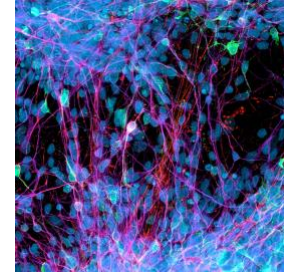


Position Title: Postdoctoral Fellow – Stem Cell models of Parkinson's Disease

Overview: Postdoctoral positions studying the neurobiology of Parkinson's disease are available in the laboratory of Dr. Scott Ryan at the University of Calgary. The Ryan lab studies Parkinson's Disease (PD) utilizing patient-based stem cell models (2D and 3D) to generate neuron and glial populations that harbour disease-causing mutations. These models are complemented by in vivo mouse models infused with toxic oligomers and in vitro biophysical analysis of recombinant protein structure.

Potential projects will explore:

- 1) How alpha-synuclein fibrils drive cellular pathology, with a particular focus on whether distinct amyloid structural strains drive unique patterns of neural dysfunction.
- 2) The impact of neuron-glial crosstalk on metabolic dysfunction in PD.
- 3) The role of α -syn-mediated LLPS in vesicle release and recycling at the presynaptic active zone.



As part of our multidisciplinary team, the successful candidate will integrate stem cell technology with advanced biophysical approaches to examine the effects of pathogenic fibrils on synaptic architecture, endosomal trafficking, autophagy, and nuclear function. Our overarching goal is to identify the molecular mechanisms that accelerate disease progression and leverage this knowledge toward therapeutic development.

Qualifications

- Ph.D. in Neuroscience, Biochemistry, or a related discipline
- Established track record of publications
- Highly organized and detail-oriented
- Strong time-management skills and ability to work independently

Technical Skills You Will Develop

- hESC/hiPSC culture and maintenance
- Directed differentiation and organoid culture
- Advanced light microscopy
- In vivo imaging
- Protein biochemistry
- Integration of biophysical tools with stem cell models

How to Apply: Applications, including a cover letter, CV, and the names of three professional/academic references (with contact details) should be sent to: scott.ryan@ucalgary.ca. Applications will be accepted until a suitable candidate is found.

Additional Information can be found at www.neurobiology.ca



About the University of Calgary

The University of Calgary is Canada's leading next-generation university – a living, growing and youthful institution that embraces change and opportunity with a can-do attitude. Located in the nation's most enterprising city, the university is making tremendous progress on its Eyes High journey to be recognized as one of Canada's top five research universities, grounded in innovative learning and teaching and fully integrated with the community it both serves and leads. The University of Calgary inspires and supports discovery, creativity and innovation across all disciplines. For more information, visit ucalgary.ca.

The University of Calgary has launched an institution-wide [Indigenous Strategy](#) in line with the foundational goals of [Eyes High](#), committing to creating a rich, vibrant, and culturally competent campus that welcomes and supports Indigenous Peoples, encourages Indigenous community partnerships, is inclusive of Indigenous perspectives in all that we do.

As an equitable and inclusive employer, the University of Calgary recognizes that a diverse staff/faculty benefits and enriches the work, learning and research experiences of the entire campus and greater community. We are committed to removing barriers that have been historically encountered by some people in our society. We strive to recruit individuals who will further enhance our diversity and will support their academic and professional success while they are here. In particular, we encourage members of the designated groups (women, Indigenous peoples, persons with disabilities, members of visible/racialized minorities, and diverse sexual orientation and gender identities) to apply. To ensure a fair and equitable assessment, we offer accommodation at any stage during the recruitment process to applicants with disabilities. Questions regarding [diversity] EDI at UCalgary can be sent to the [Office of Equity, Diversity and Inclusion](#) (equity@ucalgary.ca) and requests for accommodations can be sent to Human Resources (hrhire@ucalgary.ca).

We encourage all qualified applicants to apply, however preference will be given to Canadian citizens and permanent residents of Canada.