POST-DOCTORAL FELLOWSHIP POSITION

Department of Neuroscience
Vickie and Jack Farber Institute for Neuroscience
Thomas Jefferson University Medical College
Philadelphia, Pennsylvania

Position: An NIH-funded post-doctoral fellowship position is available immediately for an individual with interest in examining the pathogenesis and treatment of spinal cord injury (SCI) in animal models.

Laboratory interests: In the Spinal Cord Repair Laboratory of Angelo Lepore, we study cellular mechanisms underlying the pathogenesis of SCI in experimental models of the disease. A major goal of the lab is to develop cutting-edge therapeutic strategies that can be translated to individuals affected by SCI. We are particularly interested in therapeutically targeting respiratory dysfunction and chronic neuropathic pain as patient-relevant functional outcomes. Our group is highly interested in examining a number of important cellular mechanisms involved in SCI pathogenesis, including (1) manipulating molecules in the central nervous system that inhibit or promote axon regeneration, (2) the role played by astrocytes in maintaining normal nervous system homeostasis and how astrocyte function goes awry in diseases such as SCI and ALS, and (3) the contribution of alterations in synaptic signaling to SCI disease processes. Our lab also has a major focus on using transplantation of various classes of neural stem and progenitor cells as therapeutic approaches for achieving cellular replacement, neuroprotection and axon regeneration. Collectively, our lab is taking a multi-disciplinary approach to understand the pathogenesis of SCI and, importantly, to develop innovative therapies that can improve the lives of individuals affected by SCI. Please visit the lab’s website for more details about our work and members of the group: https://research.jefferson.edu/labs/researcher/lepore-laboratory.html

Projects: Studies will have a strong in vivo emphasis, and include examining: (1) regeneration and synaptic reconnectivity of respiratory neural circuitry after SCI; (2) role of astrocytes in SCI pathogenesis and repair; (3) cellular mechanisms underlying chronic neuropathic pain induced by SCI; (4) role played by synaptic molecules in both adaptive and maladaptive circuit plasticity post-SCI; (5) cell transplantation into SCI animal models.

Desired skills: We are looking for an independent, motivated and enthusiastic post-doctoral fellow (or research associate) with experience in: writing manuscripts; animal models of SCI and/or other nervous system disease; progenitor cell biology and cell culture; animal surgery; transplantation; viral vectors; behavioral and physiological testing; histology and microscopy; molecular biology and basic biochemistry. The candidate should also bring a strong desire to prepare manuscripts, write fellowship grants (though salary support is guaranteed) and mentor trainees in the lab.

Requirements: Candidates should have a Ph.D. in Neuroscience or related discipline (or M.D. with extensive neuroscience research experience), a strong publication record, written and spoken English proficiency, and importantly an ability to work collaboratively in an extremely friendly and interactive lab environment.

**** Interested applicants are invited to submit curriculum vitae, statement of research experience and interests, and contact information for three references to Dr. Angelo Lepore: angelo.lepore@jefferson.edu