

Position available

Within the DFG-funded **Research Training Group (RTG 2416) *MultiSenses-MultiScales***, we are looking for a

Master and / or PhD student (Dr. rer. nat.)

- with a strong interest in neuroscience
 - who is highly motivated
- with a Bachelor or Master degree in biology, biochemistry, biophysics or related fields
- good English skills (spoken and written)
- communication and teamwork skills

Scientific background of the study:

Mutation in *PARK15* are associated with a juvenile form of parkinsonism. *PARK15* encodes FBXO7, a subunit of the SCF E3 ubiquitin ligase. Specific deletion of FBXO7 in glutamatergic or dopaminergic neurons results in motor deficits, supporting a fundamental role for FBXO7 in neurons. While the loss of FBXO7 has little or no effect on cell survival, it affects brain wiring and connectivity.

In line with the phenotype of *PARK15* KO mice, Parkinson disease (PD) is viewed as a synaptopathy. In addition to motor defects, PD is associated with olfactory dysfunction, its symptoms preceding motor deficits. With *PARK15* mouse models, we will ask:

- Does loss of FBXO7 affect synaptic wiring in the olfactory bulb?
- What are the molecular changes of the synapses in the olfactory bulb?

What we offer:

- Multidisciplinary project in translational neuroscience co-supervised by PD Dr rer nat Judith **Stegmüller**, Neurology at RWTH University Hospital, Prof Dr rer nat Marc **Spehr** at RWTH Aachen & Dr Markus **Rothermel** at RWTH Aachen.
- Integration into the newly founded PhD Program (GRK 2416): ***MultiSenses – MultiScales: Novel approaches to decipher neural processing in multisensory integration***
- Training in state-of-the art techniques (*in vivo* and *in vitro* electrophysiology, molecular biology such as quantitative mass spectrometry, etc. by the Spehr, Rothermel and Stegmüller labs)
- For MSc students: potential continuation of the project within the PhD program
- Funding

Please send your application (CV, diplomas, name & email address of referee) to:

Judith Stegmüller (istegmueller@ukaachen.de)