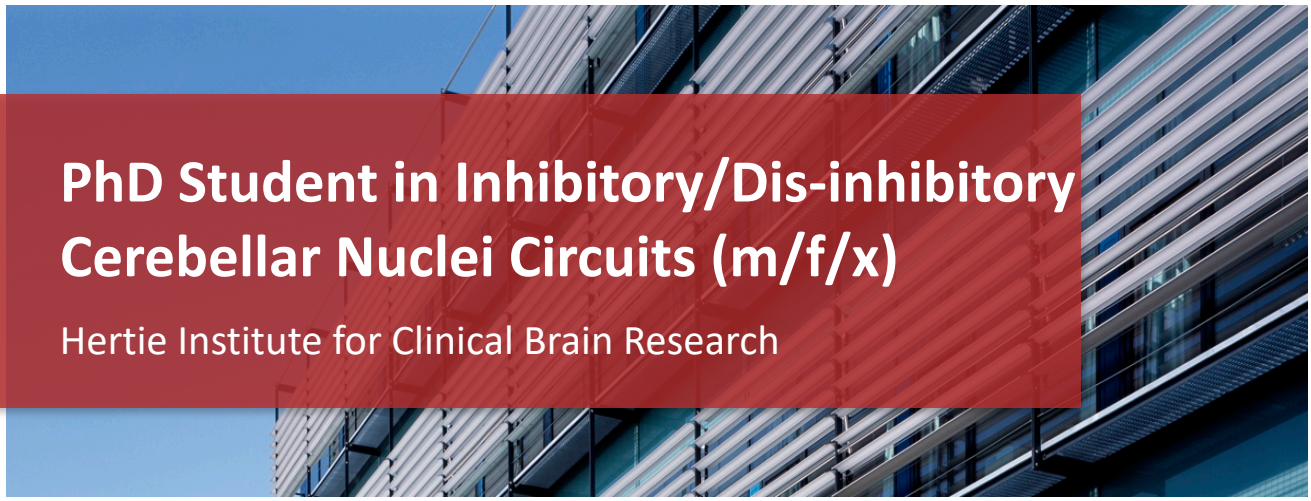
Hertie-Institut
für klinische Hirnforschung



PhD Student in Inhibitory/Dis-inhibitory Cerebellar Nuclei Circuits (m/f/x)

Hertie Institute for Clinical Brain Research

The Hertie Institute for Clinical Brain Research (HIH), together with the University of Tübingen's Neurology Hospital, forms the Center of Neurology. It is dedicated to research, treatment, and teaching focused on the diseases of the human brain.

The HIH is looking for a

PhD Student in Inhibitory/
Dis-inhibitory Cerebellar Nuclei Circuits

A DFG funded neuroscience PhD position in the field of electrophysiology is available in the in-vitro laboratory led by Dr. Christine Pedroarena, which is part of the Systems Neurophysiology group (AG Schwarz) at the HIH and CIN institutes of the University of Tübingen. The three-year position is part of a long term effort to understand the role of cellular (intrinsic and synaptic) and network properties in determining neural activity. In particular we focus on the output stage of the cerebellum, the little understood deep cerebellar nuclei (DCN) (e.g. Feria-Pliego & Pedroarena, 2020, Pedroarena, 2020). In addition to the well known role of cerebellum in the control of movements, a role in regulating cognitive and emotional functions is now recognized. But which role is played by DCN in shaping the cerebellar output is not yet clear. In an effort to elucidate this question, in this PhD project, combining electrophysiology in brain slices (using single and multiple whole-cell patch clamp), immunocytochemistry, optogenetics and imaging approaches we want to understand how the inhibitory and disinhibitory circuits of the DCN shape the activity of the DCN output neurons. The project will benefit from our expertise in this area and that of our local collaborators, and the common facilities of our home institutes.

The PhD student will be enrolled in the international graduate training center in Neurosciences of Tübingen, GTC, benefiting from further guidance from an Advisory Board and a broad range of courses in the areas of interest. Tübingen hosts a vast community of neuroscientists versed in multiple disciplines at various university and non-university institutions and research centres, who together create the TübingenNeuroCampus, providing an excellent environment for training.

The position is initially for three years. The salary will be according to the German salary scale (65% TV-L E13). Applicants should have a Master of Science, preferably in Neurosciences, be highly motivated and curious, with a very good command of English. Experience in some of the above mentioned experimental techniques, particularly electrophysiology is highly desirable. The University of Tübingen is committed to diversity and equal opportunity. Applications should be submitted to Dr. Christine Pedroarena: christine.pedroarena@uni-tuebingen.de, please include a cover letter indicating your education, scientific and research interests, how your past experience led to your interest in this project, CV, publications, and indicate at least two referees, all please, in one single pdf file.

Women are strongly encouraged to apply. Severely disabled persons will be given priority in the event of equal suitability. Unfortunately, interview costs cannot be covered. Please note the applicable vaccination regulations.