



MEDIZINISCHE
UNIVERSITÄT

INNSBRUCK

PhD position in FWF-funded project HOROS on "Studying metabolic iron changes during SARS-CoV-2 infection *in vitro*" under supervision of G. Weiss & Lass-Flörl/Wilflingseder

Project MET/IRON/INF

Metabolism & iron in viral infections

(Supervisors: Prof. G. Weiss and Prof. C. Lass-Flörl/Prof. D. Wilflingseder)

Excessive inflammation triggered by a hitherto undescribed mechanism is a hallmark of severe SARS-CoV-2 infections and is associated with enhanced pathogenicity and mortality. 88% of COVID-19 patients illustrate metabolic iron changes during infection with SARS-CoV-2.

Our groups have long-standing expertise in studying in detail infectious diseases and host-pathogen interactions taking into account the complement system. Further, the Wilflingseder lab has established a primary, human pseudostratified 3D respiratory epithelial/immune model over the last years. This model is very versatile, since innate and adaptive components of the immune system can be easily added. During the last year, the Weiss and Wilflingseder labs successfully expanded novel variants of SARS-CoV-2 patient isolates and worked on various projects resulting in high impact publications on SARS-CoV-2 interactions and therapeutic interventions (Posch et al., 2021a, b, c; Lafon et al., in revision).

The successful PhD student should have a background in advanced cell biology and/or immunology to perform exciting research questions on deregulated host iron homeostasis, involvement of complement in SARS-CoV-2-mediated type I IFN response of infected tissues and on the connection of iron homeostasis, host metabolism, innate antiviral immune responses and complement functionality. State-of-the-art methods will be used (multi-parameter flow cytometry, high content screening, multiplex PCR). To tackle this complex task with an important translational impact, we are looking for a highly motivated PhD student. We offer a broad and stimulating environment of various disciplines since our institutes host several labs such as category 3 laboratory for virus work, molecular immunology lab and screening facilities.

Why HOROS?

The FWF project HOROS (HOSt Response in Opportunistic infections) is funded as doctoral programme of excellence at the Medical University of Innsbruck. Its focus lies on education of young researchers in the field of opportunistic infections. This interdisciplinary doctoral programme is supported by a strong faculty from clinic and research. HOROS fellows will have a fully financed PhD position and many other benefits.

Benefits of the HOROS programme:

- Individual supervision and monitoring (individual thesis steering committee)
- A highly structured HOROS-specific educational programme
- Retreats and social activities
- Guaranteed salary as suggested by the [Austrian Science Fund](#) for the proposed 3-years (ca. 2.200 Gross salary/month + 13&14 month salary)
- Health insurance and social benefits
- State-of-the art facilities and resources

The position is advertised on www.horos.at. Please **apply** via this homepage until 06th June 2021.