

PhD Position

Glial and Inflammatory Mechanisms in a Human Tauopathy Brain-on-Chip Model

One PhD position is available in the 'Glial Cell Biology' group in the Hertie Institute for Clinical Brain Research (HIH) in Tübingen, Germany. The HIH, together with the University of Tübingen's Neurology Hospital, forms the Center of Neurology. It is dedicated to research, treatment, and teaching focused on the diseases of the human brain.

VISI-ON-BRAIN is a Horizon Europe project funded under the Marie Skłodowska-Curie Actions Doctoral Networks (MSCA-DN) programme that focusses on next-generation human *in vitro* and *in silico* approaches for complex brain disorders, including Alzheimer's, Parkinson's, and Huntington's disease. Within the VISI-ON-BRAIN MSCA-DN, the Glial Cell Biology Group within the Department of Cellular Neurology at the HIH will recruit one PhD student focussing on glial cells and inflammation in a tauopathy model.

Glial cells play essential roles in maintaining brain homeostasis and are increasingly recognized as key contributors to neurodegenerative disease processes. Microglia, the brain's resident immune cells, exhibit dynamic functional states and can influence both healthy and pathological conditions. Tauopathies, including Alzheimer's disease, progressive supranuclear palsy, and frontotemporal dementia, are characterized by abnormal accumulation and spread of tau protein. Emerging evidence suggests that glial cells can contribute to the progression of tau pathology, yet the temporal and cellular interplay between tau aggregation and inflammation remain poorly understood. Clarifying these interactions is crucial for uncovering disease mechanisms and identifying new therapeutic strategies targeting glial activity and inflammatory signaling.

To this end, the doctoral candidate will (a) develop a brain-on-chip system combining human induced pluripotent stem cell-derived neuronal and glial cells to investigate tau propagation, (b) characterise how glial cells contribute to the propagation of tau pathology and neurodegeneration, and (c) explore the role of inflammation in modulating tau propagation.

The Glial Cell Biology group is a young, international and very dynamic team. The institute offers excellent support structures and provides access to state-of-the-art equipment, both within the institute and through the university's extensive core facilities.

Candidate Profile

We are looking for a highly motivated and curious candidate with a strong enthusiasm for cell and molecular biology. The ideal applicant holds a master's degree in neuroscience, immunology, biomedical sciences, or a closely related field. Experience in neuroimmunology, electrophysiology, or advanced imaging is an advantage but not required. We value a collaborative mindset, strong analytical and problem-solving abilities, and solid proficiency in English (oral and written) is essential for this position.

We offer

- 36-month MSCA employment contract with full social security coverage (starting date: October 1st, 2026 or as soon as possible thereafter)
 - MSCA allowances package (living + mobility; family allowance if applicable), in accordance with programme rules.
 - Comprehensive international training programme through the Doctoral Network (including courses, summer schools, and transferable skills training).
 - Secondments with consortium partners.
 - Joint supervision and access to a multi-stakeholder ecosystem.
- Candidates with severe disabilities will be given priority if equally qualified. Please note the applicable vaccination requirements. The employer actively promotes equal opportunity and particularly encourages applications from women.

Eligibility (MSCA Doctoral Network Rules)

Applicants must meet all MSCA DN eligibility criteria at the time of recruitment:

- Doctoral Status Rule: The applicant must not already hold a PhD/doctoral degree.
- Mobility Rule: The applicant must not have resided or carried out their main activity (work/studies) in Germany for more than 12 months in the 36 months immediately before the recruitment date.
- Enrolment Requirement: The selected candidate must be eligible to enrol in the doctoral programme at the University of Tübingen.

More Information

- Full details and official call documentation: <https://marie-sklodowska-curie-actions.ec.europa.eu/actions/doctoral-networks>
- Direct link to the project: <https://cordis.europa.eu/project/id/101227124>
- Website of the project: <https://visi-on-brain.eu/>

Have we sparked your interest?

Applications must be sent as a single PDF file to Dr. Deborah Kronenberg-Versteeg (Deborah.kronenberg-versteeg@uni-tuebingen.de), containing:

- a cover letter of motivation (500 words max) outlining your interest in the position
- a curriculum vitae
- grade transcripts and MSc diploma (If your degree has not been awarded by the closing date, you may still apply but should submit a declaration signed by your University stating that you expect to obtain the degree by the time of PhD enrolment)
- two letters of reference

Deadline: Your complete application must be submitted no later than **20th of May 2026** (23:59 CEST)