

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

PhD Student in Dermato-Oncology and Bioinformatics

(Ref.-No. 2019-0050)

Your tasks:

- Computational analysis of DNA-methylation and transcriptome data utilizing established bioinformatics tools (e.g. statistical tests, probabilistic models, network inference and propagation)
- Experimental validation of candidate genes utilizing different approaches (e.g. establishment of tissue microarray, immunohistochemical stainings, establishment of 2D/3D cell culture models, Western blot analysis, proliferation, apoptosis and migration assays)
- Analysis of computational and experimental results in the context of available clinical data

Project description:

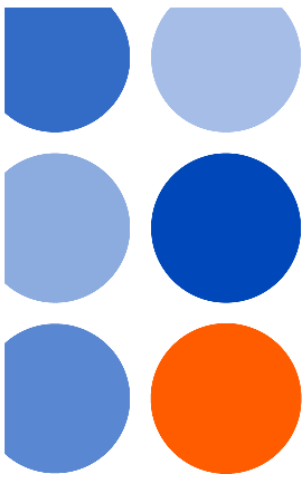
Melanoma brain metastases remain the leading cause of skin cancer-related deaths, despite new effective therapy options for patients with metastatic melanoma. This PhD project aims at identifying novel proteins and signaling pathways that are associated with therapy resistance of melanoma brain metastases by comparing the epigenetic and transcriptomic landscapes of matched brain- and non-brain metastases from the same patients. The PhD student will perform a personalized bioinformatics analysis of already acquired methylome and transcriptome data of the individual matched pairs to derive patient-specific gene and pathway signatures associated with therapy resistance. Based on this, the PhD student will validate candidate genes from the bioinformatics analyses by immunohistochemistry and functional in vitro assays. We offer a highly interdisciplinary PhD position shared by the Departments of Dermatology (Prof. Friedegund Meier) and Pathology (Prof. Gustavo Baretton) of the University Hospital Carl Gustav Carus Dresden and the Institute for Medical Informatics and Biometry (IMB) (Dr. Michael Seifert) at the Medical Faculty of the TU Dresden. The computational part of the PhD project will be performed in the Bioinformatics Core Unit at the IMB and the experimental part will be performed in the Dermatooncology lab at the CRTD.

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.



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Your profile:

- Strong interest in interdisciplinary clinical and translational oncology research
- Graduation in molecular biology, biochemistry, biotechnology, bioinformatics or related fields (Master of Science or equivalent)
- First experiences in the application of cell and molecular biological techniques and bioinformatics data analysis
- R programming skills
- Ability to work independently, as part of a team and in collaboration with others in an international and interdisciplinary environment
- English communication and writing skills are required
- German speaking and writing skills are of advantage

Contract period:

The position is limited to 3 years.

Contact:

Dr. Heidrun Groß, phone +49 (0) 351 458 5239

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Application deadline:

31.03.2019

