

PhD Position in Neurophysiology

Institution: Institute of Physiology and Pathophysiology, Heidelberg University

Location: Heidelberg, Germany

Start date: As soon as possible

Application deadline: June 15, 2025

We are inviting applications for a PhD position at the Department of Neurophysiology within the Medical Faculty of Heidelberg University. The position is part of a new DFG-funded project addressing 'Fast oscillatory control of spike timing-dependent synaptic plasticity (STDP) in the rodent hippocampus.' The project will focus on electrophysiological experiments in mouse brain slices, where all standard techniques of intra- and extracellular recording are available. Additional methods include optogenetic manipulations, in vivo-recordings and computer modelling. We will strongly collaborate with partner groups in Germany and abroad.

The successful candidate will join a highly cooperative interdisciplinary team. Within the framework of the project, you will be encouraged to follow your own ideas and to connect with fellow scientists within and beyond the lab.

Responsibilities:

- Conduct original research in the area of spike timing-dependent plasticity.
- Collaborate with other team members and external partners.
- Present results at conferences and publish in peer-reviewed journals.

Requirements:

- A Master's degree in Biology, Neurosciences, or related fields.
- Strong interest in cellular- and network-level neurophysiology.
- Good communication skills in English (written and spoken).
- Ideally: Some practical background in electrophysiology; basic programming skills in Matlab or Python.

We offer:

- A stimulating research environment with access to state-of-the-art facilities.
- Funding according to TV-L E13/65% for three years.
- Support for your professional development and international networking.

Please send your application as a single PDF including a cover letter, a CV (including contact details of two referees) and copies of your academic degrees and transcripts to andreas.draguhn@physiologie.uni-heidelberg.de