

## CSC-Tübingen PhD Scholarship Program

2025 application round: prospective PhD positions at the University of Tübingen

Faculty: Faculty of Medicine

Institute / Section / Subject: Department of General, Visceral and Transplantation Surgery

Supervising Professor(s): PD Dr. med. Dr. rer. nat. Daniel Hartmann, M.Sc.

About the Supervisor(s):

https://www.medizin.uni-tuebingen.de/en-de/das-klinikum/einrichtungen/zentren/m3/translational-hepatometabolic-approaches

Title: Inflammasome Contributions of Neutrophils, Macrophages, and Hepatocytes in MASH, HCC, and Liver Regeneration

## Research Overview:

This doctoral research project aims to elucidate the role of inflammasomes in various liver conditions, with a focus on metabolic dysfunction-associated steatohepatitis (MASH), hepatocellular carcinoma (HCC), and liver regeneration. Inflammasomes are critical components of the innate immune system, playing a key role in the regulation of inflammation. By employing targeted genetic modifications in mouse models, this study will explore how inflammasome-mediated inflammation influences liver pathology and the mechanisms of tissue repair. The findings from this research have the potential to inform and guide the development of novel therapeutic strategies for liver diseases.

Degree Objective: Dr. med. or PhD in Experimental Medicine

## **Program Options:**

- Full-time: Completion of the entire doctoral program at the University of Tübingen.
- 2. Sandwich Model: 6-24 months of research at the University of Tübingen, with the degree conferred by a Chinese home university.

## Required Qualifications:

- 1. Master's Degree in Medicine: A strong foundation in medical sciences and clinical practice.
- 2. Experience in Biological Research: Proficiency in conducting and analyzing laboratory-based biological experiments.
- 3. Knowledge of Mouse Models: Familiarity with in vivo experimental techniques using mouse models.
- 4. Bioinformatics Competence: Basic skills in data analysis and interpretation of biological data, including genetic and molecular information.

Language Proficiency: Demonstrated proficiency in English at a C1 level or equivalent.