

Scientist – Musculoskeletal Imaging/Bioengineering Physical Science Platform/ Holland Bone and Joint Program Sunnybrook Research Institute

The <u>Physical Sciences Platform</u> and the <u>Holland Bone and Joint Program</u> at Sunnybrook Research Institute (SRI) are seeking applications for a full-time musculoskeletal scientist. The position is suitable for an early career candidate with a demonstrable track record in academic research. The mandate of the position is to initiate discovery and translational research in musculoskeletal imaging/bioengineering that is aligned with the strategic foci of the Holland Bone and Joint program: traumatic bone and joint injury, improving arthritis management and impact evaluation across the continuum of care, and minimally invasive interventional strategies for spine and bone metastases. Specific areas of expertise include but are not limited to image analysis (CT and MRI), image guided therapy/diagnostics, machine learning, computer vision, tissue biomechanics, musculoskeletal reconstruction, technology development and simulation. As a hospital-based research institute, there is tremendous opportunity to leverage the high-volume clinical programs (Divisions of Orthopaedic and Spine Surgery) that exist in adult care for traumatic musculoskeletal injury, spinal disease and reconstruction. The successful candidate will hold a scientist designation within the Physical Sciences Research Platform and Holland Bone and Joint Program of Sunnybrook Research Institute, and a faculty appointment in a cognate department at the University of Toronto.

Sunnybrook Health Sciences Centre is a fully affiliated Academic Health Sciences Centre of the University of Toronto. SRI is one of the fastest growing hospital-based research enterprises in Canada with well-established programs in discovery and translational research. SRI conducts > \$100 million in research each year in over 500,000 square feet of infrastructure, developing innovations in care for more than 1 million patients annually. The vision of Sunnybrook is to invent the future of health care. As such, the mission of SRI is to integrate research with health care delivery across Sunnybrook to drive clinical excellence, innovation and commercialization. SRI is committed to the advancement of personalized and precise diagnostics and therapeutics, and image-guided, minimally-invasive therapeutics. The position offers outstanding opportunities for translational research through affiliations with the Physical Sciences Research Platform at SRI and the Program's Divisions of Orthopaedic Surgery, Spine, and Rheumatology at Sunnybrook Health Sciences Centre. A focus that extends beyond the Holland Bone and Joint Program to encompass integrated research that aligns with at least one additional clinical program is expected: Trauma; Cancer; Brain Sciences; Precision Diagnostic and Therapeutics; Rehabilitation; Integrated Community; Heart; Veterans; and Women and Babies. Additional opportunities exist for collaboration with the many institutes and programs at the University of Toronto.

The goal of the Physical Sciences Platform is to advance scientific discovery, develop new medical technologies, and foster commercialization of discovery research so as to enable its translation and uptake into the clinic. Our research is specifically aimed at the delivery of novel diagnostic and interventional techniques to the hospital's clinical programs. Research areas in Physical Sciences include Biomedical Imaging and Image Analysis (MRI, Ultrasound, X-Ray, Digital Pathology and Optical); Precision Medicine (Radiogenomics, Theranostics); Computational Modeling and Machine Learning; Design and Development of Medical Devices; Biophysics and Bioengineering. A major focus is Image-Guided Therapy, a theme that has been supported by the Canada Foundation for Innovation and FedDev leading to the establishment of the Centre for Research in Image-Guided Therapeutics; and by the federal Strategic Innovation Fund giving rise to Inovait, an industry-academic consortium for AI and Image-Guided Therapy. Physical Scientists at SRI engage clinical partners in their research and pursue opportunities to move their innovations to the clinic through pre-clinical and first-in-human testing to commercialize the products of their research by creating start-ups and licensing, and/or by partnering with companies in the development of new technologies. They are strongly supported in these commercialization efforts by SRI's Technology Transfer office.

The successful candidate will have a PhD or equivalent training, inclusive of post-doctoral fellowship experience, and be eligible for a University of Toronto appointment at the level of an Assistant Professor. The successful candidate will be expected to establish an internationally recognized, competitive and stable peer-review-funded independent program in discovery and/or translational research and to develop collaborative research initiatives. Administrative responsibilities at the University of Toronto will be determined via discussion with the university cognate department.

How to Apply:

Applications should include:

1) A letter of interest. The letter should describe the applicant's research accomplishments in addition to laying out a vision of their proposed research at SRI and detailed academic plan. A paragraph describing the applicant's approach to equity, diversity and inclusion in the laboratory is expected.

2) A complete curriculum vitae including professional services, outreach, mentoring / training of highly qualified personnel and other contributions appropriate to the position.

3) The names and contact details for 3 referees

4) A voluntary self-identification form.

Please send your complete application package to:

Dr. Meaghan O'Reilly, PhD c/o Anzu Hara Physical Sciences Platform and Holland Bone and Joint Program Sunnybrook Research Institute 2075 Bayview Ave, Room C7 36a, Toronto, Ontario, Canada, M4N 3M5 Email: <u>PSPlatform-recruitment@sunnybrook.ca</u> Email subject: PSP HB&J Scientist

The post will stay active and applications will be received until the position is filled. Incomplete applications will not be considered. **We would like to thank all applicants, but only those selected for an interview will be contacted.** All qualified candidates are encouraged to apply; however, *Canadians and permanent residents* will be given priority.

Selection Process and Criteria: The selection committee, which will be chaired by Dr. Meaghan O'Reilly, will evaluate applicants based on the application packages provided. Applications will be considered beginning March 15, 2023.

Diversity Statement: Sunnybrook Research Institute is strongly committed to inclusion and diversity within its community and welcomes all applicants including but not limited to: women, visible minorities or persons of colour, Indigenous peoples, people from all genders, religions and ethnicities, persons with disabilities, LGBTQ+ persons and all others who may contribute to the further diversification of ideas.

Career Interruptions: Sunnybrook Research Institute recognizes that scientists have varying career paths and understands the impact that career interruptions can have on a candidate's record of research achievement. Candidates are encouraged to explain any interruptions in order to allow for a fair assessment of their application. Selection committee members have been instructed to give careful consideration to, and be sensitive to the impact of, career interruptions in their assessments. For more information about employment opportunities at SRI, contact Penina Jacobsen Brown (penina.jacobsonbrown@sunnybrook.ca).

Accommodation Policy: Sunnybrook Research Institute is committed to providing accessible employment practices that are following the Accessibility for Ontarians with Disabilities Act (AODA). If you require accommodation for disability during any stage of the recruitment process, please indicate this in your cover letter or contact Penina Jacobsen Brown (penina.jacobsonbrown@sunnybrook.ca).

Job Information:

Position Title: Scientist, Physical Sciences Platform NOC Code and Title: NOC 2121– Research Scientist

Number of positions: 1 (One)

Education Requirements: Doctoral/PhD Language Requirements: Verbal: English, Written: English Duration of Employment: Permanent **(3 Year Term, Renewable)**, Full-time Salary range: \$CDN 110,000– \$130,000 CDN Benefits: 4 weeks' vacation accrued annually; Benefit Program including extended health care, dental insurance, life insurance, short term disability, long term disability, and the Healthcare of Ontario Pension Plan