SOCIETY FOR NEUROSCIENCE

WINNIPEG CHAPTER

MANITOBA NEUROSCIENCE NETWORK

Manitoba Neuroscience Network

Friday, April 27, 2012 | 9:00 - 10:00am

Dr. Soheila Karimi

Assistant Professor, Physiology and Biochemistry & Medical Genetics
& Principal Investigator, Regenerative Medicine Program
Principal Investigator, Spinal Cord Research Center
Scientist, Manitoba Institute of Child Health
University of Manitoba

Topic: Regenerative potential of neural stem cells for the repair of spinal cord injury

Location: PX236/238 Psychiatry Bldg.

Biosketch: Dr. Karimi received her PhD degree in Neuroscience from the University of Saskatchewan in 2001. She then undertook a Postdoctoral Fellowship in Spinal Cord Injury and Stem Cell Research at the Toronto Western Research Institute. Dr. Karimi has had a long term interest in spinal cord repair and regeneration with a special focus on the application of neural stem cells (NSCs) for the treatment of spinal cord injury (SCI). During her training, she received a number of research awards including postdoctoral fellowships from the CIHR and the Heart and Stroke Foundation. Her postdoctoral work broke a new ground in SCI by showing that transplantation of adult NSCs can be used therapeutically to replace lost oligodendrocytes and functionally restore the damaged myelin around the axons with improved recovery of function. In 2006, she received the prestigious Synthes Award from the American Association of Neurological Surgeons for this work. Prior to joining the Regenerative Medicine Program and Physiology at the University of Manitoba in 2010, Dr. Karimi was an Assistant Professor at the University of Toronto from 2007 to 2009.

Research Interests: Current research in Karimi's laboratory has focused on regenerative medicine strategies to therapeutically optimize the activation and differentiation of resident NSCs after SCI. Resident NSCs hold tremendous promise for self-repair of injured spinal cord since they have multipotential abilities to replace all damaged neural cells and the potential to provide a supporting environment for repair and regeneration. Using pre-clinical models of SCI, Karimi's team strives to understand how the properties NSCs are modulated within their SCI niche. The goal is to recruit NSCs efficiently to replace damaged oligodendrocytes and promote axon remyelination. The lab has recently identified key factors that seem to play major roles in regulating the proliferation and differentiation of NSCs in SCI condition. Elucidating the underlying mechanisms of NSCs functions will aid in identifying potential therapeutic targets for enhancing cell replacement and tissue reconstruction after SCI.

Presented in co-operation with University of Manitoba
Clinical Neuroscience Rounds

For more information, contact the MNN Office at
(T) 235.3939 or email: mnn@sbrc.ca