CSC-Tübingen PhD Scholarship Program

2025/2026 application round prospective PhD positions at the University of Tübingen

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Faculty:	Medical Faculty
Institute / Section / Subject:	Institute for Medical Virology, Section Molecular Virology
Supervising Professor(s):	Prof. Dr. Michael Schindler
About the Supervisor(s):	The research involves identification and characterization of viral immune evasion mechanisms and how these can be manipulated or subverted for innovative therapeutic approaches. We use cutting-edge and state-of-the art methodology, i.e. live cell super-resolution imaging, high-throughput screening, innovative proteomics and flow-cytometry analyses, single cell techniques etc. Visit our labpage Meet us on X https://orcid.org/0000-0001-8989-5813 https://www.webofscience.com/wos/author/record/C-1647-2015 https://www.scopus.com/authid/detail.uri?authorId=35337858900
Specification:	Functional importance and biogenesis of viral protein containing extracellular vesicles (VIPEX).
Topic Description:	Viruses can hijack the exosome biogenesis pathway and other cellular routes to secrete viral proteins in extracellular vesicles (EVs). This can affect viral pathogenesis and immune responses in the host. Importantly, the interplay between viral replication and EV biogenesis remains underexplored. We have identified proteins of SARS-CoV-2, HIV-1 and Ebolavirus that are released in EVs, we call VIPEX (viral proteins in extracellular vesicles). If viral proteins are targeted to EVs by common or distinct mechanisms is unknown, as well as their biological activity. In this project it will be analysed how VIPEX are formed, if they are internalized into bystander cells, and which effects they exert on cells. This project will shed light on unprecedented and poorly understood mechanisms by which viruses hijack extracellular vesicles and exploit them to optimize replication.

Intended Degree:	PhD in Experimental Medicine or Dr. rer. nat. Participation in structured doctoral program, the IGIM or the PhD Program in Experimental Medicine.
Type of the PhD Study:	Full time complete doctoral studies at the University of Tübingen
Required Degrees:	MSc in biomedical sciences, biochemistry, biotechnology, biology, molecular medicine or related areas. Profound knowledge in molecular and cell biology.
Language Requirements:	English, fluently, written and spoken
Notes:	This work does involve research in a biosafety level (BSL)-2 and 3 laboratories and work with infectious material.