RTG 2413 SynAGE

The Ageing Synapse – Molecular, Cellular and Behavioral Underpinnings of Cognitive Decline

Gefördert durch DFG Deutsche Forschungsgemeinschaft

The DFG - funded research training program RTG 2413 SynAGE (www.synage.de) seeks a highly motivated **PhD student/doctoral student (f/m/d)** to join a team of researchers from the Research Group "Molecular Neuroplasticity" at DZNE in Magdeburg (www.dzne.de/en/). The training program is focused on the synaptic aging in health and disease. The post is available initially for a 3-year fixed-term period with a salary of TV-L E13 (65%) starting in September 2022.

The German Center for Neurodegenerative Diseases (DZNE) is a world-leading internationally oriented research center, committed to discovering new approaches to prevent and treat neurodegenerative diseases. To this end, researchers at ten DZNE sites across Germany pursue a translational and interdisciplinary strategy comprising five interconnected areas: fundamental research, clinical research, health care research, population health science, and systems medicine. www.dzne.de

The project

The thesis project will address the interplay between the extracellular matrix, mechanosensitive channels, and intracellular signaling pathways during synaptic plasticity. We will try to understand how changes in mechanosensation underlie cognitive decline in aging and develop new treatments to improve cognition. The Research Group "Molecular Neuroplasticity" offers a broad range of techniques to address these questions (https://www.dzne.de/dityatev; as example of a recent study, please see https://pubmed.ncbi.nlm.nih.gov/32855309/).

Your profile

- Prior experience in standard in vitro neuro-electrophysiology applied to brain slices and cell cultures is a prerequisite for the assessment. This includes any of the following techniques: microelectrode arrays, extracellular field potential recordings, and patch-clamp.
- Knowledge in fluorescence and confocal microscopy and imaging-based assays (such as calcium imaging) is highly desirable.
- Master's degree in neuroscience/neurotechnology, biology or relevant scientific/technical discipline with a keen interest in electrophysiology and imaging.
- Enthusiastic, creative team player, fluent in English with a solid commitment to research.

We offer

- working in an interdisciplinary environment and an international team
- opportunity to learn cutting-edge neuroscience and neurotechniques in a competitive and instructive environment.
- excellent infrastructure, including modern workspaces and very well-equipped labs.
- employment, payment, and social benefits are consistent with those at other research institutes

- dynamic and multicultural environment with intensive mentoring and support through RTG SynAGE and the CBBS graduate program of the Magdeburg neuroscience community

Your employment, salary and employee benefits comply with the collective pay agreement (German TV-L). Equal opportunities as well as compatibility of family and work are part of our HR policy. Severely disabled applicants with equivalent occupational aptitude will be considered preferentially. Please submit your application as soon as possible including a detailed CV, a copy of academic transcripts, names of two referees and brief statements of motivation and research interest via e-mail to: alexander.dityatev@dzne.de. Applications will be considered immediately until the positions are filled.

By submitting your application, you consent to the processing of your personal data for the purpose of the application process. Our detailed privacy policy for applicants (m/w/d) acc. Art. 13 DSGVO on data processing in the application process will be sent on request. Your attention is drawn to the fact that no application or interview expenses can be paid. Documents will be deleted after 6 months.