

Wednesday, May 21st, 2014

LSC 3 - Life Sciences Centre

2350 Health Sciences Mall

**12-1pm**



## Dr. Shernaz Bamji

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### **“Synaptic Adhesion Molecules in Learning and Memory”**

Cell adhesion molecules are localized to sites of synaptic contact between nerve cells. Although, these molecules bridge pre- and postsynaptic specializations, they do far more than simply provide a mechanical link between cells. Indeed, synaptic adhesion proteins participate in the formation, function and plasticity of synaptic connections. We have demonstrated that the cadherin family of cell adhesion molecules plays a key role in regulating synapse plasticity, the cellular substrate for learning and memory. This presentation highlights the molecular mechanism underlying cadherin-mediated synaptic plasticity and demonstrates that aberrant increases in synaptic adhesion can have deleterious effects on cognitive function including learning, memory and addiction.