Institute of Pharmaceutical Biotechnology
AG Niessing

Master thesis
Morphological changes upon PURA mutation in patient-derived cells

PURA Syndrome is a rare genetic disorder that affects diverse tissues with the main emphasis on the neuronal system. The disorder leads to impairments of the patient's intelligence, mobility, immunological system, and is responsible for epilepsy seizures.

We are looking for a highly motivated master's student who will help us to characterize PURA's importance for membrane compartments within cells. In recent studies, we have observed a diverse impact of PURA depletion on cell morphology regarding membrane integrity within cells. Thus, we wish to expand our research to a patient-based setup, which may bring more reliable information on physiological changes upon PURA mutations. Moreover, we would like to expand our research for other PUR paralogues to characterize morphological changes upon each PUR protein depletion via electron microscopy analysis.

What to expect?

- Cell culture (stem cells, iPSC-derived cells)
- Electron microscope
- Real-time qPCR
- Western blotting
- Immunofluorescence experiments
- Interpreting and evaluating results
- Independent lab work

Interested?

If you are interested in the project description, contact our team! Please send us your motivation letter, a CV, and your transcript of records to Estera Pluzek (estera.pluzek@uni-ulm.de)