

**Bachelor/Master thesis position on the topic “The impact of gut microbiota on neurodegeneration after ischemic brain damage”**

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 in 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:** Master students interested in the field of Medical Biology, and Immunology. He/she should have a strong interest in learning new research technologies (2-photon imaging, confocal microscopy, flow cytometry, cell culture, PCR, genetic mouse models) and to work on discovering novel molecular mechanisms of inflammatory diseases. Prior experience with basic molecular and immunological methods would be a plus.

**Who we are:** In our research team, we are focused on understanding the host's immune functions in infectious and sterile inflammation including brain injuries during stroke. In the last years, we have developed novel mouse strains to answer complex scientific questions (*e.g. Neumann J et al, 2015, Acta Neuropathol, Hasenberg A et al., 2015 Nature Methods, Otto L et al., 2018 J Mol Med*). In the past, we have also discovered a novel microbiota-immune-brain axis using cutting-edge research methods and mouse models (*Singh et al., 2016 J Neuroscience, Sadler and Singh et al., 2017 BBI, Singh et al., 2018 JCBFM*). Currently, we are bringing our discoveries to the next level of translation for the treatment of critical human disorders.

**How to Apply:** 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 at [vikramjeet.singh@uni-due.de](mailto:vikramjeet.singh@uni-due.de)

Address:

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