



PhD position in neuroimaging of lower urinary tract function

Description

The Department of Neuro-Urology at the Spinal Cord Injury Center, University of Zürich and Balgrist University Hospital in Zürich, Switzerland, is offering a PhD positions for a highly motivated and scientifically interested PhD candidate to conduct clinical research joining neuroimaging with neuro-urology in humans. This position is embedded in an interdisciplinary research environment team of health care professionals, neuroscientists, physicists, biologists, human movement scientists, pharmacologists, and engineers. You will be involved in a nation-wide randomized, sham-controlled, double-blind clinical trial investigating transcutaneous tibial nerve stimulation in patients with acute spinal cord injury to prevent neurogenic detrusor overactivity (<http://p3.snf.ch/Project-179644>, supported by the Swiss National Science Foundation (SNSF) and the Swiss Paraplegics Foundation (SPS).

You will be using neuroimaging techniques (structural, diffusion, and functional magnetic resonance imaging (MRI) of the brain and spinal cord) in several projects also in collaboration with internationally highly recognized centres in the field of neuro-urology. Extending ongoing and previous successful projects in the interdisciplinary team at the Balgrist University Hospital (<http://www.sci-research.uzh.ch/research>), you will specifically work on the investigation and characterization of neural correlates in healthy subjects and different patient populations with neurogenic lower urinary tract dysfunction.

These projects are likely to have large impact in the fields of neuro-urology, neuroimaging, neurology, and neuro-rehabilitation, hopefully resulting in new clinical assessment tools and further improving medical care. You will perform MRI measurements in close collaboration with study nurses, research assistants, radiographers, and other PhD students. Together, you will be responsible for the organisation and daily conduct of the studies (at the patient bedside and in different study centers), data recording, image acquisition (MRI scanning) and analysis, the presentation of results at conferences, and the preparation of publications in internationally peer-reviewed journals.

Education / Requirements

- Highly motivated, open-minded personality with a strong interest in clinical research, who shows extraordinary initiative and durability to cope with challenges
- Team minded, flexible, with the required tact and sensitivity for dealing with (disabled) patients
- Master's degree or equivalent in natural sciences, pharmacology, medicine, biomedical engineering, neuroscience or related field
- Strong interest in neuroimaging techniques
- Good statistical and computer skills (R, SPSS, Matlab, Microsoft Office)
- Proficiency in English and fluent in German (additional French is a plus)
- Good communication, organisational, and motivational skills
- Experience with neuroimaging software - e.g. MATLAB, SPM, FSL, Python – is desired
- Experience with neurophysiological techniques (EEG, EMG, ECoG, or MEG) and (f)MRI is an advantage



**University of
Zurich** ^{UZH}

Balgrist

University Hospital

Contact

The position is available immediately and PhD salary rates of the SNSF apply. If you are looking for an exciting PhD position in a highly motivated team, please fill in our application form via the following link and upload your application as a merged PDF file including a CV, publication list, motivation letter, and names of two references.

Link to application form:

https://docs.google.com/forms/d/e/1FAIpQLSfciVaJuPgXvVOSI_ZcljuPHX9LRZi3gdVMTISU8XVu5dN6yQ/viewform?usp=sharing

Contact: Martina Liechti, PhD (neuro-urology@balgrist.ch)

Address: Department of Neuro-Urology, Spinal Cord Injury Center, Balgrist University Hospital, Forchstrasse 340, 8008 Zürich