

## **Graduate (MSc / PhD) Student Positions - Neurophysiology of Autism Mouse Models**

Sargin Lab - Department of Psychology, Hotchkiss Brain Institute, Alberta Children's Hospital Research Institute, University of Calgary

<https://sarginlab.com/>

### **Research Focus:**

We are seeking highly motivated graduate students (MSc or PhD) to join our lab, where we investigate the neurophysiology of autism spectrum disorder (ASD) using mouse models. Our research seeks to understand how changes in neuronal excitability, synaptic plasticity, and circuit dynamics give rise to behavioural and cognitive phenotypes of ASD. By combining rigorous behavioural assays with advanced neurophysiology, our aim is to bridge fundamental cellular/molecular dysfunctions to systems-level outcomes, ultimately contributing insight towards therapeutic strategies.

### **Training and Environment:**

Graduate students will have the opportunity to develop expertise across a wide range of approaches, including *in vivo* and *ex vivo* electrophysiology, optogenetics and chemogenetics, neural imaging, and behavioural neuroscience. Training in the lab emphasizes both technical skill development and quantitative data analysis, ensuring that students are well prepared for diverse scientific careers. Our group is part of the Hotchkiss Brain Institute and Alberta Children's Hospital Research Institute, a vibrant and highly collaborative research community that brings together basic, clinical, and computational neuroscientists. Students benefit from world-class facilities, dedicated mentorship, opportunities for national and international conference presentations, and strong institutional support for fellowships and professional development.

### **Qualifications and Experience:**

- Background in neuroscience, physiology, psychology, biology, or related fields
- Hands-on laboratory research experience, ideally in electrophysiology, imaging, or behavioural neuroscience
- Proficiency in quantitative and computational approaches, including programming in MATLAB or Python, statistics, and signal analysis
- Strong problem-solving abilities, independence, and motivation to learn new techniques
- Excellent communication skills and interest in presenting at conferences and publishing in peer-reviewed journals

### **How to Apply:**

Interested candidates should contact Dr. Derya Sargin ([derya.sargin@ucalgary.ca](mailto:derya.sargin@ucalgary.ca)) with a cover letter outlining your research interests and goals, a CV, and the names of two to three referees. Review of applications will continue until positions are filled. Only shortlisted candidates will be contacted.

The University of Calgary and Research Institutes provide an outstanding environment for graduate training in neuroscience, and Calgary offers a high quality of life with access to a vibrant city and the Canadian Rockies. We are committed to fostering an equitable, diverse, inclusive, and accessible research environment. We strongly encourage applications from women, Indigenous Peoples, members of visible minorities, persons with disabilities, LGBTQ2S+ individuals, and others who may contribute to the diversification of ideas and perspectives.