

Wednesday, March 2, 2016

LSC 3 - Life Sciences Centre

2350 Health Sciences Mall

12-1pm



## Dr. Emma Guns

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### **“Do Extracellular Vesicles have a role in the Development and Progression of Prostate Cancer?”**

All eukaryotic cells secrete proteins via distinct regulated mechanisms which are either ER/Golgi dependent or microvesicle mediated. The release of microvesicles from cells has been shown to provide a novel mechanism for intercellular communication. Extracellular vesicles are membrane-derived and have been shown to be present in various biological fluids. Recent studies have demonstrated that cancer cells secrete extracellular vesicles which may be differentiated from those derived from normal cells based on their composition. Prostate cancer (PCa) is the leading diagnosed cancer in men. Prompt diagnosis of the disease can substantially improve its clinical outcome. Improving capability for early detection, as well as developing new therapeutic targets in advanced disease are research priorities that will ultimately lead to better patient survival. During this seminar a potential for the differential protein/lipid composition of the extracellular vesicles characterised as ‘exosomes’ will be described and their potential as a source of diagnostic biomarkers for PCa will be discussed. Experimental evidence indicates that exosomes derived from cells with different cancerous phenotypes attribute positively in many mechanisms that contribute to PCa progression presenting additional insight into their role and relevance in disease.

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