



UNIVERSITÄT  
HEIDELBERG  
ZUKUNFT  
SEIT 1386



### Ph.D. positions in neuroscience and physiology

1-2 Ph.D./graduate student fellowships are available in the laboratory of Dr. Amit Agarwal at the Institute for Anatomy and Cell Biology, University of Heidelberg, Germany. The Ph.D. position is available immediately and the fellowship is provided for 3-4 years by the Chica and Heinz Schaller Research Foundation, Heidelberg. The successful candidate will be part of the neuroscience doctoral program of the Interdisciplinary Centre for Neurosciences (IZN), at the University of Heidelberg.

My newly established laboratory is looking for a talented and highly motivated Ph.D. students with strong interest in neurosciences, genetics and, physiology. Previous research background in neuroscience and physiology is an advantage but is not required. The applicants with hands-on experience in neurophysiological methods, microscopy and computer programming in Matlab/Python will be strongly preferred. Excellent organizational skills, ability to work in a team and independently plan and conduct experimental research is essential. The working language of our laboratory is English, knowledge of the German language is not required.

In my laboratory, we combine molecular, optophysiological and advanced microscopic techniques, novel mouse genetics tools, single-cell gene expression methodologies, and the machine-learning based computational approaches to decipher cellular connectivity and molecular pathways by which neurons and glia interact, interconnect and integrate into the neural networks. The focal aim of the laboratory is to understand the functional significance of these neuron-glia connections in the neural circuits, and their role in cognition, learning, and memory; and study how disturbances in these fine cellular interactions can contribute to various neurological and psychiatric disorders ranging from multiple sclerosis to autism.

The detailed publication list can be accessed at [https://www.researchgate.net/profile/Amit\\_Agarwal12](https://www.researchgate.net/profile/Amit_Agarwal12)

Heidelberg University is the oldest university in Germany and it offers the best life science research program in the country. The University provides a dynamic and multidisciplinary environment for the neuroscience research with state-of-the-art core facilities and transgenic animal facility. CellNetworks, University's Cluster of Excellence, hosts several core facility centers such as the Nikon Imaging Center (with confocal, super-resolution and multi-photon microscopes), Math-Clinic (for data analysis using high-end computational methodologies), nCounter and Deep Sequencing cores (for next-generation digital gene profiling). The university is an integral part of other top-notch research institutes such as the European Molecular Biology Laboratory (EMBL), German Cancer Research Center (DKFZ) and Max-Planck-Institute for Medical Research.

Please send your application latest by **1<sup>st</sup> February 2018**, to [agarwal@ana.uni-heidelberg.de](mailto:agarwal@ana.uni-heidelberg.de) with the following documents as a single PDF file:

- **Cover letter:** 1 page letter describing the motivation for doing PhD in my group and in Heidelberg,
- **Curriculum Vitae (CV)** with detailed education and research experience, as well as the list of publications and award,
- **Research Statement:** 2 page describing candidate's current and future research aims and career goals,
- **Recommendation letters:** Contact information (mailing address, phone and emails) of 3 academic referees,
- **Academic Degrees:** A copy of the transcript of Bachelors and Master's degree.