Postdoctoral Fellow – ENIGMA Global Transdiagnostic Resting-State fMRI Initiative

Location: CHU Sainte-Justine Research Center, Université de Montréal, Canada
Supervision: Pr. Clara Moreau

We are recruiting a Postdoctoral Fellow to play a central role in the **ENIGMA Global rs-fMRI Initiative**, a large-scale international effort to standardize and harmonize resting-state fMRI analyses across major neurodevelopmental and psychiatric conditions https://enigma.ini.usc.edu/ongoing/enigma-rsfmri/. The *BRIGHT* Lab co-leads the resting-state fMRI methods working group within the ENIGMA Consortium.

Project Overview: The project will bring together resting-state fMRI data from more than 35,000 participants worldwide, spanning children, adolescents, and adults across eight conditions: schizophrenia, bipolar disorder, major depressive disorder, post-traumatic stress disorder, obsessive-compulsive disorder, anorexia nervosa, autism spectrum disorder, and attention-deficit/hyperactivity disorder, as well as healthy controls. The Postdoctoral Fellow will coordinate analytic harmonization and reproducibility efforts of rs-fMRI data across disorder-specific ENIGMA working groups and participating sites. The overarching objective is to identify common and distinct functional connectivity signatures across disorders, while addressing long-standing challenges related to analytic variability, reproducibility, and harmonization in large-scale functional neuroimaging.
The Postdoctoral Fellow will work closely with the ENIGMA rs-fMRI working group chairs and collaborators, including Lune Bellec and Lea Waller (CR-IUGM, Montreal), Frank Hillary (Pennsylvania State University), and Paul Thompson (University of Southern California).

Scientific Aims

- Assess how analytic choices affect atlas-based functional connectivity results by quantifying the robustness and reproducibility of disorder-specific patterns across workflows.
- Identify transdiagnostic and diagnosis-specific connectivity alterations through cross-disorder similarity analyses at both group and individual levels.
- Quantify the influence of age, sex, and medication exposure on functional connectivity signatures and cross-disorder similarities.

Required Qualifications

- PhD in computational neuroscience, bioinformatics, neurosciences, psychology, biomedical engineering, or a related field.
- Strong expertise in resting-state fMRI analysis.
- Experience working with large and/or multi-site neuroimaging datasets.
- Advanced programming skills in Python and/or R.
- Experience with high-performance computing environments.
- Excellent organizational and communication skills, with the ability to coordinate analyses across multiple international teams.
- Fluency in English; French proficiency or willingness to learn French is expected.

Appointment Details

- Duration: 1-3 years
- Salary: approximately CAD$65,000 - $70,000/year, commensurate with experience
- Location: CHU Sainte-Justine, Montréal, Canada (on-site position; remote work is not available)
- Start date: Within the next 6 months

How to Apply

Interested candidates should submit:

- A CV
- A brief cover letter describing their research background, relevant expertise, and interest in the position
- Contact information for 2-3 references

Please send applications to clara.moreau@umontreal.ca