The Biotechnology Center (BIOTEC) (https://tu-dresden.de/cmcb/biotec) and its partner institutions, BCUBE and the Center for Regenerative Therapies (CRTD), are equipped with state-of-the-art facilities for Molecular Bioscience research (https://tu-dresden.de/cmcb/bcube/forschung-technologie/technologieplattform). They are part of a rich and collaborative environment that includes the Faculty of Mathematics and Natural Sciences, the Faculty of Medicine, the Max-Planck-Institute of Molecular Cell Biology and Genetics (MPI-CBG), and the Leibniz Institute for Polymer Research (IPF). For TUD 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 Biotechnology Center (BIOTEC), an Institute of the Center for Molecular and Cellular Bioengineering (CMCB), the Research Group Biomedical Genomics (Dr. Anna Poetsch) offers a position as

**Research Associate / Postdoc Computational Genome Biology** (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 with 100% of the fulltime weekly hours is limited for 2 years. An extension to approximately 4 years is anticipated. 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.

**Tasks:** 3D genome architecture plays a major role in genome organisation, gene regulation and genome stability. Thus, deregulation of 3D genome architecture is also an important mechanism contributing to disease.

To strengthen our diverse team, we are looking for a postdoctoral fellow to study genome architecture as part of the DFG priority program „Spatial Genome Architecture in Development and Disease (Genome3)“. We will particularly focus on the nuclear pore and how it affects gene regulation and genome stability in neural development and brain cancer. The project is a collaboration between the lab of Tomohisa Toda on „Nuclear architecture in neural plasticity and ageing“ and the computational Research Group of Anna Poetsch on „Biomedical Genomics“ at the Biotechnology Center of the TU Dresden, where this position will be based.

The position will offer an exciting collaborative interdisciplinary research project embedded in a prestigious research program. The successful candidate will use methods on multi-omics data analysis to investigate how 3D genome architecture in the nuclear pore affects gene regulation and genome stability with data on genome architecture (e.g. HiC, Hi-ChiP, DamID-HiChiP, MicroC), gene regulation (e.g. ChiP, DamID-ChiP, ATAC-Seq, RNA-seq), DNA damage (AP-Seq, 8-oxoG, END-Seq), germline mutations in neurodevelopmental disorders, and somatic mutations in paediatric brain tumours. Thus, the successful candidate will have the opportunity to receive training in cutting-edge methods in multi-omics data integration and the possibility to learn and apply machine learning and deep learning methods on genomics data.
Requirements:

- excellent university and PhD degree with experience in molecular biology, computational biology, genetics, genomics, or equivalent scientific background with an excellent understanding of genome biology
- 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).

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 centres and cutting-edge High Performance Computing resources. The city of Dresden and the DFG focus program (Genome3) provide numerous opportunities for scientific exchange and collaboration.

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.

Please submit your comprehensive application including the usual documents, including a letter of motivation, your CV including a list of publications, transcripts of records, and contact details for 2-3 academic references, by January 31, 2023 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 to sabine.zeissig@tu-dresden.de, alternatively via mail to: TU Dresden, BIOTEC, Forschungsgruppe Biomedizinische Genomik, Frau 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.