

**Join us !**

## **Two year PostDoc position available - ASAP**

### **Are you interested in studying catecholaminergic circuit dysfunctions in a neuromelanin mouse model of Parkinson's Disease?**

The project aims to better understand differential vulnerability of catecholaminergic brain circuits in Parkinson's disease. In the newly developed neuromelanin mouse model tg-hTyr, our collaborator Prof. Vila / Barcelona observed a similar sub-regional gradient of neuronal susceptibility that leads to degeneration and progressive dysfunction of specific brain circuits as seen in human PD pathology. Similar to humans, the degeneration of the locus coeruleus also occurs here considerably early than the more prototypical degeneration of striatal regions that eventually leads to classical motor and movement impairments. Here, we aim to use this mouse model to identify initial neuronal circuit dysfunctions and derive functional biomarkers that are indicative for these circuit-specific impairments in early phases of PD. We developed a new intrabody approach to target optical sensor to synaptic structures to image synaptic integrity. We will use this new approach to image functionality and health of dopaminergic and noradrenergic synapses in-vivo during on-set of PD.

The position is funded by the ASAP (Aligning Science Against Parkinson) initiative and The Michael J. Fox Foundation. The ASAP network is highly collaborative and provides an exceptional research infrastructure to interact with other scientists. All our scientific progress and tools will be made available to the Open Science Community.

Candidates should ideally have experience with

- Intracellular electrophysiology (preferentially in a acute slice preparation)
- Intravital 2P imaging in rodents
- Data analysis in Python, Matlab or R as well as knowledge on image processing

We established our lab at the Leibniz Institute of Neurobiology in Magdeburg in 2018, and formed a young and international research group. Our team members have different expertise and supporting each others research projects. The Leibniz Institute is a state-funded research institute dedicated to research on learning and memory with a strong translational drive towards clinical applications. We have strong links to nearby local research groups at the University of Magdeburg, the Deutsches Zentrum für Neurodegeneration (DZNE / Magdeburg) and University Clinic Magdeburg.

Magdeburg is an old university city with a quarter of million citizens that is less hourly train connection to Berlin and Leipzig.

Please send a motivational letter, CV, three publications and contacts for recommendation letters to: **prigge.matthias@gmail.com**