



In the third funding period of CRC 889 (1.1.2019-31.12.2022), the Department of Otolaryngology, Institute of Auditory Neuroscience, and Inner Ear Lab offer an attractive

PhD student position in Auditory Systems Physiology

The successful candidate will study the disease mechanisms of human hearing loss using genetically modified mouse lines that carry mutations implicated in human deafness. We focus on the question how sound encoding in the auditory nerve and sound perception are changed when the organ of Corti and specifically the inner hair cell ribbon synapse do not function normally. With a direct link to the clinical department, our aim is to better understand normal and impaired hearing function and to improve diagnostic techniques and hearing rehabilitation strategies.

The experimental work of the project will consist of *in vivo* recordings from the rodent auditory system, including challenging extracellular single neuron recordings from the auditory nerve, as well as immunohistochemical staining on preparations of the organ of Corti. Potentially, behavioral assessments of hearing function will also be used. All techniques are generally established in the lab.

Previous experience with electrophysiological experiments, microsurgery and/or a completed course on animal experimentation (FELASA B) will be useful. In addition, experience with immunohistochemical staining procedures and confocal or STED imaging, as well as technical knowledge and programming skills, ideally in Python and/or Matlab, will be helpful. Applicants should hold a Master's degree or equivalent in neuroscience, audiology, physiology, animal biology or molecular medicine, ideally with a focus on sensory physiology. The ability to work in an interdisciplinary, English-speaking international team of researchers is required.

The Göttingen Campus is a leading Neuroscience Center hosting numerous prestigious and internationally renowned research institutions. This includes the University and its Medical Center, three life science Max Planck Institutes, the European Neuroscience Institute, and the German Primate Center. The Auditory Systems Physiology group is part of the InnerEarLab (<http://www.innerearlab.uni-goettingen.de>), consisting of 7 groups employing molecular, structural, physiological, and theoretical approaches to study inner ear function. Most PhD students are enrolled in the „sensory and motor neuroscience“ or “systems neuroscience” programs of the Göttingen Graduate School for Neurosciences, Biophysics, and Molecular Biosciences (GGNB, <http://www.uni-goettingen.de/en/sh/56640.html>).

Please submit your application preferably in one single PDF-document, including cover letter, CV, list of publications, names of possible referees, and relevant certificates to NStrenzke@med.uni-goettingen.de until January 15th, 2018.

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