

The **Institute for Stroke and Dementia Research** (<https://www.isd-research.de/>) is one of the most renowned centers in Germany for cutting-edge research and treatment of neurodegenerative and neurovascular diseases. 16 international working groups are using state-of-the-art methods to research disease mechanisms and translate new scientific findings into treatment approaches for patients.

The working group of **Prof. Dr. Dominik Paquet** (<https://www.isd-research.de/paquetlab>) is looking for a

PhD student (m/f/d)

Our research involves the development of human brain tissue models to study the molecular mechanisms of Alzheimer's disease, Frontotemporal dementia, stroke and other related brain diseases and to develop therapeutic approaches. We use state-of-the-art molecular and cell biological methods, such as induced pluripotent stem cells, advanced molecular biology techniques, CRISPR/Cas9 genome editing, brain tissue engineering, scRNA-seq, proteomics etc. We offer a highly international, versatile, extremely well equipped and productive work environment.

In a highly translational project in close collaboration with a big pharma company we aim to further develop and apply our human iPSC model of Tauopathies to identify therapeutic strategies. Tauopathies are a large group of neurodegenerative diseases that include Alzheimer's disease, Frontotemporal dementia and other disease with aggregation of Tau protein in the brain. The project will focus on differentiation of iPSCs into brain cells, generating a multicellular brain tissue model with Tau pathology, and developing and optimizing workflows to test therapeutics targeting Tauopathies. Techniques include iPSC culture and differentiation, tissue engineering, molecular biology and biochemical assays, microscopy and different transcriptomic and proteomic workflows. The project will be embedded in the highly collaborative and stimulating environment of the PaquetLab, the ISD, the SyNergy Cluster of Excellence, and the close collaboration with the pharma company.

We are looking for a highly motivated individual with the following skills:

- international scientific working experience
- experience with cell culture, preferentially stem cell culture, molecular biology and biochemistry techniques
- excellent English skills in speaking, writing about and presenting scientific data
- interest in translational work in a highly interdisciplinary team of friendly scientists and in forming valuable connections with pharma colleagues

Admission to the GSN PhD or fast-track program will be required, and a start date soon in 2025 is desired.

Join us!

Dominik Paquet, Professor of Neurobiology
dominik.paquet@med.uni-muenchen.de
<https://www.isd-research.de/paquetlab>
www.synergy-munich.de

