



Manitoba Neuroscience Network

2015/2016 Seminar & Visiting Speaker Series

Friday, October 30th, 2015 | 9:00 am



Michael P. Namaka

Associate Professor, College of Pharmacy,
Associate Professor in Rehab Medicine (Spinal Cord Injury) & Human
Anatomy and Physiology, College of Medicine,
Faculty of Health Sciences, University of Manitoba

TOPIC: Transcriptional Regulation of Brain Derived Neurotrophic Factor (BDNF) by Methyl CpG Binding Protein 2 (MeCP2): Implications in Re-myelination and/or Myelin Repair in an Animal Model of Multiple Sclerosis (MS)

Location: PX236/238 PsychHealth Bldg.

Professional Expertise: • Multiple Sclerosis • Chronic Neuropathic Pain • Molecular Neurobiology • White Matter Disorders (Spinal Cord Injury) • Clinical Trial Development

Professional Summary: At present Michael Namaka is a Tenured Associate Professor at the College of Pharmacy and Medicine in the University of Manitoba. In addition, Dr. Namaka is also cross-appointed as an Associate Professor in Rehab Medicine (Spinal Cord Injury) & Human Anatomy and Physiology in the Faculty of Medicine at the University of Manitoba and the Winnipeg Regional Health Authority. Michael also is affiliated with Anesthesia Department of Medicine where he has an active clinical practice in the chronic pain clinic with Dr. Howard Intrater. Currently, Michael functions as clinician specialized in multiple sclerosis (MS) and chronic pain, with a recognized cellular expertise in both areas, through his professional designation as a neuro-immunologist. These dual professional designations have allowed Michael to bridge his cellular neuro-immunology research to his neurology based clinical practice. Michael heads a neuro-immunology research laboratory, which serves as the training center for several MD-Ph D; Ph D and Master's students. Since his appointment at the Faculty 13 years ago, Michael holds numerous research grants and has published 43 manuscripts, 2 book chapters, 1 editorial letter, 58 abstracts, and has performed 139 invited presentations world-wide. In addition, Dr. Namaka had 4 submitted and 4 accepted publications this year. Dr. Michael Namaka was awarded the prestigious international: "Commitment to Care Award for his innovative MS research and clinical neurology practice. In addition, Michael held the elected office of Immediate Past President of Association of Faculties of Pharmacy of Canada since May 2010. Currently, Dr. Namaka is the acting President of the Manitoba Multiple Sclerosis Research Network Organization (MMSRNO). Dr. Karen Ethans and Dr. Namaka are the original co-founders of this organization.

Program Objectives: 1. Understand the role of the anatomical connection between the dorsal root ganglia (DRG) and spinal cord (SC) in the molecular signaling involved in re-myelination and/or myelin repair; 2. Understand the homeostatic molecular signaling between cytokines, chemokines and neurotrophins that regulate re-myelination and/or myelin repair; 3. Understand the beneficial role of brain derived neurotrophic factor (BDNF) in regard to re-myelination and/or myelin repair; 4. Understand the upstream role of MeCP2 and its isoforms in the regulation (repression and activation) of the BDNF gene; 5. Understand the molecular mechanisms by which MeCP2E1 isoform represses BDNF expression to disrupt the homeostatic signaling equilibrium between cytokines, chemokines and neurotrophins to facilitate myelin damage; 6. Apply epigenetic interventional strategies to block MeCP2E1 repression of BDNF to promote re-myelination and/or myelin repair with corresponding improvements in neurological disability caused by an immune system mediated attack on CNS myelin.

For more information, contact the MNN Office at
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Partners:



Hôpital St-Boniface Hospital
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Division of Neurodegenerative Disorders



Health Sciences Centre
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