

LEIBNIZ-INSTITUTE for NEUROBIOLOGY

Centre for Learning and Memory Research

The Leibniz-Institute for Neurobiology (LIN) Magdeburg seeks to fill the following vacancy

PhD student position for behavioral/ molecular imaging/neurosciences

The Leibniz Institute for Neurobiology (LIN) is a research institute of the Leibniz-Gemeinschaft (<http://www.leibniz-gemeinschaft.de/>) and dedicated to the study mechanisms of learning and memory.

Description of the position: The PhD student position is available in the Functional Neuroplasticity department at the Leibniz Institute for Neurobiology (Magdeburg, Germany) in the Functional Architecture of Memory (FAM) unit headed by the Professor Sauvage (<http://www.lin-magdeburg.de/en/departments/fam/index.jsp>). The position is available immediately (flexible for the right candidate).

The unit focuses on dissociating the contribution of the different subareas of the medial temporal lobe to memory in healthy subjects (rodents and humans), in aging and in animal models of amnesia. Several aspects of memory are studied: recent and remote memory, familiarity/recollection, memory for items/pairs, memory for space/time, encoding/retrieval, consolidation and reconsolidation of memory. This is done by adopting a multidisciplinary approach which includes high-order translational humans to rats behavioral techniques combined to lesions, optogenetics and/or high resolution molecular imaging based on the detection of immediate-early genes in rats and mutant mice using standard or light-sheet fluorescent microscopy in transparent brains. In-vivo electrophysiology, fMRI studies in awake rodents (9.4T) and human behavioral studies are also conducted to a lesser extent. See for selected publications: Sauvage et al, *Nature Neuroscience*, 2008; Beer et al, *J. Neuroscience*, 2010; Nakamura et al, *J. Neuroscience*, 2013; Lux et al, *Cerebral Cortex*, 2015; Lux et al, *eLife*, 2016; Beer and Vavra et al, *Plos Biology*, 2018).

Qualification: The candidate should have experience with behavioral techniques and/or molecular techniques (e.g. in-situ hybridization techniques/immunocytochemistry) and be highly motivated by interdisciplinary studies. The group is international: members from: France, Spain, Italy, Japan, Germany, etc...), hence the communication language is English. The group interacts tightly with the Neural Dynamics laboratory (Prof. Yoshida; in-vitro/in-vivo electrophysiology & modeling) as well as with many national and international partners (the Massachusetts Institute of Technology (MIT; USA), RIKEN (Japan), the DZNE (Germany), Max Planck Institute (MPI; Germany), etc. Candidates of all nationalities are encouraged to apply.

Please send your complete application (cover letter, curriculum vitae, publication list, names and contact of three references and brief statements of motivation and research interests) via e-mail as a single pdf file to magdalena.sauvage@gmail.com. Review of applications begins February 1st and will last until the position is filled.

Applications by women are especially welcome. Applicants with a severe disability will receive preferential treatment if their qualifications and experience are equal to those of the other candidates.