CSC-Tübingen PhD Scholarship Program

2026/2027 application round: prospective PhD positions at the University of Tübingen

---

Faculty:	Faculty of Medicine
Institute / Section / Subject:	Institute for Ophthalmic Research / ZEISS Vision Science Lab
Supervising Professor(s):	Prof. Dr. Siegfried Wahl
About the Supervisor(s):	Prof. Dr. Siegfried Wahl, physicist and developmental neurobiologist, is the principal investigator of the ZEISS Vision Science Lab within the Institute for Ophthalmic Research. He is a renowned expert in visual impairment research, especially in myopia and presbyopia, and in developing new individualized vision solutions to enable and enhance natural vision. He is author of more than 100 peer-reviewed scientific contributions, and he is the organizational representative in IAPB (International Agency of Blindness) and IMI (International Myopia Institute).
Specification/Project title:	Overcoming pitfalls of myopia efficacy assessment
Topic Description:	Short-term myopia-studies show that defocus, contrast, illumination, and near-work induce changes in choroidal thickness (ChT). This short-term-response is currently used as predictor for myopia-control long-term-efficacy. However, despite being different visual stimuli, the biometric change is always similar. This raises the possibility that the observed ChT change is influenced by accommodation rather than by stimulus-specific retinal-signaling. Distinguishing between these mechanisms is the aim of this PhD and essential for interpreting short-term myopia experiments and identifying the pathways that genuinely regulate ocular growth. Therefore, engineered wavefronts will be delivered to the retina while cancelling ocular aberrations and compensating for accommodation in real-time. The setup will additionally enable real-time measurement of ChT during stimulation, allowing direct observation of rapid structural responses.

Intended Degree:	Dr. rer. nat. (Graduate Training Center of Neuroscience)
Type of the PhD Study:	Full-time (complete doctoral studies at the University of Tübingen)
Required Degrees and Qualifications:	Master in Optical Engineering, Physics (Optics), or similar
Language Requirements:	English
Notes:	The ZEISS Vision Science Lab offers an innovative, international, and interdisciplinary environment with cutting-edge methods for meaningful contributions to eye health. The candidate should have a strong experimental optics background). This PhD will build on an existing adaptive optics system equipped with a spatial-light-modulator.