For Immediate Release

Ondine Announces Ventilator Associated Pneumonia (VAP) Photodisinfection Clinical Study in the US

VANCOUVER, BC, May 10, 2011 – Ondine Biomedical Inc. (the "Company" or "Ondine", TSX: OBP; AIM: OBP) a medical technology company developing photodisinfection based products, today announced that the United States Food and Drug Administration (FDA) has approved a human clinical study (the "Study") to investigate the use of photodisinfection for the *in situ* microbial disinfection of endotracheal tubes as a means to prevent ventilator associated pneumonia (VAP). VAP is the number one cause of healthcare-associated infections in intensive care unit patients.

The photodisinfection treatment system to be used in the study was developed by Ondine's wholly owned subsidiary, Advanced Photodynamic Technologies, Inc. (APT). Funding of the study site and investigator costs as well as all fees incurred to perform all independent clinical study monitoring requirements, data base management and statistical analyses is via the direct payment of these costs by a third party under the terms of a government grant. APT will be responsible for, among other things, providing at its cost the study devices, consisting of the lasers and the photosensitizing agent. The clinical study, which involves one clinical site, is expected to commence in the third quarter of 2011 and to take at least one year to complete.

"A successful VAP study would represent a key step towards the commercialization of this new application of photodisinfection which utilizes Ondine's patented technology and products." said Carolyn Cross, Chairman & CEO of Ondine. "The leading cause of patient death from healthcare-associated infections is pneumonia. Ventilator associated pneumonia is a life threatening infection that occurs in patients who are intubated with an endotracheal tube and require mechanical ventilation. In the US, of the 1.3 million patients who require mechanical ventilation annually, 10% to 25% will develop VAP with 24% to 50% of these patients consequently dying from the infection. The cost of treating VAP in the United States has been estimated to be US$1.2 Billion annually and as photodisinfection has been proven to be highly effective at eliminating biofilms in ex vivo models, it is therefore ideally suited for the elimination of endotracheal tube biofilms resulting in the prevention of VAP."

About Ondine Biomedical Inc.

Ondine is developing non-antibiotic therapies for the treatment of a broad spectrum of bacterial, fungal and viral infections. The Company is focused on developing leading edge products utilizing its patented light-activated technology, primarily for the healthcare-associated infection (HAI) market. Photodisinfection provides broad-spectrum antimicrobial efficacy without encouraging the formation and spread of antibiotic resistance. The Company is based in Vancouver, British Columbia, Canada, with a research and development laboratory in Bothell, Washington, USA. For additional information, please visit the Company's website at: www.ondinebio.com.

Forward-Looking Statements:

Certain statements contained in this release containing words like "believe", "intend", "may", "expect" and other similar expressions, are forward-looking statements that involve a number of risks and uncertainties. Factors that could cause actual results to differ materially from those projected in the Company's forward-looking statements include the following: market acceptance of our technologies and products; our ability to obtain financing; our financial and technical resources relative to those of our competitors; our ability to keep up with rapid technological change; government regulation of our technologies; our ability to enforce our intellectual property rights and protect our proprietary technologies; the ability to obtain and develop partnership opportunities; the timing of commercial product launches; the ability to achieve key technical milestones in key products and other risk factors identified from time to time in the Company's public filings.

The TSX Exchange has not reviewed and does not accept responsibility for the adequacy or accuracy of this release.

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