



# PhD Position

## in fluid biomarkers for neurodegenerative diseases at the Hertie Institute for Clinical Brain Research

The Hertie Institute for Clinical Brain Research (HIH), together with the Department of Neurology, forms the Center for Neurology at the University of Tübingen. It is dedicated to basic and translational research in neurological diseases. Together with the several other highly advanced neuroscience institutes, it is part of the TübingenNeuroCampus (TNC), here working closely together also with the German Center for Neurodegenerative Diseases (DZNE). Scientists in the more than 100 active research groups of the TNC pursue theoretical, system-neuroscientific, molecular, and clinical research approaches in their entire breadth using a wide range of methods.

The research division „Translational Genomics of Neurodegenerative Diseases“ of Prof. Synofzik is currently looking for a **PhD student, TVL E13, 65%, 3 years (extension possible)**.

### About us

The research division „Translational Genomics of Neurodegenerative Diseases“ of Prof. Synofzik focuses on genomics, pathophysiology and translational biomarker research in the field of neurodegenerative diseases, with a special focus on genetic ataxias, motor neuron diseases, and dementias. Prof. Synofzik coordinates several large trans-European consortia on translational neurodegeneration in rare movement disorders and serves as PI of several large-scale national and international longitudinal cohort studies. We offer excellent projects and training in neurodegeneration and molecular biology research. A wide range of molecular, protein biochemical and cell biological methods are applied in the lab (e.g. exome/genome sequencing, Sanger sequencing, qPCR, western blotting, ELISAs, and cutting-edge ultra-sensitive protein analysis including Simoa, Luminex and Singulex technology). Biomarkers are identified in cell culture models, human and murine blood and/or CSF, and validated in patient cohorts.

### The PhD Project

You will be integrated in several translational projects as the key person to identify and validate novel fluid biomarkers in dementia (fronto-temporal dementia and Alzheimer's disease) and ataxia disorders (ARSACS and COQ8A). You will identify novel biomarkers in fluids from humans, mice and cell culture disease models with unbiased mass spectrometry proteomics and targeted immunoassays. You will receive an excellent training in cutting-edge molecular biology methods and assay development (including MSD, Simoa, Singulex and Luminex technology, which are all directly available and established on site), collaborate with biotechnology cores across the Tübingen research campus, and work collaboratively with our team to report the results and progress at conferences and scientific journals.

### Your background

- You have a Master's degree in Biochemistry, Biology, Bioinformatics, Molecular Genetics, or related life sciences.
- Experience with development and validation of methods in molecular biology, ideally (but not mandatory) also with translational application of immunoassays using fluid biospecimens
- You should have good communication skills, attention to detail, and flexibility to work both independently and collaboratively.
- Very good proficiency in English (oral and written) is mandatory.

### We offer

We offer a challenging interdisciplinary translational project that is integrated into major national and European research consortia at the interface of genomics and translational medicine, well-equipped laboratories with top-notch facilities, excellent supervision in a highly collaborative international environment and affiliation with the Graduate Training Center of Neuroscience. The position is available immediately. Salary will be determined according to the German collective wage agreement in public service (TVL 13, 65%). Appointment is full time and will be initially for three years with the possibility of extension. We give priority to severely disabled applicants with essentially equal qualifications.

This position will be funded by the 'Bundesministerium für Bildung und Forschung' (BMBF) via funding for the European Joint Programme Rare Diseases 2020 (EJPRD) and the Elite Post-Doc Program of the Baden-Württemberg Foundation.

### Application

If you are interested in this project please send your full application within one PDF file. This should include:

- Cover letter outlining (i) how you meet the requirements for the position, (ii) relevant details of your past research projects, and (iii) an explanation of how your previous experience lends itself to this PhD research project. (~750-1000 words).
- Curriculum vitae
- Names and email addresses of two professional references (e.g., current or previous research advisors).
- transcripts, your master's thesis and/or publications.

Please send this PDF to: Mrs Selina Reich: [selina.reich@uni-tuebingen.de](mailto:selina.reich@uni-tuebingen.de),

**Deadline: 01.06.2022**

### Matthis Synofzik

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