



Mapping the sleeping and circadian brain

A systematic review of human neuroimaging studies.

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

The question

What does human neuroimaging reveal about the brain across sleep and circadian time? Findings are spread across imaging methods, participant groups and study designs that are not always directly comparable.

The project

Conduct a systematic review that distinguishes sleep-related effects from circadian timing and associated experimental influences. The review will map the evidence, assess methodological limitations and identify questions that existing studies leave unresolved.

What you will do

- Develop a review protocol and reproducible search strategy, then screen studies against explicit eligibility criteria.
- Extract study characteristics and findings, and assess the quality and comparability of evidence.
- Produce a structured synthesis; consider quantitative synthesis only where the evidence supports it.

Possible scope

A thesis could take a focused review through protocol development, searching, screening, extraction and synthesis. A shorter placement could address one stage or a narrower question. Familiarity with neuroimaging concepts is helpful; careful evidence appraisal is central.

Suitable backgrounds

Neuroscience · Psychology ·
Medicine · Data 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.

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