

Postdoctoral Associate

Virginia Commonwealth University (VCU), Department of Anatomy & Neurobiology, is currently recruiting for a Postdoctoral Research Associate position to study molecular aspects and mechanisms of neurotrauma. Applicants will participate in federally funded studies focusing on neuroproteomic dynamics consequent to traumatic brain injury (TBI). These studies focus on characterizing changes at the molecular level using immunochemical and state-of-the-art mass spectrometric techniques and animal models of TBI. VCU offers a supportive, collaborative training environment in neurotrauma research.

The Postdoctoral Research Associate will participate in ongoing neurotrauma research. Particular topics include: temporal characterization of the post-TBI degradome, the compilation and origination of proteolytic products consequent to TBI; the temporal characterization of neuroproteome dynamics consequent to differing injury modalities. These and other research topics are aimed at understanding the complex molecular underpinning of the brain's response to acute injury, with an eye on translation to diagnostics and therapy. An opportunity exists for someone knowledgeable in modeling and the neurobiology of TBI with an interest in biochemical and proteomics training, or the opposite, an individual with mass spectrometry and a biochemical background interested in learning the neurobiology of TBI.

Required: A Ph.D. in 1) neuroscience or related neurobiology discipline, or 2) a Ph.D. in chemistry or biochemistry with proteomics training. Excellent writing and communication skills are essential.

Option 1) The neuroscientist applicant must have experience with rodent models (preferably brain injury), rodent surgical skills, to include brain tissue and biofluid harvesting. Experience with immunochemical skills such as immunohistochemistry, Western blot assay, and a functional background in statistical analysis of complex datasets is also required. Further, a biochemistry background with knowledge of cellular processes (e.g., metabolism, cell death, proteolysis, etc.) is essential. The individual must have a keen interest in molecular studies of neurotrauma and in learning and employing neuroproteomic techniques and associated bioinformatic tools. Collateral skills with Option 2 are a positive.

Option 2) The biochemical mass spectrometrist applicant must have experience with nano-liquid chromatography and tandem mass spectrometry, the processing of proteomic mass spectrometry data for sequence identification and quantification of proteomic products. The applicant must have a functional background in statistical analysis of proteomic data, and a biochemistry background with knowledge of cellular processes (e.g., metabolism, cell death, proteolysis, etc.). The individual must have a keen interest in molecular studies of neurotrauma and in learning and employing animal modeling of neurotrauma and immunochemical skills. Collateral skills with Option 1 are a positive.

Interested candidates should submit a cover letter and curriculum vitae with references via email to: akottens@vcu.edu.