Manitoba Neuroscience Network Seminar Series

Friday, January 31st, 2014 | 9:00 am

Dr. Soheila Karimi

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

Topic: Spinal Cord Injury: Elucidating Injury Mechanisms and Developing Repair Strategies

Location: PX236/238 PsychHealth Bldg.

Biosketch: Dr. Karimi received her PhD degree in Neurosciences 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 regeneration with a special focus on the application of neural stem cells for the treatment of spinal cord injury (SCI). During her training, she received a number of academic and research awards including postdoctoral fellowships from the CIHR, Ontario Neurotrauma Foundation and the Heart and Stroke Foundation. Her postdoctoral work broke a new ground in SCI therapeutic field by showing that transplantation of adult neural stem cells can be used therapeutically to replace lost oligodendrocytes and functionally restore the damaged myelin sheath around the injured 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 University of Manitoba in 2010, Dr. Karimi was an adjunct 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 regenerative potential of resident and transplanted neural stem cells for SCI repair. Adult neural stem cells hold tremendous promise for the 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 the post-SCI niche. The goal is to recruit NSCs efficiently to replace damaged oligodendrocytes and promote axon remyelination and functional recovery. The team has recently discovered key factors that seem to play major roles in regulating the proliferation and differentiation of neural stem cells in SCI condition. Elucidating the underlying mechanisms of stem cell functions will aid in identifying potential therapeutic targets for enhancing cell replacement and tissue reconstruction after SCI.

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

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