



MEDIZINISCHE FAKULTÄT
DER UNIVERSITÄT DUISBURG-ESSEN

**INSTITUT FÜR EXPERIMENTELLE
IMMUNOLOGIE UND BILDGEBUNG**

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Bachelor/Master thesis position on “Analyzing splenic immune–vascular remodeling after ischemic stroke using light-sheet fluorescence microscopy

The Institute for Experimental Immunology & Imaging (<http://experimental-immunology.de>) focuses on basic and applied immunology research at the University Duisburg-Essen. The institute constitutes a wide range of modern research technologies on the University campus and at the Medical Research Institute of the University Hospital Essen. Among them is the Imaging Center Essen, which harbors an array of state-of-the-art microscopy techniques (<https://imces.uk-essen.de>).

What we are looking for:

The position is open for students interested in Medical Biology, Biology, and Immunology (Starting September 2026). He/she should be strongly interested in learning new research technologies (light-sheet microscopy, confocal microscopy, immunohistochemistry, stroke models) and in discovering novel molecular mechanisms of cell death and cell metabolism. Prior experience with basic immunological and microscopy methods would be a plus.

Who we are:

In our research team, we are focused on understanding the host's immune responses in ischemic stroke. In recent years, we have developed and utilized novel mouse strains and state-of-the-art technologies to answer complex scientific questions (Henneberg et al. 2021 Nature Communications, Merz et al. 2019 Nature Communications, Otto L et al. 2018 J Mol Med, Cibir et al. 2023, Nature Communications). Recently, we discovered that neutrophil-released DNA (namely NETs) is the major contributor to post-stroke lymphocyte loss and immunosuppression (Tuz et al. 2024 Nature Cardiovascular Research). Currently, we are bringing our discoveries to the next level of translation for the treatment of critical human diseases (Tuz et al. 2025 J of Neuroinflammation).

How to Apply:

If you are very enthusiastic about science and biomedical technologies and want to join our research team, please send your application with a short CV and motivation letter to vikramjeet.singh@uk-essen.de



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<https://twitter.com/GunzerLab>

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The University of Duisburg-Essen aims 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. According to the Land Equal Opportunities Act, women are given preferential consideration if they have the same qualifications. Applications of suitable severely disabled persons and persons of equal status within the meaning of § 2 para. 3 SGB IX are welcome.