



EBERHARD KARLS  
UNIVERSITÄT  
TÜBINGEN



## CSC-Tübingen PhD Scholarship Program

2024 application round: prospective PhD positions at the University of Tübingen

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<b>Faculty:</b>	Faculty of Medicine
<b>Institute / Section / Subject:</b>	Institute for Biomedical Engineering (IBE) / Medical Technologies and regenerative medicine
<b>Supervising Professor(s):</b>	Prof. Dr. Katja Schenke-Layland
<b>About the Supervisor(s):</b>	Professor of Medical Technologies and Regenerative Medicine and Director of the Institute of Biomedical Engineering (IBE) at the Faculty of Medicine of the University Hospital Tübingen, as well as the Study Dean of the Medical Technology program at the University of Tübingen.
<b>Specification:</b>	Development and characterization of new biodegradable membranes for surgical implantation in regenerative medicine
<b>Topic Description:</b>	This PhD research aims to develop and characterize innovative biodegradable membranes for regenerative medicine applications. Specifically, the focus is on optimizing the design of magnesium scaffolds used in facial surgery and orthopedics. These scaffolds provide excellent mechanical stability during the healing process and have the unique property of degrading naturally over time, eliminating the need for implant removal. The project involves functionalizing the magnesium scaffolds with collagen membranes through UV-induced cross-linking. Through comprehensive experimental investigations, including in vitro and in vivo studies, the materials will be evaluated for their degradation behavior, tissue penetration, and distribution of magnesium. The project aims to enhance our understanding of these materials and their potential for promoting tissue regeneration.
<b>Degree:</b>	PhD in experimental medicine
<b>Required Degrees:</b>	Master in clinical medicine, medical technology, or comparable subjects. Experience in immunohistochemistry, immunostaining, implantation, and surgical procedures is required; hands-on experience in inflammation / Infection assessment, medical device implantation, and usage/evaluation of combinational products is preferred.
<b>Language Requirements:</b>	English, C1 Level (e.g. IELTS)
<b>Notes:</b>	n.a.