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# **Oculus Innovative Sciences Announces Publication of Microcyn(R) Technology Post-Caesarean Section Wound Study in Indian Medical Gazette**

## **Researchers Conclude Microcyn Technology Demonstrates Better Efficacy and Faster Response as Compared to Povidone-Iodine**

PETALUMA, Calif.--(BUSINESS WIRE)--

Oculus Innovative Sciences, Inc. (Nasdaq:OCLS) announced today that the Indian Medical Gazette has published results from a randomized and controlled study of the company's Microcyn(R) Technology in 50 patients in India for the management of wounds in post-caesarean section. In this study, Oxum (Microcyn formulation branded for India) demonstrated a benefit versus povidone iodine with respect to several efficacy endpoints including complete wound healing, healthy appearance, absence of odor, presence of granulation tissue, and lack of indolent stitches at the site of the wound. Oxum was found to be well tolerated and showed a modest advantage for the Oxum group over the control group. A reprint of the peer-reviewed paper, entitled "Comparative Efficacy and Tolerability of Oxum Against Povidone Iodine Topical Application in the Post-Caesarean Section Wound Management," is available online at: [http://www.oculusis.com/oxum\\_study.pdf](http://www.oculusis.com/oxum_study.pdf).

Researchers at the Grant Medical College and Sir J.J. Group of Hospitals in Byculla, Mumbai, randomized 50 patients who had undergone caesarean section. Patient wounds were treated with Oxum (Microcyn Technology group) (n=25) or povidone iodine (control group) (n=25) topically twice a day for 10 days. Assessments were made on days five and 10. Primary outcome measures included complete healing, partial healing and non-healing on days five and 10. The efficacy evaluation was based on appearance, presence or absence of odor, discharge, necrotic tissue, and granulation tissue at the site of the wound. The patients were also assessed based on symptoms such as pain, edema, redness, dryness and itching. Doctors evaluated global efficacy and patients evaluated global tolerability.

The authors reported that surgical wound signs and symptoms assessments indicate that more of the patients in the Oxum-treated group showed healing on day 10 compared to the povidone-iodine-treated group. All the patients (100%) in both groups had partially healed surgical wounds on day five, whereas on day 10, 24 patients (96%) in the Oxum group and 22 patients (88%) in the povidone-iodine group were completely healed.

Surgical assessment of wound signs at day five showed a benefit favoring the Oxum group in healthy appearance, absence of odor, presence of granulation tissue and lack of indolent

stitches. Surgical wound symptom assessment at day five also showed a better outcome for the Oxum-treated group as evaluated by pain, edema, redness and dryness of the wound.

Similarly, the global efficacy evaluation demonstrated a "good-to-excellent" efficacy response in a greater number of Oxum-treated patients as compared to the povidone-iodine-treated group (on a graduated scale of poor, moderate, good and excellent).

The conclusion of researchers was that Oxum (Microcyn Technology) "is safe and effective in post-caesarean wound care management and provides for better efficacy and faster response as compared to a povidone-iodine topical application in post-caesarean section wound care management."

Hoji Alimi, founder and CEO of Oculus, commented, "This is an example of a novel application for Microcyn, in which the dual nature of the technology -- both its antimicrobial efficacy and its wound healing capability -- promoted wound healing in these incisions. With the increasing incidence of caesarean sections performed worldwide and the higher rates of post-operative infections, it is imperative that the medical community be given access to new and alternative treatment options. Surgical site infections (SSIs), including those potentially seen post-operatively in caesarean sections, can be a tremendous burden on the global healthcare system and patients. As a result, we will further examine Microcyn Technology's possible role in the treatment of these various surgical applications as we evolve our clinical program."

#### About Caesarean Section

A caesarean section or c-section is a form of childbirth in which a surgical incision is made through a mother's abdomen (laparoscopy) and uterus (hysterectomy) to deliver one or more babies. It is usually performed when a vaginal delivery would put the baby's or mother's life or health at risk, although in recent times it has also been performed upon request for births that would otherwise have been normal.

The World Health Organization estimates the rate of caesarean sections at between 10% and 15% of all births in developed countries. In 2004, the caesarean rate was about 20% in the United Kingdom while in the United States the caesarean rate has risen 46% since 1996, reaching a level of 30.2% in 2005.

According to a 2001 study published by F.G Cunningham, "Caesarean delivery and post partum hysterectomy," the incidence of abdominal incision infections following caesarean delivery ranged from 3% to 15% with an average of 6% during caesarean section delivery.

A proper post-surgical wound care regimen thus becomes an extremely important factor in preventing the occurrence of infection. An effective wound care product should address the most important aspects of infection control and safety. If infection is present in the wound, standard treatment includes cleansing and either surgical or mechanical debridement and sometimes oral or intravenous antibiotics. An ideal wound care product, in addition to controlling the infection, should also protect the normal tissues and not interfere with the normal wound healing.

#### About Oculus

Oculus Innovative Sciences is a biopharmaceutical company that develops, manufactures and markets a family of products based upon the Microcyn(R) Technology platform, which is intended to help prevent and treat infections in chronic and acute wounds. The Microcyn Technology platform is a biocompatible, shelf-stable solution containing active oxychlorine compounds that is currently commercialized outside the United States for the treatment of infected wounds. The solutions derived from the Microcyn Technology platform have demonstrated, in a variety of research and investigational studies, the ability to treat a wide range of pathogens, including antibiotic-resistant strains of bacteria (including MRSA and VRE), viruses, fungi and spores. In the United States, Dermacyn(TM) Wound Care (formulated with Microcyn Technology) has received three 510k clearances from the FDA for cleaning, debriding, moistening and lubricating wounds.

A recently completed U.S. Phase II clinical trial of Microcyn Technology met the primary endpoints of safety and efficacy for the treatment of mildly infected diabetic foot ulcers.

Oculus' principal operations are in Petaluma, California, and it conducts operations in Europe, Latin America and Japan through its wholly owned subsidiaries, Oculus Innovative Sciences Netherlands B.V., Oculus Technologies of Mexico, S.A. de C.V. and Oculus Japan K.K. Oculus' website is [www.oculusis.com](http://www.oculusis.com).

#### Forward-Looking Statements

Except for historical information herein, some matters set forth in this press release are forward-looking within the meaning of the "safe harbor" provisions of the Private Securities Litigation Reform Act of 1995. These forward-looking statements are identified by the use of words such as "further examine" and "intended," among others. Forward-looking statements in this press release are subject to certain 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 clinical results may not be replicated in actual patient settings, the risk that protection offered by our patents and patent applications may be challenged, invalidated or circumvented by our competitors, the risk that present trends will continue and that the available market for our products will not be as large as expected, the risk that our 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. Oculus Innovative Sciences disclaims any obligation to update these forward-looking statements.

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Source: Oculus Innovative Sciences, Inc.