

## **Research Associate position available**

### **Neuronal and molecular mechanisms underlying cardiovascular and autonomic dysfunction following spinal cord injury**

The Krassioukov Lab in the International Collaboration on Repair Discoveries (ICORD) research centre, Faculty of Medicine at the University of British Columbia (UBC) Vancouver campus invites applications for a full-time Research Associate in the area of neuronal and molecular mechanisms underlying cardiovascular and autonomic dysfunction following spinal cord injury with an anticipated start date of June 1, 2025 or a date to be mutually agreed upon.

The expected salary for this position is \$70,000 per year. The duration of the position is 2 years, with possibility of extension. This position is grant-funded.

Equity and diversity are essential to academic excellence. An open and diverse community fosters the inclusion of voices that have been underrepresented or discouraged. We encourage applications from members of groups that have been marginalized on any grounds enumerated under the B.C. Human Rights Code, including sex, sexual orientation, gender identity or expression, racialization, disability, political belief, religion, marital or family status, age, and/or status as a First Nation, Metis, Inuit, or Indigenous person.

All qualified candidates are encouraged to apply; however, Canadians and permanent residents of Canada will be given priority. To comply with the Government of Canada's reporting requirements, the University gathers information about applicants' status as either a permanent resident of Canada or Canadian citizen. Therefore, all applications must include one of the following statements in their cover letter:

- I am a citizen or permanent resident of Canada; or
- I am not a citizen or permanent resident of Canada

ICORD (International Collaboration on Repair Discoveries) is a world-leading health research centre focused on spinal cord injury (SCI). Located at the University of British Columbia (UBC) Vancouver General Hospital campus in Vancouver, Canada, ICORD is dedicated to advancing the quality of life for people with spinal cord injuries through innovative research and discovery. Our multidisciplinary team includes scientists, clinicians, and trainees from a variety of fields working together to understand spinal cord injuries and develop effective strategies for treatment and rehabilitation.

Dr. Andrei Krassioukov is a leading expert in spinal cord injury (SCI) research with a strong background in clinical and basic experimental research regarding autonomic control. Dr. Krassioukov is internationally known for pioneering translational research understanding, characterizing and improving autonomic nervous system function after SCI and his unwavering commitment to improving SCI clinical care. Dr. Krassioukov continues to push the limits of what is possible for recovery following SCI. His current basic and clinical research focuses on employing electrical stimulation techniques to restore autonomic functions following SCI.

The Research Associate will be expected to independently lead a research team investigating SCI and autonomic dysfunction (cardiovascular, bladder and bowel) and integrating state-of-the art techniques in evaluating autonomic dysfunctions in rodent models. Responsibilities will include designing and performing *in vivo*, *ex vivo*, and *in vitro* experiments, performing rodent spinal cord and surgeries, supervising animal care and physiological experiments, and conducting histological and microscopic examination of animal tissue (blood vessels, heart, brain, spinal cord and autonomic ganglia). The Research Associate will perform analysis and interpretation of research data, prepare and submit research manuscripts (original manuscripts with research data or reviews), research grant applications, grant progress reports, and ethics protocols related to their projects, in addition to preparing and submitting abstracts and participating in conferences in the area of SCI autonomic dysfunctions. In addition, the Research Associate will train and supervise trainees (graduate, undergraduate, and medical students) as well as research technicians in the lab.

Interested candidates must have an MD or PhD in neuroscience, biomedical engineering, nanotechnology or a related discipline, with postdoctoral fellowship and research experience demonstrating a strong interest in neuroscience, cardiovascular and vascular biology. Candidates must have expertise in advance neuroengineering and translational medicine techniques. Experience in the following areas required:

- Spinal cord injury research, specifically axon regeneration following spinal cord injury, treating injury with polymer-based substrates, and neurotracing using BDA for corticospinal tracts in brain and spinal cord
- Neuromodulation and neurostimulation techniques - specifically, spinal cord and peripheral nerve stimulation as well as epidural electrical stimulation (EES) and electrophysiology
- Experimental animal research – including spinal cord surgeries, post-surgical assessments
- Advanced molecular biology including immunocytochemistry and histology, cell and tissue culture, chemogenetics, calcium imaging, and microscopic techniques
- Neuroengineering techniques such as biomedical device design (injectable devices, neural implants)

Candidates must be self-motivated and have demonstrated experience with independent writing of manuscripts and awarded grant research proposals, with at least three first-authored papers in peer-reviewed journals. Fluency in English (written and spoken) requires; proficiency and fluency in Ukrainian is an asset. Minimum two years' experience as a postdoctoral researcher or research associate required.

Applicants must send the following items to Dr. Andrei Krassioukov ([Andrei.Krassioukov@vch.ca](mailto:Andrei.Krassioukov@vch.ca)):

- Letter of application describing past achievements and future research interests
- Curriculum vitae
- Copies of up to 3 key publications as well as a brief (maximum 1-page) summary of these publications outlining the significance, impact, and your contribution.
- Names and contact information of 3 referees.

Closing date for all applications is May 9, 2025. Should you have any queries around this position or the recruitment process, please contact Dr. Krassioukov.