Master Thesis (Masterarbeit)

Where

University of Erlangen-Nuremberg
Department of Biology
Animal Physiology
Staudtstraße 5,
D-91058 Erlangen

Thema

Physiology of the retina

70% of all the sensory inputs to humans are visual. Visual information processing starts in the eye, and the first neuronal coding organ in the visual pathway is the retina. The circuitry of the retina determines the amount and quality of visual information reaching the brain and thus our perception of the visual world.

The first synapse in the visual pathway is located between the photoreceptors and bipolar or horizontal cells. These cells form with each other an elaborate reciprocal interaction that is not fully understood yet. Voltage sensitive calcium channels are of key importance in controlling calcium-evoked synaptic vesicle release at a synapse. In the master thesis we would like to investigate the presence and the location of different calcium channels in the developing mouse retina.

Used technique

The candidate has to accomplish retinal slices and immunofluorescent labelling, but there is a possibility to learn also other techniques for example calcium imaging

Contact

Master thesis will be guided by Prof. Dr. Andreas Feigenspan and Dr. Norbert Babai together.

Language: English and German.

Prof. Dr. Andreas Feigenspan
Professur für Neurobiologie
Lehrstuhl für Tierphysiologie
Staudtstraße 5, A1 / Raum 00.144
D-91058 Erlangen
Tel: +49-09131 85-28057
Email: andreas.feigenspan@fau.de

Norbert Babai, Ph.D.
University of Erlangen-Nuremberg
Department of Biology
Animal Physiology
Staudtstraße 5, A1 / Raum 00.161
D-91058 Erlangen
Tel: +49-9131-85 28051
Email: norbert.babai@fau.de