

Département  
de neurosciences  
Faculté de médecine

Université   
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## Pablo E. Castillo, M.D., Ph. D.

Professor

Dominick P. Purpura Department of Neuroscience  
Albert Einstein College of Medicine

### ***Long-term Presynaptic Plasticity: Novel Functions and Mechanisms***

**Vendredi 17 mars 2023**

12 h à 13 h

**En présentiel**

Pavillon Paul-G.-Desmarais | 2960, chemin de la Tour, **local 1120**

**En ligne**

<https://umontreal.zoom.us/j/88066173443?pwd=ajlvdzA0a09FSGIFc3NuRUdFNvNdz09>

#### **Professional Interests**

Synaptic transmission underlies every aspect of nervous system function. How we think, feel, act, and learn, all rely on information transfer between nerve cells. The main goal of my research program is to understand how neural activity controls the strength of synaptic connections in the brain -- a process known as synaptic plasticity -- and how dysregulation of this process contributes to brain disease states. To examine synaptic function and gain insights into the mechanisms and functional consequences of synaptic plasticity, we utilize a combination of experimental approaches, including electrophysiology, molecular pharmacology, optogenetic tools, calcium imaging using two-photon laser microscopy, in vivo molecular manipulations that target intracellular signaling and protein expression, in vivo recordings of neuronal activity, and mouse models for various neuropsychiatric and neurodevelopmental disorders, such as Alzheimer's disease, Parkinson's disease, epilepsy, autism, and schizophrenia.

**Entrée libre**

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