Postdoctoral and PhD Student Positions in Cell Biology and Molecular Neuroscience in Berlin (f/m/d)

We are seeking to recruit post-doctoral fellows and PhD students in the areas of cell biology and molecular neuroscience. The Haucke laboratory aims to understand how cellular membranes and membrane-enclosed compartments dynamically exchange materials between them and its implications for cell signaling in health and disease. Our main focus is on the endocytic and endolysosomal system that we study in genome-engineered cell lines and in nerve cells or tissue [recent publications: von Kleist et al (2011) Cell 146:471-484; Posor et al (2013) Nature 499: 233-237; Ketel et al., (2016) Nature 529: 408-412; Marat et al. (2017) Science 356: 968-972; Soykan et al (2017) Neuron 93: 854-866; Vukoja et al (2018) Neuron 99: 1216-1232; Lopez-Hernandez, T. et al (2020) Nat Cell Biol 22:815-27; Rizalar, Roosen, Haucke (2021) Neuron 109,27-41, doi:10.1016/j.neuron.2020.09.038; Kuijpers et al (2021) Neuron 109,299-313; doi:10.1016/j.neuron.2020.10.005; Lopez-Hernandez, T. et al (2022) eLife11:e71198; Lo et al (2022) Nat Struct Mol Biol. 29, 218-228]. The current projects, which are supported by several recently acquired third-party grants including the European Research Council (ERC) and the German National Funding Agency (DFG), focus on the following.

1) Based on the recent discovery of a novel pathway that regulates the biogenesis of autophagosomes and lysosomes in response to cellular stress [Lopez-Hernandez, T. et al (2020) Nat Cell Biol 22:815-27], we seek to explore in a **cell biology project funded by the DFG** [Research Unit Lysosomes, FOR 2625) how osmotic stress and other stimuli regulate exo-/ endocytosis to control the biogenesis and function of lysosomes and autophagosomes and how this may relate to human disease. To this aim we use a combination of CRISPR genome engineering, proteomics, live imaging as well as correlative light and electron microscopy approaches.

2) In a **collaborative neuroscience project,** we seek to unravel the role of mTORC1 signaling and protein translation in memory consolidation in the mammalian brain. We will combine genetic and pharmacological manipulations with biochemical and cell biological approaches to identify the major targets of mTORC1 signaling in the brain and examine cellular and molecular events that are induced by an enriched environment known to facilitate learning. We will then use this information to study the impact of altered mTORC1 activity or protein translation on memory consolidation in the neocortex.

3) In a **molecular neuroscience project funded by the ERC** genome engineering in stem cell-derived neurons and genetically altered mice will be combined with proteomic, high-resolution imaging [see e.g. Lehmann et al (2019) Science Adv. 5: eaax5775] and systems biology approaches developed in the Haucke lab to identify the origin and composition of synaptic vesicle and active zone precursors, dissect the mechanisms of their axonal transport [see e.g. Vukoja et al (2018) Neuron 99, 1216-1232.e7; Rizalar, Roosen, Haucke (2021) Neuron; doi:10.1016/j.neuron.2020.09.038] and integration into developing synapses. The overall goal is to unravel the pathway that controls axonal transport and presynaptic assembly of newly made presynaptic proteins to set synaptic weight.

Candidates will have the opportunity to refine their management skills by the design and supervision of student research projects (BSc and MSc), and will benefit from a broad variety of advanced training opportunities.

Qualifications

We seek highly motivated, ambitious, and talented young scientists to join an enthusiastic and collaborative team in an outstanding scientific environment to perform research. Successful postdoc applicants will hold a Ph.D. in a relevant area (e.g. cell biology, molecular biology, biochemistry, neuroscience, physiology) and have a strong track record of accomplishment. Postdoc candidates with proven interests and/ or experience in proteomics, microscopical imaging techniques (e.g. high-resolution light or electron microscopy) and/ or the use and application of stem cell-based neurons or brain organoids are especially encouraged to apply. PhD student candidates should have a master's degree in molecular biology, biochemistry, biophysics, or related fields. All applicants are expected to benefit from excellent written and oral communication skills and display a high personal motivation to excel in science. The working language is English; knowledge of the German language is not required.

Research Environment

The Leibniz Forschungsinstitut für Molekulare Pharmakologie (FMP) is a non-university research institute that conducts basic research in molecular pharmacology and provides a vibrant and collaborative environment with state-of-the-art facilities for research and employees from all over the world. The Haucke lab is embedded into the NeuroCure Cluster of Excellence (see: http://www.neurocure.de/), a collaborative framework program that combines leading researchers in neuroscience from various Berlin based institutions. Since 2013, the FMP has been awarded with the certificate of the audit “Beruf und Familie” as family-friendly employer. We offer equal opportunities regardless of gender and welcome applications of disabled candidates, who will be preferred in case of equal qualification. We welcome applications from all backgrounds.

We take and share responsibility: The Haucke lab is the **first certified green lab** in Germany.

Are you interested?

Then please submit your complete application documents, containing a one-page letter with a personal statement describing your scientific accomplishments and your interests in our laboratory, your CV and bibliography as well as, contact information for 3 references, in electronic form as one single pdf-file via e-mail to **haucke@fmp-berlin.de**. Applications will be considered upon submission. The positions are available from **1 July 2022** (or later) and are based on contracts for the civil service (TVöD). They will be time limited for an initial period of two years with the possibility of extension up to five years.

For further information about the Institute and the Haucke department see www.leibniz-fmp.de/haucke.