



Job Posting: Post-doctoral Fellow in Computational Biology, Bioinformatics and Neurobiology

Faculty / Division

Medicine

Department

Laboratory Medicine and Pathobiology

Supervisor

Professor Scott Yuzwa

Campus

St. George (downtown Toronto)

Description

The Yuzwa lab in the Department of Laboratory Medicine and Pathobiology (LMP) at the University of Toronto is seeking to hire a Post-doctoral Fellow to work on an exciting project that will unravel lineage and spatial relationships between cells of the mammalian brain and the impacts of disease on these relationships. The primary approaches that will be applied in these studies are single-cell (scRNA-seq) and spatially-resolved transcriptomics (available in-house), the generation of novel DNA constructs (using molecular cloning), primary neural culture and in vivo studies, along with computational biology/bioinformatics to develop and apply tools to analyze the data.

The ideal profile of the successful applicant would be someone who: 1) has a strong training in wet-lab molecular genetics or neurobiology and has a keen interest in learning and applying computational/bioinformatic tools to analyze the data that are generated **OR**; 2) has a strong background in dry-lab computational biology/bioinformatics and is interested in working closely with individuals in the lab carrying out the wet lab experiments to analyze the data that are produced. The successful applicant will work independently, with consultation from the Principle Investigator (PI), to lead the data collection and analysis. Moreover, the applicant will assist in the dissemination of the data by assisting in the writing of manuscripts and presenting at scientific conferences. In addition, the applicant may be required (as directed by the PI) to work with and train graduate/undergraduate students and collaborate with internal/external research groups as needed.

Qualifications (Minimum)

Education: Applicant must hold a PhD or equivalent degree (within 3 years of being awarded) by the agreed upon start date in bioinformatics, computer science, neurobiology, molecular genetics or a related discipline.

Experience: Applicant must demonstrate a strong record of research achievement as evidenced by the ability to prepare and publish scientific manuscripts in major journals and present

research findings at scientific meetings. As described above, applicants must (at minimum) have prior training in neurobiology/molecular genetics **OR** computational biology/bioinformatics and have a desire to work on an interdisciplinary project which merges these two areas.

Skills: For applicants with prior training in computational biology/bioinformatics: Experience in the analysis of NGS-based transcriptomic data is ideal. Familiarity with the analysis of scRNA-seq/spatially-resolved transcriptomic data is highly desirable. A strong background in the R language and the use of common R packages employed to analyze transcriptomic data would be assets. Some familiarity with Python/MATLAB/Unix/Linux environments and processing NGS data would also be advantageous.

For applicants with prior training in neurobiology/molecular genetics: Experience cloning DNA constructs, synthetic biology, primary neural cell culture, in vivo studies of the brain, immunohistochemistry/immunocytochemistry, and tissue sectioning would be assets.

In addition, regardless of prior training, the applicant must possess a number of the following skills: experience with experimental design and troubleshooting; ability to adapt and learn new techniques; strong communicator (both oral and written); excellent analytical and problem-resolution skills; good time management and organizational skills with the ability to work on multiple competing tasks.

Job Posting

February 25, 2022

Job Closing

Open until filled.

Available

Immediately. Start dates up to September 2022 may be considered.

Salary:

The salary will be in the range of \$50,000-\$60,000 (CAD), commensurate of research accomplishments and experience.

The normal hours of work are 40 hours per week for a full-time postdoctoral fellow (pro-rated for those holding a partial appointment) recognizing that the needs of the employee's research and training and the needs of the supervisor's research program may require flexibility in the performance of the employee's duties and hours of work.

Application:

Please forward a cover letter, CV and names and contact information for three references to:

Dr. Scott Yuzwa
Department of Laboratory Medicine & Pathobiology
University of Toronto

Medical Sciences Building, 1 King's College Circle,
Toronto, ON M5S 1A8
Email: scott.yuzwa@utoronto.ca

Employment as a Postdoctoral Fellow at the University of Toronto is covered by the terms of the CUPE 3902 Unit 5 Collective Agreement.

Diversity Statement

The University of Toronto is strongly committed to diversity within its community and especially welcomes applications from racialized persons / persons of colour, women, Indigenous / Aboriginal People of North America, persons with disabilities, LGBTQ persons, and others who may contribute to the further diversification of ideas.

Accessibility Statement

The University strives to be an equitable and inclusive community, and proactively seeks to increase diversity among its community members. Our values regarding equity and diversity are linked with our unwavering commitment to excellence in the pursuit of our academic mission. The University is committed to the principles of the Accessibility for Ontarians with Disabilities Act (AODA). As such, we strive to make our recruitment, assessment and selection processes as accessible as possible and provide accommodations as required for applicants with disabilities. If you require any accommodations at any point during the application and hiring process, please contact imp.hr@utoronto.ca