



Cortico-thalamic synaptic physiology in a Rett Syndrome mouse model

2 year funded Postdoctoral position, University of Victoria, BC Canada – available immediately

Rett syndrome is a neurodevelopmental disorder which manifests postnatally due to loss of function of an X-linked transcription factor MECP2, which controls various aspects of neuronal and synapse maturation. Studies will be performed primarily on female mice heterozygous for Mecp2 in which approximately half of neurons express the wild type and half the mutant allele. By utilizing a GFP-based nuclear marker we identify neurons expressing the wild-type or non-functional (mutated) Mecp2 allele for targeted physiological recordings. Optogenetic stimulation of virally-expressed channel rhodopsin will be used to investigate the relative strength of input from thalamus to cortex and feedback from cortex to thalamus for mutant versus wildtype neurons. Preference will be given to a researcher with experience in whole cell patch clamp recording (current and or voltage clamp) from neurons in acute brain slices. Funded by the International Rett Syndrome Foundation. Contact Dr. Kerry Delaney, kdelaney@uvic.ca

More information about UVic Neuroscience can be found at <https://www.uvic.ca/medsci/neuroscience/>

The Delaney lab: <https://web.uvic.ca/~neurolab>

Publications: <https://pubmed.ncbi.nlm.nih.gov/?term=delaney+rett>

Victoria as a place to live: <https://www.tourismvictoria.com>