

Four doctoral positions in experimental and computational neuroscience Rumpel & Kaschube labs

POSITIONS: The groups of Simon Rumpel at the Medical Center of the University of Mainz and Matthias Kaschube at FIAS in Frankfurt, Germany, together have four openings for fully funded doctoral positions in experimental and computational neuroscience. The two groups tightly interact on several interdisciplinary joint projects funded by the German Research Foundation (DFG). Research combines behavioral learning assays, chronic imaging of synapses and activity patterns in the auditory cortex of mice, machine learning-assisted image analysis and data analysis, and neural circuit modelling. The overarching goal of these projects is to gain a deeper understanding of the neural underpinnings of adaptive, yet stable behavior by bridging studies of the dynamic connectome, large scale population activity and behavioral learning. The positions are available immediately, for up to three years.

LAB ENVIRONMENTS: The experimental work will be carried out at the Medical Center of the Johannes Gutenberg University in Mainz offering methodology for advanced approaches in systems neuroscience including two-photon microscopy and molecular interventions using AAV vector systems (www.unimedizin-mainz.de/agrumpel). The theoretical work will be carried out primarily at FIAS, a research institution dedicated to fundamental theoretical research in various areas of science (<https://www.fias.science/en/neuroscience/research-groups/matthias-kaschube/>). FIAS hosts state-of-the-art facilities and has tight links to neuroscience centers at the Goethe University, the Max-Planck Institute for Brain Research and the Ernst Strüngmann Institute for Neuroscience. The Rhine-Main area including the cities of Frankfurt and Mainz is a vibrant metropolitan area in the heart of Europe and boasts a rich cultural community. Due to the strong interactive nature, mutual short- and long-term visits in both labs will be part of the project.

QUALIFICATIONS: This call for applications is geared towards theoreticians as well as experimentalists, and also offers a unique opportunity to all who see themselves in between the two poles. Selection criteria include scientific enthusiasm, strong experimental or quantitative skills and past research accomplishments. Applicants must have received training and a master's degree or equivalent in a relevant quantitative discipline including biomedicine, biology, computer science or physics. Previous experience in neurobiology is advantageous but not essential.

APPLYING: Applicants should email a brief letter of intent, a detailed CV and the names of at least two scientists who can give references (in a single PDF) to Simon Rumpel (sirumpel@uni-mainz.de, emphasis on the experimental aspects) or Matthias Kaschube (kaschube@fias.uni-frankfurt.de, emphasis on the computational aspects). The position is available immediately, and we look forward to reviewing applications as they arrive.

Both Mainz University and FIAS are dedicated to building a diverse community in its training and employment programs.