

PhD Position in ‘Neuroscience of Motivation in Neurorehabilitation’

Vitznau - 100% - 3 years – July 2026 (or upon mutual agreement)

The Neuroscience of Cognition and Motivation in Rehabilitation Lab (NeuroCoRe) led by Prof. Luft at the Lake Lucerne Institute (LLUI) is dedicated to translating motivational and cognitive neuroscience to develop innovative approaches in neurorehabilitation. Our core research interest is to understand the neuronal and behavioural correlates of motivation.

We are looking for a motivated PhD student with a background in cognitive or computational neuroscience.

Project background

We seek to elucidate the neuronal mechanisms of motivation. This project aims to develop a biofeedback procedure to induce motivation for cognitive and motor effort in healthy and stroke subjects. To this end, we will record the neuronal activation of motivation and effort electrophysiologically, using high-density EEG. The corresponding autonomic response will be assessed with cardiological parameters.

Job description

The successful candidate will carry out experiments with neurotypical subjects and neurological patients. The PhD project includes:

- Implementation of a cognitive and motor task-based reward paradigm.
- Hands-on data acquisition of high-density EEG and heart rate measurements.
- Development of new study designs and participant recruitment.
- Advanced signal processing.
- Dissemination of research findings through scientific publications and presentations.

Profile

We are looking for a candidate with:

- A Master’s degree (or nearing completion) in neuroscience, psychology, neurophysiology, biomedical engineering, health sciences and technology, or a related field.
 - A strong interest in technical skills, particularly in programming (e.g., Matlab, Python) and data analysis.
 - Strong communication skills, scientific and creative reasoning, and a very collaborative spirit.
 - A structured, reliable, proactive and well-organized personality.
 - A Strong interest and aptitude to work with vulnerable populations.
 - Flexibility to travel to Vienna and international conferences.
 - Proficiency (C1) in both German and English.
 - A driving licence and a valid Swiss work permit or eligibility to obtain one.
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- Experience with EEG is desirable.



Workplace

The main workplace is the Lake Lucerne Institute (LLUI) in Vitznau. Research at the Lake Lucerne Institute (LLUI) is translational, bridging fundamental research with clinical applications for Neurorehabilitation.

We offer

A PhD position (3 years) in a great scientific, social and geographical environment. The PhD project is a collaboration between the Neuroscience of Cognition and Motivation in Rehabilitation Lab (NeuroCoRe) at the Lake Lucerne Institute and the Motivational Psychology Lab at the University of Vienna (Psychology Department).

This PhD project is a great opportunity to work with neurotypical populations as well as with neurological patients, building up a diverse and implementation-focused behavioural, neuroimaging and cardiological portfolio in translational motivation research.

We are committed to equality

The institute commits to equality in general and gender equality in particular as set out in its [Gender Equality Plan](#).

Curious? So are we.

We look forward to receiving your application via email with the following documents until 30 May 2026:

- Curriculum Vitae including educational history, full list of publications, awards, etc.
- Research motivation statement of max. two A4 pages covering your interests, goals, experiences, and how they would relate to and fit in with proposed research domain and activities
- Diplomas
- Names, e-mail addresses, and phone numbers of at least two references, mentioning for each of them the professional relationship you have with them

Application documents are sent to lore.legrand@llui.org. Incomplete applications or applications that do not correspond to the published profile will not be considered.

For further information about the Neuroscience of Cognition and Motivation in Rehabilitation Lab (NeuroCoRe), please visit our website (<https://www.stroke-neurocore.uzh.ch/en.html>). Questions regarding the position should be directed to lore.legrand@llui.org.