

Wednesday, January 23, 2013  
12:00 pm  
in LSC3

Life Sciences Centre  
2350 Health Sciences Mall



## Dr. Ivan Robert Nabi

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### **“Membrane Domain Regulation of Cancer Cell Migration: Synergy between Caveolin-1 and Galectin-3”**

At the plasma membrane, the activity of receptors and their ability to transmit a signal to intracellular signaling proteins is determined by the distribution of receptors to membrane domains. Our work focuses on two types of domains that regulate receptor signaling at the cell surface. The first are cholesterol-based domains, called lipid rafts, that encompass cell surface caveolae. The second is the galectin lattice, based on the interaction of sugar-binding galectins with receptor N-glycans exposed on the cell surface. These domains are controlled in large part through expression of two proteins associated with cancer progression and malignancy: galectin-3 and caveolin-1. We have shown that galectin-3 and caveolin-1 work together to promote cell migration of cancer cells. I will discuss the novel role of tyrosine phosphorylated caveolin-1 as a mechanotransducer, how caveolin-1 and galectin-3 work together to promote cell migration of cancer cells, the role of pseudopodia in epithelial-mesenchymal transition and senescence of metastatic cancer cells and the implications for our understanding of the role of these two membrane domain effectors in cancer progression and metastasis.

This Seminar is sponsored by:



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



Refreshments will be served 10 minutes before the seminar  
Seminar information: 604 822 7407

