

Düsseldorf University Hospital (UKD) is the largest hospital in the state capital and a leading medical center in North Rhine-Westphalia. With 9,300 employees, UKD and its subsidiaries provide care for over 45,000 inpatients and 270,000 outpatients annually. UKD is renowned for its international excellence in patient care, research and teaching, as well as for innovative and safe diagnostics, therapies and preventive measures. Our patients benefit from the intensive interdisciplinary collaboration among 60 clinics and institutes. The University Hospital's strength lies in the close integration of clinical and research work, paving the way for the safe application of new methods. Tomorrow's medicine is being created at UKD. Every day.

The **Institute of Molecular Medicine II** is looking for a

## **PhD candidate - Mechanisms of immune cells during anti-cancer and viral immunity (m/w/d)**

The position is initially a part-time role (65%) with a fixed-term contract for two years, with the option of extension to support the completion of a doctoral degree. Start date as soon as possible. The position is subject to the German Academic Fixed-Term Contract Act (WissZeitVG, Section 2 (1)).

The Institute of Molecular Medicine II, headed by Prof. Dr. Philipp Lang, focuses on the molecular basis of infections and immune responses and the development of new therapeutic options in connection with antitumor immune responses. This involves immune mechanisms during chronic viral infections and tumor growth, including innate and adaptive immunity. A central focus lies in understanding immune dysfunctions associated with these diseases. Our goal is to elucidate how chronic viral infections develop and to identify mechanisms that drive tumor growth, thereby contributing to the development of novel therapeutic strategies within a basic research framework. The Institute of Molecular Medicine II is actively involved in several research networks dedicated to these topics and applies a translational approach across its individual research projects.

Specifically, the candidate will investigate the metabolic function and other mechanistic pathways of innate and adaptive immune cell subsets during anti-tumoral and anti-viral defenses. The aim is to better understand the mechanisms during differentiation of immune cells as well as the potential of metabolic changes as being effector mechanism driving tumor progression or shaping the course of infection. This will include a variety of in vitro and in vivo techniques such as Flow Cytometry, Cell Sorting, RT-PCR, Western Blot, ELISA, histology, virus titration, immune staining, handling of mouse models, and data analysis and presentation. The goal is to understand the establishment of chronic viral infection or progressive cancer growth to develop new therapeutic concepts with basic research techniques.

### **Your tasks**

- Planning and execution of molecular biological experiments using in vitro and in vivo techniques
- Designing and performing experiments with mouse models to investigate immune cells and tumor progression
- Coordination, organization, and scientific implementation of the research project

### **Your profile**

- A Master's degree in biology, biomedicine, or related fields
- Substantial practical experience in laboratory environments, applying a wide range of techniques across biochemistry, molecular biology, and cell biology
- Excellent analytical abilities, including designing experiments, interpreting complex datasets, and working independently
- Experience with in vivo mouse models and a FELASA B certification are desirable
- Enthusiasm for experimental scientific work in an international team
- Curiosity to learn several new techniques in metabolism/immunology

### **In addition, we are looking for**

- Interest in translational immunological research
- Ability to work on complex problems in a structured and solution-oriented manner
- Friendly and situation-appropriate communication skills, as well as strong teamwork skills
- Very good verbal and written communication skills in English and preferably also in German

**We offer:**

We offer you the opportunity to work in a highly motivated, international team on an exciting research project with great translational potential in the field of immuno-oncology. You can expect modern laboratories and access to state-of-the-art technologies.

- 25,03 hours per week
- Experience with translational projects in immune-oncology
- Highly motivated international team
- Enthusiastic research project with translational potential
- Individual career opportunities based on qualification
- Fully renovated lab space including state of the art equipment
- Access to state of the art facilities including transcriptomics and proteomics
- Good-value dining options
- Daycare center
- Staff housing

Remuneration will be based on TV-L in pay grade 13, taking into account all previous periods of service.

The employment contract will be concluded with Heinrich Heine University Düsseldorf.

Heinrich Heine University Düsseldorf is committed to increase the proportion of women in its workforce. Applications from women will be prioritized if they demonstrate similar qualifications, skills, and performance unless there are overriding reasons related to another candidate. We specifically encourage applications from qualified severely disabled individuals and equivalent persons under SGB IX.

By submitting your application documents, you agree that they become the property of Düsseldorf University Hospital and will not be returned for cost reasons.

If you have any questions regarding the job profile, please contact Dr. Witkowski (email: [admin\\_lang@uni-duesseldorf.de](mailto:admin_lang@uni-duesseldorf.de); tel. 0211-81 14532).

Please submit your application, including your CV, transcripts of records, a statement of research experience and interests, your expected availability date, and references within two weeks of the publication of this advertisement. Applications should be sent, preferably by email as a single PDF file, to the following address:

[admin\\_lang@uni-duesseldorf.de](mailto:admin_lang@uni-duesseldorf.de)

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