The Center for Regenerative Therapies Dresden (CRTD), an institute of the Center for Molecular and Cellular Bioengineering (CMCB), is a research center with currently over 20 research groups. The research focus of CRTD lies in regeneration and stem cell research from fundamental research to clinical-translational applications in the areas of hematology/immunology, diabetes, neurodegenerative diseases, and bone and tissue regeneration. For TUD Dresden University of Technology diversity is an essential feature and a quality criterion of an excellent university. Accordingly, we welcome all applicants who would like to commit themselves, their achievements and productivity to the success of the whole institution.

At the CRTD, the Chair of Stem Cell Research with focus on cell-based approaches to regenerative biomedicine (Prof. Dr. Michael Sieweke) offers a project position as

**Research Associate / Bioinformatician (m/f/x)**

(subject to personal qualification employees are remunerated according to salary group E 13 TV-L)

starting **as soon as possible**. The position is limited until March 31, 2025 with the option of extension in follow-up projects for up to further three years. A longer-term employment is explicitly desired. The period of employment is governed by § 2 (2) Fixed Term Research Contracts Act (Wissenschaftszeitvertragsgesetz - WissZeitVG).

We study how immune cells, especially macrophages, influence regeneration, aging, and cancer. In this context we investigate how gene regulatory mechanisms and long-term epigenetic changes control self-renewal, activation, aging and "trained immunity" (e.g., PMID: 35210623, PMID: 32169166, PMID: 26797145). The group employs molecular, genetic, genomic, and bioinformatic analyzes in human and mouse cells.

**Your Mission:** Are you a creative problem solver in bioinformatics, fascinated by important scientific questions? Do you want to help understand how macrophages fight cancer and protect against aging? Or what defines stemness on a molecular level? Then contribute with your expertise to the analysis of our research projects and become part of our international team.

**Tasks:**

- OMICs and NGS data analysis, including RNA-Seq, ATAC-Seq, ChIP-Seq, single-cell RNA-Seq and -ATAC-Seq, DNA methylation data analysis, pathway analysis, multivariate analysis.
- You will drive research questions forward and develop your own solutions, drawing from extensive in-house or public datasets.
- You will collaborate closely with other experimentally oriented researchers.
- You will be involved in the development, establishment, and expansion of new analytical methods.

**Requirements:** university degree in bioinformatics or related subject field; profound experience in OMICs and NGS data analysis as well as advanced knowledge in statistics (with an emphasis on SIMCA-P and/or SPSS); sound knowledge of RNA-Seq, ATAC-Seq, ChIP-Seq, single cell RNA-Seq and -ATAC-Seq as well as DNA methylation data analysis; sound experience in relevant software packages, programming languages and in the Linux/Unix environment. Knowledge in using current tools for generating pathway, single cell analysis, heatmap and multivariate analysis outputs (uMAP, tSNE, PCA, Clusteranalyse, K-mean Clustering, etc.) are desirable. A theoretical basis in molecular biology, sequencing technology and gene regulation is advantageous. Experience in spatial transcriptomics is a plus. You should enjoy interaction with experimental scientists to adapt available analysis methods to specific questions and optimize bio-informatic analysis and experimental design in a re-iterative process.
What we offer:

- work in an exciting research environment with medically relevant projects potentially leading to new therapies against cancer and other incurable diseases
- outstanding research environment with the possibility to interact with other bioinformaticians in genomics, systems biology, and artificial intelligence institutions.
- implement your own ideas and engage in diverse work in a friendly, international team
- flexible working hours and access to childcare in close proximity to the institute
- further education and individual training programs e.g. through Cluster4Future SaxoCell
- access to TUD's university sports facilities, health promotion services and pension plan
- additional pension scheme (VBL)
- collaboration with a start-up company emerging from our academic research.

TUD strives to employ more women in academia and research. We therefore expressly encourage women to apply. The University is a certified family-friendly university and offers a Dual Career Service. We welcome applications from candidates with disabilities. If multiple candidates prove to be equally qualified, those with disabilities or with equivalent status pursuant to the German Social Code IX (SGB IX) will receive priority for employment.

We are looking forward to receiving your detailed application, which should highlight your expertise and personal motivation for the position. Please submit your application documents by November 14, 2023 (stamped arrival date or the time stamp on the email server of TUD applies), preferably via the TUD SecureMail Portal https://securemail.tu-dresden.de by sending it as a single pdf file to corinna.barth@tu-dresden.de or to: TU Dresden, CRTD, z. Hd. Corinna Barth, Fetscherstr. 105, 01307 Dresden, Germany. Please submit copies only, as your application will not be returned to you. Expenses incurred in attending interviews cannot be reimbursed.

Reference to data protection: Your data protection rights, the purpose for which your data will be processed, as well as further information about data protection is available to you on the website: https://tu-dresden.de/karriere/datenschutzhinweis.