



EBERHARD KARLS  
UNIVERSITÄT  
TÜBINGEN



## CSC-Tübingen PhD Scholarship Program

2024 application round: prospective PhD positions at Tübingen University

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Faculty:	<i>Medical faculty</i>
Institute / Section / Subject:	<i>Interfaculty Institute of Cell Biology, Department of Immunology, Section Innate Immunity (from 1 Oct 2023: Department of Innate Immunity). We are a dynamic research group with a solid track record, and located in an excellent scientific environment, the Department of Immunology located on the campus of the University of Tübingen, one of Germany's Excellence Universities. In our well-funded laboratory you would find a friendly, well-connected and international (English-speaking) environment, and a firm commitment to good supervision and professional development.</i>
Supervising Professor(s):	<i>W3-Professor Alexander N. R. Weber, PhD</i>
About the Supervisor(s):	<i>Trained biochemist (training in Tübingen, Cambridge UK and Heidelberg) and expert in innate immunity with a focus on the recognition of microbes and endogenous threats by so-called pattern recognition receptors; see CV (<a href="#">link</a>)</i>
Specification:	<i>We offer the following PhD project (depending on the interest, background and preferences of the candidate)</i> <ul style="list-style-type: none"><li><i>Actionable heterogeneity of SASP (senescence-associated secretory phenotype) and surfaceome in hepatocellular carcinoma therapy-induced senescence</i></li><li><i>Induction of senescence in AML (acute myeloid leukemia) augments NK cell cytotoxicity via inflammasome priming</i></li></ul>
Topic Description:	<i>Innate immunity plays a critical part in the host defense against infection but also in cardiovascular, neurodegenerative, metabolic and malignant diseases. Primary regulators of innate immunity are the so-called pattern recognition receptor (PRRs) which sense internal or external danger and trigger molecular and cellular responses that lead to immunological effector responses. Our lab has a strong track record in PRR signaling pathways and has been contributing insightful results in the areas of microbial recognition, initiation of inflammation and oncogenesis. Recently, we have focused on the effect of cellular</i>

*senescence induced by therapeutic agents (therapy-induced senescence, TIS) on innate signaling pathways and immune cells in either hepatocellular carcinoma (HCC) or acute myeloid leukemia (AML). Our focus is to investigate how senescence affects well-known PRR pathways, the cellular surfaceome and the way in which senescent tumor cells can be targeted by immunotherapies (e.g. targeting antibodies or NK cells).*

Required Degrees:

*Masters degree (or equivalent) in biological sciences or medicine, some research experience in molecular/cellular biology, microbiology/virology, protein biochemistry and/or immunology; high motivation to work independently and as part of a team;*

Language Requirements:

*Certified very good command of the English language (both written and spoken, e.g. IELTS of 6.5 or higher); the applicants will be supported to attend German courses but German skills are not required to apply successfully.*

Notes:

*For more information, please visit our website on [www.immunology-tuebingen.de](http://www.immunology-tuebingen.de)*