



The Institute of Clinical Neurochemistry (Head: Prof. Dr. Hayrettin Tumani) is looking for a

**PhD student (f/m/d) – Understanding of fluid biomarkers in Astrocyto- and Synaptopathies**

The Clinical Neurochemistry is excited to announce an opening for a PhD position in our research team focused on the understanding of biomarkers in neurological diseases with astrocytic and/or synaptic involvement. This position, funded at TV-L 65%, offers a unique opportunity to contribute to research at the intersection between laboratory and routine clinical analysis.

Astrocytopathies are a group of disorders that affect astrocytes. These cells play a crucial role in maintaining the blood-brain barrier and repairing the brain and spinal cord after injuries. One key marker of astrocytopathies is the presence of abnormal amounts of glial fibrillary acidic protein (GFAP). Synaptopathies are a group of neurological disorders characterized by abnormalities in synaptic function, which is crucial for communication between neurons.

This Project concentrates on the deeper understanding of astrocytic and synaptic fluid biomarkers, especially GFAP with its various isoforms, to be able to better characterize, diagnose and predict these neurological conditions. The project will include a broad spectrum of methods and state-of-the-art technologies.

The successful candidate will be responsible for developing fluid biomarker assays and validating them in clinical cohorts. Key tasks include designing and executing experiments, analyzing data, and collaborating with interdisciplinary teams.

**What we offer:**

The Clinical Neurochemistry working group (<https://www.uniklinik-ulm.de/neurologie/forschungs-arbeitsgruppen.html>) is dedicated to unraveling the pathological processes behind neuroinflammatory and neurodegenerative disorders. We focus on early diagnosis and monitoring of neurological diseases by developing cutting-edge biomarker assays for detection of proteins in cerebrospinal fluid and blood. As a highly motivated team, we offer interesting research topics with utmost clinical relevance within an excellent scientific environment. Salary and benefits are according to the German TV-L system. We expect PhD students to join the International Graduate School of Molecular Medicine Ulm (IGradU). Furthermore, we encourage students to present their data in national and international conferences.

**Candidates:**

Applicants will hold an excellent M.Sc. degree or equivalent in molecular medicine, biochemistry, biology etc., are fluent in English, and have a strong motivation to address biological and medical questions with interdisciplinary approaches.

**Start of the project:** as soon as possible

**Duration:** 3 years

Please send your application as one merged PDF file containing a letter of motivation, CV (+ list of publications), certificates and transcripts of grades (B.Sc., M.Sc., other degrees), to [hayrettin.tumani@uni-ulm.de](mailto:hayrettin.tumani@uni-ulm.de) and [steffen.halbgebauer@uni-ulm.de](mailto:steffen.halbgebauer@uni-ulm.de).