Healthy Brains, Healthy Lives workshop

Theme 2: Mechanistic models of Neurodegenerative disorders
* Schedule and Titles subject to change

July 10 - 11, 2017

Montreal Neurological Institute and Hospital
3801 University Street, Montreal
de Grandpre Communications Centre

Preliminary Program

Day 1 – Monday, July 10

8.15 - 8.30    Arrival & Registration

8.30 - 9.00    Introduction to HBHL and Theme 2
Edward Fon (The Neuro) and Ron Lafrenière (Université de Montréal)

Session 1: Modelling neurodegenerative disorders with non-human models (Chair: Austen Milnerwood)

9.00    Modelling PD in rodent models
Austen Milnerwood
Montreal Neurological Institute

9.30    C. elegans as a model for studying ALS
Alex Parker
Centre hospitalier de l'Université de Montréal

10.00    New models of Alzheimer's disease
Nicole Leclerc
Centre hospitalier de l'Université de Montréal

10.30    Pause – Coffee Break

11.00    Modelling Parkinson’s disease with the common marmoset
Philippe Huot
Montreal Neurological Institute

11.30    Zebrafish as a model system for studying ALS
Pierre Drapeau
Centre hospitalier de l'Université de Montréal

12.00    Panel Discussion

12.30 - 1.30   Lunch (Helen Penfield Atrium)
### Session 2: Modelling human disease with human material (Chair: Thomas Durcan)

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<thead>
<tr>
<th>Time</th>
<th>Topic</th>
<th>Presenter</th>
<th>Institute</th>
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<tbody>
<tr>
<td>1.30</td>
<td>Stem cells and CRISPR editing</td>
<td>Thomas Durcan</td>
<td>Montreal Neurological Institute</td>
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<td>2.00</td>
<td>Using human samples for modelling AD</td>
<td>Andrea LeBlanc</td>
<td>Lady Davis Institute</td>
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<td>2.30</td>
<td>New approaches to Biobanking/Overview of ALS cohorts</td>
<td>Jason Karamchandani</td>
<td>Montreal Neurological Institute</td>
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<td>2.30</td>
<td>QPN/Overview of PD cohorts</td>
<td>Clothilde DeGroot</td>
<td>Montreal Neurological Institute</td>
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<td>3.00</td>
<td>Pause – Coffee Break</td>
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<td>3.15</td>
<td>Modelling PD through brain imaging</td>
<td>Alain Dagher</td>
<td>Montreal Neurological Institute</td>
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<td>3.30</td>
<td>Biomarkers and human disease</td>
<td>Benoit Coulombe</td>
<td>Institut De Recherches Cliniques De Montreal</td>
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<td>4.00</td>
<td>Panel Discussion and Wrap up (day 1)</td>
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<td>4.30</td>
<td>Day 2 - Tuesday, July 11</td>
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<td>8.30</td>
<td>Arrival - Coffee</td>
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### Session 3: Innovative technologies for studying disorders of the brain (Chair: Edward Fon)

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<th>Time</th>
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<th>Institute</th>
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<tbody>
<tr>
<td>9.00</td>
<td>Introduction to Day 2, and goals of HBHL theme 2</td>
<td>Guy Rouleau</td>
<td>Montreal Neurological Institute and Hospital</td>
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<td>9.15</td>
<td>Fabrication of Protein patterns</td>
<td>Santiago Costantino</td>
<td>University of Montreal</td>
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<td>9.45</td>
<td>High-throughput microengineering environments</td>
<td>Chris Morales</td>
<td>McGill University</td>
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<tr>
<td>10.15</td>
<td>Neuroengineering for manipulating neurons in culture</td>
<td>Maran Ma/Daryan Chitsaz</td>
<td>Montreal Neurological Institute (Tim Kennedy Lab)</td>
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10.45 - 12.15   Break

(Meeting of the Theme 2 Sub-committee)

12.15-12.45   Lunch

12.45-1.15   The future of cell culture models: How microfluidic platforms can increase reproducibility and efficiency of cellular assays
Margaret Magdesian
Ananda Devices

1.15-1.45   New imaging approaches for studying neurons
Ed Ruthazer
Montreal Neurological Institute

1.45   Optogenetics and DREDDs for studying disease
Philippe Séguéla
Montreal Neurological Institute

2.15   Multiplexed electrophysiology
Derek Bowie
McGill University

2.45-3.15   Pause – Coffee Break

Session 4: New approaches to modelling neurodegenerative disorders (Chair: Mathilde Chaineau)

3.15   Modelling of human disease through structure
Jean Francois Trempe
McGill University

3.45   Using genetics to understand human diseases
Ziv Gan-Or
Montreal Neurological Institute

4.15   Creating new models of AD with imaging data
Yasser Medina
Montreal Neurological Institute

4.45 – 6:00   Workshop wrap-up/discussion of next steps
Edward Fon
Montreal Neurological Institute and Hospital

6.00 - 7.30   Cocktail Reception
Helen Penfield Atrium