Universitätsmedizin Essen

INSTITUTE FOR EXPERIMENTAL IMMUNOLOGY & IMAGING

Bachelor/Master thesis position on **"Investigation of the mechanisms of neutrophil activation and T cell loss after stroke using experimental mouse models".**

The Institute of Experimental Immunology & Imaging (http://experimental-immunology.de) focuses on basic and applied research in immunology at the University of Duisburg-Essen. The institute comprises many modern research technologies on the University campus and at the Medical Research Institute of the University Hospital Essen. These include the Imaging Center Essen, which is equipped with a range 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 translational Biology and Immunology (starting April 2025). He/she should have a strong interest in learning new research technologies (confocal microscopy, flow cytometry, molecular biology, cell culture, PCR, genetic mouse models) and be passionate about understanding the molecular mechanisms of inflammatory brain diseases. Previous experience with basic molecular and immunological methods would be an advantage.

Who we are:

Our research team is interested in studying the impact of host immune cells on infectious and sterile inflammation, including brain injury after stroke. In recent years, we have developed and applied novel mouse strains and state-of-the-art technologies to address complex scientific questions (Henneberg et al. 2021 Nature Communications, Yin et al. 2024 Stroke, Cibir et al. 2023, Nature Communications). Recently, we discovered that neutrophil-released DNA (namely NETs) are the major contributor to lymphocyte loss and immunosuppression after ischemic stroke and myocardial infarction (Tuz et al. 2024 Nature Cardiovascular Research). We are currently taking our discoveries to the next level of translation for the treatment of critical human diseases (Tuz et al. 2025 Frontiers Immunology).

How to apply: If you are very enthusiastic about translational immunology and biomedical technologies and want to join our research ideas, please send your application with a short CV and letter of motivation to vikramjeet.singh@uk-essen.de

Address:

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https://www.uni-due.de/experimental-immunology/

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.