Title	Postdoctoral Fellowship in Neuroengineering and Neurorehabilitation		
Study level(s)	☐ MSc	☐ PhD	☒ Postdoctorate
Principal investigator(s)	Yosra Cherni		
Project duration	1-year contract, renewable up to 2 years		
Start date	As soon as possible		

Date of posting: 2025-05-30

Research laboratory presentation

The successful candidate will join an interdisciplinary team of Pr Yosra Cherni working at the intersection of biomechanics, neurophysiology, and pediatric rehabilitation. The research will take place at the Laboratory of Neurobiomechanics and Neurorehabilitation of Locomotion, located the Technopôle en réadaptation pédiatrique du CHU Sainte-Justine, a state-of-the-art center dedicated to advancing technologies for children with functional limitations. The fellow will contribute to a cutting-edge project integrating robotic, virtual reality and non-invasive brain stimulation technologies to promote neuroplasticity in children with neuromotor disorders.

Research project description

This exciting position involves both experimental and clinical research, working closely with an interdisciplinary team of engineers, clinicians, and neuroscientists dedicated to advancing rehabilitation technologies for children with neuromotor disorders.

Required Qualifications

- PhD in Neuroscience, Biomedical Engineering, Neuroengineering, or a related field
- Experience in neurostimulation techniques (e.g., TMS, TENS) and/or movement analysis
- Publication record and interest in translational research
- Ability to work independently and collaboratively in a clinical research setting
- Excellent verbal and written communication skills in English or French
- Excellent programming skills (e.g., MATLAB, Python)
- Experience with machine learning is an asset

Responsibilities

- Data collection, processing of biomechanical and neurophysiological data
- Statistical analysis and machine learning-based modeling
- Manuscripts and grant writing
- Supervision of graduate students and knowledge mobilization
- Close collaboration with clinicians

Research Centre
CHU Sainte-Justine
Mother and Child University Hospital Centre
Université de Montréal

Conditions

- 1-year contract, renewable up to 2 years based on performance and funding
- Annual salary: between $40,000 and $47,000 depending on experience
- Work with a dynamic and a multidisciplinary team (engineers, physiotherapists, kinesiologists, etc.)

Submit your application

Please send your **CV (including publications, conferences, awards and scholarships, etc)**, **cover letter**, and **contact information for two references** to **Pr. Yosra Cherni** :
yosra.cherni@umontreal.ca
Deadline: Applications will be reviewed on a rolling basis until the position is filled.

Equity, diversity and inclusion

The masculine gender is used without discrimination and for the sole purpose to facilitate reading. The CHU Sainte-Justine subscribes to the principle of equal access to opportunities and invites women, members of visible and ethnic minorities, persons with disabilities and Indigenous people to apply. We would appreciate it if you could inform us of any disabilities that would require technical and physical accommodation adapted to your situation during the selection process. Please be assured that we will treat this information as confidential.

Studies at the CHU Sainte-Justine Research Center

Pursue your graduate or postdoctoral studies at the **CHU Sainte-Justine Research Center**, and be one of the 500 students, fellows and interns involved in accelerating the development of knowledge in the field of maternal, child and adolescent health, whether in basic or clinical research. Under the supervision of prominent scientists, especially in leukemia, rare pediatric diseases, genetics, perinatology, obesity, neuropsychology and cognition, scoliosis and rehabilitation, you will have the opportunity to work with multidisciplinary scientific teams and collaborators from all over the world.

About the CHU Sainte-Justine Research Center

CHU Sainte-Justine Research Center is a leading mother-child research institution affiliated with Université de Montréal. It brings together more than 200 research investigators, including over 90 clinician-scientists, as well as 500 graduate and postgraduate students focused on finding innovative prevention means, faster and less invasive treatments, as well as personalized approaches to medicine. The Center is part of CHU Sainte-Justine, which is the largest mother-child center in Canada and the second most important pediatric center in North America. More on research.chusj.org