

Master's Thesis Opportunity in Immunometabolism: Redox Balancing Systems in Type 2 immune cells

Location: UKB Campus

Lab: AG Wilhelm

Institute of Clinical Chemistry and Clinical
Pharmacology

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Project Overview

We are looking for a motivated Master student to work on a master project focused on Redox Balancing Systems in type 2 immunity at steady state and in chronic airway inflammation. This research will investigate how redox balancing mechanisms impact cell intrinsic metabolism in type 2 immune cells and how this relates to their nutrient environment. With this master project we want to unravel, how loss of redox balancing capacity influences metabolic rewiring of immune cells and how we can exploit this knowledge to specifically reprogram immune cells in a disease setting.

Key Responsibilities

- **Assay Development:** Setting up and optimizing of in vitro cell culture assays to study redox balancing and metabolic activity in type 2 immune cells
- **Cell Culture:** working with primary murine cells
- **Data Collection and Analysis:** analyzing samples with a broad spectrum of techniques including flow cytometry, metabolic assays, cytokine assays and qPCR
- **Collaboration:** Work closely with a PhD student mentor and participate in lab discussions to gain insights from a diverse and multicultural research team.

What We Are Looking For

- **Education:** Bachelor's degree in immunology, cell biology, biochemistry, or a related field.
- **Skills:** Basic experience in cell culture and eagerness to work with primary immune cells.
- **Language:** Proficiency in English, as it is the working language of the lab.

Supervision & Support

Your work will be directly supervised by a PhD student from our lab, who will provide mentorship, guidance, and regular feedback to help you succeed in your research journey. You will and participate in lab discussions to gain insights from a diverse and multicultural research team. You'll also have access to the lab's resources, including specialized equipment and a network of experienced researchers.

Application Requirements

To apply, please submit:

- A short motivation letter explaining your interest in this project and your relevant experience.
- A current resume highlighting your education, skills, and any previous lab or research work.

How to Apply

Please send your application materials to chanwien@uni-bonn.de. If you have any questions about the position or the application process, feel free to reach out.