



## **CAN/ACN Satellite Meeting, Canadian Neurophotonics Platform**

Sunday, May 19, Westin Bayshore, Vancouver

### **PROGRAM**

9:00 REGISTRATION

Lobby 9:30 WELCOME: Yves De Koninck (Canadian Neurophotonics Platform/COVF)

#### **SESSION 1: New Optogenetic sensors for the nervous system**

(Chair Jeffrey LeDue)

9:50 François St-Pierre, Baylor: Voltage sensors optimized for one- and two-photon microscopy.

10:10 Rochelin Dalangin, CERVO: Development of genetically-encoded fluorescent sensors for neurotransmitters and metabolites.

10:30 - 11:00 - COFFEE BREAK Lobby

#### **SESSION 2: Towards Neurophotonics in human brain tissue**

(Chair: Tim Murphy)

11:00 Larissa Kraus, UBC: Identification of healthy and diseased cells in the human brain

11:20 Mike Hildebrand, Carleton: Cellular taxonomy of the human spinal cord

11:40 Martin Parent, Laval: Raman spectroscopy for neurosurgical guidance in the human brain

12:00-13:30 - LUNCH (on your own)

#### **SESSION 3: Making sense of complex Neurophotonics signals**

(Chair: Jeffrey LeDue)

13:30 Flavie Lavoie-Cardinal; Laval; Novel machine learning-based algorithms to guide and improve optical nanoscopy analysis and acquisition

13:50 Patrick Derosiers, Laval: Decoding network organization with graph theory-based analysis

14:10-14:30 - COFFEE BREAK Lobby

#### **SESSION 4: Optogenetic gene delivery - translational models**

(Chair: Majid Mohajerani)

14:30 Marie-Eve Paquet, Laval: Novel viral tools for efficient neuronal transduction across species

14:50 Martin Bohlen, Duke: Development and use of effective neuronal actuators in the primate model

15:10 CLOSING REMARKS: Yves De Koninck

17:00 Opening of the 17th Annual Canadian Neuroscience Meeting