

Helmholtz-Zentrum Dresden-Rossendorf e.V.



With cutting-edge research in the fields of ENERGY, HEALTH and MATTER, around 1,500 employees from more than 70 nations at Helmholtz-Zentrum Dresden-Rossendorf (HZDR) are committed to mastering the great challenges facing society today. The application of ultra-high-dose-rate radiotherapy (FLASH RT) promises reduced normal-tissue side effects while maintaining tumor cure rates similar to those of conventional radiotherapy. There is evidence that a combination of FLASH RT and immunotherapy may be synergistic. This interdisciplinary project is a collaboration among three HZDR institutes (Institute of Radiooncology – OncoRay, Institute of Radiation Physics and Institute of Radiopharmaceutical Cancer Research). The project aims to evaluate the efficacy of combined proton FLASH radiotherapy and CAR T-cell immunotherapy in vitro and in vivo and to characterize the molecular pathways and biomarkers explaining these effects. At the Institute of Radiooncology – OncoRay scientists (f/m/d) specializing in medicine, physics, biology and IT work together to crucially improve the treatment of cancer by administering radiation therapy that is biologically-personalized and technically-optimized. The scientists (f/m/d) at the Institute of Radiation Physics conduct research on states of matter under extreme conditions and in very small dimensions. At the Institute of Radiopharmaceutical Cancer Research scientists (f/m/d) from the fields of physics, chemistry, biology, pharmacy, immunology, medicine and IT develop innovative radiopharmaceuticals and novel tools for functional characterization, improved imaging and personalized treatment of tumors. The Department of Radiobiology, the Department of Laser Particle Acceleration, and the Department of Radioimmunology seek a

PhD Student (f/m/d) for the project ImmunoFLASH: Enhancing anti-tumor CAR T immunotherapy with FLASH radiotherapy.

City: Dresden; Starting date (earliest): 01/10/26; Duration: 3 years; Remuneration: TVöD Bund; Reference number: 2026/64; Closing date: 30/06/26

Tasks

- Formulating scientific objectives and hypotheses within the project
- Preparing the animal study protocols
- Continuous update on the scientific literature in the field of study
- Planning and conducting laboratory in vitro, ex vivo, and in vivo experiments
- Data recording and managing according to good scientific practice
- Evaluation and interpretation of the experimental results
- Building a strong collaboration within multidisciplinary scientific groups at HZDR working on this project
- Presenting research at the institutional seminars, national and international conferences
- Preparing research reports and writing papers for publication in peer-reviewed journals

Requirements

- Completed university studies (Master/Diploma) in the field of Cancer Biology,

Immunology or Biomedicine or related field

- Strong expertise in Tumor Biology, Molecular and Cell Biology Techniques
- Experience in working with laboratory animals (mice) is desirable
- Expertise in working with patient-derived models is desirable, but not mandatory
- Personal commitment, high motivation and ability to work in a multidisciplinary environment also as a part of a team
- Fluency in spoken and written English

What we offer

- A vibrant research community in an open, diverse and international work environment
- Scientific excellence and extensive professional networking opportunities
- A structured PhD program with a comprehensive range of continuing education and networking opportunities - more information about the PhD program at the HZDR can be found [here](#)
- Salary and social benefits in accordance with the collective agreement for the public sector (TVöD-Bund) including 30 days of paid holiday leave, company pension scheme (VBL)
- We support a good work-life balance with the possibility of part-time employment, mobile working and flexible working hours
- Numerous company health management offerings
- Employee discounts with well-known providers via the platform Corporate Benefits
- An employer subsidy for the "Deutschland-Ticket Jobticket"

Application

We look forward to receiving your application documents (including cover letter, CV, diplomas/transcripts, etc.), which you can submit via our online-application-system: <https://www.hzdr.de/db/Cms?pNid=490&pLang=en&pOid=77663>

More information at <https://stellenticket.de/204715/FUB/>

Offer visible until 30/06/26

