

Postdoctoral position in Immunology (TVL13/100%)

Project: “The role of obesity in reprogramming memory T cell responses”

Institute: Institute of Molecular Medicine and Experimental Immunology (IMMEI), Medical Faculty, University Hospital Bonn

Principle Investigator: Prof. Dr. Zeinab Abdullah

Project description:

Obesity significantly impairs immune function and increases susceptibility to severe infections and re-infections. Using mouse models of diet-induced obesity and viral infection, we observed a profound loss of virus-specific memory CD8 T cells within hepatic tissue-resident pools, leading to a reduction in protective immunity. Our findings demonstrate that chronic exposure to an obese, inflammatory environment drives transcriptional reprogramming associated with impaired T cell responses. The next phase of this project will extend upon these findings, with an aim to uncover the molecular and cellular mechanisms underlying obesity-induced CD8 T cell dysfunction. Gaining deeper insights into these pathways will improve our understanding of how obesity shapes immune memory, unveiling potential avenues to improve protective immunity in affected individuals.

Research Environment:

IMMEI, located at the Medical Faculty Campus of the University Hospital Bonn, provides an exceptional environment for cutting-edge research. Our state-of-the-art facilities offer a platform for collaboration and innovation. The working group is led by Prof. Dr. Zeinab Abdullah (<https://www.immei.de/research/zeinab-abdullah-laboratory>), who has substantial experience and expertise in the field. Her position within the local and global scientific community and her expertise provides a valuable opportunity to make significant contributions to the scientific literature. The project will be carried out within the framework and context of the Immunosensation Cluster of Excellence (https://dev.bestviews.de/tour/uni-klinik-bonn/progress/4.0/#popup_3140).

Responsibilities:

- Design and execute experiments
- Stay current with relevant literature and contribute ideas to research project
- Analyse data and generate publication-quality figures
- Present results in lab meetings and national/international conferences
- Prepare manuscripts for publication
- Contribute progress report obligations to funding bodies
- Contribute to grant proposals

Required Qualifications:

- Ph.D. in Biology, Immunology, Molecular Biology, or related fields
- Strong background in immunology
- FELASA B certification (or equivalent) qualification for animal work
- Extensive experience of *in vivo* techniques
- Extensive knowledge of molecular biology
- Proficient in flow cytometry and imaging
- Excellent written and spoken English communication skills
- Published research in peer-reviewed journals within the life sciences field
- Passionate about research with strong analytical and problem-solving skills
- Ability to work independently and within a research team

Desired Qualifications (not mandatory but preferred):

- Strong background in macrophage biology or liver immunology
- Strong background in Bioinformatics
- Experience in proposal writing and project coordination
- Experience with next generation sequencing approaches scRNA/scATAC etc.
- Experience with processing and handling of human samples

We Offer:

- Competitive salary according to the German salary scale TV-L E13 100%.
- Contract for 2 years with the possibility of extension up to 3 years
- National and International collaboration
- Project is in close collaboration with Prof. Axel Kallies lab (Melbourne, Australia) (<https://www.doherty.edu.au/people/professor-axel-kallies>)
- Supplementary benefits in the public sector, including pension plan according to VBL.
- Opportunity to contribute to cutting-edge research with real-world implications.
- Access to state-of-the-art facilities and resources.
- Extensive training opportunities

How to Apply:

Submit a single PDF labelled “**Memory_Tcell_Postdoc_Application_[YourLastName]**” containing:

1. Cover letter
2. CV (short 2-4 pages)
3. Contact information for three referees

Email this document to Prof. Zeinab Abdullah (zabdul@uni-bonn.de) with the subject “**Memory T cell Postdoc Application [YourLastName]**”

Deadline: 30th of October 2025

Start date: Negotiable, preference for earliest availability.

Shortlisted candidates will be invited for interviews approximately 2–4 weeks after application deadline. Interviews are expected to take place in late November to early December 2025. Envisioned start date around January 2026.

Diversity and Equal Opportunity:

The University of Bonn is committed to diversity and equal opportunity irrespective of gender, ethnicity, age, nationality, religion, disability, etc. As such, applications will be assessed in accordance with the Landesgleichstellungsgesetz (State Equality Act).