

The German Cancer Research Center (DKFZ) is seeking for the partner site Dresden of the National Center for Tumor Diseases (NCT) a

## Bioinformatician

(Ref.-No. 2019-0367)

*The German Cancer Research Center is committed to increase the percentage of female scientists and encourages female applicants to apply.*

*Among candidates of equal aptitude and qualifications, a person with disabilities will be given preference.*

*To apply for a position please use our online application portal (<https://www.dkfz.de/en/stellenangebote/index.php>).*

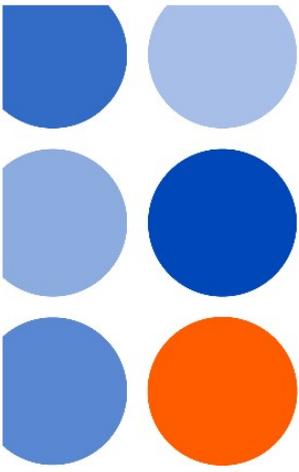
*We ask for your understanding that we cannot return application documents that are sent to us by post (Deutsches Krebsforschungszentrum, Personalabteilung, Im Neuenheimer Feld 280, 69120 Heidelberg) and that we do not accept applications submitted via email. We apologize for any inconvenience this may cause.*

The Department „Translational Medical Oncology“ of the German Cancer Research Center (DKFZ) at the National Center for Tumor Diseases (NCT) Dresden focuses on the functional and molecular characterization of malignant cell regulation and metastasis formation. We have established and extensively characterized biobanks of patient-derived in vivo and in vitro cancer models and investigated clonal dynamics and regulation of tumor-initiating cell (TIC) activity in gastrointestinal cancers (e.g. Cell Stem cell 2011; Cancer Letters 2016; EMBO MolMed 2017; IJC 2017; JEM 2017; Nature Genetics 2017). For specific targeting of TIC activity, we have evaluated the impact of novel therapeutic approaches on primary patient derived tumor models. Global insertional mutagenesis gene activation and large scale knock down screens allowed identification of candidate genes potentially critical for proliferation, tumor and metastasis formation. In addition, the department drives a precision oncology program for genomic analysis of patient cancers as a basis for interventional clinical trials (NCT MASTER) together with the NCT in Heidelberg. This program has demonstrated that whole-exome/genome and RNA sequencing in a clinical setting provides relevant diagnostic information and creates opportunities for pharmacologic intervention.

### Your tasks:

We are looking for a highly motivated postdoctoral fellow with significant experience in bioinformatics, ideally in the field of cancer research. The successful candidate will contribute to establishing individualized oncology at the NCT Dresden. The MASTER workflow provides comprehensive analysis of individual tumors' structural exome and transcriptome alterations and provides a basis for identifying, understanding and targeting of patient-specific vulnerabilities in personalized cancer models. Supplementing descriptive genetic information with mechanistic testing of functional and therapeutic consequences in appropriate individualized cancer models will be essential to support clinical interpretation towards innovative approaches of diagnosing, classifying and treating cancer.

You will support the research team in the analysis of NGS and other high-throughput data (e.g. methylation arrays) from individual patients as well as patient cohorts, closely working together with an interdisciplinary team of bioinformaticians, physicians and biologists in Dresden and Heidelberg. You will work on the development of improved NGS data analysis algorithms and design novel applications e.g. in the area of single cell sequencing analysis or the integration of different data types.



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### **Your profile:**

Applicants should hold a diploma/master's or a PhD degree (postdocs) in bioinformatics or/and life sciences, with an excellent background in NGS analysis and relevant experience in the field. The applicants should be highly self-motivated and be able to pursue research projects independently as well as in collaborations. Successful candidates will perform bioinformatical analysis of multi-tier molecular profiling data including NGS and single cell NGS and drive the development and implementation of new technologies. An excellent written and oral command of English is essential.

Applications should include a CV, cover letter, certificates, expected availability date, a complete list of publications and 2-3 references.

### **Contract period:**

The position is limited to 2 years.

The position can in principle be part-time.

### **Contact:**

Julia Dorok, phone 0351-4585527

Please note that we do not accept applications submitted via email.

### **Application deadline:**

17.12.2019

