

Département  
de neurosciences  
Faculté de médecine

Université   
de Montréal  
et du monde.

Séminaires  
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Séminaires scientifiques hebdomadaires. Séminaires scientifiques hebdomadaires.

## Seth Hays, Ph. D.

Assistant Professor, Neuroscientist, Researcher,  
Targeted Neuroplasticity Lab at the Texas Biomedical Device Center

### ***Enhancing recovery of motor function with closed-loop vagus nerve stimulation***

**Vendredi 27 mars 2026**

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/81271307568?pwd=kTNeVDVaRHah4vb718KaNCJeGjpJ1X.1>

#### **Intérêts de recherche**

In the words of Dr. Hays, “The targeted neuroplasticity lab employs elements of neuroscience and biomedical engineering to develop treatments for human disease. My primary research focus is enhancing neuroplasticity, or the ability of the brain to change, in order to treat neurological disease. The majority of current studies evaluate the ability of vagus nerve stimulation (VNS), a putative targeted plasticity therapy, to improve recovery in models of motor dysfunction. We are rigorously testing VNS to enhance recovery in models of ischemic and hemorrhagic stroke bearing complicating factors observed in the clinical population of stroke patients, such as advanced age. With our collaborators, VNS therapy is currently under investigation in stroke patients.

In addition to further development of targeted plasticity therapy, we are investigating the cellular and molecular mechanisms that underlie this recovery. These experiments employ biochemical, histological, and electrophysiological methods to probe cellular and synaptic reorganization within relevant circuitry. We are also beginning to apply targeted plasticity therapy to additional models of motor and cognitive dysfunction, including traumatic brain injury and spinal cord injury.”

#### **Entrée libre**

***La conférence sera présentée en anglais***

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