



The Institute of Biochemistry I at the medical faculty of the Friedrich Schiller University seeks

1 PhD candidate (m/f/d) in Biochemistry / Cell biology / Neurobiology

(build your career: subsequent postdoctorate in one of our groups in the institute possible, too)

Supervisors: PD Dr. rer. nat. Michael Kessels
Salary: TV-L E13 (65%; ~36.000€/year)
Starting: at earliest convenience
Term of employment: 3 years (elongation possible)

We welcome applications from candidates fulfilling the following criteria:

- Master of Science or Diploma (in biochemistry, neuroscience, biology or similar)
- High level of motivation and enthusiasm for independent scientific research in an ambitious, international team
- Reliability, accuracy, responsibility
- Sound, basic knowledge in: Molecular biology, protein biochemistry, cell biology, imaging
- Previous, more specialized experience with e.g. membrane interaction studies, high-resolution or electron microscopy, signal transduction studies is an advantage but not required
- Software knowledge (e.g. Office; Excel; Prism; ImageJ)
- Knowledge of German language is not necessarily needed, as we are an international lab and our lab language mostly is English - but is of course appreciated
- Fluent English, however, is a must

The UKJ/FSU is an equal opportunity employer promoting the advance of women in science.

Using a wide range of molecular biological, protein biochemical and microscopic techniques as well as cell biological assays, our institute conducts groundbreaking basic research on molecular implementation and control of the cellular processes underlying the development and plastic adaptations of cellular features required for proper organ function.

Proper neuronal cell shape development and plasticity e.g. are essential prerequisites for the formation of neuronal networks, the information transfer in the brain, as well as for plastic adjustments representing an important basis for learning and memory processes.

All of these processes are largely brought about by actin cytoskeletal and membrane topology-modulating proteins. Identifying and molecularly understanding such components therefore is our top research focus.

PhD project:

The aim of the project offered is to understand cell morphology development and plastic adaptations thereof by studying molecular players at the actin cytoskeleton/membrane interface both at cellular/functional as well as at molecular/mechanistic levels (compare e.g. Ahuja et al. 2007 *Cell*; Izadi et al. 2021 *eLIFE*; Izadi et al. 2023 *J. Cell Biol.*). Additionally, revealing and studying interaction partners and regulatory mechanisms (phosphorylation; Ca²⁺ sensor protein association, Arg-methylation) will lead to broader insights into mechanisms of cellular development, plasticity, stress adaptation and repair.

To reach this goal, a broad range of molecular, microscopic and cell biological techniques and assays will be applied (compare some of our publ. PhD studies, e.g. Schneider et al. 2014 *J Cell Biol*; Hou et al. 2015 *PLoS Biol*; Izadi et al. 2018 *J Cell Biol.*; Wolf et al. 2019 *Nat Cell Biol*; Berr et al. 2020 *Sci Rep*; Ji et al. 2021 *PLoS Biol.*).

Please direct your complete application

- CV incl. Publ. & honors,
- certificates & transcripts of both Bachelor and Master,
- 2-3 ref. addresses, cover/motivation letter

to: Michael.Kessels@med.uni-jena.de

We offer an outstanding interdisciplinary research environment with top quality education and state-of-the-art instrumentation:

- Excellent supervision and interaction in a lively and motivated research team
- "Hot topic" in neuroscience and cell biology
- State-of-the art instrumentation and modern workplaces
- Personal development opportunities through individual design of a research project
- Wide range of available methods that are directly established in the lab
- Excellent technical support and tutoring
- Continuous technical and scientific support and guidance
- Embedding in graduate programs (IZKF, JSMM)
- Further training and education offers, coaching etc.
- Local, national and international network connections
- Flexible working hours
- Communicative atmosphere within a scientific network providing top-level research facilities
- Participation at national and international meetings
- Company pension scheme (VBL)
- Jena is a young, lively and international university town (25% students) with dynamic businesses, successful scientific innovation centers and a vibrant cultural scene and was ranked 2nd in the German career atlas.

We are looking forward to your application!