

# Call for 3 PhD students (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.

Starting as soon as possible the Dept. of Neurology and Epileptology in the HIH is looking for:

## 3 PhD students

### About us

We are looking for motivated and highly skilled PhD (TV-L 13, 65%, for 3 years) candidates to understand the network consequences of ion channel variants associated with intractable epilepsy and to explore new therapeutic strategies. Our work investigates ion-channel related mechanisms both on CNS network and molecular levels, explores strategies to reduce neuronal hyperexcitability as occurring in epileptic seizures and seeks to derive new AAV- and non-AAV-based molecular genetic treatment for these intractable focal epilepsies and developmental and epileptic encephalopathies (DEEs). Our group is experienced with a variety of state-of-the-art *in vitro* electrophysiological and imaging analyses and has expertise on *in vivo* stereotaxic techniques and EEG recordings. In the offered projects we will combine electrophysiological analyses of single neurons and CNS networks in iPSC-derived neurons or mouse brain slices by patch-clamp and micro-electrode-array recordings and we will use 2-photon Ca<sup>2+</sup>-imaging to study the underpinnings of ictogenesis and epileptogenesis, and to investigate the effects of new treatment strategies (including new drugs as well as new gene therapy approaches).

### Your background

The position requires a Master in (Bio-)Physics / (Bio-)Informatics / Biology / Biochemistry or a related discipline (e.g. molecular biology, molecular medicine), ideally with a focus on neuroscience. Skills in coding, electrophysiology (patch clamp, MEA recordings) are encouraged.

### We offer

We offer remuneration in accordance with TV-L (collective wage agreement for the Public Service of the German Federal States) in addition to all the customary benefits granted to employees working in Public Services. Severely distale persons will be given priority in the event of equal suitability. Unfortunately, interview costs cannot be covered. Before taking up a position, a sufficient vaccination protection against measles or an immunity against measles must be proven in accordance with § 23a and § 20 subsection 9 Infektionsschutzgesetz (IfSG) (birth cohorts from 1971/01/01 onwards). You must also present a valid vaccination proof against the coronavirus SARS-CoV-2 according to § 20a, subsection 2 IfSG.

### Have we sparked your interest?

Please send your application including a letter of motivation, CV, list of publications, copies of certificates and the names of at least two references as a single pdf file to:

E-mail:

thomas.wuttke@med.uni-tuebingen.de;  
ulrike.hedrich@uni-tuebingen.de;  
niklas.schwarz@uni-tuebingen.de

**Deadline: 31.12.2022**