Postdoctoral Position - University of Freiburg

A funded postdoctoral position is available in the Neural Circuits and Behavior lab, headed by Johann Bollmann, to study visual information processing and motor control in the intact vertebrate nervous system.

Our resesarch aims at identifying fundamental mechanisms of how visual information is encoded and processed in the intact brain. In an interdisciplinary team, we investigate pathways and neuronal coding schemes in sensory circuits and motor command centers underlying complex visually guided behaviors in zebrafish.

The project involves state-of-the-art in vivo functional imaging to measure neural network dynamics. Targeted patch-clamp recordings will be used to determine single cell function and synaptic connectivity. Optogenetic manipulation will be used to test candidate mechanisms of visual circuit function. We have long-standing and unique experience in analyzing structure and function of neural circuits in zebrafish using multiphoton imaging, targeted patch-clamp recordings and quantitative behavioral analysis (e.g. Gabriel et al, Neuron 2012; Preuss et al, Current Biology 2014). The position is part of an interdisciplinary team in an international research environment. The Institute of Biology I also hosts the labs of W. Driever, A. Straw, D. Reiff, M. Wittlinger. The dynamic neuroscience community at the University of Freiburg (www.neuro.uni-freiburg.de) provides ample opportunity for interaction and collaboration, e.g. Freiburg Neuroscience, Bernstein Center Freiburg, Neurex Neuroscience Network (Freiburg, Basel, Strasbourg).

Requirements: Excellent PhD thesis, e.g. in neuroscience, neurobiology or biophysics, and a high quality first author paper. Research experience in single cell electrophysiology or functional Ca2+ imaging/laser scanning microscopy in genetic model organisms. Fluent in English. Practical knowledge in programming (e.g. Python, Matlab, LabView) is desirable.

To apply, please send CV, a brief statement of research experience and motivation, and names of two references via e-mail.

Job Information:

Closing date: 2018-09-30

Starting date: 2018-10-01

Institution: University of Freiburg

Department: Institute of Biology I

Contact information:

Prof. Dr. Johann Bollmann

University of Freiburg

Institute for Biology I

Hauptstrasse 1
D-79104 Freiburg, Germany
johann.bollmann@bio.uni-freiburg.de
www.bollmannlab.org