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 (jstegmueller@ukaachen.de)