

The University Hospital Bonn (UKB) is a maximum care hospital with more than 1,300 beds. Our more than 9,000 employees perform tasks in research, teaching and patient care as well as in public health care at the highest level. In the science ranking (LOMV) and in the economic result, the UKB ranks first among university hospitals in NRW and had the third highest case-mix index of university hospitals in Germany in 2021.

The Medical Clinic III at the University Hospital Bonn has the following full-time position available as soon as possible:

## PhD student (m/w/d) in T cell immunology/immune regulation in allogeneic stem cell transplantation and cellular immunotherapy

The position is initially project-related and limited to 3 years with the prospect of an extension of the employment.

Our "Laboratory for Experimental Stem Cell Transplantation and Cellular Therapy" focuses on basic and translational research assessing humoral and cellular immunoregulatory mechanisms during allogeneic stem cell transplantation and other cellular immunotherapies, mainly CAR T cells. Furthermore, we assess the impact of dietary habits on the immune function during those cell therapies. In addition, using nanobody technology we aim to identify new treatment options for malignant diseases.

Qa-1 restricted CD8<sup>+</sup> regulatory T cells (Treg) are a newly identified T cell population in mice that play a major role in regulating immune responses in autoimmunity, infection and cancer. Recent analyses have defined thorough phenotypical and functional characteristics of this CD8<sup>+</sup> T cell subset. However, the functional human homologue of Qa-1 restricted CD8<sup>+</sup> Treg could not yet be established.

In this project, our laboratory seeks to further assess the role of murine CD8<sup>+</sup> Treg in various disease models and additionally focuses on the identification of the human homologue of murine CD8<sup>+</sup> Treg. We use the knowledge recently gained from murine experiments to define human HLA-E restricted CD8<sup>+</sup> Treg and close collaborations with the Department of Hematology and Oncology of the University Hospital Bonn allow the assessment of this CD8<sup>+</sup> T cell subset in human disease.

### Your responsibilities:

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- Cell culture and extraction of primary immune cells
- Biobanking
- Molecular biology (PCR, gel electrophoresis, RNA and DNA extraction, qPCR)
- FACS analyses
- Immunohistochemistry
- Metabolic assays
- Work with mice (breeding, genotyping, nutritional studies, transfer experiments)

### Your profile:

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We are looking for a highly motivated and talented PhD student with high interest in T cell immunology.

Your profile should include:

- Strong work commitment and discipline

- Diploma or master thesis in immunology, biology, biochemistry, biomedicine or similar
- Ability to work independently and as part of a team
- Good English communication skills

#### **We offer:**

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- Dynamic, multidisciplinary and international environment with a strong focus on immunology.
- International Immunology Training Program, giving access to state-of-the-art training and workshops on different scientific aspects
- Weekly seminars on immunology and other biomedical topics by national and international speakers
- Possibility to present results at national and international conferences.
- Modern university sport facilities
- Salary according to the German scale TV-L 13 65% with additional benefits in the public sector such as pension plan and UKB corporate benefits
- Living in an active university city with access to internationally known museums, music and theatre venues and many other cultural possibilities in the Bonn-Cologne area

The University of Bonn is a German University of Excellence since 2019 that is committed to affirmative action for diversity and equal opportunities for all. Applications will be handled in accordance with the Landesgleichstellungsgesetz (State Equality Act). Applications from suitable persons with a proven severe disability and persons with equivalent status are particularly welcome.

#### **Contact:**

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Applications (in German or English) are considered by email including a CV and the necessary certificates. Additionally, a brief statement of motivation should be attached.

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