

**CAN-ACN SATELLITE SYMPOSIUM BY THE CANADIAN NEUROPHOTONICS
PLATFORM**

A satellite meeting of the 13th Annual Canadian Neuroscience Meeting

Wednesday May 22nd 2019

Toronto Centre Sheraton Hotel.

8:30 REGISTRATION | Lobby

9:00 WELCOME: Yves de Koninck (CERVO Brain Research Center, Université Laval)

SESSION 1: Workshop on viral strategies for optical interrogation of brain function.

Chair: Jean-Claude Béïque

9:10 **Marie-Ève Paquet** (CERVO Brain Research Center, Université Laval)
AAV-based approaches for gene transfer in the nervous system

9:50 **Stuart Trenholm** (MNI, McGill University)
Rabies virus based tracing strategies for understanding brain circuits

10:30: COFFEE BREAK Lobby

SESSION 2 Chair: Kurt Haas

11:00 **Yi Shen** (University of Alberta)
Recent advances in engineering genetically-encoded optical indicators for neuronal activities

11:30 **Sheena Josselyn** (SickKids; University of Toronto)
Reversing deficits in synaptic plasticity restores population dynamics and memory in a mouse model used to study Alzheimer's disease

12:00 LUNCH (included with registration) Quinn's Steakhouse, Sheraton Centre Hotel

SESSION 3 Chair: Jaideep Bains

14:00 **Daniel Côté** (CERVO Brain Research Center, Université Laval)
Neurosurgical guidance with optical tools

14:30 **Brian MacVicar** (UBC)
The development of optical approaches to understand brain function/dysfunction:

From Intrinsic optical Signals to Fluorescence lifetime imaging

15:00 COFFEE BREAK Lobby

SESSION 4 Chair: Paul de Koninck

15:30 **Flavie Lavoie-Cardinal** (CERVO Brain Research Center, Université Laval)
Machine learning approaches in microscopy : system optimization and image analysis in real-time

16:00 **Ed Ruthazer** (MNI, McGill University)
Wherefore art thou, NMDAR? Distinct roles of pre- and postsynaptic NMDARs in development"

16:30 CLOSING REMARKS: Yves De Koninck

17:00 Opening of the 13th Annual Canadian Neuroscience Meeting

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