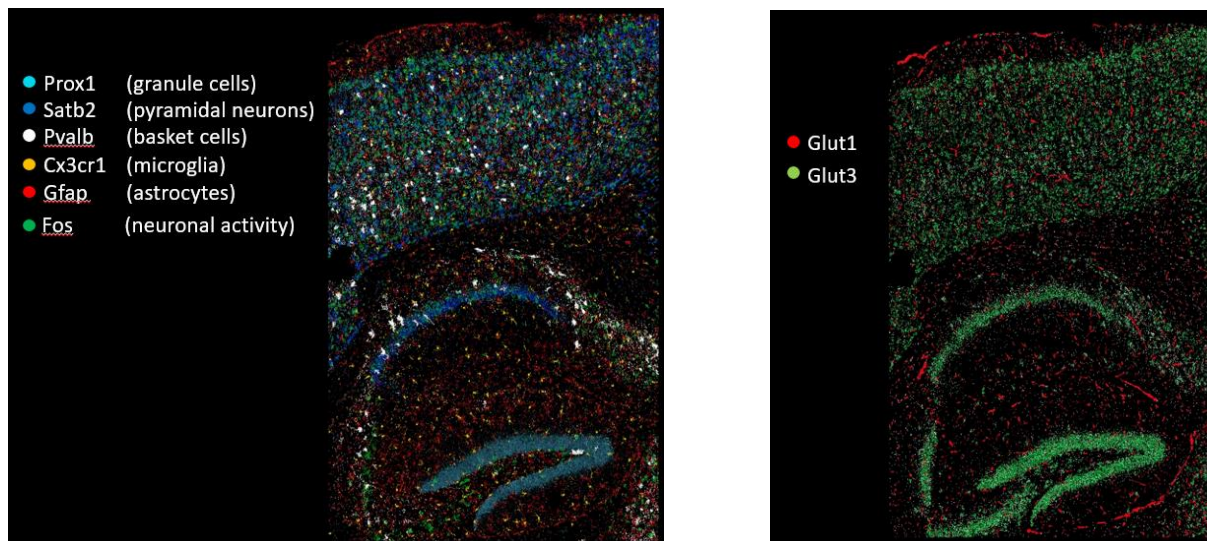


HiWi position available in Molecular Neuroscience lab



Combinatorial single-molecule fluorescent in-situ hybridization (smFISH) in a section of the mouse hippocampus, a brain area that is important for learning and memory. 8 out of a total of 35 analyzed transcripts are illustrated.

About the project

Optimal regulation of energy metabolism is essential for neuronal function. Accordingly, impaired neuronal energy metabolism is emerging as a key factor in the development of neurological diseases. Interestingly, expression of key metabolic enzymes in neurons is controlled by synaptic activity. In this project, we aim to understand how neuronal activity contributes to maintaining metabolic fitness of neurons in the mouse brain. In addition, we investigate how metabolic adaptations are affected during brain aging. The project includes behavioral, molecular, histological and histochemical analyses.

Your task

Your main task will be an in-depth analysis of a recently acquired spatial gene expression dataset. This includes optimization of image segmentation parameters, and development of an R-pipeline for quantitative comparison of gene expression between cell types and experimental conditions.

Experience with the programming language R is essential, experience with Python and/or digital image analysis is beneficial.

What we offer

We offer a highly interactive and committed research environment. We provide close supervision and a thorough introduction to the neuroscience background that is required for this position. Expert bioinformatics support will be provided by experienced colleagues and by bioinformaticians at Resolve Biosciences.

The position is for 20 hours/month for an initial period of 6 months. Working hours and location are flexible.

Contact

If you are interested in this position, please contact Prof. Bas-Orth to schedule a brief introductory meeting: basorth@med.uni-frankfurt.de

Further Information

www.basorthlab.weebly.com

<https://resolvebiosciences.com/knowledge-base/>