

# PhD Position – Sense of Agency and Stress in Functional Neurological Disorders

## **Background**

Functional neurological disorders (FND), formerly called hysteria (by Hippocrates), represent a frequent disorder at the border between neurology and psychiatry. Patients present with neurological symptoms (e.g., paralysis, tremor) in the absence of a neurological disease such as stroke, tumour or epilepsy. With the recent technological development in biomedical sciences, the concept of impaired sense of agency (i.e., the sense that we are the agents in control of our actions and sensation) during motor and sensory processing has been put forward in understanding *how* the symptoms are produced. Meanwhile, the role of psychological stress has been better delineated in understanding *why* the disorder occurs.

## **Who we are**

We are the Aybek FND Group, a multidisciplinary team where medical doctors, biomedical engineers and neuropsychologists collaborate in order to shed light on the neural mechanisms of FND. Our research methods span from non-invasive brain stimulation techniques (e.g., transcranial magnetic stimulation – TMS), functional magnetic resonance imaging (fMRI), analysis of biomarkers (e.g., blood, saliva), and neuropsychological tests.

The group leader is Prof. Dr. med Selma Aybek, an expert in the field of FND research (<https://www.ncbi.nlm.nih.gov/pubmed/?term=selma+aybek>).

We are based in Bern (CH), and we are affiliated with the Department of Neurology (University Hospital Inselspital Bern, CH), the University Institute for Diagnostic and Interventional Neuroradiology (University Hospital Inselspital Bern, CH) and the University of Bern (CH).

## **Whom we look for**

We are looking for an autonomous and self-motivated PhD Student who will entail different technological methods to investigate the role of psychological stress in FND patients.

Key features of the position:

- Background in Neuroscience, Neuropsychology, Biomedical Engineering, or similar disciplines
- Basic knowledge of data analysis and programming (e.g., Matlab environment)
- Interest in a multidisciplinary environment, with focus on patients and clinical applications
- Fluent German is desirable, but not mandatory

The position is available from September 2018, the starting date can be discussed. The duration is fixed at three years (100%).

For any question about the position, please feel free to contact Dr. Giuseppe Zito ([giuseppe.zito@unige.ch](mailto:giuseppe.zito@unige.ch), +41 31 632 02 98) or Prof. Dr. med Selma Aybek ([selma.aybek@insel.ch](mailto:selma.aybek@insel.ch), +41 31 632 66 07)

Please, send your complete application (CV, motivation letter, supporting documents) via email to Dr. Zito or Prof. Aybek.

We look forward to receiving your application!!