Job Offer

Post-doctoral or Senior Biostatistician

SHARED MANAGEMENT: CIUSSS-NIM - Laurent Mottron – Autism Laboratory

CRIUGM, Dre Sylvie Belleville, Dr Thien Thanh Dang Vu, et Dr Jean-Philippe Gouin – Aging

JOB TITLE: Biostatistician

POSITION STATUS: Contractual (Position for 1 year, renewable)

1. MISSION AND FUNCTIONS

- Participation in reflection and working hypotheses in collaboration with the members of the research teams;
- Design of the statistical analysis plan;
- Drafting / revision of the statistical section for research projects and scientific articles and grant requests;
- Choice of a statistical model and definition of the biostatistical methodology of clinical or epidemiological studies;
- Proposal of the statistical model most in line with the scientific problem;
- Computer modeling of biological processes in order to provide a model for observed biological phenomena;
- Production of data reviews, constitution and verification of databases;
- Carrying out and scheduling analyzes;
- Participation in discussions on technical subjects with members of the Research team;
- Training for students and members of the laboratory concerning statistical analyzes or the use of statistical software;
- Identification, extraction and use of data from large national and international databases (SFARI, Autralian Autism Biobank, Danish National Patient Registry, Canadian Longitudinal Study on Aging, UK Biobank, etc.).

2- LABORATORIES

The recruited person would have 2 home centers:

2-1 Cognitive neuroscience and autism laboratory (CIUSSS-NIM) Dr Laurent Mottron.

Our research group is exploring how people with autism process information. We are therefore interested in describing the perceptual, memory and reasoning mechanisms by which autistic people perceive the world, construct representations, and manipulate them. We have set ourselves the ultimate goal of allowing autistic people to integrate into society, at any age, in a spirit of respect for differences. Our results of the last twenty years on medium-sized populations lead us to hypothesize that autism is much less frequent than what is currently diagnosed as such, and is associated with a constellation of clinical features, imaging and specific genetics. Recruiting a biostatistician should help us demonstrate this on very large populations from large national and international databases (SFARI Base, Australian Autism Biobank, Danish Database, etc.).

2-2 Research Center University Institute in Geriatrics of Montreal (IUGM) Dre Sylvie Belleville, Dr Thanh Dang Vu et Dr Jean-Philippe Gouin

Dr. Belleville's work focuses on the early stages of Alzheimer's disease, cognitive interventions in the older adults with or without cognitive impairment, and the phenomena of compensation and brain plasticity. It assesses the cognitive and brain patterns of people at risk for Alzheimer's disease as well as their trajectory through the disease prodrome. She develops, validates and tests cognitive and multifactorial interventions related to brain health. She is interested in the personal and brain factors that help maintain good brain health with age.

Dr. Dang Vu's Sleep, Cognition and Neuroimaging (SCNLab) laboratory is interested in the brain mechanisms and impacts of sleep disorders such as insomnia and hypersomnolence. He studies the effects of non-pharmacological interventions on sleep and brain health. A central element of his research program concerns the links between sleep, memory consolidation and cognitive health, particularly during aging as well as in the context of neurological diseases. The laboratory uses a set of methodologies, including brain imaging methods, physiological, EEG, but also behavioral measures and epidemiological cohorts.

Dr. Gouin's Laboratory examines the effect of chronic stress on health. His research work includes longitudinal studies on the biopsychosocial mechanisms of the effect of stress on health, daily self-recording methodologies to assess the intrasubject effects of different coping strategies, as well as innovative intervention programs. to promote resilience to stress. This work is carried out with individuals and dyads (couples, patient caregiver).

3. **PROFILE, TRAINING, SKILLS**
   - Doctorate in biostatistics or equivalent;
   - Knowledge and use of specialized software and analysis methods such as: Longitudinal modeling, Mixed linear models, polynomial regression models, growth models, GEM, GEE, Latent transition analysis, GMM, Likelihood ratio tests, Logistic regression and / or Cox's proportional hazard, Bayesian models, Power analyzes, SPSS, SAS, R;
   - Previous experience in cognition and / or psychiatry and / or neuroscience and active participation in the design and writing of research projects in neuroscience is an asset;

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- Fluency in French and scientific English required;

4. CONDITIONS
- Position for one year, possibility of renewal, 90 days probation;
- Competitive salary, according to profile and experience;
- Full-time desired, possibility of part-time to be discussed;
- Flexible and variable work schedule;
- Telework possible;

5. RECRUITMENT PROCEDURES

An application package comprising a cover letter, two reference letters and a detailed curriculum vitae, must be sent by January 15, 2021, under the reference "Post biostatistician", by email to the 4 researchers:

Laurent Mottron laurent.mottron@gmail.com

Sylvie Belleville sylvie.belleville@umontreal.ca

Thanh Dang-Vu tt.dangvu@concordia.ca

Jean-Philippe Gouin jp.gouin@concordia.ca

Candidates shortlisted on file will be invited to present their candidacy for an interview with a candidacy committee.