Saarland University is a campus university with an international reputation for research excellence, particularly in computer science and in the life sciences and nanosciences. The university is also distinguished by its close ties to France and its strong European focus. Around 17,000 students, studying over one hundred different academic disciplines, are currently enrolled at Saarland University. Saarland University is officially recognized as one of Germany's family-friendly higher-education institutions and with a combined workforce of more than 4000 it is one of the largest employers in the region.

The Department for Clinical Bioinformatics is inviting applications for the following position commencing at the earliest opportunity.

Academic research assistant (m/f/x) - PostDoc

Reference number W2564, salary in accordance with the German TV-L salary scale[1], pay grade: E13 TV- L, duration of employment: for 3 years, volume of employment: 100 % of standard working time.

Workplace/Department:

On the intersection of informatics, experimental biology, and clinical application, the Department for Clinical Bioinformatics is looking for a junior bioinformatician with a completed PhD degree in Bioinformatics, Computer Sciences, Data Science, AI or related to join our department.

Current research in biomedicine founds on a steadily growing toolkit of complex experimental methods for data generation that is essentially dependent on intelligent bioinformatics software solutions.

We are looking for a motivated researcher with knowledge in data science for the development of applications in aging research and the characterization of molecular signatures in neurodegenerative diseases using machine learning.

Primarily required are advanced skills in Programming, Algorithms, and Biostatistics as well as statistical and machine learning, whereas basic knowledge on modern neuroscience and molecular biology is desirable. To this end, being able to create analytical abstractions and communicating such effectively is considered a great plus for this position. Together with its international partners and colleagues the Chair for Clinical Bioinformatics actively pursues

[1] TV-L = collective agreement on remuneration of public sector employees in the German *Länder*
The pay grade assigned to an employee depends on their professional qualifications and the number of years of service. Each pay grade is further subdivided into levels. Entry-level employees with no previous experience will initially be assigned a level 1 rating. After one year at level 1 of the E10 pay grade, an employee will move up to level 2. After a further two years, the employee will move to level 3, etc.

collaborations with leading field industry and offers an excellent environment of research experts as well as the necessary computing infrastructure & key resources.

Job requirements and responsibilities:

- Focus of the advertised position will be to analyze and develop data as well computational methods, respectively, for single-cell sequencing. Integrative modelling of high-quality and existing reference datasets from neuroscience related studies, each with different technological properties and data modalities. A gain of knowledge to answer complex but realistic biomedical hypotheses is expected by cleverly combining complementary data sets.
- Ancillary tasks: Evaluation of big data sets from biomedicine using innovative approaches from machine learning (ML) and artificial intelligence (AI).

Your academic qualifications:

- Completed academic degree (PhD) in Bioinformatics, Computer Sciences, Data Science, AI with natural sciences minor, or a related profession. The opportunity to pursue a Habilitation will be granted, given that all requirements are met.

The successful candidate will also be expected to:

- Experience in evaluating high-throughput sequencing data both from short-read platforms, for instance Illumina, in particular RNA- and DNA-sequencing or metagenomics, and from long-read platforms, e.g., Oxford Nanopore
- Strong knowledge on the principles of bioinformatics-driven data analysis, i.e., to process large data sets in a comprehensive manner as being able to draw reliable and effective conclusions.
- Broad fundamental knowledge on molecular biology, human genetics, immunology, and neurosciences.
- Strong knowledge on scientific programming (C++ / Python / R, or similar), modern software engineering and efficient algorithms and how to set up and use modern database systems.
- Knowledge on how to operate in the lab is not required, although a basic understanding of important wet-lab techniques is certainly advantageous.
- Be comfortable to work on UNIX-based operating system and the according CLI-tools
- Work independently and result oriented
- Collaborate with clinicians
- Support lectures and occasionally teach under supervision
- Supervise students during their thesis (Bachelor/Master)

What we can offer you:

- A flexible work schedule allowing you to balance work and family, among other things the possibility of teleworking
- Secure and future-oriented employment with attractive conditions
- A broad range of further education and professional development programmes (for example language courses)
- An occupational health management model with numerous attractive options, such as our university sports programme
- Supplementary pension scheme (RZVK)
- Discounted tickets on local public transport services ('Job-Ticket' of the saarVV)

We look forward to receiving your **meaningful online application** (in a PDF file) by **01.12.2024** to **andreas.keller@ccb.uni-saarland.de**. Please include the reference number W2564 in the subject line of the e-mail.

If you have any **questions**, please contact us for assistance. Your contact:
Prof. Dr. Andreas Keller
Clinical Bioinformatics
andreas.keller@ccb.uni-saarland.de

Pay grade classification is based on the particular details of the position held and the extent to which the applicant meets the requirements of the pay grade within the TV-L salary scale. Part-time employment is generally possible.

If you have obtained a foreign university degree, a proof of the equivalence of this degree with a German degree by the Zentralstelle für ausländisches Bildungswesen (ZAB) is needed before hiring. If necessary, please apply for this in time. You can find more information at https://www.kmk.org/zeugnisbewertung.

Unfortunately, neither costs for attending an interview at Saarland University nor costs for any certificate evaluation by the ZAB can be reimbursed in principle.

We welcome applications regardless of gender, nationality, ethnic and social origin, religion/belief, disability, age, and sexual orientation and identity. In accordance with its policy of increasing the proportion of women, the University actively encourages applications from women. Applications from severely disabled persons will be given preferential consideration in the event of equal suitability.

When you submit a job application to Saarland University you will be transmitting personal data. Please refer to our privacy notice for information on how we collect and process personal data in accordance with Art. 13 of the Datenschutz-Grundverordnung. By submitting your application you confirm that you have taken note of the information in the Saarland University privacy notice.