



**Research assistant (PhD position)
in the European School of Network Neuroscience (euSNN)**

About the project: EuSNN will integrate leading European groups in network neuroscience and deliver training on knowledge and skills that enable students to pursue a successful career in this emerging field. euSNN will combine and train all approaches relevant for investigation of brain networks, including (f)MRI, M/EEG, in-vivo recordings, analysis, modelling, network modulation with optogenetics or non-invasive neurostimulation and studies on network changes in neurological disorders. Be part of it.

The tendered position is funded by a Marie Curie grant, in which we participate together with more than 10 top international Universities. Secondments at several partner laboratories are part of the training.

The partner ALU will work on the neural underpinnings of action control in the rat prefrontal cortex and its outgoing projections. For this purpose the early stage researcher (ESR) will apply optogenetic and electrophysiological tools to target specific prefrontal pathways and alter behavioral performance in a controlled manner. Specifically, the ESR will apply these cutting edge technologies in a closed-loop approach thereby strengthening or weakening specific communication channels in the brain in order to assign functions to specific neural oscillatory bands.

About the job: This exciting job offer combines animal training, optogenetic and electrophysiological techniques, Matlab programming for data analysis and device control as well as interaction with several other research groups with complementary expertise. Funding is provided by the EU's Marie Curie (Horizon 2020) program for 3 years with a full time contract. This position is located in the research group of Prof. Dr. Ilka Diester at the new research building for Intelligent Machine-Brain Interfacing Technology (IMBIT - <https://www.brainlinks-braintools.uni-freiburg.de/de/imbit/>), University of Freiburg (Germany).

Skills and Qualifications:

- Excellent MSc degree in Neuroscience, Biology, Physics, Computer Science, or related fields.
- Profound knowledge of at least one programming language (preferably Matlab).
- Interest in creating, conducting, and analyzing behavioral, electrophysiological and optogenetic experiments in rats.
- Be able to work independently in an organized and reliable manner.
- English (Intermediate level or above) is required, both verbal and in writing.
- Please note the eligibility criteria for researchers in Marie Skłodowska-Curie ITNs: They must be in the first four years of his/her research career, not have a doctoral degree, and not have resided in the country of the recruiting beneficiary (i.e. Germany) for more than 12 months in the 3 years immediately before the recruitment date.

Key Responsibilities:

- Train rats in a behavioral action control task
- Implement optogenetic and electrophysiological experiments
- Apply real-time interactions with the brain
- Analyses of behavioral, electrophysiological and optogenetic data in a professional scientific way
- Collaborate with scientific partners of the Marie Curie consortium for viral tracing studies and data analysis
- Write up concise and meaningful summaries / presentations as well as prepare documents for peer-reviewed publications

What we offer:

- Obtain a PhD in Neuroscience from the University of Freiburg
- Opportunities for both local and international travel and present your work at several conferences and workshops.
- Secondments in partner labs of the training network euSSN.
- Flexibility in self organizing your working hours and location.
- Work in the team of Prof. Dr. Ilka Diester (www.optophysiology.uni-freiburg.de) and in close collaboration with the interdisciplinary euSSN consortium
- Competitive salary with (full-time) employment for up to 3 years.

Interested candidates please send your CV to: ilka.diester@biologie.uni-freiburg.de. The deadline is the 30-March-2020.

For further information about MSCA-ITN under EU H2020, see:

<https://ec.europa.eu/programmes/horizon2020/en/h2020-section/marie-sklodowska-curie-actions>