

PhD Position

“Genetic control of the Immuno-metabolic Interface in Fatty Liver and Hepatocellular Carcinoma”

at the Medical University of Innsbruck, Austria

THE PROJECT

Fatty liver disease is a spectrum disorder affecting up to 50% of the general population. Its manifestations range from asymptomatic non-progressive hepatic triglyceride accumulation to cirrhosis and hepatocellular carcinoma. Lipid droplet accumulation is the hallmark of fatty liver disease and is caused by a massive alteration of the lipid environment, cellular metabolism, and the molecular membrane architecture in all subcellular compartments. The underlying molecular changes of this dramatic morphologic change, the mediators of inflammation, fibrosis, and carcinogenesis are so far only superficially understood.

The **Goal** is to mechanistically link the changes in lipidome with the occurrence of known and novel genetic risk factors for fatty liver disease by combining tandem mass spectrometric lipidomics and patient centered and population genetics utilizing state-of-the-art bioinformatics approaches.

This project is part of the interdisciplinary *Cellular Basis of Diseases (CBD)* (<https://phd-cbdiseases.i-med.ac.at/>) program on the molecular control of metabolism & inflammation at the *Medical University of Innsbruck* (<https://www.i-med.ac.at>).

THE TEAM:

You will be supervised in tandem by Heinz Zoller (Internal Medicine) and Markus A. Keller (Institute of Human Genetics). The team surrounding you during your PhD thesis is very dynamic and offers two fully established labs with state of the art equipment, supportive working atmosphere and an inspiring scientific community.

YOUR PROFILE

- master degree with strong background in biology, medical sciences, or related subjects
- strong interest in molecular biology, metabolic diseases and cellular pathways
- excellent communication and organisational abilities
- highly self-motivated and enthusiasm for learning new skills

YOUR APPLICATION

Applications consisting of a CV detailing previous academic achievements, a motivational statement, and the names and contact details of two referees should be addressed to Ass.-Prof. Dr. Markus A. Keller at humgen@i-med.ac.at (Reference code: DR-22-DOC82A). Deadline: November 30th 2022.