



CALL FOR PhD APPLICANTS

We are looking for a strong PhD applicant for the Winter of 2026 to conduct research within the newly formed UBC Balance and Falls Research Centre (BFRC). The Research Centre has the unique capacity and expertise to study human balance from the single-sensory and motor neurons all the way to whole-body postural responses. We use a variety of biomechanical, neurophysiological and mechatronics approaches to reveal the fundamental principles underlying human balance control and measure the multifactorial aspects contributing to balance deficits and falls.

Area of Research:

Advancing accessible technological solutions for detecting, monitoring and improving balance dysfunction.

The research involves the development and validation of novel low cost technologies to advance innovation in balance-assessment tools and balance-assistive devices designed for real-world research and clinical applications. Innovative approaches may include (but are not limited to): wearable sensors, simple mechanical devices, neuromuscular stimulation and virtual/augmented reality that will ultimately help reduce the prevalence and impact of balance deficits and falls

The successful candidate will work under the supervision of the BFRC co-directors (Dr. Jean-Sébastien Blouin & Mark Carpenter) and core research members within the BFRC (for key members see <https://balancefalls.ubc.ca/about-us/researchers>) and will be expected to support collaborative scientific research that integrates basic science with clinical applications within the Centre.

Background Required:

MSc in Kinesiology, or related areas of neuroscience or engineering, completed no later than December 2025. Academic record must demonstrate academic excellence and strong research potential to be competitive for external scholarships (e.g. NSERC, CIHR).

Applicants must have a strong interest and demonstrated experience in human balance control research. Software programming skills in one or more of MATLAB, LabVIEW, Python, or related programming language is required. Experience with mechatronics, signal processing, computational modeling, motion capture and/or biomechanical analyses of human movement is also an asset.



Application Information

Interested students should submit a CV, statement of interest, and names of two potential referees to the BFRC at the following email address: balance.falls@ubc.ca by the **deadline of July 31st, 2025**.

Applicants will be reviewed and a short interview may be requested. The successful candidate **will be notified by no later than Sept 15th, 2025** and invited to apply for the PhD position within the School of Kinesiology to begin the graduate program in January 2026 or September 2026.

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 persons are encouraged to apply; however, Canadians and permanent residents will be given priority. Any applicant requiring accommodation during the application process or to discuss accessibility needs, please contact either Dr. Mark Carpenter (mark.carpenter@ubc.ca) or Dr. Jean-Sébastien Blouin (jean-sebastien.blouin@ubc.ca).

Funding Information

Successful applicants will receive at least \$24 000 per year for up to 4 years, in base-level financial support. Financial support would comprise a combination of Teaching Assistantships and Research Assistantships. Base-level support may be supplemented with internal and external Scholarships and other research funding depending on level of experience. Upon acceptance, the successful applicant will be encouraged to apply for external funding, if eligible.

Research Group

The UBC Balance and Falls Research Centre (co-directed by Drs. Jean-Sébastien Blouin and Mark Carpenter) unifies a world-class network of internationally-recognized scientists that inter-weaves fundamental balance & falls research, clinical balance assessment, and bio-engineering/technological advancements, to understand the sensorimotor control of human balance and factors that contribute to balance deficits and falls associated with age-related degenerative disorders, spinal cord injuries, vestibular disorders, brain injury and Parkinson's disease.

The BFRC is situated in a new state-of-the-art research laboratory within the new [UBC Gateway Building](#). The 60 m² research facility will link community outreach facilities, Gateway



health clinic and surrounding neuromechanical kinesiology labs co-located within the Gateway Building, and centralize activities with other research labs, clinical facilities, and centres of excellence across UBC and the Lower Mainland. The dedicated BFRC lab space will provide a critical hub to conduct collaborative multi-disciplinary research, concept testing and technological development for BFRC members, trainees, visiting researchers and partners. For more information on the BFRC, please visit <https://balancefalls.ubc.ca/>

The Balance and Falls Research Centre is committed to Inclusive Excellence as described in the UBC Strategic Plan. This commitment is a shared responsibility between all researchers, trainees, staff and industrial partners involved in the activities of the Centre. We make every effort to attract the best trainees from various natural and clinical science disciplines from diverse social identities. Equity, Diversity and Inclusion training is a requirement for all Centre members, both to foster our Inclusive learning environment and to empower trainees to become future leaders who value and foster inclusion. In the Balance and Falls Research Centre environment, we do not tolerate any form of harassment, discrimination or bullying. In addition, UBC as an institution is committed to providing a safe, supportive, and inclusive living and learning environment with dedicated resources and services from the Faculty of Graduate Studies, UBC Service Centre, The Black Graduate Student Network and The First Nations House of Learning to support all students.