McConnell Brain Imaging Centre (BIC), The Neuro and PERFORM Centre, Concordia University Researcher Retreat

February 21, 2020

The Neuro, De Grandpre Communications Centre 3801 University, Montreal

Program

9:00 am Welcome and Brief Overview of BIC and PERFORM Dr. Julien Doyon and Dr. Habib Benali

Review of Objectives and Format Dr. Louis Collins and Ms. Lynn Roy

Presentations from BIC Researchers (five-minute talks)

9:30 Talk Rick Hoge, Director MRI

9:35 Talk

David Rudko, Director MRI pre-clinical

9:40 Neuroimaging Pathways to Addictions

Marco Leyton, Ludmer Research and Training

9:45 Talk
Gassan Massarweh, Director Radiochemistry-cyclotron uni

9:50 Talk

Jean-Baptiste Poline, Co-Director Neuroinformatics, Director NeuroHub

9:55 Talk
Alan Evans, Director, Neuroinformatics

10:00 Talk
Sylvain Baillet, Director MEG with Marc Lalancette, MEG Systems Manager

- 10:05 Mechanisms, modeling and analysis of resting-state fMRI and high-resolution fMRI Amir Shmuel
- 10:10 Ongoing MRS investigations of tissue chemistry in the brain and body at BIC and PERFORM Jamie Near, Douglas Mental Health University Institute
- 10:15 Talk Jean-Paul Soucy, PET Research unit

10:20 Health Break

Presentations from PERFORM Researchers (five minute talks)

10:35 Multimodal assessment of brain function Jean-Paul Soucy

- 10:40 Sensory-cognitive factors associated with brain structure and function in older adults with or a risk for dementia

 Natalie Phillips
- 10:45 Both theoretical and applied researches on the development of algorithms, protocols and systems for addressing challenging issues lying in the loop of data lifecycle, with special applications in eHealth Gang Li for *Jun Cai*
- 10:50 Making sense of the data trove in ultrasound data Hassan Rivaz
- 10:55 Glial neurotransmitters regulation, critical determinant of whole brain physiology: a computational model
 Obaï Bin Ka'b Ali for Habib
- 11:00 Pharmacological Neuroimaging Najmeh Khalili-Mahani
- 11:05 Coffey Lab: Audition, Sleep and Plasticity Emily Coffee
- 11:10 Multimodal functional data integration: applications in epilepsy and sleep studies Christophe Grova
- 11:15 Brain development, epigenetic processes and risk for psychopathology Linda Booij
- 11:20 Big Data Infrastructures for Neuroinformatics Tristan Glatard
- 11:25 The intersection between behaviour, psychological factors, and non-communicable chronic diseases

 Simon Bacon
- 11:30 Neural Architecture, Behaviour, and Connectivity Christopher Steele
- 11:35 EEG Signal Processing for BCI: From Motor Imagery to Visual Evoked Potentials Arash Mohammadi
- 11:40 Special Announcement Dr. Julien Doyon and Dr. Habib Benali
- 12:00 Lunch



