

**PhD position (f/m/d) available in Infectious Immunology
Heinrich Heine University Düsseldorf**



PhD position TVL EG13 65%

**is available in the lab of Prof. Stefanie Scheu
Institute of Medical Microbiology and Hospital Hygiene
Heinrich Heine University Düsseldorf**

The lab of Prof. Stefanie Scheu conducts research in infection immunity, autoimmunity, and CNS inflammation with a specific focus on plasmacytoid dendritic cells and type I IFNs.

Sepsis is a systemic bacterial infection that causes profound immune dysregulation. The consequences are the development of life-threatening recurrent secondary infections and organ failure. Previous work of our lab has shown that an altered differentiation of conventional dendritic cells (cDCs) towards a “dysregulated” phenotype during sepsis. This process is driven by plasmacytoid dendritic cells (pDCs) and contributes to the enhanced susceptibility to secondary infections due to so far unknown mechanisms.

The aim of the project is to decipher the impact of plasmacytoid dendritic cells (pDCs) on the differentiation of cDCs during polymicrobial sepsis. The project is based on a clinically relevant sepsis mouse model and on material from sepsis patients.

The PhD project aims at elucidating the molecular mechanisms underlying the activation of pDCs and their migration into the bone marrow during sepsis.

Techniques used: multicolor-FACS, transcriptome profiling with bioinformatic analyses, confocal microscopy, protein biochemistry and various immunological assays.

This position is part of a DFG-funded collaborative project with the Research Group ‘Immunology Sepsis/Trauma’ of Prof. S. Flohé, Department of Trauma Surgery, University Hospital Essen, Germany and should be **filled ideally by March 1st 2022**.

Qualification profile

We are looking for an excellent and highly motivated PhD student interested in the field of immunology of infectious diseases. Candidates should hold a master’s degree or equivalent in natural sciences / life sciences. Expertise in cellular & molecular immunology, experience in multicolor FACS, and cell culture and/or bioinformatics is of advantage.

Candidates should have a very good command of written and spoken English.

Benefits

We are an international team of highly motivated basic research scientists, and graduate and undergraduate students. Our lab is well networked within in the national and international scientific community and within the biomedical research groups of the Heinrich Heine University and the Universitätsklinikum Düsseldorf.

Connected to the PhD position is a membership in the *Interdisciplinary Graduate and Research Academy Düsseldorf*– iGRAD. iGRAD is a cross-curricular institution that offers a structured educational program including, workshops on key professional qualifications, counselling, and targeted support for the qualification of young researchers within the faculty.

If you feel that you can make a valuable contribution to our field of research, want to learn and establish new techniques and would like to be part of an enthusiastic team please **send an email** containing - **as a single PDF file**:

- a motivation letter stating research and career interests
- your CV
- copies of relevant school and university certificates
- letters of recommendation or contact information for references

to stefanie.scheu@uni-duesseldorf.de by **February 15 2022**.