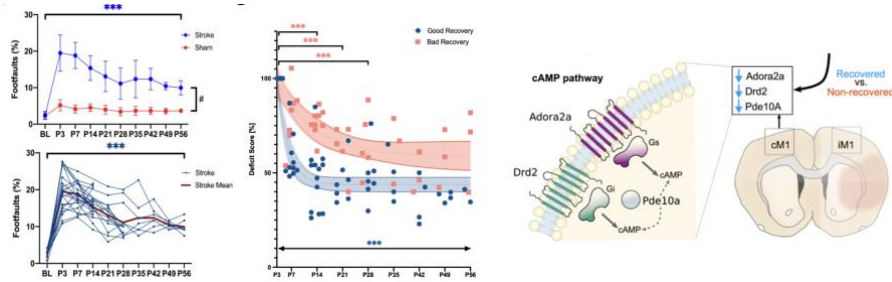


PhD Position – Experimental Stroke Research

Aswendt Lab, Department of Neurology, University Hospital Frankfurt



Project Overview

The [Aswendt Lab](#) explores neural plasticity and recovery mechanisms after stroke using advanced neuroimaging, behavioural analysis, and molecular profiling in mouse models.

In this PhD project, you will: 1. Investigate the Proportional Recovery Rule (PRR) in mice: Evaluate recovery trajectories using different stroke models and behavioural assays (e.g., cylinder, grid walk, rotating beam), 2. Characterise gene expression profiles associated with recovery outcomes, and 3. Apply genetic and optogenetic manipulation of stroke recovery genes to boost motor recovery after stroke

Your Responsibilities

- Conduct in vivo experiments (stroke, behavior tests, optogenetics), examining the PRR in different experimental stroke models in mice.
- Perform molecular analyses (qPCR, possibly RNA-seq) comparing gene expression between well- and poorly recovering animals, focusing on neural plasticity and signalling pathways.
- Analyse and visualise data; prepare manuscripts and present results at scientific forums.
- Support teaching activities in experimental stroke research (optional but encouraged).

Your Profile

- Master's degree (M.Sc.) in Neuroscience, Biology, or a related discipline.
- Experience with mouse models of brain disorders, including stroke behaviour assays.
- Molecular biology skills, including qPCR (gene expression) and possibly transcriptomic methods.
- Preferably: Competency in Python and/or Matlab for data analysis and visualization.
- Strong organisational skills, teamwork orientation, and ability to communicate in English (German language skills welcome).
- Motivation to work at the interface of behaviour and molecular neuroscience.

What We Offer

- A 3-year PhD position (65% TV-L E13) at a leading neurology research group.
- Access to cutting-edge imaging, behavioral, and molecular facilities within the CRC1451 network.
- Mentoring from experienced researchers and collaboration across national and international institutions.

Apply Now

Please apply here: <https://short.sg/j/58675875>. Questions can be directed to markus.aswendt@uk-koeln.de. Applications will be reviewed on a rolling basis until the position is filled.