



**Department of Anatomy and Cell Biology**  
Hosted by the McGill Anatomy & Cell Biology Graduate Students' Society

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**“Who rides the ciliary highway: In vivo analysis of ciliary protein transport”**



Cilia are slender microtubule-based cell extensions with motile and sensory functions. Ciliary assembly depends on intraflagellar transport (IFT), a motor-based carrier that moves proteins from the cell body into the growing organelle. Consisting of just 22 distinct proteins, IFT transports numerous components of the ciliary membrane and axoneme. This raises the question of how IFT recognizes proteins destined for the cilium and how the volume and timing of these transports are regulated. To determine the rules governing ciliary protein transport, we use single particle imaging in the unicellular model *Chlamydomonas reinhardtii*. Current work centers on the assembly of intraflagellar transport trains, the regulation of tubulin import, and the changes in ciliary protein transport resulting from disease-related mutations linked to Bardet-Biedl and Joubert syndrome.

**Wednesday, October 24<sup>th</sup>, 2018**

**11:30 am**

**Strathcona Anatomy Building**  
**3640 University Street**  
**Room 2/36**

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