The Centre for Blood Research XCBR





Wednesday, June 6, 2012 12:00pm in LSC3

> **Life Sciences Centre** 2350 Health Sciences Mall

Dr. Elisabeth Maurer Clinical Assistant Professor, UBC President and CTO LightIntegra Technology Inc.

"From Bench to Bedside - New Technology to **Prevent Ineffective Platelet Transfusions**"

Platelet transfusions are life saving to patients who are bleeding or are at risk of bleeding. Worldwide 10 million platelet transfusions are given to cancer, surgery and trauma patients every year. Platelet concentrates are currently not tested for quality and function before they are transfused to patients because there is no quick, inexpensive and reliable test. Therefore, poor patient outcome is the only indicator of ineffective platelet transfusions. 10-30% of platelet transfusions are ineffective and may lead to increased risk to the patient as well as increased cost of care.

ThromboLUX is the first stand-alone in vitro test which may be used to evaluate the quality and effectiveness of individual platelet concentrates prior to transfusion. ThromboLUX uses the principle of dynamic light scattering (DLS) — also known as photon correlation spectroscopy or quasi-elastic light scattering — to determine the kind of particles present in the platelet concentrate (primarily platelets and microparticles), how many of the particles exist, and how they respond to temperature stress. In a previous pilot study it was shown that the ThromboLUX score of platelet concentrates correlates with clinical outcome. Preliminary data from the ongoing randomized controlled CoDIVO trial conducted at VGH have shown that platelet quality testing in hospitals is feasible and suggest that the transfusion of ineffective platelets can be prevented.

This Seminar is sponsored by:



Host: Dr. Ed Conway, CBR Director, Professor of Medicine, UBC







