

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 Institute of Resource Ecology performs research to protect humans and the environment from hazards caused by pollutants resulting from technical processes that produce energy and raw materials. The Institute of Radiopharmaceutical Cancer Research develops radiotracers for imaging of cancer biomarkers and personalized therapies. In a joint effort of both institutes, the Departments of Reactive Transport and of Experimental Neurooncological Radiopharmacy are looking for a

PhD Student (f/m/d) Quantitative imaging of microbial processes for radioecology using positron emission tomography

City: Dresden; Starting date (earliest): 01/09/25; Remuneration: TVöD-Bund; Reference number: 2025/91; Closing date: 18/07/25

Working field

- Developing and testing radiotracers for positron emission tomography (PET) to investigate microbial processes using synthetic organic chemistry and surface chemistry
- Cultivation and characterization of microbes
- Localization and quantification of advective cell transport processes, cell sorption on mineral substrate surfaces, and film growth in pore spaces using PET analysis
- Conducting literature review, writing scientific publications, and presenting research results
- Mentoring student courses in radiochemistry and reactive transport

Requirements

- Completed university studies (Master/Diploma) in the field of Chemistry, Radiochemistry, Radiopharmacy, Radioecology or related field
- Excellent knowledge of a broad range of organic chemistry and analytical methods
- Knowledge of handling radioactive materials is considered an asset
- Experience in radiochemical methods is considered advantageous
- Highly qualified and highly motivated graduates and interested in working in an interdisciplinary environment
- Excellent written and verbal communication skills in the English language

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 at Leipzig University, Faculty of Chemistry - 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=75075>

More information at <https://stellenticket.de/195583/LUH/>
Offer visible until 18/07/25

