

DZNE is a world-leading, internationally oriented center for cutting-edge research into diseases of the nervous system. With its outstanding research personalities and state-of-the-art infrastructure, it offers the best conditions for publications and results at the highest level.

Around 1,200 employees at 10 locations in Germany are working together on new approaches to better understand and effectively combat diseases such as Alzheimer's, Parkinson's and ALS.

That is our goal - maybe soon yours too? Become part of the DZNE and support us in realizing our research strategy!

1 PhD student (f/m/x) in the field of Neuroimmunology

We are seeking an enthusiastic and motivated PhD student to conduct research at the interface of immunology and neuroscience.

The student will be a member of the 'Translational Neuroimmunology' research group, led by Dr. Róisín McManus, which is based at the DZNE in Bonn and is also associated with the Institute of Innate Immunity at the University Hospital Bonn, the ImmunoSensation² Cluster of Excellence and the Collaborative Research Centre "Metaflammation" (SFB 1454).

Our research focuses on understanding how microglia-mediated neuroinflammation contributes to the progression of Alzheimer's disease. Specifically, we examine how immune signaling and metabolic changes combine to modulate microglial function, affecting disease outcome.

Your role in detail

Our recent work has uncovered that consumption of a western diet can drive lipid changes that activate microglia, causing neuroinflammation. Using a series of animal models of dementia, murine cell culture models and samples from patients, the goal of your PhD will be to unravel the innate immune pathways mediating these neuroinflammatory changes, and thus contribute to Alzheimer's disease.

Specifically, this position is part of an international interdisciplinary collaboration and will involve cell culture work using murine and human cells, immune activation assays and state of the art lab techniques (metabolic assays, flow cytometry, fluorescence imaging, RNA sequencing and biochemical techniques e.g. western blot, quantification assays). Combining diet treatments, pharmacological inhibition and genetic depletion approaches, the successful applicant will assess the full impact of western diet on microglial activity both *in vivo*, *ex vivo* and *in vitro*.

Your qualifications

- A MSc degree in one of the following fields: Immunology, Neuroscience, Biology or similar
- Previous experience in experimental animal work and immunology, neuroscience or cell metabolism research would be very beneficial

- FELASA accreditation is a strong plus
- Hands on experience in cell culture (e.g. murine microglia or macrophages, or cells generated from human iPSCs) and biochemistry techniques (protein assays, western blot, PCR). Familiarity in immunohistochemistry or flow cytometry is a plus
- Fluency in English for communicating, writing, and presentation of scientific data
- Strong enthusiasm and motivation for interdisciplinary research, with an interest to explore and innovate with new techniques
- Ability to work independently and within a diverse and interdisciplinary team of international scientists

Interested applicants should submit a cover letter, CV, two reference letters and transcripts in one single PDF file. The cover letter should describe your motivation to apply for this position and detail how your research interests and experience align with the research that is conducted in our group. Please highlight any relevant projects or publications. Only applications submitted via our portals will be accepted. Please refrain from sending your application by e-mail.

Review of applications will begin immediately and continue until the position is filled.

For questions related to the position, please contact Dr. Róisín McManus at roisin.mcmanus@dzne.de

We look forward to receiving your application via the link below.

<https://jobs.dzne.de/en/jobs/101480/phd-student-fmx-in-the-field-of-neuroimmunology-143920255>

What our employees value

- **Innovation and internationality** a forward-looking infrastructure, modern laboratory and office equipment, software tools and the opportunity for international exchange with your colleagues from 65 nations
- **Work-life balance** - we reconcile work and private life with flexible working hours, mobile working, 30 days' holiday (On top free on Christmas Eve and New Year's Eve) and subsidised job/ Germany ticket options
- **Family-conscious corporate culture** - because we know that family is important, we support you with parent-child offices, family services and daycare co-operations
- **Health promotion** – through our extensive range of company health programmes, in cooperation with Sozialwerk.Bund
- **Focus on development** - training programmes tailored to your individual needs and annual HR-development meetings for concrete prospects and potential development
- **Remuneration and conditions according to TVöD-Bund** - including annual special payment, capital-forming benefits and VBL supplementary pension scheme
- **Job with prospects** - the position, which is initially limited to two years, ~~offers the opportunity to become a permanent position~~
- **Personalised Onboarding** - for a good start to your new professional challenge

- **A feel-good working environment** - our Bonn employees enjoy a campus surrounded by greenery, with on-site parking and public transport connections as well as our company restaurant