



2 Positions in Neuroscience

Location: Lab of Prof. Marlene Bartos (<https://physiology-freiburg.de/>)
University of Freiburg, Germany

We are seeking motivated PhD students or Master thesis students for the new the DFG-funded **Collaborative Research Centre “Inhibitory neurons: shaping the cortical code” (IN-CODE)** to perform exciting projects in the field of cellular/ systems interneuron-neuroscience.

At the forefront of interneuron research, our dynamic and international research group is passionately committed to exploring the intricacies of information processing and encoding within neuronal networks to decipher the mechanisms that underlie the realization of learning, memory and behavior.

The projects will focus on investigating how different interneuron types contribute to spatial map stability in the mouse dentate gyrus. We'll use 2- / 3-photon calcium imaging in head-fixed mice navigating virtual realities and applying pharmaco- and optogenetic tools to modulate interneuron activity. Deca-patch recordings in acute slices will help explore the microcircuit organization, while artificial intelligence algorithms will reveal the role of interneurons in the internal structure of active networks and the encoding of behavioral variables at the population level.

If this sounds appealing to you, join us in our quest to push the boundaries of neuroscience and send us your application including a CV, a brief statement of interest, and contact details for two references to bartos@physiologie.uni-freiburg.de and dagmar.sonntag@physiologie.uni-freiburg.de. The position is available for an immediate start, preferably in April 2024.

Your profile:

- Diverse backgrounds ranging from molecular-, cellular- and systems neuroscience are welcome to apply.
- **Completed MSc** or equivalent (e.g. German diploma) **or currently in the final stages of completion/ looking for a master thesis.**
- Ideal candidates should have prior experience in one or all of the following: rodent behavior, electrophysiology, two-photon imaging, as well as proficiency in programming and data analysis.
- Most importantly, we are looking for individuals who are passionate about understanding the neural activity during behavior and are enthusiastic about acquiring new skills and techniques.

Why Choose Us:

- You will become part of a vibrant, international research group with access to cutting edge techniques performing at the forefront of interneuron research.
- Join the Collaborative Research Center IN-CODE fostering interdisciplinary collaborations between Freiburg, Berlin and Heidelberg.

- Connect with in the Spemann graduate school of Biology and Medicine (SGBM) for career preparation training.
- Our lab is conveniently located within walking distance of the charming old city center.
- Freiburg, Germany's sunniest city, serves as a gateway to the Black Forest and is situated at the crossroads of France, Switzerland, and Germany. It is well-connected by train and plane (Basel airport).
- Enjoy a multicultural city with a vibrant student community, offering abundant cultural and recreational activities, from hiking and climbing to skiing.

More information: <https://physiology-freiburg.de/in-code-is-recruiting/>