

Master Thesis

Seed-Amplification-Assays in Parkinson's disease at the Hertie Institute for clinical Brain Research

The Hertie Institute for Clinical Brain Research (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. Within the Department of Neurodegenerative Diseases, research into the causes and treatment of Parkinson's disease has been a successful core competence for many years.

The Brockmann research group is now offering a **Master thesis**.

About us

Our research focuses on the classification of different patient groups based on molecular, genetic, and clinical markers, as well as the investigation of different disease courses and the identification of potential modifying factors. The goal is to create the foundation for future treatment methods that significantly influence the course of the disease.

Master Thesis: Investigation of the biological basis of Parkinson's disease using novel amplification assays.

Seed amplification assays (SAAs) enable the detection of aggregated proteins and have recently been used to detect the alpha-synuclein protein, which is central to the pathogenesis of Parkinson's disease. The method is established in our laboratory for measurements in the cerebrospinal fluid (CSF) of patients. This master thesis aims to quantify the seed concentration in longitudinal patient cohorts. The measured values will be used in correlation analyses with clinical and genetic markers. The results could be used to predict disease progression, stratify patients for clinical trials, and assess the efficacy of potential therapies.

Your background

- Master program in Natural Sciences (Biology, Biochemistry, Molecular Medicine, Neuroscience, or a comparable field of study)
- Laboratory experience in standard molecular biology methods
- Strong communication skills and the ability to work independently and collaboratively
- Availability for 6 months to successfully complete the Master's thesis

We offer

- An outstanding scientific and clinical-translational environment at a university of excellence
- Innovative research topic
- Training and support
- Friendly, inclusive, and professional work environment

Your application documents:

- Short cover letter (maximum 1 page)
- CV

Please send your documents as a single PDF file via email to claudia.schulte@uni-tuebingen.de

Prof. Dr. Kathrin Brockmann
Head of the Clinical Parkinson Research Group
Department of Neurodegenerative Diseases
Center for Neurology
Hertie Institute for Clinical Brain Research