



We are looking to support our rapidly growing team as soon as possible:

- PhD Student (f/m/x)

Institute of Radiochemistry and Experimental Molecular Imaging (IREMB)



TV-L: 25 h/week (64,94%)



initially limited until April 30,
2028 according to
WissZeitVG



Your salary will be based on
TV-L

Your tasks

- Preparation of the radiolabeling precursor
- Synthesis of the ¹⁸F-labeled PET-tracer
- Analytical characterization of intermediates and target compounds (HPLC, MS, NMR)
- Assessment of the tracer stability
- Automation of the tracer synthesis
- Support of in vitro und in vivo evaluation of the tracer

Your profile

- Master's or Diploma degree in chemistry, pharmacy or related area
- Strong background in organic synthesis
- Experience with radiochemistry and/or radiosynthesis (e.g., fluorine-18 or carbon-11) is desirable but not mandatory
- Proficiency in analytical techniques (NMR, MS, HPLC, TLC)
- Readiness to work with open radioactive materials
- Solid English skills (writing and speaking)
- Structured, independent, and precise working style
- Strong team spirit and interest in interdisciplinary research

Our offer

- Work on an international and interdisciplinary

Your future with us

We are one of the leading university hospitals in Germany and network research, teaching and health care at the highest level. That's why many things are a lot bigger for us: the spectrum of exciting development opportunities. The limitless openness with which specialists from all over the world work together here. Or our commitment as an employer to support all employees as best we can in reconciling their job with their goals and life situations.

This is the University Hospital of Cologne: Everything but ordinary.

Your future in detail

The Institute of Radiochemistry and Experimental Molecular Imaging (IREMB) is looking for a PhD Student (f/m/x) (fixed-term for three years, starting as soon as possible).

This PhD position is part of the EU-funded international research project BATMAN (BOB1 as a therApeutic Target and bioMarker of AutoimmuNity to lymphoma progression), which aims to validate the transcriptional coactivator BOB1 as a therapeutic target and biomarker.

BOB1 plays a critical role in the development of B-cell lymphomas, a severe complication of Sjögren's syndrome.

Within the BATMAN project, the main focus of research

research project

- Access to state-of-the-art infrastructure for organic synthesis, radiochemistry, and molecular imaging
- Scientific training opportunities, including a PhD program and conference participation

at IREMB is the development of a radiotracer for non-invasive imaging of BOB1 using positron emission tomography (PET).

To achieve this, the institute aims to prepare a radiofluorinated BOB1 inhibitor and assess its potential as a diagnostic tool. Apart from the synthesis of a suitable radiolabeling precursor and its ¹⁸F-fluorination, this will include a comprehensive preclinical evaluation of the tracer. The evaluation will involve in vitro studies with various cell lines and other model systems, as well as in vivo studies with healthy rodents and a mouse model of Sjögren's syndrome. The research will be conducted at IREMB in close collaboration with two partner institutions:

- Forschungszentrum Jülich (INM-5, Institute of Neuroscience and Medicine - Nuclear Chemistry)
- University of Cologne (Department of Chemistry, Nuclear Chemistry)

With excellent training opportunities and a highly interdisciplinary research environment, IREMB offers outstanding scientific networking opportunities and fosters collaboration with experts in radiochemistry, biology, medicine, and engineering.

Applications from female candidates are expressly welcome and will be given priority in the event of equal suitability, competence and professional performance. People with disabilities are welcome to apply and will be treated preferentially in the event of equal suitability and qualification.

Contact

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Application deadline: March 30, 2025

Job-ID: f47pz0u8

[apply now](#)

We look forward to receiving your application and getting to know you!