

The Department of Medical Microbiology at the RWTH University Hospital Aachen is recruiting a PhD student for studies on intestinal mucosal immune system maturation during the postnatal development.

The Hornef lab focuses on the host-microbial interaction at the intestinal mucosa with particular emphasis on the postnatal and infant period. This includes the identification of age-dependent differences of the innate and adaptive immune system and the characterization of their influence on bacterial colonization, the establishment of the enteric microbiota as well as the susceptibility to infection with bacterial, parasitic and viral pathogens. We ultimately aim at a better understanding of the impact of postnatal bacterial colonization and enteric infection on life-long health and disease.

The envisaged PhD project includes a detailed analysis of alterations of the adaptive immune system in the small intestine during the weaning period. Various immunological approaches and infectious models will be employed to understand the impact of weaning and associated changes on the establishment of the adaptive immune system in the gut and its role for health and disease in later life.

As a PhD student at the RWTH University Hospital you will be a member of a vibrant mucosal immunology community and have access to all infrastructure needed for your research such as high-end FACS analyzers, sorters, and fluorescence microscopes as well as facilities at biosafety level 2.

The candidate is required to hold a Master's degree or equivalent in biology, biochemistry, or biotechnology. The ideal candidate would:

- have a strong interest in mucosal immunology and infection biology
- have lab experience in the field immunology and/or infection biology (experience with animal models is advantageous)
- have basic knowledge in bioinformatics
- be able to work in a team as well as on his own in an international environment
- be proficient in spoken and written English

The position is available immediately and initially funded for three years at a salary level of 50% of 13 TV-L in the first year and 65% in the following years. The starting date can be negotiated individually. The candidate will have the opportunity to pursue a doctoral degree.

Aachen is a town with a rich history, located at the border between Germany, Belgium, and the Netherlands. With 45000 students and 9000 employees the RWTH Aachen significantly shapes the landscape and atmosphere of Aachen. RWTH Aachen University is certified as a family friendly university. We particularly welcome and encourage applications from women, disabled persons and ethnic minority groups, recognizing they are underrepresented across RWTH Aachen University. The principles of fair and open competition apply and appointments will be made on merit.

Please send your application (CV, copies of your university degrees (detailed marks and certificates, the names of at least 2 referees as well as a cover letter) to mschleibach@ukaachen.de or Institut für Medizinische Mikrobiologie, Uniklinik RWTH Aachen, Pauwelsstraße 30, 52074 Aachen).

For more information on the research project, please contact Prof. Mathias Hornef (mhornef@ukaachen.de) or Dr. Natalia Torow (ntorow@ukaachen.de).