

NATIONALES CENTRUM  
FÜR TUMORERKRANKUNGEN  
PARTNERSTANDORT DRESDEN  
UNIVERSITÄTS KREBSCENTRUM UCC

getragen von:  
Deutsches Krebsforschungszentrum  
Universitätsklinikum Carl Gustav Carus Dresden  
Medizinische Fakultät Carl Gustav Carus, TU Dresden  
Helmholtz-Zentrum Dresden-Rossendorf



GERMAN  
CANCER RESEARCH CENTER  
IN THE HELMHOLTZ ASSOCIATION

Research for a Life without Cancer

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

## Scientific Staff Member / Postdoc

(Kennziffer 2021-0412)

The National Center of Tumor Diseases (NCT) Dresden is a joint institution of the German Cancer Research Center, the University Hospital Carl Gustav Carus Dresden, the Faculty of Medicine at TU Dresden, and the Helmholtz-Zentrum Dresden-Rossendorf (HZDR). The NCT with sites in Heidelberg and Dresden is the leading oncological center in Germany and shall be expanded to an international center of excellence regarding point-of-care and individualized cancer medicine.

We are seeking for the partner site Dresden of the National Center of Tumor Diseases (NCT/UCC) a postdoc to perform research activities within the MR-integrated linear accelerator. The position within the NCT/UCC Dresden is located in the premises of the Medical Faculty and the University Hospital Carl Gustav Carus Dresden.

In spring 2022, an MR-integrated linear accelerator (MR-LINAC) will start clinical operation. The MR-LINAC will be used to irradiate patients with a moving tumor with a daily adapted, preferably hypofractionated techniques.

The goal of this postdoc position is to, as part of a multidisciplinary team, scientifically investigate the workflow of this day-to-day adapted radiotherapy of moving tumors, to create an automated workflow and to implement it in the clinical routine.

### Job description:

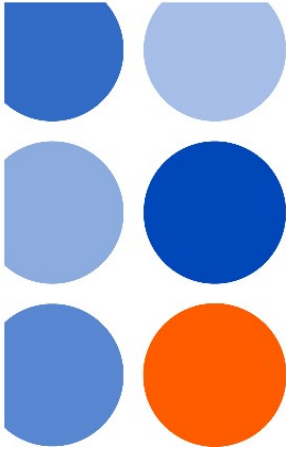
- Planning and coordination of the scientific work, taking into account the published academic literature; if necessary, short-term work shadowing in other (inter)national departments for radiotherapy and radiation oncology
- Formulation of scientific hypotheses
- Recalculation of the applied dose between the individual radiation sessions and at the end of the course of treatment, both on the acquired MRIs and generated synthetic CTs
- Continuous analysis of the workflow of conducting irradiation on the MR-LINAC
- Establishment of an automated workflow for specific indications on the MR-LINAC
- Implementation of the automated workflow on the MR-LINAC, taking into account the applicable legal requirements
- Evaluation and re-adjustment of the automated workflow on the MR-LINAC
- Interpretation of the results, verification of the established hypotheses

*The DKFZ is committed to increase the proportion of women in all areas and positions in which women are underrepresented. Qualified female applicants are therefore particularly encouraged 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/de/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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- Documentation and publication of research results in internationally renowned journals
- Analysis and documentation of experimental data as well as compiling presentations (e.g. graphs, slides, posters)
- Presentation of the research results during scientific lectures and congresses
- Independent acquisition of third-party funds as well as participation in project proposals and funding applications for cooperative projects
- Supervision of Bachelor/Master students and PhD students (Dr. med., Dr. rer. medic., PhD)

#### **Your profile:**

- Completed scientific academic studies in the field of (medical) physics or image processing
- Completed doctorate degree
- Solid basic knowledge in applying advanced image analysis techniques
- Solid knowledge in the field of radiation scheduling (IMRT, 4D radiation techniques)
- Very good command of English, both written and spoken and basic German language skills
- Experience in collaboration with experts from other professional groups in radiation oncology (physicians, MTRA, medical physics experts, IT)

#### **Contract period:**

The position is limited to 2 years.

The position can in principle be part-time.

#### **Contact:**

Beatrice Neumann, Telefon +49 351/458-13372

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

#### **Application deadline:**

02.02.2022

