

PROSPECTUS



Prospectus Supplement No. 4

(to Prospectus dated September 13, 2007)

This Prospectus Supplement No.4 supplements and amends the prospectus dated September 13, 2007, relating to the sale of up to 3,247,370 shares of our common stock, or interests therein, by certain selling stockholders.

This Prospectus Supplement includes the attached Current Report on Form 8-K dated February 27, 2008, we filed with the U.S. Securities and Exchange Commission.

This Prospectus Supplement should be read in conjunction with, and delivered with, the Prospectus and Supplements No.1, No. 2 and No. 3 thereto, and is qualified by reference to the Prospectus and Supplements No.1, No. 2 and No. 3 thereto, except to the extent that the information in this Prospectus Supplement No. 4 updates or supersedes the information contained in the Prospectus, Supplement No.1, Supplement No.2 or Supplement No. 3.

Our common stock is listed on the NASDAQ Global Market under the symbol "OCLS." On February 26, 2008, the last reported sale price for our common stock on the NASDAQ Global Market was \$5.73 per share.

Investing in our common stock involves a high degree of risk. Before buying any shares, you should carefully consider the risk factors described in "Risk Factors" beginning on page 6 of the Prospectus.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The date of this Prospectus Supplement No. 4 is February 27, 2008

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

FORM 8-K

CURRENT REPORT
Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported) **February 27, 2008**

OCULUS INNOVATIVE SCIENCES, INC.

(Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction of incorporation)	001-33216 (Commission File Number)	68-0423298 (I.R.S. Employer Identification No.)
1129 N. McDowell Blvd. (Address of principal executive offices)		94954 (Zip Code)

Registrant's telephone number, including area code
(707) 782-0792

(Former name or former address, if changed since last report.)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
 - Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
 - Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
 - Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))
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Item 8.01 OTHER EVENTS.

Oculus Innovative Sciences, Inc. (the “Company”) is providing top-line results from its United States Phase II clinical trial evaluating its Microcyn Technology as a topical antimicrobial treatment for mildly infected diabetic foot ulcers. Microcyn demonstrated a positive clinical response, defined as the clinical cure or improvement of infection, as a monotherapy and in combination with levofloxacin, a systemic antibiotic. The Company plans to complete further analysis of the data and request an end-of-Phase II meeting with the FDA to discuss Phase II results and define the scope and parameters for advancing the Company’s clinical program.

Top-line results are as follows:

Clinical Cure or Improvement of Infection at Days 10 and 24 (ITT)

	Microcyn (Monotherapy)		Saline + Levofloxacin		Microcyn + Levofloxacin	
	# Patients	Percent	# Patients	Percent	# Patients	Percent
Day 10						
Clinical Success (Primary Endpoint)	15	75%	12	57%	16	64%
Cure	6	30%	7	33%	9	36%
Improvement	9	45%	5	24%	7	28%
Day 24						
Clinical Success (Follow-Up Visit)	15	75%	11	52%	18	72%
Cure	11	55%	6	29%	11	44%
Improvement	4	20%	5	24%	7	28%
Intent to Treat (ITT) Population*	20		21		25	

***Intent-to Treat (ITT) Sample:** All randomized subjects having taken at least one dose of study drug and having provided any on-treatment data. Percentages are based on the number of ITT patients in each treatment group.

The primary Phase II endpoint was clinical cure or improvement of infection at the end of therapy (day 10). Clinical cure of infection is defined as the elimination of all five of the Infectious Diseases Society of America (IDSA) visual symptoms that characterize mildly infected diabetic foot ulcers, including: 1) presence of erythema less than two centimeters around the ulcer, 2) detectable increase in temperature of the wound or periwound area, 3) culturable exudate and/or extension of redness is present, 4) localized swelling or induration, and 5) localized tenderness or pain. Clinical improvement of infection is defined as the elimination of at least two of the five IDSA symptomatic visual indications.

Levofloxacin was chosen for the control group because it is one of the more potent, broad-spectrum oral antibiotics indicated for the treatment of complicated skin and skin structure infections (CSSSIs). IDSA guidelines also recognize Levofloxacin as an appropriate treatment for the treatment of diabetic foot infections.

No serious drug-related adverse events were reported in any of the three treatment arms. In the Microcyn-Levofloxacin combination arm, two patients experienced stomach discomfort and amnesia, respectively, both related to levofloxacin while one patient experienced a burning sensation attributed to Microcyn, which is consistent with observations in prior Microcyn studies.

A preliminary review of the raw data suggests that there were fewer eradications of bacterial strains in the Microcyn monotherapy arm.

About the Phase II Trial

The Phase II randomized, open-label study enrolled a total of 66 patients with mildly infected diabetic foot ulcers at 15 U.S. sites. Three treatment arms were evaluated: 1) 20 patients received topical Microcyn alone 2) 25 patients received topical Microcyn in combination with oral levofloxacin; and 3) 21 patients received topical saline in combination with oral levofloxacin.

Patient enrollment criteria in all three treatment arms of the study included appropriate blood perfusion and mildly infected ulcers defined by IDSA classification of “mild” and University of Texas wound classification of “1B.” Patients were randomized and treated for a total of 10 days. Designed into the trial were three assessment time points: day three, day 10, and day 24. The design was intended to provide flexibility for an optimal design of a Phase III trial based on a number of potential positive signals at various time points.

The information contained in this report contains forward looking statements within the meaning of the “safe harbor” provisions of the Private Securities Litigation Reform Act of 1995, including statements about the Company’s plans to request a meeting with the FDA, the Company’s belief that the design of its Phase II trial should provide important information for its planned Phase III trial, the Company’s ability to provide expanded analysis of preliminary results, the results of the Company’s preliminary review of the data and its initial impressions regarding such data, or that the Company’s Phase II trials will be sufficient to allow the Company to move forward in its clinical program. These forward-looking statements are identified by the use of words such as “believe,” “expect,” “plan,” and “should,” among others. Forward-looking statements are subject to risks and uncertainties inherent in the Company’s business that could cause actual results to vary, including risks inherent in the development and commercialization of potential products, the risk that regulatory clinical and guideline developments may change, the risk that scientific data may not be sufficient to meet regulatory standards or receipt of required regulatory clearances or approvals, the risk that further review of preliminary indications will lead to different conclusions,

the risk that clinical results may not be replicated in actual patient settings, the risk that protection offered by the Company's patents and patent applications may be challenged, invalidated or circumvented by the Company's competitors, the risk that present trends will continue and that the available market for the Company's products will not be as large as expected, the risk that the Company's products will not be able to penetrate one or more targeted markets, the risk that revenues will not be sufficient to fund further development and clinical studies, the Company's future capital needs, and its ability to obtain additional funding and other risks detailed from time to time in the Company's filings with the Securities and Exchange Commission including the quarterly report on Form 10-Q for the quarter ended December 31, 2007. The Company disclaims any obligation to update these forward-looking statements.

Signature

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Dated: February 27, 2008

OCULUS INNOVATIVE SCIENCES, INC.

By: /s/ Robert Miller

Robert Miller

Chief Financial Officer