At the Biotechnology Center (BIOTEC), an Institute of the Center for Molecular and Cellular Bioengineering (CMCB), the Research Group Biomedical Genomics offers, subject to the availability of resources, a position as

**Research Associate / Postdoc Computational Cancer Biology** (m/f/x)
(subject to personal qualification employees are remunerated according to salary group E 13 TV-L)

starting **January 1, 2023**. The position is limited for 2 years. The period of employment is governed by the Fixed Term Research Contracts Act (Wissenschaftszeitvertragsgesetz - WissZeitVG). The position offers the chance to obtain further academic qualification.

Tumors develop by stepwise acquisition of abnormal cellular behavior through genetic and non-genetic changes. In the evolving process they accumulate heterogeneity, a main driver for therapy resistance and relapse.

To strengthen our diverse team, we are looking for a Postdoc to study tumor evolution, heterogeneity, and resistance in fusion-gene-driven sarcomas in children and young adults. This is part of a large „Decade Against Cancer“ consortium „HEROES-AYA“ distributed over multiple locations, including the German Cancer Research Center (dkfz).

The Research Group Biomedical Genomics (Dr. Anna Poetsch), where this project will be based, will particularly focus on data integration of largely multi-omics data in bulk and single cell to generate biological insight into mechanisms behind tumor evolution, heterogeneity, and resistance.

**Tasks:** The successful candidate will use methods on multi-omics data analysis and machine learning to investigate biological mechanisms behind tumor evolution, heterogeneity, and resistance. Data will be available for genomics (WGS, sc-DNA-seq, spatial genomics, copy number alterations), epigenomics (ATAC-Seq, sc-ATAC-Seq, DNA methylation), transcriptomics (RNA-Seq, scRNA-Seq), proteomics, pathology, radiology, liquid biopsies, clinical data, and experimental data on patient-matching organoid models. Contribution to teaching (e.g. by supervising tutorials) and to the scientific work is required.

**Requirements:**
- excellent university and PhD degree with experience in molecular biology, computational biology, genetics, genomics, cancer biology, or equivalent scientific background with an excellent understanding of genome biology and cancer research,
- comprehensive programming experience in python and/or R,
- demonstrable experience in multi-omics data analysis,
- very good interpersonal and communication skills; in particular, the ability to effectively work in a diverse, collaborative and interdisciplinary research environment,
- fluency in English - written and oral (German is not required).

**We offer:**
- an exciting collaborative interdisciplinary research project embedded in a prestigious research consortium.
- The successful candidate will have the opportunity to receive training in cutting edge methods in multi-omics data integration (in bulk and single cell), state-of-the-art and novel machine learning approaches, and translational cancer research.
- The BIOTEC/CMCB is a renowned interdisciplinary and international research institute of the TU Dresden that boasts a collaborative spirit and cutting-edge technology platforms, including one of the national genome centers and cutting-edge High Performance Computing resources. The city of Dresden and the HEROES-AYA consortium provide numerous chances for scientific exchange and collaboration.
Applications from women are particularly welcome. The same applies to people with disabilities. Please submit your comprehensive application including a letter of motivation, your CV including a list of publications, transcripts of records, and contact details for 2-3 academic references by September 23, 2022 (stamped arrival date of the university central mail service applies), preferably via the TU Dresden SecureMail Portal https://securemail.tu-dresden.de by sending it as a single pdf document sabine.zeissig@tu-dresden.de or to: TU Dresden, BIOTEC, Forschungsgruppe Biomedizinische Genomik, Dr. Anna Poetsch, Helmholtzstr. 10, 01069 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.