



Join Our Team

The Quandt Neuroinflammation Research Laboratory at UBC – Vancouver, CANADA

Position: Post-Doctoral Fellow – Start spring/summer 2023

With support from funding agencies as well as privately funded initiatives our group is growing. We are expanding our research efforts and are looking for committed team players interested in making a difference in health research and the lives of individuals living with neurodegenerative disorders including MS.

Focus project areas:

- A recent CIHR project grant to study a preclinical model of primary progressive MS based on a variant identified in families impacted with a particularly severe and aggressive form of MS
- The mutation impacts *Nr1h3* or *LXRA* such that immunomodulatory pathways are disrupted as is cholesterol reverse transport/lipid metabolism.

Candidates: Candidates with expertise in **neuroscience/immunology related cell culture, molecular biology, murine preclinical and behavioural models** are encouraged to apply. The candidate should have a **solid record of publication and demonstrated excellence in science writing and communication**. The successful candidate is a **team player** who will undertake a research project aimed to examine several of the following aims utilizing these mice:

- Characterize pathological changes in the mouse CNS associated with the *Nr1h3* mutation.
- Characterize how the *Nr1h3* mutation influences inflammatory mediators and function of T, B and myeloid cells/priming involved in the potentiation and resolution of inflammation.
- Characterize the specific contributions of the *Nr1h3* mutation to neuroinflammatory pathways *in vivo* and identify mechanistic targets for intervention to enhance lesion resolution and repair. Experimental autoimmune and chemical demyelinating models.

Training & expectations: Major areas of focus will include neuroinflammation, immune populations, neurodegeneration and repair. The candidate should have a solid understanding and demonstrated proficiency in several of the following:

- Cell culture methods involving both isolation and maintenance of rodent neuronal, glial and immune primary cultures as well as cell lines.
- Ability to perform and troubleshoot a wide variety of molecular and cellular biology techniques: qPCR, siRNA knockdown and cDNA construct delivery, flow cytometry, immunohisto/cytochemistry, immune function assays, experience with scRNA seq and associated data analyses/mining are a strong asset
- A comprehensive understanding of experimental design and assay optimization is important.
- Mastery of fluorescence and light microscopy; conventional and/or confocal
- Applicants with experience in pre-clinical models of neurodegenerative diseases including MS (including transgenic mice) are especially encouraged to apply, particularly autoimmune and chemical demyelinating.
- Maintenance/monitoring of colonies of transgenic animals, including colony breeding, screening and management.

Interested candidates should send a **statement of research interests** and an **updated CV with contributions to publications specified** along with the **names of three references** to jquandt@pathology.ubc.ca. Applications will be reviewed on a rolling basis.

For more information, visit our website at www.quandtlab.com

