



Postdoctoral Position in Cell and Molecular Biology University of Toronto, Structural Genomics Consortium

Are you interested in drug discovery and the translation of biological knowledge? Want to work in a diverse, fast-paced, multidisciplinary environment that combines disease and basic biology mechanisms, discovering new inhibitors and exploiting them to determine the cellular function of proteins in human diseases?

The lab of Barsyte-Lovejoy at the Structural Genomics Consortium is seeking an ambitious and scientifically-creative Postdoctoral Research Fellow to investigate how drugging posttranslational modifications such as arginine methylation and ubiquitylation can be used to discover cancer and immune disease targets. The successful candidate will work in a highly collaborative environment within the Structural Genomics Consortium alongside our academic and industry partners. Utilizing novel inhibitors (chemical probes) and PROTAC degrader compounds, proteomics, and epigenome analysis, the candidate will discover how posttranslational modifications and their associated protein complexes are regulated and can be exploited to target cancer.

Recent selected publications relating to the project:

- Srour et al. PRMT7 ablation stimulates anti-tumor immunity and sensitizes melanoma to immune checkpoint blockade. *Cell Reports*. 2022 38(13): 110582.
- Szewczyk et al. PRMT5 regulates ATF4 transcript splicing and oxidative stress response. *Redox Biology*. 2022 51: 102282
- Dilworth et al. A chemical probe targeting the PWWP domain alters NSD2 nucleolar localization. *Nature Chem Biol* 2022 Jan;18(1):56-63
- Wu et al Protein arginine methylation: from enigmatic functions to therapeutic targeting. *Nature Rev Drug Discov*. 2021, 20(7):509-530
- Szewczyk et al. Pharmacological inhibition of PRMT7 links arginine monomethylation to the cellular stress response. *Nature Commun*. 2020 14;11(1):2396.

Qualifications:

- Strong experimental skills in: molecular biology, protein, RNA, and DNA analysis.
- Experience in cell imaging, bioinformatics, and proteomic/(epi)genomic analyses.
- Experience in cell culture, phenotypic screening, and cancer cell biology.
- Strong English language, organizational, team, and communication skills.
- PhD obtained within the last 5 years.

Interested candidates, please send CV and cover letter to Dr Barsyte-Lovejoy d.barsyte@utoronto.ca with the subject line Postdoctoral Position in Cell and Molecular Biology.

The SGC is a not for profit, public-private partnership working with academia and ten pharmaceutical companies to carry out open access research relevant to human health and drug discovery. www.thesgc.org. The University of Toronto and its affiliated hospital research institutes comprise one of the largest and most productive centers of biomedical research in North America. Located in vibrant downtown Toronto, the University provides an outstanding opportunity for scientific research, and career development. 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. All qualified incumbents are encouraged to apply; however, Canadians and permanent residents will be given priority.