



EBERHARD KARLS  
UNIVERSITÄT  
TÜBINGEN



## CSC-Tübingen PhD Scholarship Program

2025 application round: prospective PhD positions at the University of Tübingen

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Faculty: Faculty of Medicine, Eberhard Karls University Hospital Tübingen

Institute / Section / Subject: Hertie Institute for Clinical Brain Research / Neuron-Glia Interactions / cortical myelination in health and pathologies

Supervising Professor(s): Dr. Nicolas Snaidero

About the Supervisor(s): Dr. Nicolas Snaidero is the head of the independent research group Neuron-Glia Interactions at the Hertie Institute for Clinical Brain Research. The lab focusses on interactions between myelinating glia and neurons in the cortex using advanced imaging strategies to capture complex morphological and functional cellular interplays leading to cortical myelination in health and its dysregulation in pathologies.

Specification: Targeting cortical myelination in a model of cortical multiple sclerosis.

Topic Description: Cortical myelination is emerging as a critical component of our brain for reshaping neuronal networks in adulthood and for providing long term trophic support to the underlying axons. Indeed, in recent years cortical myelin pathologies have been identified in several neurological pathologies offering a novel target for disease modifying therapies or even preventive interventions. In this project we aim to investigate novel focal interventions targeting neuronal activity, immune cells reactivity and gene therapies on oligodendrocytes to prevent the loss of myelin and improve remyelination efficiency aiming at preserving the neuronal integrity in inflamed conditions. Advanced intravital longitudinal imaging in a rodent model for cortical multiple sclerosis will be used in this project combined with gene therapies and focal neuromodulation strategies. The student will be supported by a young and dynamic team of international researchers with excellent skills in imaging and glia cell biology.

Intended Degree: PhD Exp. Med. / Dr. rer. nat.

Type of the PhD Study: Full-time

Required Degrees and Qualifications: Master of Science in Neurobiology or related discipline

Language Requirements: Fluent English, verbally and in writing (TOEFL iBT 95 / IELTS 6.5);

Notes: See the lab page with selected publications at:

<https://www.hih-tuebingen.de/en/research/independent-research-groups/snaidero-lab>