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Marco Capogrosso, Ph. D.

Assistant Professor
University of Pittsburgh

Spinal neurotechnologies for the recovery of voluntary motor control

Vendredi 8 décembre 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/82037705482?pwd=S3A5NXJGMnhjTCtMc0oOVmduMU1mUT09>

Biography: Marco Capogrosso, PhD, is an assistant professor in the Department of Neurosurgery. He completed his doctoral studies in Biomedical Engineering and Robotics at the Scuola Superiore Sant'Anna in Pisa, Italy. His PhD work focused on the design of peripheral and central neural interfaces for sensory and motor applications.

Dr. Capogrosso completed his post-doctoral training at the Ecole Polytechnique Fédérale de Lausanne, Switzerland where he worked on the development of brain spinal interfaces for the restoration of voluntary motor control after spinal cord injury. Before joining the University of Pittsburgh, he was research faculty at the primate center of the University of Fribourg, Switzerland where he managed the multi-center Platform for Translational Neuroscience. Dr. Capogrosso research interests broadly involve the study of the interactions between electrical stimulation and the dynamics of neural circuits. Specifically, he is interested in the design of neurotechnologies to restore sensory and motor function after neural damage and in neurodegenerative diseases.

Abstract: Spinal cord stimulation is gaining momentum as a potential new therapy for leg motor paralysis. In this talk we will discuss the neural mechanisms that enable the restoration of voluntary motor control. By leveraging this unique feature we then show how we are adapting this technology to the cervical spinal circuits to enable recovery of arm and hand movements in humans after paralysis. Finally, we will discuss the potential application of electrical stimulation technologies as disease modifying interventions in neurodegeneration

Entrée libre

La conférence sera présentée en anglais

Personne-ressource pour rencontrer le conférencier : [Marina Martinez](#)

