

Master thesis at the Bergthaler Lab in Vienna, Austria (f/m/x)

#immunology #infection #virology #immunometabolism
#microbiome #neuroscience #MedUniVienna #CeMM #Vienna

Title: Immunomodulatory role of metabolites at the interface of the gut microbiome and the nervous system

Starting date: February 2023 (or later)

Duration: 12 months

Topic:

Viral infections impose vast metabolic changes in the organism. The gut microbiota produces numerous metabolites whose impact on host physiology we are just beginning to understand. This project will investigate how the antiviral immune response triggers changes in gut microbial metabolism, and how these gut-derived metabolites impact the central nervous system. This research will be done in experimental infection models with a combination of immunology, neurobiology and imaging techniques.

Requirements for the ideal master candidate:

- + Master student in the field of molecular biology, biomedical sciences, biochemistry, immunology etc.
- + High intrinsic motivation and enthusiasm for science.
- + Hard-working, good team player and excellent communication skills.

The position is also open for MD/DVM students who are interested to do basic research in a laboratory setting.

The Lab:

Prof. Andreas Bergthaler underwent international training in Switzerland, Japan and the USA and is a recognized immunologist and virologist. He is Professor of Molecular Immunology at the Medical University of Vienna (<https://www.meduniwien.ac.at/web/en/>) and heads the Institute of Hygiene and Applied Immunology (<https://www.meduniwien.ac.at/hp/en/hai/>) at the Center for Pathophysiology, Infectiology and Immunology. Dr. Bergthaler is also Adjunct Principal Investigator at the CeMM Research Center for Molecular Medicine (<https://cemm.at/>) of the Austrian Academy of Sciences.

The Bergthaler team consists of 16 members representing 10 nationalities and interdisciplinary backgrounds who closely collaborate across projects and invest in an inclusive and inspiring working atmosphere. The research focuses on fundamental questions of viral infections, inflammatory diseases and pathogen surveillance. Examples of recent work include *Amman F, Markt R et al, Nature Biotechnology 2022*, *Agerer B et al. Science Immunology 2021*, *Baazim H et al Nature Reviews Immunology 2021*, *Popa A et al. Science Translational Medicine 2020*, *Lercher A et al. Immunity 2019* and *Baazim H et al. Nature Immunology 2019*.

Lab Website: <http://www.bergthalerlab.com>

Lab Twitter account: <https://twitter.com/Bergthalerlab>

The Institution:

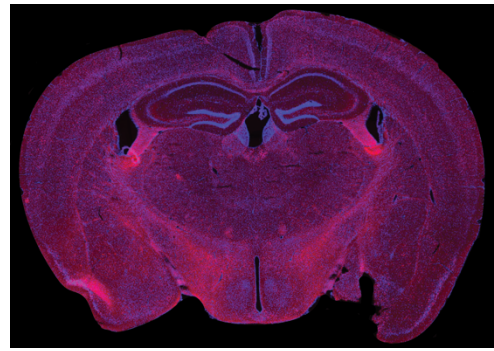
The Medical University of Vienna is one of the world's leading medical universities. With its long history and tradition over more than 600 years, the university has developed into a highly modern research institution which employs a staff of approximately 6,000, of which 1,800 are researchers and 1,600 are medical doctors. The position will be at the Institute of Hygiene and Applied at the Center for Pathophysiology, Infectiology and Immunology of the Medical University of Vienna.

The Location:

Austria's capital Vienna is located in the heart of Europe and ranks as one of the most attractive cities worldwide. Vienna hosts one of the headquarters of the United Nations, which together with many academic institutions and companies results in a vibrant melting pot of expat communities who may enjoy, for example, cultural and culinary occasions or the nearby outdoors of the Vienna Woods.

Application Details:

Please send your cover letter, your CV, and the contact details of two referees to hai-office@meduniwien.ac.at. Applications will be reviewed on a rolling basis starting from January 15, 2023.



Brain section stained for the neuronal activation marker c-Fos