Post-Doc Position - Cellular and Molecular Mechanisms of TBI

This post-doc position is in the laboratory of Dr. Raghu Vemuganti, Professor and Vice-Chair for Basic Research in the Dept. of Neurological Surgery. The lab is supported by several federally funded (NIH and VA) grants.

PhD in neuroscience or biomedical sciences and proficiency in English are required. The incumbent is expected to interact with several scientists, post-docs, grad students and undergrad students working in Vemuganti Lab.

The primary project is to investigate the significance of oxidative stress, ER stress and inflammation after TBI induced by controlled cortical impact in adult mice. Proficiency in rodent TBI induction, motor and cognitive function analysis, histopathology, immunohistochemistry, Western blotting and real-time PCR is required. Data analysis, statistical analysis and writing skills are expected.

Secondary projects involve analysis of the role of microRNAs, lncRNAs, epigenetics and epitranscriptomics in brain damage after TBI. Knowledge of RNA-seq analysis, bioinformatics and noncoding RNAs is helpful.

If interested, submit your CV, a brief cover letter indicating your prior research experience and career goals to Dr. Raghu Vemuganti (vemuganti@neurosurgery.wisc.edu).

University of Wisconsin located at Madison, WI, USA is one of the Big-10 universities with >1,000 active biomedical research laboratories. Madison is considered as one of the top 10 places to live in the United States.

University of Wisconsin is an equal opportunity employer and encourages applications from underrepresented groups and women.

Representative publications from the lab:

Chandran R, Kim T, Mehta SL, Udho E, Chanana V, Cengiz P, Kim H, Kim C, Vemuganti R (2018) A combination antioxidant therapy to inhibit NOX2 and activate Nrf2 decreases secondary brain damage and improves functional recovery after traumatic brain injury. ***Journal of Cerebral Blood Flow & Metabolism*** 38: 1818-1827.

Kim TH, Mehta SL, Lopez M, Sullivan R, Kim HT, Morris-Blanco K, Kim HW, Kim C, Vemuganti R (2018) microRNA miR-7a-5p ameliorates ischemic brain damage by targeting α-synuclein. ***Science*** *Signaling* 11(560). Pii: eaat4285.

Nakka VP, Vemuganti R (2016) Crosstalk between ER stress, oxidative stress & autophagy: potential therapeutic targets for ischemic brain damage. ***Molecular Neurobiology*** 53: 532-544.

Mehta SL, Kim T, Vemuganti R (2015) Long noncoding RNA FosDT promotes ischemic brain injury by interacting with REST-associated chromatin-modifying proteins. ***Journal of Neuroscience*** 35:16443-16449.