TRANSLATIONAL SENSORY & CIRCADIAN NEUROSCIENCE UNIT

TUMCREATE

STUDENT RESEARCH PROJECT

Two eyes, two clocks?

How does input from the two eyes contribute to our physiological response to light?

Tübingen / Munich · English · Master's thesis · Research internship · Erasmus+ research placement

The question

Both eyes receive light, but how do their signals contribute to responses beyond vision? Investigating binocular input could refine our understanding of human circadian photoreception.

The project

Contribute to a human photobiology project examining how information from the two eyes relates to physiological light responses. The study links controlled visual stimulation with quantitative measurements, without assuming that contributions from each eye simply add together.

What you will do

- Read research on binocular processing and non-visual responses to light.
- Assist with measurement checks and supervised experimental work, subject to approvals and training.
- Analyse response variability and assess alternative explanations reproducibly.

Possible scope

A thesis could develop a focused experimental and analytical question; an internship or Erasmus+ placement could address a bounded measurement or analysis component. Visual neuroscience experience is helpful but not required. Detailed stimulus arrangements are shared in discussion.

Suitable backgrounds

Neuroscience · Psychology · Medicine · Health science

General expectations

You should be able to analyse data in R or Python, use Git and GitHub, and work reproducibly. Independent reading, careful documentation and increasing responsibility are expected. Previous sleep or circadian research experience is not generally required.

Funding

No salary or stipend from the research group unless explicitly stated. Master's theses are generally unpaid. Mention external funding or mobility programmes when applying.

Suggested backgrounds are not formal programme approval. Confirm requirements with your home institution.

How to apply

Send a short motivation, CV, relevant skills, preferred project, dates, format and location. Mention external funding. Contact Prof. Manuel Spitschan using the address below.

Munich: manuel.spitschan@tum.de
Tübingen: manuel.spitschan@tuebingen.mpg.de