyn, or any other product candidate based on our platform that we may develop, could fail to meet required standards, our regulatory approvals could be delayed, denied or revoked, and commercialization of one or more of our Microcyn-based products may be delayed or foregone. Manufacturing processes that are used to produce the smaller quantities of Microcyn needed for clinical tests and current commercial sales may not be successfully scaled up to allow production of significant commercial quantities. Any failure to manufacture our products to required standards on a commercial scale could result in reduced revenues, delays in generating revenue and increased costs.

Our competitive position depends on our ability to protect our intellectual property and our proprietary technologies.

Our ability to compete and to achieve and maintain profitability depends on our ability to protect our intellectual property and proprietary technologies. We currently rely on a combination of patents, patent applications, trademarks, trade secret laws, confidentiality agreements, license agreements and invention assignment agreements to protect our intellectual property rights. We also rely upon unpatented know-how and continuing technological innovation to develop and maintain our competitive position. These measures may not be adequate to safeguard our Microcyn Technology. In addition, we granted a security interest in our assets, excluding our intellectual property under certain circumstances, under a loan and security agreement. If we do not protect our rights adequately, third parties could use our technology, and our ability to compete in the market would be reduced.

Although we have filed U.S. and foreign patent applications related to our Microcyn-based products, the manufacturing technology for making the products, and their uses, to date only two U.S. patents have been issued from these applications.

Our pending patent applications and any patent applications we may file in the future may not result in issued patents, and we do not know whether any of our in-licensed patents or any additional patents that might ultimately be issued by the U.S. Patent and Trademark Office or foreign regulatory body will protect our Microcyn technology. Any claims that are issued may not be sufficiently broad to prevent third parties from producing competing substitutes and may be infringed, designed around, or invalidated by third parties. Even issued patents may later be found to be invalid, or may be modified or revoked in proceedings instituted by third parties before various patent offices or in courts. For example, our European patent that was issued on May 30, 2007, was revoked by the Opposition Division of the European Patent Office in December, 2009 following opposition proceedings instituted by a competitor.

The degree of future protection for our proprietary rights is more uncertain in part because legal means afford only limited protection and may not adequately protect our rights, and we will not be able to ensure that:

- we were the first to invent the inventions described in patent applications;
- we were the first to file patent applications for inventions;

- others will not independently develop similar or alternative technologies or duplicate our products without infringing our intellectual property rights;
- any patents licensed or issued to us will provide us with any competitive advantages;
- we will develop proprietary technologies that are patentable; or
- the patents of others will not have an adverse effect on our ability to do business.

The policies we use to protect our trade secrets may not be effective in preventing misappropriation of our trade secrets by others. In addition, confidentiality and invention assignment agreements executed by our employees, consultants and advisors may not be enforceable or may not provide meaningful protection for our trade secrets or other proprietary information in the event of unauthorized use or disclosures. We cannot be certain that the steps we have taken will prevent the misappropriation and use of our intellectual property in the United States, or in foreign countries where the laws may not protect our proprietary rights as fully as in the United States.

We may face intellectual property infringement claims that could be time-consuming, costly to defend and could result in our loss of significant rights and, in the case of patent infringement claims, the assessment of treble damages.

On occasion, we may receive notices of claims of infringement, misappropriation or misuse of other parties' proprietary rights. We may have disputes regarding intellectual property rights with the parties that have licensed those rights to us. We may also initiate claims to defend our intellectual property. Intellectual property litigation, regardless of its outcome, is expensive and time-consuming, could divert management's attention from our business and have a material negative effect on our business, operating results or financial condition. In addition, the outcome of such litigation may be unpredictable. If there is a successful claim of infringement against us, we may be required to pay substantial damages (including treble damages if we were to be found to have willfully infringed a third party's patent) to the party claiming infringement, develop non-infringing technology, stop selling our products or using technology that contains the allegedly infringing intellectual property or enter into royalty or license agreements that may not be available on acceptable or commercially practical terms, if at all. Our failure to develop non-infringing technologies or license the proprietary rights on a timely basis could harm our business. In addition, modifying our products to exclude infringing technologies could require us to seek re-approval or clearance from various regulatory bodies for our products, which would be costly and time consuming. Also, we may be unaware of pending patent applications that relate to our technology. Parties making infringement claims on future issued patents may be able to obtain an injunction that would prevent us from selling our products or using technology that contains the allegedly infringing intellectual property, which could harm our business.

Our ability to generate revenue will be diminished if we are unable to obtain acceptable prices or an adequate level of reimbursement from third-party payors of healthcare costs.

The continuing efforts of governmental and other third-party payors, including managed care organizations such as health maintenance organizations, or HMOs, to contain or reduce costs of health care may affect our future revenue and profitability, and the future revenue and profitability of our potential customers, suppliers and collaborative or license partners and the availability of capital. For example, in certain foreign markets, pricing or profitability of prescription pharmaceuticals is subject to government control. In the United States, governmental and private payors have limited the growth of health care costs through price regulation or controls, competitive pricing programs and drug rebate programs. Our ability to commercialize our products successfully will depend in part on the extent to which appropriate coverage and reimbursement levels for the cost of our Microcyn products and related treatment are obtained from governmental authorities, private health insurers and other organizations, such as HMOs.

There is significant uncertainty concerning third-party coverage and reimbursement of newly approved medical products and drugs. Third-party payors are increasingly challenging the prices charged for medical products and services. Also, the trend toward managed healthcare in the United States and the concurrent growth of organizations such as HMOs, as well as legislative proposals to reform healthcare or reduce government insurance programs, may result in lower prices for or rejection of our products. The cost containment measures that health care payors and providers are instituting and the effect of any health care reform could materially and adversely affect our ability to generate revenues.

In addition, given ongoing federal and state government initiatives directed at lowering the total cost of health care, the United States Congress and state legislatures will likely continue to focus on health care reform, the cost of prescription pharmaceuticals and the reform of the Medicare and Medicaid payment systems. While we cannot predict whether any proposed cost-containment measures will be adopted, the announcement or adoption of these proposals could reduce the price that we receive for our Microcyn products in the future.

We could be required to indemnify third parties for alleged infringement, which could cause us to incur significant costs.

Some of our distribution agreements contain commitments to indemnify our distributors against liability arising from infringement of third party intellectual property such as patents. We may be required to indemnify our customers for claims made against them or license fees they are required to pay. If we are forced to indemnify for claims or to pay license fees, our business and financial condition could be substantially harmed.

A significant part of our business is conducted outside of the United States, exposing us to additional risks that may not exist in the United States, which in turn could cause our business and operating results to suffer.

We have international operations in Mexico and Europe. During the year ended March 31, 2010 approximately 69% of our total revenues were generated from sales outside of the United States and during the year ended March 31, 2009, approximately 76% of our total revenues were generated from sales outside of the United States. Our business is highly regulated for the use, marketing and manufacturing of our Microcyn-based products both domestically and internationally. Our international operations are subject to risks, including:

- local political or economic instability;
- changes in governmental regulation;
- changes in import/export duties;
- trade restrictions;
- lack of experience in foreign markets;
- difficulties and costs of staffing and managing operations in certain foreign countries;
- work stoppages or other changes in labor conditions;
- difficulties in collecting accounts receivables on a timely basis or at all; and
- adverse tax consequences or overlapping tax structures.

We plan to continue to market and sell our products internationally to respond to customer requirements and market opportunities. We currently have international manufacturing facilities in Mexico and the United States. Establishing operations in any foreign country or region presents risks such as those described above as well as risks specific to the particular country or region. In addition, until a payment history is established over time with customers in a new geographical area or region, the likelihood of collecting receivables generated by such operations could be lower than our expectations. As a result, there is a greater risk that reserves set with respect to the collection of such receivables may be inadequate. If our operations in any foreign country are unsuccessful, we could incur significant losses and we may not achieve profitability.

In addition, changes in policies or laws of the United States or foreign governments resulting in, among other things, changes in regulations and the approval process, higher taxation, currency conversion limitations, restrictions on fund transfers or the expropriation of private enterprises, could reduce the anticipated benefits of our international expansion. If we fail to realize the anticipated revenue growth of our future international operations, our business and operating results could suffer.

Our sales in international markets subject us to foreign currency exchange and other risks and costs which could harm our business.

A substantial portion of our revenues are derived from outside the United States; primarily from Mexico. We anticipate that revenues from international customers will continue to represent a substantial portion of our revenues for the foreseeable future. Because we generate revenues in foreign currencies, we are subject to the effects of exchange rate fluctuations. The functional currency of our Mexican subsidiary is the Mexican Peso. For the preparation of our consolidated financial statements, the financial results of our foreign subsidiaries are translated into U.S. dollars on average exchange rates during the applicable period. If the U.S. dollar appreciates against the Mexican Peso or the Euro, as applicable, the revenues we recognize from sales by our subsidiaries will be adversely impacted. Foreign exchange gains or losses as a result of exchange rate fluctuations in any given period could harm our operating results and negatively impact our revenues. Additionally, if the effective price of our products were to increase as a result of fluctuations in foreign currency exchange rates, demand for our products could decline and adversely affect our results of operations and financial condition.

We rely on a number of key customers who may not consistently purchase our products in the future and if we lose any one of these customers, our revenues may decline.

Although we have a significant number of customers in each of the geographic markets that we operate in, we rely on certain key customers for a significant portion of our sales. During the year ended March 31, 2010 three customers represented 23% of sales, and during the year ended March 31, 2009, three customers represented 21% of sales. In the future, a small number of customers may continue to represent a significant portion of our total revenues in any given period. These customers may not consistently purchase our products at a particular rate over any subsequent period. A loss of any of these customers could adversely affect our revenues.

Negative economic conditions increase the risk that we could suffer unrecoverable losses on our customers' accounts receivable which would adversely affect our financial results.

We grant credit to our business customers, which are primarily located in Mexico, Europe and the United States. Collateral is generally not required for trade receivables. We maintain allowances for potential credit losses. Three customers represented a total of 42% of our net accounts receivable balance at March 31, 2010, and two customers represented 29% of our net accounts receivable balance at March 31, 2009. While we believe we have a varied customer base and have experienced strong collections in the past, if current economic conditions disproportionately impact any one of our key customers, including reductions in their purchasing commitments to us or their ability to pay their obligations, it could have a material adverse effect on our revenues and liquidity. We have not purchased insurance on our accounts receivable balances.

The loss of key members of our senior management team, one of our directors or our inability to retain highly skilled scientists, technicians and salespeople could adversely affect our business.

Our success depends largely on the skills, experience and performance of key members of our executive management team, including Hojabr Alimi, our Chief Executive Officer and Robert Northey, our Director of Research and Development. The efforts of these people will be critical to us as we continue to develop our products and attempt to commercialize products in the wound and skin care markets. If we were to lose one or more of these individuals, we may experience difficulties in competing effectively, developing our technologies and implementing our business strategies.

Our research and development programs depend on our ability to attract and retain highly skilled scientists and technicians. We may not be able to attract or retain qualified scientists and technicians in the future due to the intense competition for qualified personnel among medical technology businesses, particularly in the San Francisco Bay Area. We also face competition from universities and public and private research institutions in recruiting and retaining highly qualified personnel. In addition, our success depends on our ability to attract and retain salespeople with extensive experience in wound care and close relationships with the medical community, including physicians and other medical staff. We may have difficulties locating, recruiting or retaining qualified salespeople, which could cause a delay or decline in the rate of adoption of our products. If we are not able to attract and retain the necessary personnel to accomplish our business objectives, we may experience constraints that will adversely affect our ability to support our research, development and sales programs.

We maintain key-person life insurance only on Mr. Alimi. We may discontinue this insurance in the future, it may not continue to be available on commercially reasonable terms or, if continued, it may prove inadequate to compensate us for the loss of Mr. Alimi's services.

The wound care industry is highly competitive and subject to rapid technological change. If our competitors are better able to develop and market products that are less expensive or more effective than any products that we may develop, our commercial opportunity will be reduced or eliminated.

Our success depends, in part, upon our ability to stay at the forefront of technological change and maintain a competitive position. We compete with large healthcare, pharmaceutical and biotechnology companies, along with smaller or early-stage companies that have collaborative arrangements with larger pharmaceutical companies, academic institutions, government agencies and other public and private research organizations. Many of our competitors have significantly greater financial resources and expertise in research and development, manufacturing, pre-clinical testing, conducting clinical trials, obtaining regulatory approvals and marketing approved products than we do. Our competitors may:

- develop and patent processes or products earlier than we will;
- develop and commercialize products that are less expensive or more efficient than any products that we may develop;
- obtain regulatory approvals for competing products more rapidly than we will; and
- improve upon existing technological approaches or develop new or different approaches that render our technology or products obsolete or non-competitive.

As a result, we may not be able to successfully commercialize any future products.

The success of our research and development efforts may depend on our ability to find suitable collaborators to fully exploit our capabilities. If we are unable to establish collaborations or if these future collaborations are unsuccessful, our research and development efforts may be unsuccessful, which could adversely affect our results of operations and financial condition.

An important element of our business strategy will be to enter into collaborative or license arrangements under which we license our Microcyn Technology to other parties for development and commercialization. We expect that while we may initially seek to conduct initial clinical trials on our drug candidates, we may need to seek collaborators for our drug candidates and for a number of our potential products because of the expense, effort and expertise required to conduct additional clinical trials and further develop those potential product candidates. Because collaboration arrangements are complex to negotiate, we may not be successful in our attempts to establish these arrangements. If we need third party assistance in identifying and negotiating one or more acceptable arrangements, it might be costly. Also, we may not have products that are desirable to other parties, or we may be unwilling to license a potential product because the party interested in it is a competitor. The terms of any arrangements that we establish may not be favorable to us. Alternatively, potential collaborators may decide against entering into an agreement with us because of our financial, regulatory or intellectual property position or for scientific, commercial or other reasons. If we are not able to establish collaborative agreements, we may not be able to develop and commercialize new products, which would adversely affect our business and our revenues.

In order for any of these collaboration or license arrangements to be successful, we must first identify potential collaborators or licensees whose capabilities complement and integrate well with ours. We may rely on these arrangements for not only financial resources, but also for expertise or economies of scale that we expect to need in the future relating to clinical trials, manufacturing, sales and marketing, and for licenses to technology rights. However, it is likely that we will not be able to control the amount and timing or resources that our collaborators or licensees devote to our programs or potential products. If our collaborators or licensees prove difficult to work with, are less skilled than we originally expected, or do not devote adequate resources to the program, the relationship will not be successful. If a business combination involving a collaborator or licensee and a third party were to occur, the effect could be to diminish, terminate or cause delays in development of a potential product.

If we are unable to comply with broad and complex federal and state fraud and abuse laws, including state and federal anti-kickback laws, we could face substantial penalties and our products could be excluded from government healthcare programs.

We are subject to various federal and state laws pertaining to healthcare fraud and abuse, which include, among other things, “anti-kickback” laws that prohibit payments to induce the referral of products and services, and “false claims” statutes that prohibit the fraudulent billing of federal healthcare programs. Our operations are subject to the Federal Anti-Kickback Statute, a criminal statute that, subject to certain statutory exceptions, prohibits any person from knowingly and willfully offering, paying, soliciting or receiving remuneration, directly or indirectly, to induce or reward a person either (i) for referring an individual for the furnishing of items or services for which payment may be made in whole or in part by a government healthcare program such as Medicare or Medicaid, or (ii) for purchasing, leasing, ordering or arranging for or recommending the purchasing, leasing or ordering of an item or service for which payment may be made under a government healthcare program. Because of the breadth of the federal anti-kickback statute, the Office of Inspector General of the U.S. Department of Health and Human Services, was authorized to adopt regulations setting forth additional exceptions to the prohibitions of the statute commonly known as “safe harbors.” If all of the elements of an applicable safe harbor are fully satisfied, an arrangement will not be subject to prosecution under the federal anti-kickback statute.

In addition, if there is a change in law, regulation or administrative or judicial interpretations of these laws, we may have to change our business practices or our existing business practices could be challenged as unlawful, which could have a negative effect on our business, financial condition and results of operations.

Healthcare fraud and abuse laws are complex, and even minor, inadvertent irregularities can potentially give rise to claims that a statute or regulation has been violated. The frequency of suits to enforce these laws has increased significantly in recent years and has increased the risk that a healthcare company will have to defend a false claim action, pay fines or be excluded from the Medicare, Medicaid or other federal and state healthcare programs as a result of an investigation arising out of such action. We cannot assure you that we will not become subject to such litigation. Any violations of these laws, or any action against us for violation of these laws, even if we successfully defend against it, could harm our reputation, be costly to defend and divert management's attention from other aspects of our business. Similarly, if the physicians or other providers or entities with which we do business are found to have violated abuse laws, they may be subject to sanctions, which could also have a negative impact on us.

Our efforts to discover and develop potential products may not lead to the discovery, development, commercialization or marketing of actual drug products.

We are currently engaged in a number of different approaches to discover and develop new product applications and product candidates. At the present time, we have one Microcyn-based drug candidate in clinical trials. We also have a non-Microcyn-based compound in the research and development phase. We believe this compound has potential applications in oncology. Discovery and development of potential drug candidates are expensive and time-consuming, and we do not know if our efforts will lead to discovery of any drug candidates that can be successfully developed and marketed. If our efforts do not lead to the discovery of a suitable drug candidate, we may be unable to grow our clinical pipeline or we may be unable to enter into agreements with collaborators who are willing to develop our drug candidates.

We must maintain expensive finance and accounting systems, procedures and controls to accommodate growth of our business and organization and to satisfy public company reporting requirements, which will increase our costs and require additional management resources.

As a public reporting company, we are required to comply with the Sarbanes-Oxley Act of 2002 and the related rules and regulations of the Securities and Exchange Commission. Section 404 of the Sarbanes-Oxley Act of 2002, or Section 404, requires our management to perform an annual assessment of our internal control over financial reporting. Compliance with Section 404 and other requirements of doing business as a public company have increased and will continue to increase our costs and require additional management resources to implement an ongoing program to perform system and process evaluation and testing of our internal controls. In the past, we entered into transactions that resulted in accounting consequences that we did not identify at the time of the transactions. As a result, our prior independent auditors informed us that we did not have the appropriate financial management and reporting structure in place to meet the demands of a public company and that our accounting and financial personnel lacked the appropriate level of accounting knowledge, experience and training. In calendar year 2006, our current independent auditors recommended certain changes which, in addition to other changes in our financial reporting and management structure, have been implemented at additional cost. We have upgraded our accounting systems, procedures and controls and will need to continue to implement additional finance and accounting systems, procedures and controls as we grow our business and organization, enter into complex business transactions and take actions designed to satisfy reporting requirements. Our management has concluded that our internal controls are adequate to meet the required Section 404 assessment. If we are unable to complete the required Section 404 assessment as to adequacy of our internal control over financial reporting in future Form 10-K filings, our ability to obtain additional financing could be impaired. In addition, investors could lose confidence in the reliability of our internal control over financial reporting and in the accuracy of our periodic reports filed under the Securities Exchange Act of 1934. A lack of investor confidence in the reliability and accuracy of our public reporting could cause our stock price to decline.

We may not be able to maintain sufficient product liability insurance to cover claims against us.

Product liability insurance for the healthcare industry is generally expensive to the extent it is available at all. We may not be able to maintain such insurance on acceptable terms or be able to secure increased coverage if the commercialization of our products progresses, nor can we be sure that existing or future claims against us will be covered by our product liability insurance. Moreover, the existing coverage of our insurance policy or any rights of indemnification and contribution that we may have may not be sufficient to offset existing or future claims. A successful claim against us with respect to uninsured liabilities or in excess of insurance coverage and not subject to any indemnification or contribution could have a material adverse effect on our future business, financial condition, and results of operations.

Risks Related to Our Common Stock

Our operating results may fluctuate, which could cause our stock price to decrease.

Fluctuations in our operating results may lead to fluctuations, including declines, in our share price. Our operating results and our share price may fluctuate from period to period due to a variety of factors, including:

- demand by physicians, other medical staff and patients for our Microcyn-based products;
- reimbursement decisions by third-party payors and announcements of those decisions;
- clinical trial results and publication of results in peer-reviewed journals or the presentation at medical conferences;
- the inclusion or exclusion of our Microcyn-based products in large clinical trials conducted by others;
- actual and anticipated fluctuations in our quarterly financial and operating results;
- developments or disputes concerning our intellectual property or other proprietary rights;
- issues in manufacturing our product candidates or products;
- new or less expensive products and services or new technology introduced or offered by our competitors or us;
- the development and commercialization of product enhancements;
- changes in the regulatory environment;
- delays in establishing new strategic relationships;
- costs associated with collaborations and new product candidates;
- introduction of technological innovations or new commercial products by us or our competitors;
- litigation or public concern about the safety of our product candidates or products;
- changes in recommendations of securities analysts or lack of analyst coverage;
- failure to meet analyst expectations regarding our operating results;
- additions or departures of key personnel; and
- general market conditions.

Variations in the timing of our future revenues and expenses could also cause significant fluctuations in our operating results from period to period and may result in unanticipated earning shortfalls or losses. In addition, the NASDAQ Capital Market, in general, and the market for life sciences companies, in particular, have experienced significant price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of those companies.

If an active, liquid trading market for our common stock does not develop, you may not be able to sell your shares quickly or at or above the price you paid for it.

Although our common stock is listed on the NASDAQ Capital Market, an active and liquid trading market for our common stock has not yet and may not ever develop or be sustained. You may not be able to sell your shares quickly or at or above the price you paid for our stock if trading in our stock is not active.

Anti-takeover provisions in our charter and by-laws and under Delaware law may make it more difficult for stockholders to change our management and may also make a takeover difficult.

Our corporate documents and Delaware law contain provisions that limit the ability of stockholders to change our management and may also enable our management to resist a takeover. These provisions include:

- the ability of our board of directors to issue and designate the rights of, without stockholder approval, up to 5,000,000 shares of convertible preferred stock, which rights could be senior to those of common stock;
- limitations on persons authorized to call a special meeting of stockholders; and
- advance notice procedures required for stockholders to make nominations of candidates for election as directors or to bring matters before meetings of stockholders.

These provisions might discourage, delay or prevent a change of control in our management. These provisions could also discourage proxy contests and make it more difficult for you and other stockholders to elect directors and cause us to take other corporate actions. In addition, the existence of these provisions, together with Delaware law, might hinder or delay an attempted takeover other than through negotiations with our board of directors.

Our stockholders may experience substantial dilution in the value of their investment if we issue additional shares of our capital stock or other securities convertible into common stock.

Our charter allows us to issue up to 100,000,000 shares of our common stock and to issue and designate the rights of, without stockholder approval, up to 5,000,000 shares of convertible preferred stock. In the event we issue additional shares of our capital stock, dilution to our stockholders could result. In addition, if we issue and designate a class of convertible preferred stock, these securities may provide for rights, preferences or privileges senior to those of holders of our common stock.

FORWARD-LOOKING STATEMENTS

When used in this prospectus, the words “expects,” “believes,” “anticipates,” “estimates,” “may,” “could,” “intends,” and similar expressions are intended to identify forward-looking statements. These statements are subject to known and unknown risks and uncertainties that could cause actual results to differ materially from those projected or otherwise implied by the forward-looking statements. These forward-looking statements speak only as of the date of this prospectus. Given these risks and uncertainties, you should not place undue reliance on these forward-looking statements. We have discussed many of these risks and uncertainties in greater detail in any prospectus supplement under the heading “Risk Factors.” Additional cautionary statements or discussions of risks and uncertainties that could affect our results or the achievement of the expectations described in forward-looking statements may also be contained in the documents we incorporate by reference into this prospectus.

These forward-looking statements speak only as of the date of this prospectus. We expressly disclaim any obligation or undertaking to release publicly any updates or revisions to any forward-looking statements contained herein to reflect any change in our expectations with regard thereto or any change in events, conditions or circumstances on which any such statement is based. You should, however, review additional disclosures we make in our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, and Current Reports on Form 8-K filed with the SEC.

USE OF PROCEEDS

Unless we state otherwise in the accompanying prospectus supplement, we intend to use the net proceeds from the sale of the securities offered by this prospectus for general corporate purposes. General corporate purposes may include clinical trials, additions to working capital, research and development, financing of capital expenditures, repayment or redemption of existing indebtedness, and future acquisitions and strategic investment opportunities. Pending the application of net proceeds, we expect to invest the net proceeds in interest-bearing securities.

DESCRIPTION OF COMMON STOCK

This section describes the general terms and provisions of the shares of our common stock, par value \$0.0001 per share. This description is only a summary and is qualified in its entirety by reference to the description of our common stock incorporated by reference in this prospectus. Our Restated Certificate of Incorporation and our Amended and Restated Bylaws, as Amended have been filed as exhibits to our periodic reports filed with the SEC, which are incorporated by reference in this prospectus. You should read our Restated Certificate of Incorporation and our Amended and Restated Bylaws, as Amended for additional information before you buy any of our common stock or other securities. See “Where You Can Find More Information.”

We have 100,000,000 shares of authorized common stock. As of December 21, 2010, there were 26,463,726 shares of common stock issued and outstanding. Each holder of common stock is entitled to one vote for each share of common stock held on all matters submitted to a vote of stockholders. We have not provided for cumulative voting for the election of directors in our Restated Certificate of Incorporation. This means that the holders of a majority of the shares voted can elect all of the directors then standing for election. Subject to preferences that may apply to shares of preferred stock outstanding at the time, the holders of outstanding shares of our common stock are entitled to receive dividends out of assets legally available at the times and in the amounts that our board of directors may determine from time to time. Upon our liquidation, dissolution or winding-up, the holders of common stock are entitled to share ratably in all assets remaining after payment of all liabilities and the liquidation preferences of any outstanding preferred stock. Holders of common stock have no preemptive or conversion rights or other subscription rights. There are no redemption or sinking fund provisions applicable to the common stock. All outstanding shares of common stock are fully paid and nonassessable, and the shares of common stock offered, when issued, will be fully paid and nonassessable.

Certain Provisions of Delaware Law and of the Charter and Bylaws

The provisions of Delaware law, our Restated Certificate of Incorporation and our Amended and Restated Bylaws, as Amended described below may have the effect of delaying, deferring or discouraging another party from acquiring control of us.

Delaware Law. We are subject to the provisions of Section 203 of the Delaware General Corporation Law regulating corporate takeovers. In general, those provisions prohibit a Delaware corporation from engaging in any business combination with any interested stockholder for a period of three years following the date that the stockholder became an interested stockholder, unless:

- the transaction is approved by the board before the date the interested stockholder attained that status;
- upon consummation of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced; or
- on or after the date the business combination is approved by the board and authorized at a meeting of stockholders by at least two-thirds of the outstanding voting stock that is not owned by the interested stockholder.

Section 203 defines “business combination” to include the following:

- any merger or consolidation involving the corporation and the interested stockholder;
- any sale, transfer, pledge or other disposition of 10% or more of the assets of the corporation involving the interested stockholder;
- subject to certain exceptions, any transaction that results in the issuance or transfer by the corporation of any stock of the corporation to the interested stockholder;
- any transaction involving the corporation that has the effect of increasing the proportionate share of the stock of any class or series of the corporation beneficially owned by the interested stockholder; or
- the receipt by the interested stockholder of the benefit of any loans, advances, guarantees, pledges or other financial benefits provided by or through the corporation.

In general, Section 203 defines an interested stockholder as any entity or person beneficially owning 15% or more of the outstanding voting stock of the corporation and any entity or person affiliated with or controlling or controlled by any of these entities or persons.

A Delaware corporation may opt out of these provisions either with an express provision in its original certificate of incorporation or in an amendment to its certificate of incorporation or bylaws approved by its stockholders. However, we have not opted out, and do not currently intend to opt out of, these provisions. The statute could prohibit or delay mergers or other takeover or change in control attempts and, accordingly, may discourage attempts to acquire us.

Charter and Bylaws. Our Restated Certificate of Incorporation and Amended and Restated Bylaws, as Amended provide that:

- our bylaws may be amended or repealed only by a two-thirds vote of our board of directors or a two-thirds stockholder vote;
- no action can be taken by stockholders except at an annual or special meeting of the stockholders called in accordance with our bylaws, and stockholders may not act by written consent;
- stockholders may not call special meetings of the stockholders or fill vacancies on the board;
- the approval of holders of two-thirds of the shares entitled to vote at an election of directors is required to amend or repeal the provisions of our Restated Certificate of Incorporation regarding the inability of stockholders to take action by written consent;
- our board of directors is authorized to issue preferred stock without stockholder approval; and
- we will indemnify officers and directors against losses that they may incur in investigations and legal proceedings resulting from their services to us, which may include services in connection with takeover defense measures.

DESCRIPTION OF PREFERRED STOCK

As of December 23, 2010, our authorized preferred stock, par value \$0.0001 per share, was 5,000,000 shares, none of which were issued and outstanding. We may issue preferred stock, in series, with such designations, powers, preferences and other rights and qualifications, limitations or restrictions as our board of directors may authorize, without further action by our stockholders, including:

- the distinctive designation of each series and the number of shares that will constitute the series;
- the voting rights, if any, of shares of the series and the terms and conditions of the voting rights;
- the dividend rate on the shares of the series, the dates on which dividends are payable, any restriction, limitation or condition upon the payment of dividends, whether dividends will be cumulative, and the dates from and after which dividends shall accumulate;
- the prices at which, and the terms and conditions on which, the shares of the series may be redeemed, if the shares are redeemable;
- the terms and conditions of a sinking or purchase fund for the purchase or redemption of shares of the series, if such a fund is provided;
- any preferential amount payable upon shares of the series in the event of the liquidation, dissolution or winding up of, or upon the distribution of any of our assets; and
- the prices or rates of conversion or exchange at which, and the terms and conditions on which, the shares of the series may be converted or exchanged into other securities, if the shares are convertible or exchangeable.

The particular terms of any series of preferred stock, and the transfer agent and registrar for that series, will be described in a prospectus supplement. All preferred stock offered, when issued, will be fully paid and nonassessable. Any material United States federal income tax consequences and other special considerations with respect to any preferred stock offered under this prospectus will also be described in the applicable prospectus supplement.

DESCRIPTION OF WARRANTS

We may issue warrants for the purchase of preferred stock, common stock, or any combination thereof. We may issue warrants independently or together with any other securities offered by any prospectus supplement and may be attached to or separate from the other offered securities. Each series of warrants will be issued under a separate warrant agreement to be entered into by us with a warrant agent. The warrant agent will act solely as our agent in connection with the warrants and will not assume any obligation or relationship of agency or trust for or with any holders or beneficial owners of warrants. Further terms of the warrants and the applicable warrant agreements will be set forth in the applicable prospectus supplement.

The applicable prospectus supplement relating to any particular issue of warrants will describe the terms of the warrants, including, as applicable, the following:

- the title of the warrants;
- the aggregate number of the warrants;
- the price or prices at which the warrants will be issued;
- the designation, terms and number of shares of preferred stock or common stock purchasable upon exercise of the warrants;
- the designation and terms of the offered securities, if any, with which the warrants are issued and the number of the warrants issued with each offered security;
- the date, if any, on and after which the warrants and the related preferred stock or common stock will be separately transferable;
- the price at which each share of preferred stock or common stock purchasable upon exercise of the warrants may be purchased;
- the date on which the right to exercise the warrants shall commence and the date on which that right shall expire;
- the minimum or maximum amount of the warrants which may be exercised at any one time;
- information with respect to book-entry procedures, if any;
- a discussion of certain federal income tax considerations; and
- any other terms of the warrants, including terms, procedures and limitations relating to the exchange and exercise of the warrants.

We and the warrant agent may amend or supplement the warrant agreement for a series of warrants without the consent of the holders of the warrants issued thereunder to effect changes that are not inconsistent with the provisions of the warrants and that do not materially and adversely affect the interests of the holders of the warrants.

DESCRIPTION OF UNITS

As specified in the applicable prospectus supplement, we may issue units consisting of one or more shares of common stock or preferred stock, warrants or any combination of such securities. In addition, the prospectus supplement relating to units will describe the terms of any units we issue, including as applicable:

- the designation and terms of the units and the securities included in the units;
- any provision for the issuance, payment, settlement, transfer or exchange of the units;
- the date, if any, on and after which the units may be transferable separately;
- whether we will apply to have the units traded on a securities exchange or securities quotation system;
- any material United States federal income tax consequences; and

- how, for United States federal income tax purposes, the purchase price paid for the units is to be allocated among the component securities.

PLAN OF DISTRIBUTION

We may sell the securities offered by this prospectus to one or more underwriters or dealers for public offering and sale by them or to investors directly or through agents. The accompanying prospectus supplement will set forth the terms of the offering and the method of distribution and will identify any firms acting as underwriters, dealers or agents in connection with the offering, including:

- the name or names of any underwriters, dealers or agents;
- the purchase price of the securities and the proceeds to us from the sale;
- any underwriting discounts and other items constituting compensation to underwriters, dealers or agents;
- any public offering price;
- any discounts or concessions allowed or re-allowed or paid to dealers; and
- any securities exchange or market on which the securities offered in the prospectus supplement may be listed.

Only those underwriters identified in such prospectus supplement are deemed to be underwriters in connection with the securities offered in the prospectus supplement.

The distribution of the securities may be effected from time to time in one or more transactions at a fixed price or prices, which may be changed, or at prices determined as the applicable prospectus supplement specifies. The securities may be sold through a rights offering, forward contracts or similar arrangements. In connection with the sale of the securities, underwriters, dealers or agents may be deemed to have received compensation from us in the form of underwriting discounts or commissions and also may receive commissions from securities purchasers for whom they may act as agent. Underwriters may sell the securities to or through dealers, and the dealers may receive compensation in the form of discounts, concessions or commissions from the underwriters or commissions from the purchasers for whom they may act as agent. Some of the underwriters, dealers or agents who participate in the securities distribution may engage in other transactions with, and perform other services for, us or our subsidiaries in the ordinary course of business.

We will provide in the applicable prospectus supplement information regarding any underwriting discounts or other compensation that we pay to underwriters or agents in connection with the securities offering, and any discounts, concessions or commissions which underwriters allow to dealers. Underwriters, dealers and agents participating in the securities distribution may be deemed to be underwriters, and any discounts and commissions they receive and any profit they realize on the resale of the securities may be deemed to be underwriting discounts and commissions under the Securities Act of 1933. Underwriters and their controlling persons, dealers and agents may be entitled, under agreements entered into with us, to indemnification against and contribution toward specific civil liabilities, including liabilities under the Securities Act.

The securities may or may not be listed on a national securities exchange. In connection with an offering, the underwriters may purchase and sell securities in the open market. These transactions may include short sales, stabilizing transactions and purchases to cover positions created by short sales. Short sales involve the sale by the underwriters of a greater number of securities than they are required to purchase in an offering. Stabilizing transactions consist of bids or purchases made for the purpose of preventing or retarding a decline in the market price of the securities while an offering is in progress. The underwriters also may impose a penalty bid. This occurs when a particular underwriter repays to the underwriters a portion of the underwriting discount received by it because the underwriters have repurchased securities sold by or for the account of that underwriter in stabilizing or short-covering transactions. These activities by the underwriters may stabilize, maintain or otherwise affect the market price of the securities. As a result, the price of the securities may be higher than the price that otherwise might exist in the open market. If these activities are commenced, they may be discontinued by the underwriters at any time.

LEGAL MATTERS

The validity of any securities offered by this prospectus will be passed upon for us by Trombly Business Law, PC.

EXPERTS

The consolidated financial statements of Oculus Innovative Sciences, Inc and Subsidiaries, appearing in Oculus Innovative Sciences, Inc.'s Annual Report on Form 10-K for the year ended March 31, 2010, have been audited by Marcum LLP, an independent registered public accounting firm, as set forth in their report included therein and incorporated herein by reference. Such consolidated financial statements are incorporated herein by reference in reliance upon such report given on the authority of such firm as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We file reports, proxy statements and other documents with the SEC. You may read and copy any document we file at the SEC's public reference room at 100 F Street, N.E., Washington, D.C. 20549. You should call 1-800-SEC-0330 for more information on the public reference room. Our SEC filings are also available to you on the SEC's Internet site at <http://www.sec.gov>.

This prospectus is part of a Registration Statement that we filed with the SEC. The Registration Statement contains more information than this prospectus regarding us and our common stock, including certain exhibits and schedules. You can obtain a copy of the Registration Statement from the SEC at the address listed above or from the SEC's Internet site.

INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

The SEC requires us to "incorporate by reference" the information contained in documents we file with the SEC. This means that we can disclose important information to you by referring to other documents that contain that information. The information incorporated by reference is considered to be part of this prospectus. Information contained in this prospectus and information that we file with the SEC in the future and incorporate by reference in this prospectus automatically updates and supersedes previously filed information. We incorporate by reference the documents listed below and any future filings we make with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, prior to the sale of all the shares covered by this prospectus:

- our Annual Report on Form 10-K for the year ended March 31, 2010, filed on June 8, 2010;
- our Quarterly Reports on Form 10-Q for the quarter ended June 30, 2010, filed on August 5, 2010, the quarter ended September 30, 2010, filed on November 4, 2010, and the quarter ended December 31, 2010, filed February 4, 2011;
- our Current Reports on Form 8-K, filed on April 2, 2010, May 6, 2010, September 17, 2010, and February 18, 2011;
- our Proxy Statement on Schedule 14A filed on July 29, 2010; and
- the description of our common stock contained in our Registration Statement on Form 8-A filed on December 15, 2006, including any amendment or report filed for the purpose of updating such description.

In addition, all documents that we file with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Securities and Exchange Act of 1934, as amended, after the date of the initial registration statement of which this prospectus is a part and prior to the effectiveness of the registration statement as well as all such documents that we file with the SEC after the date of this prospectus and before the termination of the offering of our securities shall be deemed incorporated by reference into this prospectus and to be a part of this prospectus from the respective dates of filing such documents. Unless specifically stated to the contrary, none of the information that we disclose under Items 2.02 or 7.01 of any Current Report on Form 8-K that we may from time to time furnish to the SEC will be incorporated by reference into, or otherwise included in, this prospectus.

You may request a copy of any or all of the documents incorporated by reference but not delivered with this prospectus, at no cost, by writing or telephoning us at the following address and number: Investor Relations, Oculus Innovative Sciences, Inc., 1129 N. McDowell Blvd., Petaluma, California 94954, telephone (707) 782-0792. We will not, however, send exhibits to those documents, unless the exhibits are specifically incorporated by reference in those documents.

PART II

Information Not Required In Prospectus

Item 14. Other Expenses of Issuance and Distribution

The following is a statement of estimated expenses in connection with the issuance and distribution of the securities being registered, other than underwriting discounts and commission.

SEC Registration Fee	\$	5,348
Transfer Agent and Registrar and Depositary Fees*		3,000
Printing Expenses*		2,000
Legal Fees and Expenses*		10,000
Accounting Fees and Expenses*		4,000
Miscellaneous*		652
	\$	<u>25,000</u>

* Estimated.

Item 15. Indemnification of Directors and Officers.

Section 145 of the Delaware General Corporation Law, as amended, authorizes a court to award or a corporation's board of directors to grant indemnification to directors and officers in terms sufficiently broad to permit such indemnification under certain circumstances for liabilities (including reimbursement for expenses incurred) arising under the Securities Act of 1933. Article VIII of our Restated Certificate of Incorporation (Exhibit 3.1(i) to our Annual Report on Form 10-K for the year ended March 31, 2007) and Article 6 of our Amended and Restated Bylaws, as Amended (Exhibit 3.3 our Quarterly Report on Form 10-Q, filed November 4, 2010) provide for indemnification of our directors, officers, employees and other agents to the extent and under the circumstances permitted by the Delaware General Corporation Law.

We have entered into Indemnification Agreements (Exhibit 10.1 to our Registration Statement on Form S-1 (file No. 333 - 135584)) with our officers and directors that will require us to, among other things, indemnify them against certain liabilities that may arise by reason of their status or service as directors or officers to the fullest extent not prohibited by law.

Item 17. Undertakings.

The undersigned registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) To include any prospectus required by section 10(a)(3) of the Securities Act of 1933;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Securities and Exchange Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement.

Provided, however, that paragraphs (i), (ii) and (iii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Securities and Exchange Commission by the registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of this registration statement.

(2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(5) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser:

(A) Each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and

(B) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii), or (x) for the purpose of providing the information required by Section 10(a) of the Securities Act of 1933 shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date.

(6) That, for the purpose of determining liability of the registrant under the Securities Act of 1933 to any purchaser in the initial distribution of the securities: The undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

(i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;

(ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;

(iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and

(iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.

Item 512(b) of Regulation S-K. The Registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the Registrant's annual report pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

Item 512(h) of Regulation S-K. Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act of 1933 and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act of 1933 and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this Amendment No. 1 to the Registration Statement on Form S-3 to be signed on its behalf by the undersigned, thereunto duly authorized in the City of Petaluma, State of California, on February 18, 2011.

OCULUS INNOVATIVE SCIENCES, INC.

By: /s/ Hojabr Alimi
Hojabr Alimi,
President and Chief Executive Officer
(Principal Executive Officer)

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below hereby severally constitutes and appoints Hojabr Alimi and James Schutz, and each of them individually, with full power of substitution and resubstitution, his or her true and lawful attorney-in-fact and agent, with full powers to each of them to sign for us, in our names and in the capacities indicated below, the Registration Statement on Form S-3 filed with the Securities and Exchange Commission, and any and all amendments to said Registration Statement (including post-effective amendments), and any registration statement filed pursuant to Rule 462(b) under the Securities Act of 1933, in connection with the registration under the Securities Act of 1933, of securities of the Registrant, and to file or cause to be filed the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully to all intents and purposes as each of them might or could do in person, and hereby ratifying and confirming all that said attorneys-in-fact and agents, and each of them, or their substitute or substitutes, shall do or cause to be done by virtue of this Power of Attorney. This Power of Attorney may be executed in counterparts and all capacities to sign any and all amendments.

Pursuant to the requirements of the Securities Act of 1933, as amended, the Registration Statement on Form S-3 has been signed by the following persons in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Hojabr Alimi</u> Hojabr Alimi	President, Chief Executive Officer and Chairman of the Board (Principal Executive Officer)	February 18, 2011
<u>/s/ Robert E. Miller</u> Robert E. Miller	Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)	February 18, 2011
<u>*</u> Gregg Alton	Director	February 18, 2011
<u>*</u> Jay Edward Birnbaum	Director	February 18, 2011
<u>*</u> Richard Conley	Director	February 18, 2011
<u>*</u> Gregory M. French	Director	February 18, 2011
<u>/s/ James Schutz</u> James Schutz	Director	February 18, 2011

* Power of Attorney

Exhibits

<u>exhibit number</u>	<u>description</u>
3.1(i)	Restated Certificate of Incorporation of Registrant (incorporated by reference to the exhibit of the same number filed with the Registrant's Annual Report on Form 10-K for the year ended March 31, 2007).
3.1(ii)	Amended and Restated Bylaws of Registrant, as amended effective on June 11, 2008 (incorporated by reference Exhibit 3.3 filed with the Registrant's Quarterly Report on Form 10-Q for the quarter ended September 30, 2010, filed on November 4, 2010).
4.1	Specimen Common Stock Certificate (incorporated by reference to the exhibit of the same number filed with Registration Statement on Form S-1 (File No. 333-135584), as amended, declared effective on January 24, 2007).
5.1	Opinion of Trombly Business Law, PC.
23.1	Consent of Marcum LLP.
23.2	Consent of Trombly Business Law, PC, included in Exhibit 5.1 filed contained herewithin.

February 18, 2011

Oculus Innovative Sciences, Inc.
1129 N. McDowell Blvd.
Petaluma, California 94954

Re: Registration Statement on Form S-3 Filed on December 23, 2010

Ladies and Gentlemen:

I have acted as counsel to Oculus Innovative Sciences, Inc., a Delaware corporation (the "Company"), in connection with the preparation and filing with the Securities Exchange Commission of a Registration Statement on Form S-3 filed on December 23, 2010 (the "Registration Statement"), pursuant to which the Company is registering under the Securities Act of 1933, as amended, the following securities of the Company having an aggregate initial public offering price not to exceed U.S. \$75,000,000 or the equivalent thereof in one or more foreign currencies, foreign currency units or composite currencies: (a) shares of Common Stock, par value \$0.0001 per share ("Common Stock"), (b) shares of Preferred Stock, par value \$0.0001 per share ("Preferred Stock"), in one or more series, (c) warrants to purchase Common Stock, Preferred Stock or any combination thereof ("Warrants"), and (d) Units consisting of one or more shares of Common Stock, Preferred Stock or Warrants or any combination thereof ("Units"). The Preferred Stock and Warrants may be convertible into or exercisable or exchangeable for Common or Preferred Stock. The Common Stock, Preferred Stock, Warrants and Units are collectively referred to herein as the "Securities."

The offering or offerings may be offered from time to time on a delayed or continuous basis pursuant to Rule 415 under the Securities Act. This opinion is being rendered in connection with the filing of the Registration Statement. All capitalized items used herein and not otherwise defined shall have the respective meanings given to them in the Registration Statement.

In connection with this opinion, I have examined the Company's Restated Certificate of Incorporation, Amended and Restated Bylaws, as amended, both as currently in effect, and such other records of the corporate proceedings of the Company and certificates of the Company's officers as I deemed relevant, as well as the Registration Statement and the exhibits thereto.

In my examination, I have assumed the genuineness of all signatures, the legal capacity of natural person, the authenticity of all documents submitted to me as originals, the conformity to original documents of all documents submitted to me as certified or photostatic copies and the authenticity of such copies.

Based upon the foregoing, and subject to the limitations set forth below, I am of the opinion that:

1. With respect to the Common Stock, when the Board of Directors of the Company or a duly authorized committee of such Board (such Board of Directors or committee being referred to herein as the "Board") has taken all necessary corporate action to approve the issuance and establish the terms of the offering of shares of the Common Stock and related matters and when such shares have been issued and sold by the Company in the manner contemplated by the Registration Statement and in accordance with such Board action, such shares of Common Stock (including any Common Stock duly issued upon conversion, exchange or exercise of any other Security in accordance with the terms of such Security or the instrument governing such Security providing for such conversion, exchange or exercise as approved by the Board) will be duly authorized, legally issued, fully paid and nonassessable.
 2. With respect to the Preferred Stock, when the Board has taken all necessary corporate action to approve the issuance and establish the terms of any particular series of Preferred Stock, the offering thereof and related matters, including the filing of a certificate of designations conforming to the Delaware General Corporation Law regarding the Preferred Stock with the Secretary of State of the State of Delaware, and when shares of such series of Preferred Stock have been issued and sold by the Company in the manner contemplated by the Registration Statement and in accordance with such Board action, such shares of such series of Preferred Stock (including any Preferred Stock duly issued upon conversion, exchange or exercise of any other Security in accordance with the terms of such Security or the instrument governing such Security providing for such conversion, exchange or exercise as approved by the Board) will be duly authorized, legally issued, fully paid and nonassessable.
-

3. With respect to the Warrants, when (a) one or more agreements incorporating the terms and other provisions thereof has been duly executed and delivered by the Company and a warrant agent (a "Warrant Agreement"), (b) the Board has taken all necessary corporate action to approve the issuance and establish the terms of the Warrants, the terms of the offering of such Warrants, and related matters, (c) the Warrant certificates have been duly executed and authenticated or countersigned in accordance with the terms of the appropriate Warrant Agreement, and (d) the Warrants have been issued and sold in the manner contemplated by the Registration Statement and in accordance with the applicable Warrant Agreement, the Warrants will be valid and legally binding obligations of the Company, enforceable against the Company in accordance with their terms, except as may be limited by applicable bankruptcy, insolvency, reorganization, moratorium, fraudulent transfer and similar laws affecting or relating to the rights of creditors generally, by general principles of equity (regardless of whether considered in a proceeding in equity or at law), and by requirements of reasonableness, good faith and fair dealing.

4. With respect to the Units, when (i) the Board of Directors of the Company has taken all necessary corporate action to approve the issuance and terms of the Units, the terms of the offering thereof and related matters, (ii) the Registration Statement, as finally amended (including all necessary post-effective amendments), has become effective under the Securities Act, (iii) the agreement relating to the Units in a form to be included as an exhibit to the Registration Statement has been executed and delivered and (iv) the Units have been duly executed, countersigned, delivered and sold in the applicable form as contemplated by the prospectus contained in the Registration Statement and any prospectus supplements relating to the Units, and the Warrants comprising part of the Units will constitute valid and legally binding obligations of the Company, any Common Stock, or Preferred Stock comprising part of the Units will be validly issued, fully paid and nonassessable and by reason of the offered Securities comprising the Units being valid and legally binding obligations of the Company and/or validly issued, fully paid and nonassessable, the Units themselves will constitute valid and legally binding obligations of the Company.

My opinion is limited to the Delaware General Corporation Law and federal securities laws of the United States and I express no opinion with respect to the laws of any other jurisdiction. No opinion is expressed herein with respect to the qualification of the Securities under the securities or blue sky laws of any state or any foreign jurisdiction.

I understand that you wish to file this opinion as an exhibit to the Registration Statement, and I hereby consent thereto. I further consent to the reference to my name and firm in the Registration Statement.

Very truly yours,

/s/ Amy Trombly, Esq.

Amy Trombly, Esq.

INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM'S CONSENT

We consent to the incorporation by reference in this Registration Statement of Oculus Innovative Sciences, Inc. on Form S-3, Amendment No. 1 (File No. 333-171411) of our report dated June 8, 2010, with respect to our audits of the consolidated financial statements of Oculus Innovative Sciences, Inc. and Subsidiaries as of March 31, 2010 and 2009 and for the years then ended appearing in the Annual Report on Form 10-K of Oculus Innovative Sciences, Inc. for the year ended March 31, 2010. We also consent to the reference to our firm under the heading "Experts" in such Prospectus.

/s/ Marcum LLP
New York, New York
February 18, 2011
