

**8:30 Registration / Poster Set-up / Breakfast**

**9:00 Welcome Address**

**9:10 Key Note Lecture by Dr. Samia Khoury**

**10:00 Poster Session I + Coffee Break**

**Oral Session I Chair: Bryce Durafourt**

- 11:10 **Mara Kornete** - The role of IL-2-ICOS pathway in the functional stability of regulatory T cells in organ specific autoimmunity.
- 11:30 **Delphine Bouhy** - Expression and role of the calcium-dependent potassium channel (KCNN4) after spinal cord contusion injury
- 11:50 **Robert Brown** - Robust prediction of clinical course in demyelinating disease from a first MRI

**12:10 Lunch/ Group photo**

**Oral Session II Chair: Sarah Lawrie**

- 13:00 **Seung Hwan Lee** - The distinctive response of CNS glial cells in injury-and infection -induced orofacial pain
- 13:20 **Raphael Schneider** - Interleukin 27: Impact on CD8 T cell functions and local production in the CNS
- 13:40 **Qiao Ling Cui** - Response of human oligodendrocyte progenitors to growth factors and axon signals

**14:00 Poster Session II + Coffee Break**

**Oral Session III Chair: Trina Johnson**

- 15:10 **Miho Asano** - Understanding the perceived exercise barriers among persons with multiple sclerosis
- 15:30 **Elodie Brison** - Modulation of human coronavirus-induced neuropathology from encephalitis to demyelination
- 15:50 **Sandra Magalhaes** - Biomarkers in pediatric MS: predicting recurrent disease at time of an initial demyelinating episode
- 16:10 **Nadia Houry** - Ectodomain shedding of CAR by ADAM metalloproteases and its modulation during inflammation

**16:30 Wine and Cheese**

**17:00 Presentation of Awards**

## **Poster Session I - 10:00-11:10**

### **Category A: MS and EAE pathogenesis**

Sarah Lawrie (Dr. A. Bar-Or): Development of an *in vitro* assay examining activated B cell products on Treg function

Evelyn Zastepa (Dr. D. Haegert): Gene Expression Profiling of Naive CD4+ T-cells in Progressive Multiple Sclerosis

Jennifer L. Berard (Dr. S. David): Lipocalin-2 plays a role in the pathogenesis of experimental autoimmune encephalomyelitis

Sukhdev S. Kamboj (Dr. S. David): Alterations in the expression of prostaglandin synthases and receptors during EAE

### **Category B: MS evaluation and therapy**

Bryce A. Durafourt (Dr. J. Antel): Sphingosine-1-phosphate receptor directed signaling in human myeloid cells

Stanley Hum (Dr. N. Mayo): Enhancing the Accuracy of Disability Measurement in Multiple Sclerosis

Trina A. Johnson (Dr. J. Antel): FTY720 therapy results in selective redistribution of NK and CD8+ T lymphocyte subsets

### **Category C: Lymphocytes in MS**

Lama Fawaz (Dr. A. Bar-Or): B cell cytokine effector responses in pediatric MS

Kevin Wolak (Dr. S. Fournier): A study on the homeostasis of memory CD8+ T cells in a model of demyelinating disease

Camille Pittet (Dr. N. Arbour): Potential roles of Programmed cell death-1 ligands expressed on human brain cells in MS

### **Category D: De-and Remyelination: coronavirus infection and iron**

Dominique J. Favreau (Dr. P. Talbot): Transcriptome Profile of human neuronal cells following human coronavirus OC43 infection

Katrin Schulz (Dr. S. David): Identification of a Ferroxidase involved in Iron Efflux from Oligodendrocytes

### **Poster contributions from external invited trainees: Category A**

Kate Dunlop (Dr. G. Robertson): The Cytoprotective Effects of AF5 in a Hypoxia-Ischemia Model in Mice.

Monica Roy (Dr. L. Vallières): Recruitment of mononuclear phagocytes into the brain: regulation by pertussis toxin

### **Poster contributions from external invited trainees: Category D**

Eppie Yiu (Dr. B. Banwell): Clinical and MRI Distinctions between Tumefactive Demyelination and Brain Tumors in Children

Lorraine Lau (Dr. V. Wee Yong): Chondroitin sulfate proteoglycans accumulate in demyelinated lesions and impede remyelination.

## **Poster Session II 14:00-15:30**

### **Category E: Immune cell migration and blood brain barrier**

Jorge Ivan Alvarez (Dr. A. Prat): Nascent MS lesions are associated with early disturbances in the blood brain barrier

Steve Gendron (Dr. A. Prat): Expression, characterization and functional role of integrin  $\alpha 8\beta 1$  in Th Cells: potential role in multiple sclerosis.

Catherine Larochelle (Dr. A. Prat): MCAM defines a subset of CD4+CD45RO+ TH17 cells involved in CNS inflammation

Marc-André Lécuyer (Dr. A. Prat): The study of adhesion molecules via a novel modified migration assay modeling human BBB

Rui Li (Dr. A. Bar-Or): The expression of netrin-1 and its receptors in naïve and activated B cells

Akiko Nakano (Dr. A. Prat): Characterization of plasmacytoid DCs in multiple sclerosis

Cornelia Podjaski (Dr. J. Antel, Dr. T. Kennedy, Dr. A. Prat): The role of netrins in regulating blood brain barrier function and immune cell passage into the brain

### **Category F: ADHD and infection**

Geeta A. Thakur (Dr. R. Joober): 5-HTTLPR and short term behavioral response to methylphenidate in children with ADHD

Venkataramana Bhat (Dr. R. Joober): Relation between Therapeutic response and cardiovascular side effects of Methylphenidate

Zia Choudhry (Dr. R. Joober): Catechol-O-Methyltransferase (COMT) gene and executive function in children with ADHD

Marie-Eve Fortier (Dr. R. Joober): Maternal stress during pregnancy, child ADHD and gene-environment interaction

Suna Jung (Dr. G. Luheshi): Circulating cytokines during maternal inflammation and offspring's dopamine function

Joanna Pohl (Dr. G. Luheshi): Role of leptin in fever and pyrogenic signalling to lipopolysaccharide in obese rats

### **Category G: Spinal cord injury**

Antje Kroner (Dr. S. David): Characterization of macrophages and microglia after spinal cord injury.

### **Category H: Neuropathic pain**

Stefania Echeverry (Dr. J. Zhang): Inflammation mediated changes in Blood Spinal Cord Barrier (BSCB) permeability following nerve injury

Satyanarayana SV Padi (Dr. J. Zhang): Blockade of chemokine receptor ameliorates neuropathic pain and reduces spinal microglial activation

Azadeh Rastikerdar (Dr. J. Zhang): Presence of CD3+ T lymphocytes and CD4+ microglia in the spinal cords of rats having sciatic nerve injury

**Poster contributions from external invited students: Category E**

Gaëlle Naert (Dr. S. Rivest): CCR2 deficiency in monocytes aggravates memory deficits and A $\beta$  pathology in a transgenic mouse model of Alzheimer's disease.

**Poster contributions from external invited students: Category G**

Dominic Bastien (Dr. S. Lacroix): Involvement of the IL-1 system in neutrophil and Type 1 inflammatory monocyte recruitment after spinal cord injury

**Poster contributions from external invited students: Category H**

Shaona Acharjee (Dr. C. Power): HIV-1 Vpr causes in vivo peripheral nervous system injury associated with neuropathic pain