



EBERHARD KARLS  
UNIVERSITÄT  
TÜBINGEN



### 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 and Epidemiology of Viral Diseases
Supervising Professor(s):	Prof. Dr. Daniel Sauter
About the Supervisor(s):	Research in the Sauter lab focuses on the interplay and co-evolution of innate immune responses with viruses and retroelements. Furthermore, the supervisor has a strong interest in elucidating the role of (auto)immune responses in the pathogenesis of adverse pregnancy outcomes. More information on the supervisor and the host lab can be found <a href="#">here</a> .
Specification/Project title:	"Natural killer cells in the pathogenesis of preeclampsia"
Topic Description:	Preeclampsia is a major cause of maternal and fetal morbidity and mortality worldwide, with immune dysregulation emerging as a key driver of its pathogenesis. Recent findings suggest that exhaustion of uterine natural killer (NK) cells and shifts in the NK1/NK2 balance impair placental development. We hypothesize that usually protective antiviral responses, including NK1 cytokines (e.g. IFN- $\gamma$ ) and restriction factors (e.g. GBP5), may be misdirected against endogenous retroelements that are essential for syncytiotrophoblast formation. This highly interdisciplinary project will combine analyses of clinical samples, with <i>ex vivo</i> placenta models and experimental immunology to dissect NK cell dysfunction in preeclampsia, offering unique training at the interface of immunology, gynecology, and evolution, and paving the way for novel therapeutic strategies.
Intended Degree:	PhD Exp. Med. / Dr. rer. nat.; possible integration into 'The Interfaculty Graduate School of Infection Biology and Microbiology ( <a href="#">IGIM</a> )'
Type of the PhD Study:	Full-time (complete doctoral studies at the University of Tübingen)
Required Degrees and Qualifications:	Master degree in Biology, Biochemistry, Infection biology, Molecular Medicine, or related degrees; expertise in infection biology, immunobiology, retroelements and/or gynecology is a plus.
Language Requirements:	Excellent oral and written communication skills in English are mandatory.
Notes:	The project involves work with infectious viruses under biosafety level 2.