Ph.D. Project Number	**10**
in Project cluster	Pathoblockers as Novel Anti-infectives
Supervisors + Affiliations	**Jun.Prof. Dr. Daniela Yildiz née Dreymueller** Saarland University (Campus Homburg), Institute of Experimental and Clinical Pharmacology and Toxicology https://www.uni-saarland.de/fakultaet-m/pzms/gruppe/pharmakologie-toxikologie/jun-prof-dr-daniela-yildiz.html **Prof. Dr. Markus Bischoff** Saarland University (Campus Homburg), Department Microbiology and Hygiene https://www.uniklinikum-saarland.de/de/einrichtungen/kliniken_institute/infektionsmedizin/medizinische_mikrobiologie_und_hygiene/ **Prof. Dr. Christian Ducho** Saarland University (Campus Saarbrücken), Department of Pharmaceutical and Medical Chemistry https://ducholab.de/
Description research focus/environment	The Yildiz group has a major focus on ADAM proteases as drug targets in inflammatory and infectious diseases. The Bischoff group is interested in host pathogens interactions with a special focus on *Staphylococcus aureus*-related murine infection models. Both groups have a strong expertise in *in vivo* infection models. The Ducho group has a focus in the development of novel antibacterial agents, including both 'typical' antibiotics and pathoblockers.
Project title	Development of murine infection models for the *in vivo* testing of novel pathoblockers in clinically relevant settings
Short description Ph.D. project	Doctoral candidate (DC) 10 will use and develop in vivo infection models for the biological evaluation of novel pathoblockers developed by DC7 and DC8. Disease-relevant animal models for wound infection and skin abscess will be used. In addition, the DC will establish a gut infection model for testing of pathoblockers against *Clostridium* sp. Infections with *Enterobacter* sp. and *P. aeruginosa* are two major complications of hospitalised and ventilated patients. Therefore, we will adapt our acute infection model to a chronic (systemic) infection setting and combine ventilation and infection to mimic the intensive-care setting. The DC will gain experience in animal models, microbiology, infection monitoring by e.g., M-CASS and GV-Solas scoring and post-mortem analyses (flow cytometry, histology, immune-histochemistry, etc.).
Secondment	The secondment at the Medical Clinic for Infectiology and Pneumonia (Charité Berlin, Prof. Dr. M. Witzenrath) will enrich the knowledge on translational research and clinical studies with a focus on ARDS, ventilation and intensive care as basis for further refinement of animal experiments and analysis of adequate parameters and biomarkers.
Required or advantageous skills/competences	MSc (or equivalent) in life sciences or medicine, interest to work with animals in basic research, animal handling experience and/or EU Function A and D certificate appreciated; open-minded person motivated to work in a multidisciplinary team
Career perspectives	Scientific career in biomedical or microbiological area in academia or industry
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