We are currently looking for **3** enthusiastic and skilled team players (**1 PhD student, 1 Postdoc, 1 RA**) to join the **Neuroimaging of Epilepsy Laboratory** at the Brain Imaging Center (BIC) of the Montreal Neurological Institute, McGill University, Montreal, Canada
http://www.bic.mni.mcgill.ca/~noel

Our lab is part of the BIC, an internationally recognized and multidisciplinary centre of neuroimaging, and associated to the Epilepsy Group of the Montreal Neurological Institute and Hospital, a tertiary center that evaluates approximately 200 patients per year for the pre-surgical investigation of drug-resistant seizures. Our group brings together graduate students and postdoctoral fellows in Neuroscience, Cognitive Science, Computer Science, Biomedical Engineering, and Neurology.

We use high- and ultra-high field (3 and 7T) structural and functional MRI analysis to characterize cortical architecture, function, metabolism, and networks. We seek to identify novel patient phenotypes and biomarkers of disease. Main topics include automated lesion detection through neuroimage-based machine-learning, surface-based subcortical and cortical modeling, analysis of brain networks using graph-theory. We are interested in tracking disease progression and its consequences on brain plasticity, connectivity, and cognition.

The **postdoctoral fellow** will carry our research projects that combine multi-modal neuroimaging with advanced data analysis (graph theoretical network analysis, machine learning, multivariate modeling) in large and well-documented cohorts of patients with drug-resistant epilepsy. Possibility to participate in several multi-centric and longitudinal studies. Requirements: PhD in Neuroscience, Computer Science, Cognitive Science, Engineering, or related fields; experience in neuroimaging, data analysis, programming; strong publication record.

The **PhD student** will perform research centered on the development of neuroimaging applications to improve our understanding and diagnostic routines of human epilepsy. The PhD will be carried out within the Integrated Program in Neuroscience at McGill University (IPN, https://www.mcgill.ca/ipn/), the largest inter-disciplinary, inter-departmental graduate program in neuroscience in Canada. Requirements: MSc in Neuroscience, Cognitive Science, Computer Science, Biomedical Engineering, or related fields; solid mathematical and statistical knowledge; previous experience in neuroimaging and data analysis is an asset.

The **full-time research assistant (RA)** will help with subject recruitment; administration of questionnaires and neurocognitive tasks; MRI scheduling and data acquisition (with assistance of technician); data quality-control and image processing; database management; technical support. Requirements: BSc/BA in Neuroscience, Cognitive Science, Psychology, or related fields; organizational talent and computer skills; willingness to accept flexible working schedule; knowledge of French (spoken and written).

All candidates are expected to show strong communication skills and willingness to learn and help others within a multidisciplinary team.

Starting dates are flexible.

** Full applications (cover letter, CV, and names of 2 referees; PhD candidates should also send transcripts) should be sent to: andrea.bernasconi@mcgill.ca