

AXE NEUROSCIENCES

Michelle L. Olsen, Ph. D.

Professeure et Directrice
School of Neuroscience
Virginia Polytechnic Institute and State University
Blacksburg, VA, États-Unis



BDNF signaling onto astrocyte TrkB.T1- a novel mechanism driving astrocyte structural plasticity

Astrocyte processes enwrap excitatory spines where they mediate glutamate and K⁺ uptake and contribute to synapse development and stabilization. Despite decades of research indicating astrocytes enwrap/contact excitatory synaptic elements, with increased coverage of mature synapses, there is little known regarding molecular signals that recruit astrocyte processes to synaptic structures or drive astrocyte structural plasticity in response to neuronal signaling. Dr. Olsen will present evidence that BDNF signaling onto astrocyte truncated TrkB receptor (TrkB.T1) serves as a signaling cue, recruiting the astrocyte to the synapse, driving astrocyte structural plasticity via actin mediated reorganization. BDNF signaling through astrocyte TrkB represents a novel signaling pathway to recruit astrocytes processes to spines and govern structural plasticity in an activity dependent manner.

Le vendredi 1 mars 12 h à 13 h

Amphithéâtre CRCHUM - Pavillon R - R05.212

900 rue Saint-Denis
Montréal (QC) H2X 0A9

Lien Zoom :

<https://umontreal.zoom.us/j/83338872590?pwd=aXhvTk1OamJVOEVKb3RBMDJmSVFWUT09>

ID de réunion: 833 3887 2590

Code secret: 7521759

L'AUDACE DE
CHERCHER
PLUS LOIN

Séminaire organisé par Nicole Leclerc

Information : nicole.leclerc@umontreal.ca