TRANSLATIONAL SENSORY & CIRCADIAN NEUROSCIENCE UNIT

TUMCREATE

BSc/MSc Thesis projects
Spring 2024
Date: 11 March 2024

The **Translational Sensory & Circadian Neuroscience Unit** (PI: Prof. Dr. Manuel Spitschan) at the Technical University of Munich (Munich, Germany), the Max Planck Institute for Biological Cybernetics (Tübingen, Germany) and TUMCREATE (Singapore) is offering the following BSc/MSc thesis projects or lab rotations:

Project ID	Level	Location	Research topic	Suitable disciplines
MPI-S2024-B001	**BSc**	Tübingen	**Automatic validation of multi-modal data set integrity**	Bioinformatics, medical informatics, computer science
MPI-S2024-M001	**MSc**	Tübingen	**The acute effects of food intake on body temperature and thermoregulation**	Neuroscience, cognitive science, psychology, bioinformatics, data science
MPI-S2024-M002	**MSc**	Tübingen	**Circadian changes in human ocular physiology**	Neuroscience, medicine, experimental psychology
MPI-S2024-M003	**MSc**	Tübingen	**Spatiotemporal properties of light and their impact on circadian rhythms**	Neuroscience, medicine, biology, experimental psychology
MPI-S2024-M004	**MSc**	Tübingen	**Spatial properties of natural scenes across different scenes categories**	Computer science, neuroscience, bioinformatics, data science
MPI-S2024-M005	**MSc**	Tübingen	**Spectral sensitivity of the photic sneeze reflex**	Experimental psychology, neuroscience, cognitive science
MPI-S2024-M006	**MSc**	Tübingen	**The relationship between perimetry-derived visual field borders and head shape**	Medicine, ophthalmology, vision science, optometry, experimental psychology, neuroscience
TUM-S2024-M001	**MSc**	Munich	**Performance comparison of two activity sensors**	Bioinformatics, medical informatics, computer science, data science, experimental psychology
TUM-S2024-M002	**MSc**	Munich	**Impact of metameric light sources on pupil size**	Neuroscience, biology, experimental psychology, health sciences
TUM-S2024-M003	**MSc**	Munich	**Usability of different light logger form factors**	Health sciences, experimental psychology
TUM-S2024-M004	**MSc**	Munich	**Time-series analysis of light exposure data**	Computer science, mathematics, statistics
TUM-S2024-M005	**MSc**	Munich	**Optimisation of a Telegram bot to change light exposure behaviour**	Computer science, data science, experimental psychology
TUM-S2024-M006	**MSc**	Munich	**Pilot and feasibility study of temperature loggers for longitudinal human field studies**	Computer science, data science, experimental psychology, health sciences, mathematics, medical informatics
TUM-S2024-M007	**MSc**	Munich	**The relationship between daily food and drink intake and sleep quality and architecture**	Health sciences, nutritional sciences sciences, health science, psychology
TUM-S2024-M006	**BSc**	Singapore	**Pilot and feasibility study of light exposure optimization**	Health science, public health, psychology
TUMCREATE-S2024-B001	**MSc**	Singapore	**Pilot and feasibility study of light exposure optimization**	Health science, public health, psychology
—	*BSc or MSc*	*Tübingen, Munich, Singapore*	*Your proposed research topic*	*Your discipline*

Notes: Some projects might be available as BSc *or* MSc projects.

How to apply

To apply for a BSc/MSc thesis or lab rotation project in our research group:

- Write a concise cover letter expressing your interest in and motivation to join the project, your timeline (desired start date and duration), and your affiliated institution (TUM, University of Tübingen, or other). If you propose a research topic, include some details on your interests.
- Include curriculum vitae (CV) with relevant research experience and technical skills (including programming ability).
- Submit a PDF with cover letter and CV via email to manuel.spitschan@tum.de with the subject line corresponding to the project ID.