



# Post-doc Position

## (MULTIMODAL ANALYSIS OF BRAIN FUNCTION)

University of Picardie Jules Verne  
Amiens, France

The Research Group on Multimodal Analysis of Brain Function (GRAMFC, Inserm UMRS 1105) is an internationally renowned research laboratory located at the University Hospital of Amiens and the medical school of Picardy University, with access to a wide range of experimental facilities - including fMRI (GE 3T MRI scanner), two research-dedicated high resolution EEG systems (equipped for both 64 and 128 channel recordings), four Near Infrared Spectroscopy (NIRS) instruments (frequency domain, and continuous wave systems) for functional imaging of human brain. Our group focuses on functional brain development and the cognitive deficits associated with neurological disorders in children of all age groups, from premature infants to adolescents with an emphasis on early language and attention brain development and the effects of epilepsy on cognitive development. We work in collaboration with other research groups from University of Montreal, University of Illinois, and Neurospin (France).

### Project:

Our overall goal is to understand the mechanisms underlying neuronal and vascular networks from preterm neonates to adult and develop novel neuroimaging approach. To accomplish this goal, we developed electrical and optical approach suitable for the non-invasive, high resolution in vivo imaging of brain in normal and pathological condition (e.g. epilepsy, Autism, OCD, Parkinson, etc). We are seeking to employ an ambitious and experienced post-doctoral researcher with a background in bioengineering and signal processing. The post holder will take a lead role in assessing the clinical applications of a novel signal processing method. This is an exciting opportunity to be part of a dynamic interdisciplinary team of clinicians and bioengineers.

**Requirements:** Applicant must have a PhD degree in Computational neuroscience, Electrical or Biomedical Engineering, or related fields. This position involves multimodal analysis using EEG, and fNIRS. Candidates with a strong interest in and experience with biological signal processing, are in particular encouraged to apply. Experience in using MATLAB, as well as in multiple programming language types including Python are preferable. Applicant should be self-motivated and must have a willingness to do inter-disciplinary research and collaborative teamwork. The successful candidate will need to write reports, research papers and presentations.

**Duration:** Applications are invited for a twelve-month postdoctoral position extendable to 2 years (full-time) in the medical school of University of Picardy Jules-Verne, under the supervision of Prof. Fabrice Wallois. The position is fully funded by the French National Institute of Health and Medical Research (INSERM).

**Supervisor:** If interested, please send your CV, letter of motivation, and the names and contact information by e-mail to Prof. Fabrice Wallois ([fabrice.wallois@u-picardie.fr](mailto:fabrice.wallois@u-picardie.fr)) at your earliest convenience. We will consider applications until December, 31 2107 if position is not yet filled.