



**Western**  
The Brain and  
Mind Institute

Visiting Speaker

## Ian Harding

Institute of Cognitive and Clinical Neurosciences  
Monash University, Melbourne, Australia

### “Cerebral Consequences of Cerebellar Degeneration: Functional and Structural MRI Studies in Friedreich Ataxia”

Friedreich ataxia (FRDA) is the most common inherited ataxia, characterised by progressive motor incoordination secondary to degeneration of the dentate nuclei of the cerebellum and dorsal spinal tracts. The cerebrum has traditionally been thought to be spared in FRDA, with little evidence of cortical grey matter pathology. However, the dentate nuclei are the primary source of long-range cerebello-cerebral projections in humans, giving rise to dentato-thalamo-cerebral white matter pathways and extensively innervating the cerebral cortex. In this talk, I will present a series of functional and diffusion MRI studies that examine cerebro-cerebellar function and connectivity in individuals with FRDA. The results of this work challenge traditional conceptions of isolated cerebellar deficits in FRDA, but indicate that the downstream functional consequences of cerebellar atrophy are not universally detrimental, and may also reflect compensatory processes in some contexts.

**Date:** Tuesday, April 10, 2018

**Time:** 11:00 am

**Location:** Room 4190  
Western Interdisciplinary Research Building (WIRB)

*If you require information in an alternate format or if any other arrangements can make this event accessible to you, please contact Denise Soanes at [dsoanes4@uwo.ca](mailto:dsoanes4@uwo.ca)*