



Wednesday, January 20, 2016

LSC 3 - Life Sciences Centre

2350 Health Sciences Mall

12-1pm

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“Riboflavin/UV light pathogen inactivation impacts platelet function via modulation of signal transduction”

Canadian Blood Services is committed to blood component quality and safety. The safety of our blood supply is threatened by pathogens such as bacteria and viruses. Nucleic acid targeted technologies, called pathogen inactivation technologies (PIT) were developed for their inactivation. Research studies have concluded that these technologies are two sides of a coin: inactivation of pathogens vs negative impact on blood component quality.

This presentation will summarize studies seeking to understand the impact of PITs on blood component quality using biochemical and cell biological methods such as proteomics and signal transduction analyses. During storage under blood bank conditions, the quality of the blood components shows signs of deterioration as demonstrated by changes in in vitro parameters called the storage lesion and it is crucial to understand its impact on the biochemistry and physiology of blood components.

Gel-based and gel-free proteomic approaches identified proteins changing upon treatment linked to signaling pathways involved in PIT-mediated damage. Iterative research strategies are being used to find protein biomarkers that identify points of intervention. These proteins show involvement in diverse aspects of platelet function such as platelet activation linked to degranulation, apoptosis, mRNA function or protein synthesis.

Live Online Seminar Viewing:
<http://tinyurl.com/cbrseminaronline>