

Bachelor/Master Thesis position

The Institute of Experimental Immunology & Imaging (<https://www.uni-due.de/experimental-immunology/>) at the University Medical Center Essen conducts research in the context of the investigation of immune cell function in connection with an intact animal organism. Using advanced methods of optical imaging and innovative experimental systems, the institute analyses how defined populations of immune cells behave under physiological and pathological conditions. The underlying molecular mechanisms are also elucidated.

Activities and responsibilities:

Project: *“To investigate the gut microbiota-immune interactions after ischemic brain injury”* (A recently funded research project by DFG (<https://gepris.dfg.de/gepris/projekt/444117227>)).

In this DFG project, we want to understand the impact of intestinal microbiota on the activation of neutrophils and find ways to reduce their neurotoxic functions. Neutrophils are present in high numbers in the human blood and shown to be the first invaders to the injured brain. The molecular signals that can derive neutrophil activation are not yet completely elusive. Moreover, the therapies targeting neutrophil invasion and their neurotoxic functions are not yet available. The purpose of this project is to shed further light on these questions.

Qualification profile

We seek:

- Highly motivated, team-oriented bachelor/master students (d/f/m) with interest in medical immunology, and immunology
- Students with a strong interest in learning new research technologies (Confocal microscopy, flow cytometry, cell culture, PCR, germ-free and genetic mouse models)
- Interested students to work on discovering novel molecular mechanisms of inflammatory diseases
- Prior experience on basic molecular and immunological methods would be a plus

**ZMB - Zentrum für
Medizinische
Biotechnologie**

**INSTITUT FÜR
EXPERIMENTELLE
IMMUNOLOGIE &
BILDGEBUNG**

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We offer:

- Integrative planning and performance of the different *in vivo* and *in vitro* experiments
- Teaching of the state-of-the-art technologies in immunology and cell biology
- Fully equipped modern laboratory structure
- Intellectual and practical supervision within our interdisciplinary working group
- A collegial environment
- Possibility to achieve qualifications for animal experimentation

Start: November 2020

Send application to:

If you are very enthusiastic in science and biomedical technologies and want to join our research team, please send your application with short **CV and motivation letter** within **4 weeks of publication** of this advertisement to:

Vikramjeet.Singh@uni-due.de or Matthias.Gunzer@uni-due.de.

The aim of the University of Duisburg-Essen is to promote the diversity of its members (see <http://www.uni-due.de/diversity>). It aims to increase the proportion of women in scientific staff and therefore urges qualified women to apply. In accordance with the National Equal Opportunities Act, women are given preferential treatment with equal qualifications. Applications for suitable severely handicapped and equivalent persons pursuant to § 2 para. 3 SGB IX are desired.

We use your data exclusively for application purposes in accordance with the applicable data protection regulations. Further information can be found in the privacy policy on our homepage at www.uk-essen.de.