



# McGill

## Laboratory of Cellular and Molecular Neuroscience

### Graduate Student/Postdoctoral Position in Receptor Pharmacology

CIHR-funded position is immediately available for an enthusiastic graduate student and/or postdoctoral fellow with a keen interest in using electrophysiology and imaging techniques to study ligand-gated ion-channels and their role in neuronal circuit behavior. The position and training provided is ideal for an individual interested in pursuing a career in academia and/or the pharmaceutical drug industry.

The project will focus on an ongoing theme to understand the structure-function properties of ionotropic glutamate receptors. The successful applicant will use single-molecule and macroscopic electrophysiology and imaging techniques to understand the mechanism of channel activation in wildtype and mutant receptors. This work is part of a multi-lab project with international collaborators using computational chemistry, structural biology and advanced microscopy techniques.

#### Related Publications

Dawe GB, Musgaard M, Arousseau MRP, Nayeem N, Green T, Biggin PC, Bowie D. Distinct Structural Pathways Coordinate the Activation of AMPA Receptor-Auxiliary Subunit Complexes. *Neuron*. 2016 Mar 16;89(6):1264-1276.

Brown PM, Arousseau MR, Musgaard M, Biggin PC, Bowie D. Kainate receptor pore-forming and auxiliary subunits regulate channel block by a novel mechanism. *J Physiol*. 2016 Apr 1;594(7):1821-40.

Dawe GB, Musgaard M, Andrews ED, Daniels BA, Arousseau MR, Biggin PC, Bowie D. Defining the structural relationship between kainate-receptor deactivation and desensitization. *Nat Struct Mol Biol*. 2013 Sep;20(9):1054-61.

*\*Student stipends will be based on the policy recommendations of individual McGill Graduate Programs. Postdoctoral salaries will be based on CIHR recommendations and level of experience\**

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McGill University is one of Canada's leading post-secondary institutions with the main campus located in the heart of the lively downtown area of Montreal. McGill attracts students and researchers from more than 150 countries around the world. Almost half of McGill students claim a first language other than English with more than 6,800 international students making up almost 20 per cent of the student body.

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Applicants should send a cover letter, cv and the names of 2-3 referees to:

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