

## POSTDOCTORAL POSITION IN NEUROLOGY

### Westaway Lab, Centre for Prions and Protein Folding Disease

The Centre for Prions and Protein Folding Disease (CPPFD) at the University of Alberta is currently accepting applications for the role of postdoctoral fellow with expertise in Cell Biology. This position will be primarily responsible for performing a diverse array of cell biological analyses to probe the mechanisms that underpin the pathogenesis of neurodegenerative disease. The work will include a focus on proteostatic pathways within neurons and builds upon recent publications on the chemistry of the cellular prion protein. Other projects concern the definition of toxic protein species and pathways to therapy using genetically engineered animal models. An optional but potentially advantageous skill-set for the position is take on some middle manager responsibilities in the Westaway Lab, coordinating cell biological projects with transgenic and histology cores.

#### Key Responsibilities include:

- Plans research activities and provides research design for the program; determines the most appropriate methodology in carrying out identified research goals
- Designs experiments, data collection protocols and standards; conducts advanced analysis of research results
- Participates in the scientific writing of research papers and publications
- Transfects or uses viral delivery to transduce mammalian cells such as N2a and RK-13 cells with protein encoding plasmids and siRNAs for modulation of endogenous gene expression
- Consults the literature and selects compounds and antibiotics to apply to cells along with devising and acquiring suitable positive and negative control reagents/resources
- Analyses cell lysates by RT-PCR and northern blot analysis of RNA expression, and by western blotting, ELISA, filter-trap assays and native gel electrophoresis for transgene-encoded proteins
- Performs immunohistochemistry on fixed cultured mammalian cells or primary neuronal cultures, prepares samples for confocal microscopy and interprets micrographs
- Performs sub-cellular fractionations, enzyme assays on cell lysates using chromogenic or fluorogenic substrates; collect data with a fluorimeter or spectrophotometer
- Provides literature search assistance by researching of publications, periodicals, manuals and articles

#### Optional responsibilities include:

- Manages students carrying out cell biological procedures and collates, refines and interprets primary data
- Interacts with transgenic core, animal breeding resource manager and histology manager to adjust plans for cell biological projects within the Westaway Lab
- Coordinates research activities with personnel in the transgenic production and histopathology core within the CPPFD

The preferred successful applicant will hold a PhD or equivalent degree and, in addition to performing cell biological experiments, will also serve to organize some day-to-day aspects of lab operations including the maintenance of equipment, reagents inventories, standard protocols and biological stocks. Expertise in cell biological techniques such as fluorescent staining, subcellular fractionation, multi-well assays, viral vectoring, transfection, electroporation, selection of clonal isolates and cell viability assays would be greatly advantageous. The successful applicant will have obtained a PhD in the past 5 years. Two years prior experience as a postdoctoral fellow and some previous experience in a supervisory role would be advantageous, as would prior experience with radioisotopic tracers and primary neuronal cultures.

This position is for an initial appointment of one year, with the possibility of extension. Annual salary will be \$36,725.22 per year or greater, subject to prior experience. Benefits information for this position can be found at the following link: <http://www.postdoc.ualberta.ca/HealthCoverage.aspx>.

**To Apply:**

Please submit a CV with a list of 3 references therein to [scbrown1@ualberta.ca](mailto:scbrown1@ualberta.ca).

**Closing date:**

Position open until filled.

**We thank all applicants for their interest; however, only those individuals selected for an interview will be contacted.**

*The University of Alberta offers appointments on the basis of merit. We are committed to the principle of equity in employment. We welcome diversity and encourage applications from all qualified women and men, including persons with disabilities, members of visible minorities and Aboriginal persons.*