



## School of Kinesiology Distinguished Speaker Series

### Dr. Andy Murray

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### ***“The vestibular system as a gateway to motor circuits”***

Animals are able to generate an extraordinary repertoire of motor commands that allow for movement and interaction with the environment. Goal directed movements such as finding food or escaping from predators are key to animal survival, but these cannot be achieved without the proper execution of gait and the maintenance of balance. Both locomotion and postural control require feedback from multiple sensory modalities and, in turn, the control of dozens of muscles throughout the body, but the nervous system can achieve this with little conscious thought. Using the mouse as a model system, our lab studies how the neural circuits in the brainstem influence spinal motor programs to maintain posture and balance. In this talk I will describe how different types of neurons in the lateral vestibular nucleus can coordinate a postural correction after an external perturbation and how these postural corrections can be modified according to environmental context. In addition, I will discuss our general goals of using molecular-genetic and viral technologies in the mouse to understand the broad principles of locomotion and balance.

**Host: Dr. Tim Inglis**

Professor, UBC School of Kinesiology

**March 15, 2018 | 12:00 pm – 1:30 pm**

**Centre for Brain Health, Rudy North Theatre (LL101)**

**11:00 – 12:00 Lunch served on a first-come basis**

**RSVP at: <http://kin.educ.ubc.ca/events/event/murray/>**