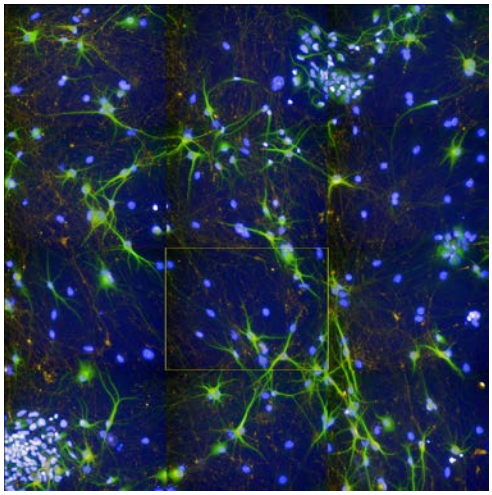
GUEST SPEAKER SEMINAR

Molecular Genetics
UNIVERSITY OF TORONTO

Signaling mechanisms regulating neural circuit formation and their relevance to neurodevelopmental disorders



The development of the mammalian brain requires precise formation of synaptic connections between neurons, and abnormalities in this process are thought to play a central role in the pathophysiology of autism spectrum disorders (ASDs). In our lab, we are studying the biology of ASD genetic risk factors and their signaling mechanisms. Using mouse and human stem cell models, we examine the normal biological function of ASD risk genes in neurodevelopment, as well as understanding how specific patient-derived mutations disrupt this process. Using this approach, we have a particular focus on studying postnatal development of synaptic connections in the brain. The goal of our program is to identify neural phenotypes associated with the ASD risk genes and to use that information to reverse the neurological deficits using pharmacological approaches.

Dr. Karun K Singh

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Host: Dr. Julie Lefebvre

Date: Monday October 23rd, 2017
Time: 4PM
Place: Room 103, Fitzgerald Building, 150 College Street