The Faculty of Medicine is one of the four founding faculties of the Eberhard Karls University of Tübingen. With its non-clinical facilities as well as its research and teaching area corresponding to the organisational units of the University Hospital, it is one of the largest medical training and research institutions in Baden-Württemberg.

The Centre for Genetic Epidemiology (CGE) within Institute for Clinical Epidemiology and Applied Biometry is offering positions (f/m/d) in the fields of

Statistical Genetics (full time), Data Analysis (full time) and Database Management (part time, 65 %)

The positions are available as soon as possible and are limited until 31.05.2026.

The Centre for Genetic Epidemiology (CGE) within Institute for Clinical Epidemiology and Applied Biometry is looking for researchers with expertise from diverse backgrounds such as genetic epidemiology, statistical genetics, mathematics, Machine learning/artificial intelligence, and bioinformatics. CGE has a long-standing experience in studying the genetic architecture of complex diseases including neurodegenerative diseases using state-of-the-art approaches such as exome/genome sequencing, Mendelian randomization, machine learning, artificial intelligence, deep learning, etc.

Project:

We seek to unravel the role of common and rare variants in Parkinson's disease by utilizing a variety of genetic epidemiological approaches. A variety of techniques including next-generation sequencing, machine learning, Bayesian approaches, and the use of standard statistical-genetics packages such as PLINK, SKAT, and meta-analytical approaches will be applied to understand the genetic etiology of PD. CGE is leading large-scale international projects funded by various organizations such as DFG and Michael J Fox Foundation, USA.

CGE is a part of multinational consortia and has access to high-quality nextgeneration sequencing data. We are developing a comprehensive database for Parkinson's disease, and as such we are looking for interesting candidates to join our team.

Position and role:

Postion 1 (Statistical Genetics), 3 years, full time:

The candidate should have experience in conducting genome-wide association studies, and next-generation sequencing analyses such as whole genome sequencing and transcriptomics (single cell and bulk RNA sequencing). It is expected that a candidate will supervise graduate students. This position will require extensive engagement with partners nationally and internationally, thus flexibility and strong interpersonal skills are required to lead a multinational project. In addition, the candidate will lead monthly virtual meetings, prepare minutes, and will also be involved in project management. The previous publication track record in the abovementioned approaches will be required.

The candidate will lead the ongoing GWAS analyses and will play an important role in analyzing ongoing whole-genome sequencing analysis. The candidate should have expert-level knowledge of R. Advanced knowledge of statistical-genetics approaches and programming languages such as GWAS analyses, copy number variation, Mendelian randomization, and Python is required. The track record in the abovementioned approaches will be considered an asset during selection.

Additional skills in machine learning, and programming languages such as C++, and Java and database management with MySQL will be an asset, but not mandatory. Knowledge of cloud computing will be an asset. Prior working experience in neurodegenerative disease is not mandatory. The position will provide valuable experience to the candidate and will offer a chance to lead their projects. The position will require communication with research groups around the globe. Strong personal communication skills will be required to coordinate projects with various labs around the globe. The position will be for three years, and further extension will be possible depending upon the performance and availability of funds.

Kontakt bei Fragen: Mr. PD Dr. Manu Sharma 0707129-78259 manu.sharma@uni-tuebingen.de

Bewerbungsfrist: 23.04.2023

Wir freuen uns auf die Bewerbung an Mr. PD Dr. Manu Sharma mit Lebenslauf und Motivationsschreiben unter Angabe der Kennziffer 2565.

Jetzt bewerben

Position 2 (Data analyst), 3 years, full-time:

We are looking for a full-time data analyst who will be involved in epidemiological, sociodemographic, and clinical data curation, harmonization, integration, and analysis. In addition, the candidate will be involved in building a clinical glossary from electronic Case Report Forms (eCRFs). The candidate will be responsible for the deployment and maintenance of the data and computing platform. The candidate will work closely with other team members on the design and implementation of statistical, ML/AI analysis workflows and visualization tools.

We are seeking a candidate with a doctoral degree in computational biology, bioinformatics, or related fields, with an interest in biomedical informatics and translational medicine. The candidate will have a working to expert-level knowledge of programming languages (Python, R, Java), experience in data curation, structuring, analysis, and visualization, and in-depth familiarity with Python libraries for data engineering (Numpy/Pandas) and data science (SciKit). The track record in the abovementioned approaches will be considered an asset during selection.

The position requires communication among collaborators and thus excellent communication skills and the ability to articulate clearly the scientific and technical needs and to work within an interdisciplinary setting, communicating with other internal/external partners is a must. Prior experience dealing with clinical, molecular (genomics, and proteomics), and data processing, integration, and knowledge of Parkinson's disease research is considered an advantage.

Position 3 (Database Manager), 3 years, part-time 65% with possibility for full time:

We are looking for a candidate with experience in handling genome-wide data such as genome-wide association studies and next-generation sequencing data. The candidate should be proficient in handling and managing data on the cloud. The candidate will work with diverse teams across the globe, and hence strong personal skills are required.

The position is initially $65\,\%$ and depending upon the performance, it will be converted to full time. The option to work from home is possible.

We are seeking a candidate with a doctoral degree in computational biology, bioinformatics, or machine learning/artificial intelligence. The candidate will have a working to expert-level knowledge of programming languages (Python, R, Java), experience in data curation, and the ability to work in a cloud environment. Strong personal communication skills will be required to coordinate projects with various labs around the globe.

The position will be for three years, and further extension will be possible depending upon the performance and availability of funds.

How to apply:

The positions will be open until we find an appropriate candidate. Please send your application including a letter of motivation, CV, list of publications, copies of certificates, and the names of at least two references as a single pdf file to <u>PD Dr.</u> Manu Sharma.

We offer remuneration in accordance with TV-L (collective wage agreement for the Public Service of the German Federal States), severely handicapped persons with equal qualifications are given preferential consideration. The University of Tübingen is anxious to increase its quota of female scientific staff, and therefore emphatically requests women to apply for this position. Interview expenses are not covered. Please note the applicable vaccination regulations. Personnel appointments will be made pursuant to the fundamental stipulations of the legal statutes for universities in Germany.

Weitere Informationen finden Sie auf unseren Karriereseiten: www.medizin.uni-tuebingen.de/karriere

