MNN Annual Report
2017
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Annual Meeting

The 2017 MNN Scientific Meeting was held on June 16, 2017 at the Radisson Hotel Winnipeg. The meeting program was organized by Dr. Tabrez Siddiqui. The scientific theme of this meeting was Brain Connections and Mental Health.

The program included two keynote speakers: Dr. Jeff Lichtman from Harvard University and Dr. Jitender Sareen (Head of Psychiatry, University of Manitoba). The 2017 meeting also featured a special session “Science and Society; Collaborating for Change.”

Trainees participated in a poster session/competition, which was followed by a social reception.
Annual Meeting

Program

Friday, June 16, 2017

8:30 Registration Desk Open
8:45 Opening Remarks

Dr. Tabrez Siddiqui
2017 MNN Scientific Meeting Chair
Principal Investigator, Neuroscience Research Program, Kleysen Institute for Advanced Medicine, Health Sciences Centre
Assistant Professor of Physiology and Pathophysiology, University of Manitoba

KEYNOTE Chair: Dr. Chris Anderson
Director, Neuroscience Research Program, Kleysen Institute for Advanced Medicine, Health Sciences Centre; Professor, Department of Pharmacology & Therapeutics, University of Manitoba

9:00 Does connectomics make sense

Dr. Jeff W. Lichtman
Jeremy R. Knowles Professor of Molecular and Cellular Biology, Harvard University; Ramón y Cajal Professor of the Faculty of Arts and Sciences, Harvard University
Annual Meeting

Program

THEME: FUNDAMENTAL MECHANICS

Chair: Dr. Michael Jackson
Principal Investigator, Neuroscience Research Program, Kleysen Institute for Advanced Medicine, Health Sciences Centre; Assistant Professor, Department of Pharmacology & Therapeutics, University of Manitoba

10:00   Placing the midline thalamus within the brain circuits that mediate emotions and motivation

SP-1   Dr. Gilbert J Kirouac
Professor, Departments of Oral Biology and Psychiatry, Colleges of Dentistry and Medicine, Rady Faculty of Health Sciences, University of Manitoba

10.20   Coffee Break
Annual Meeting

Program

10:45  Epigenetic control and mental health; Implicating the role of MeCP2 and DNA Methylation in Rett Syndrome

SP-2  Dr. Mojgan Rastegar
Associate Professor,
Department of Biochemistry and Medical Genetics, Regenerative Medicine Program, University of Manitoba

SPECIAL SESSION: SCIENCE AND SOCIETY; COLLABORATING FOR CHANGE

Chair: Dr. Jean Eric Ghia
Associate Professor, Departments of Immunology & Internal Medicine, University of Manitoba; Director, Gastrointestinal Basic Biology Research, IBD Clinical & Research Centre

11:20  MNN Outreach: Connecting Neuroscientists to the Community

SP-3  Dr. Sari Hannila
Associate Professor, Department of Human Anatomy and Cell Science, University of Manitoba
Annual Meeting

Program

11:35  Looking back, moving forward a model of First Nation mental wellness

SP-4  Ms. Stephanie Sinclair
Graduate Student, Native Studies, University of Manitoba

11:50  Why we need to move beyond compliance to connection

SP-5  Ms. Deborah Dykstra
Co-founder of the Manitoba Association for Developmental Autism Programs and Therapies (ADAPT); Board member and certified trainer for The Manitoba Association for Universal Design for Learning (MAUDeL); Graduate Student in Inclusive Education at the University of Manitoba

12:05  All kinds of brains: Talking about neurodiversity in the community

SP-6  Ms. Lisa van den Hoven
Inspire Community Outreach Inc.

12:05  Lunch Break
Annual Meeting

Program

KEYNOTE Chair: Dr. Tabrez Siddiqui

1:30 Posttraumatic stress disorders in adults

Dr. Jitender Sareen
Professor and Head of Psychiatry, Professor of Psychology & Community Health Sciences, University of Manitoba; Medical Director and Head, WRHA Adult Mental Health Program;

THEME: CLINICAL

Chair: Dr. Tiina Kauppinen
Principal Investigator, Neuroscience Research Program, Kleysen Institute for Advanced Medicine, Health Sciences Centre, Assistant Professor, Department of Pharmacology & Therapeutics, University of Manitoba

2:25 Abnormal connectivity patterns in Posttraumatic stress disorder

SP-7 Dr. Ji Hyun Ko
Principal Investigator, Neuroscience Research Program, Kleysen Institute for Advanced Medicine, Health Sciences Centre; Assistant Professor, Department of Human Anatomy and Cell Science, University of Manitoba
Annual Meeting

Program

2:45  Coffee Break

2:50  Suicide: Epidemiology, risk assessment, and intervention

**Dr. James Bolton**
Associate Professor of Psychiatry, Psychology, and Community Health Sciences, University of Manitoba; Adjunct Scientist, Manitoba Centre for Health Policy


**Dr. Mandana Modirrousta**
Assistant Professor, Department of Psychiatry, University of Manitoba; Director, Neuromodulation and Neuropsychiatry Unit, University of Manitoba

3:40  Trainee talk to be selected from submitted abstracts

4:00  Poster session, social reception and awards ceremony
Dr. Chase Figley January 27, 2017
Assistant Professor - Department of Radiology, University of Manitoba; Principal Investigator - Neuroscience Research Program; Core Member - Biomedical Engineering Graduate Program, University of Manitoba

What’s new in human neuroimaging? Recent advances in MRI acquisition, analysis, and applications

Dr. James Eubanks February 10, 2017
Senior Scientist - Krembil Research Institute Professor - Department of Surgery, University of Toronto

Enhancing Excitation To Combat Lost Silencing: Therapeutic Considerations For Rett Syndrome

Dr. Stephanie Booth February 24, 2017
Department of Medical Microbiology & Infectious Diseases

Untangling the brain’s neurodegenerative transcriptional response in presymptomatic prion disease
Seminar & Visiting Speaker Series

Dr. Tiina Kauppinen  March 31, 2017
Associate Professor, Department of Pharmacology & Therapeutics, University of Manitoba | Principal Investigator, Kleysen Institute for Advanced Medicine

Exposure to gestational diabetes mellitus induces cognitive changes in offspring

Dr. Jeffrey Kleim  April 6, 2017
Associate Director, School of Biological and Health Systems Engineering, Arizona State University

Neural Plasticity and Neurorehabilitation: Encouraging the Brain to Change

Dr. W. Dalton Dietrich  May 5, 2017
Scientific Director, The Miami Project to Cure Paralysis, Departments of Neurological Surgery, Neurology and Biomedical Engineering, University of Miami Miller School of Medicine

New Insights into the Pathophysiology and Treatment of Spinal Cord Injury: Current and Future Initiates
Seminar & Visiting Speaker Series

**Dr. Long-Jun Wu**  
May 19, 2017  
Associate Professor, Department of Neurology, Mayo Medical School, Mayo Clinic

*Microglia-neuron communication in diseased brain*

**Dr. Mojgan Rastegar**  
May 26, 2017  
Associate Professor - Department of Biochemistry & Medical Genetics,; Regenerative Medicine Program, University of Manitoba

*The bidirectional role of MeCP2 in the brain; a multi-layer epigenetic deregulation in MeCP2-associated brain disorders*

**Dr. Brian Lithgow**  
September 29, 2017  
Adjunct Professor - Department of Electrical & Computer Engineering, University of Manitoba

Dr. Zahra Moussavi  
Director - Biomedical Engineering Program, University of Manitoba  
Professor - Department of Electrical & Computer Engineering, University of Manitoba

*The effect of rTMS treatment on post concussion syndrome in double blind placebo-controlled study*
Seminar & Visiting Speaker Series

Dr. Brian Lithgow  
Adjunct Professor - Department of Electrical & Computer Engineering, University of Manitoba

September 29, 2017

The effect of rTMS treatment on post concussion syndrome in double blind placebo-controlled study

Dr. Zahra Moussavi  
Director - Biomedical Engineering Program, University of Manitoba  
Professor - Department of Electrical & Computer Engineering, University of Manitoba

October 27, 2017

An Introduction to the Small Animal and Materials Imaging Core Facility

Mr. Mike Jackson  
Program Coordinator - Small Animal and Materials Imaging Core Facility, University of Manitoba

November 24, 2017

Dr. Hassan Marzban  
Assistant Professor, Department of Human Anatomy & Cell Science, University of Manitoba

Cerebellar development in health and disease: Early mossy fiber afferent and cerebellar circuit formation
BAW Activities

Calendar

WINNIPEG BRAIN BEE
Saturday, March 11
Bannatyne campus, University of Manitoba

SPECIAL LECTURE

Monday, March 13
12:00-1:00pm
Theatre B Bannatyne Campus

Dr. Luda Diatchenko
Canada Excellence Research Chair in Human Pain Genetics

CAFE SCIENTIFIQUE

Wednesday, March 15
7:00-8:30pm
McNally Robinson Bookstore 1120 Grant Avenue

BAW Activities

Calendar

PUBLIC PANEL

*Thursday, March 16*
6:00-8:00pm
Winnipeg Free Press Cafe 237 McDermot Avenue

Discussion on the intersection of art and science with Neurocraft artists and scientists

NEUROCRAFT WORKSHOP

*Friday, March 17*
12:00-1:00pm
Brodie Centre Atrium

Come out to meet Neurocraft artist Ann Stinner and learn to make your own handmade book!
Outreach

Neurocraft Exhibit

Neurocraft is a collaboration between the Manitoba Neuroscience Network and the Manitoba Craft Council (MCC) that explores the connections between art and science. The goal of this project is to make neuroscience more accessible to the public. Neurocraft began in 2014, when nine MNN researchers were paired with nine artists working with various medias. The resulting works of art were exhibited at the University of Manitoba’s John Buhler Research Centre Atrium from March 3-17, 2017 in conjunction with Brain Awareness Week.

The MNN and MCC also hosted several other public events in conjunction with the exhibition, including a panel discussion with the artists and scientists, and a craft workshop for Health Sciences Centre and University of Manitoba staff and students.

A second Neurocraft exhibition was held May 27 – June 24, 2017 at the Visual Voice Gallery in Montreal. In addition to the public opening, a special reception was held for members of the Canadian Association for Neuroscience as part of the 11th Annual Meeting.
Outreach

BAW – Winnipeg Brain Bee

The 3rd Annual Winnipeg Brain Bee was organized by Dr. Sari Hannila and had almost 30 high school participants this year.

Activities included:

• Interactive look at stem cells under a microscope at the Regenerative Medicine Program in the Basic Medical Sciences Building, University of Manitoba Bannatyne campus
• Neuroanatomy demonstration using preserved and fresh brain samples with Dr. Sari Hannila
• Neurophysiology demonstration with Dr. Katinka Stecina
• Interactive neurorehabilitation demonstration
• Facility tour and fluorescent microscopy demonstration using brain slices at the Neuroscience Research Program in the Kleysen Institute for Advanced Medicine
• Pizza lunch
• Tour of the Neurocraft Exhibit

The winners of the 2017 Brain Bee were:

1st prize  Sophie Kim (Vincent Massey High School)
2nd prize  Sandeep Mangat (UW Collegiate)
3rd prize  Karsyn Beatty (Vincent Massey High School)