



DOKTORAND:IN/Ph.D. STUDENT FOR THE PROJECT "PURINE-DEPENDENT SIGNALING IN NEURONS AND ASTROCYTES AND ITS ROLE IN PHYSIOLOGY AND PATHOPHYSIOLOGY" WITHIN THE SFB 1328 "ADENINE NUCLEOTIDES IN IMMUNITY AND INFLAMMATION"

# § 28 SUBSECTION 3 HMBHG

Institution: Faculty of Mathematics, Informatics and Natural Sciences, Department of Biology, Institute of Cell and Systems Biology of Animals, Division of Neurophysiology Salary level: EGR. 13 TV-L Start date: 01.07.2023 or later, fixed until 30.06.2026 (This is a fixed-term contract in accordance with Section 2 of the academic fixed-term labor contract act [Wissenschaftszeitvertragsgesetz, WissZeitVG]). Application deadline: 2023-05-31 Scope of work: part-time Weekly hours: 65 % of standard work hours per week

### Responsibilities

Duties include academic services in the project named above. Research associates may also pursue independent research and further academic qualifications, in particular a doctoral dissertation.

# **Specific Duties**

Current research emphazises the importance of purinergic signaling pathways for normal cellular function and its contribution to various diseases opening perspectives to novel treatments. The central goal of the SFB 1328 (https://www.sfb1328.de/) is to further our understanding of the regulatory roles of intracellular adenine nucleotides (cAMP, NAADP) as well as extracellular adenine nucleotides (ATP, ADP) in the context of inflammatory diseases.

The Division of Neurophysiology investigates the role of purines (nucleotides and nucleosides) in normal brain function and in addition in pathophysiology (neuroinflammation). To unravel the cellular purine-dependent communication in living neurons and astrocytes we employ two-photon/confocal calcium imaging and patch-clamp electrophysiology combined with optogenetics and viral transformation with genetically engineered sensors. To complete the methodolocical spectrum we perform

immunohistology and behavior experiments. The successful candidate will use these techniques to study neuronal and glial activity in acute brain slices of the olfactory bulb. Performing and analysing imaging experiments as well as antibody staining of fixed tissue will be key methods of the proposed project. The candidate will have the opportunity to participate in the IRTG/Graduate school program of the SFB1328 warranting multi-facetted and broad training in basic research.

## Requirements

A university degree in a relevant field.

We are searching for a highly motivated candidate (master degree or equivalent in neuroscience, cell biology, biophysics, biochemistry, molecular biology or similar) to join our team. We are looking for a team player with good experimental skills and a broad interest in neuroscience and immunology. The following experience is advantageous but not mandatory:

- confocal and two-photon microscopy
- calcium imaging
- immunohistochemistry
- patch-clamp electrophysiology

#### We offer



As a University of Excellence, Universität Hamburg is one of the strongest research universities in Germany. As a flagship university in the greater Hamburg region, it nurtures innovative, cooperative contacts to partners within and outside academia. It also provides and promotes sustainable education, knowledge, and knowledge exchange locally, nationally, and internationally.

Severely disabled and disabled applicants with the same status will receive preference over equally qualified non-disabled applicants.

# Instructions for applying

#### Contact

Daniela Hirnet daniela.hirnet@uni-hamburg.de +49 40 42838-9319

### Location

Martin-Luther-King-Pl. 3 20146 Hamburg <u>Zu Google Maps</u>

#### **Reference number**

Apply here!

Christian Lohr <u>christian.lohr@uni-hamburg.de</u> +49 40 42838-5924

## **Application deadline**

2023-05-31

Send us your complete application documents (cover letter, curriculum vitae, copies of degree certificate[s] and if necessary ID attesting to your disability or proof of equivalent status) via the online application form only. If you experience technical problems, send an email to <u>bewerbungen@uni-hamburg.de</u>. More information on <u>data protection</u> in selection procedures.



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