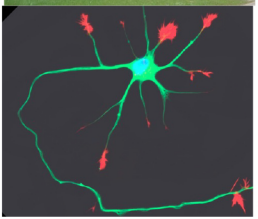

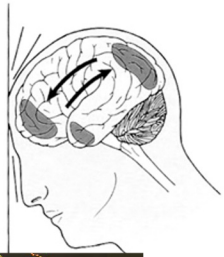

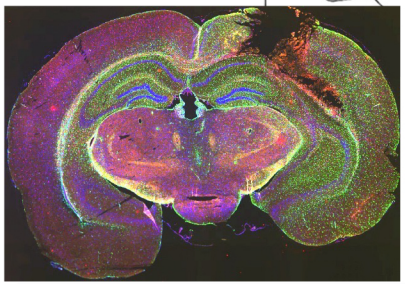

IBC: Institute of Neurobiochemistry

ulm university universität ulm

PhD thesis in traumatic brain injury

A position for a PhD thesis (TV-L 13, 65%, 3 years funding secured) is available in the group of Prof. Dr. Bernd Knöll at the Institute of Neurobiochemistry of Ulm University. The project is part of the DFG funded SFB 1149 on trauma research. The preferred starting time would be as soon as possible.

Topic:

Traumatic brain injury (TBI) caused by an external mechanical impact results in transient or persisting cognitive and physical impairments. In this project we analyze the therapeutical potential of the PTEN/Akt pathway in a mouse model of TBI. The PTEN/Akt pathway modulates cell growth in many cell types including neurons. Here, the PTEN tumor suppressor gene acts as growth brake in cells whereas Akt stimulates their growth. The PTEN growth brake can be released by genetic or pharmacological PTEN inhibition resulting in strong cell growth including axonal growth after spinal cord injury and as shown by us also in peripheral nerve regeneration (Meyer zu Reckendorf et al., *The Journal of Neuroscience,* 2022).

So far, the PTEN/Akt pathway has not been elucidated into great detail in rodent models of TBI which is envisaged in this PhD project. In this project the PhD student will employ our routine mouse TBI model combined with established read-outs (gene expression, histology, behavior, MRI) to analyze forebrain-specific PTEN deficient mice. Complementary to genetic PTEN inhibition, we use pharmacological PTEN interference. Here, an established pharmacological PTEN inhibitor and AKT activator will be employed to achieve enhanced recovery after TBI in the mouse model.

If your are interested please send a cv, transcript of records and names of references until January 31st 2023 to the following contact. Please indicate "TBI" in the subject line of your application.

Anke Rudolph-Kuhn (secretary)
anke.rudolph-kuhn@uni-ulm.de

For any further inquiries please contact:

Prof. Dr. Bernd Knöll
Institute of Neurobiochemistry
Medical Faculty
Ulm University
bernd.knoell@uni-ulm.de
https://www.uni-ulm.de/med/institut-fuer-neurobiochemie/

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