



Neuroscience trainee positions in Victoria B.C.

Fully funded positions are available May 2022 and beyond, for graduate (MSc or PhD) and postdoctoral (PDF) trainees to study cellular and synaptic neurophysiology. We are looking for energetic, self-motivated individuals with an interest in basic neuroscience questions for our research on transmitter release, synaptic plasticity.

Our research uses a variety of model system combining electrophysiology with fluorescence imaging to study nervous system *in vivo* or in blocks/slices of tissue maintained *in vitro*. We aim to understand how cell and synaptic physiology affect the performance of neural networks with an emphasis on the role of short-term activity dependent plasticity or neuromodulators.

Graduate students should have training that includes physiology and neuroscience. Postdoctoral fellows are expected to have training in electrophysiology or functional imaging and training in other microscopical techniques is advantageous.

Two programs are currently funded. Our work on olfactory bulb and related structures use this as a model system for studies of synaptic plasticity and dendritic processing (NSERC). Our CIHR and International Rett Syndrome Foundation funded research examines the physiological consequences of mutation in an X-linked transcription factor, MeCP2 for thalamo-cortical connectivity and neuromodulation by nicotinic acetylcholine receptors. These latter studies are performed using transgenic female mice that are a model for the human disorder combined with fluorescence markers, which allow targeted recording from mutant and non-mutant neurons in mosaic brains to determine cell autonomous vs. non-autonomous effects of the mutation.

Trainees will join a highly collaborative group of active researchers including:
<https://www.uvic.ca/science/biology/research/researchareas/index.php#neurobiology>

Victoria offers an exceptional quality of life for those with an interest in outdoor activities such as hiking, kayaking, sailing, climbing and simply getting out into nature.
<https://www.hellobc.com/places-to-go/victoria/>

Contact Dr. Kerry Delaney, kdelaney@uvic.ca, with a brief resume and a summary of research interests including a general description or ideas for the kinds of projects you would be interested in undertaking.