

**Title: Post-doc in human and mouse patch clamp electrophysiology**

**Institution/Company:**

Krembil Research Institute, Centre for Addiction and Mental Health, and the University of Toronto

**Job Description:**

We are looking for a post-doctoral fellow with a background in experimental neuroscience and patch-clamp electrophysiology and an interest in data science and genomics. The fellow will lead an innovative project studying the physiology of human cortical neurons resected during neurosurgery. The fellow will have the opportunity to shape the details of the project based on their specific interests. Potential project ideas include: 1) comparing the how aspects of neuron physiology differ between humans and mice; 2) correlating subject-specific demographic and genetic differences with intrinsic or synaptic physiology; 3) studying how human-specific circuit motifs may support oscillatory synchrony. Since human neurosurgical tissue is only available at specific times, the fellow will also have opportunities to contribute to other collaborative projects in the Valiante and Tripathy Labs.

This project is a collaboration between the Neuron to Brain Lab at the Krembil Research Institute (PI: Taufik Valiante, <http://www.neurontobrainlaboratory.ca/>) and the Lab of Computational Genomics at the Centre for Addiction and Mental Health (PI: Shreejoy Tripathy, <https://triplab.org>). Both labs are located a short 10-15 minute walk from each other in downtown Toronto. Toronto is a major metropolitan center (the 7<sup>th</sup> largest in North America) and is vibrant city with great culture and many eclectic neighborhoods.

The ideal candidate for this position will have:

- A PhD in neuroscience or equivalent area
- Considerable expertise performing patch-clamp electrophysiology on ex vivo brain slices
- A track record for independent research and a strong publication record
- Experience writing custom data analysis scripts in a programming language or a strong desire to learn
- Some familiarity with molecular biology techniques and gene expression analyses
- Experience with cell or slice culture would be a plus
- Experience teaching, mentoring students, performing scientific outreach, and developing open source software would be a plus

The position is for a duration of up to 3 years, renewed yearly. Compensation, including benefits, is competitive and will be based on experience. The candidate will also be expected to apply for independent research fellowships.

A complete application should include a brief cover letter, a curriculum vitae, and the names of 2-3 references. Please submit applications to Taufik Valiante ([Taufik.Valiante@uhn.ca](mailto:Taufik.Valiante@uhn.ca)) and Shreejoy Tripathy ([shreejoy.tripathy@camh.ca](mailto:shreejoy.tripathy@camh.ca)), with the title: "Post-doctoral fellowship in patch-clamp electrophysiology" in the subject line. The starting date of the position is Spring/Summer 2019 and the position will remain open until filled.