2nd Summer-School „Microbes, Host and Infection“

Program

Organisation: GRK 1708, SFB 766 and IGIM, Tübingen
Venue: Haus auf der Alb, Bad Urach

Wednesday, 27.07.2016	
15:00 – 15:30	Registration + Coffee
15:30 – 15:40	Welcome: Andreas Peschel, Wolfgang Wohlleben, Karl Forchhammer
15:40 – 18:00	**Session 1: Antibiotic Discovery** Chair: Heike Brötz-Oesterhelt
15:40 – 16:15	**Hans Sahl, University of Bonn** Novel antibiotic targets: where and how to find them?
16:15 – 16:50	**Guido Schiffer, Bayer AnimalHealth, Leverkusen** Challenges and opportunities in antibacterial drug discovery
16:50 – 17:10	Coffee-Break
17:10 – 18:00	**Short presentations by Doctoral Students: Antibiotic Discovery** 1. **Franziska Handel,** IMIT/Mast Exploring a new potential protein synthesis inhibitor in *Streptomyces aureofaciens* TÜ1-01 2. **Nadine Schilling, Martin Konnerth,** Org. Chemie/Grond Structure elucidation and SAR-studies of the novel peptid antibiotic lugdunin 3. **Janina Krause,** IMIT/Mast New antibiotics from Indonesian Actinomyces Species 4. **Claudia Laux,** IMIT/Peschel Lugdunin - a novel peptide antibiotic 5. **Nadine Silber**, IMIT/Brötz-Oesterhelt Analysis of protein degradation by ADEP-activated Clp peptidase 6. **Katharina Wex**, IMIT/Brötz-Oesterhelt Cloning and testing of *Bacillus subtilis* reporter strains indicative of various modes of action
18:00 – 19:00	Dinner
19:00 – 19:30	**Lutz Heide, University of Tübingen** Pharmaceutical development cooperation in Malawi: Quality of anti-infective medicines, and other challenges
19.30 – 21:00	**Posters and Beer**
21:00	Get together

Program

Thursday, 28.07.2016

7:30 – 8:30	Breakfast
8:30 – 12:15	**Session 2: Bacterial Survival Strategies** Chair: Karl Forchhammer
8:30 – 9:05	**Franz Narberhaus, Ruhr University Bochum** RNA thermometers: From individual examples to genome-wide identification
9:05 – 9:40	**Monika Ehling-Schulz, University of Veterinary Medicine, Vienna** Attack or hide: Virulence versus persistence - Survival strategies of *Bacillus cereus*
9.40 – 10:00	Coffee-Break
10:00 – 12:15	**Short presentations by Doctoral Students: Bacterial Survival Strategies and Posterpresentations** **7. Nermin Akduman,** MPI for Dev. Biology, Sommer Bacterial-Nematode-Fig coevolution in a specific system **8. Eva Bok**, IMIT/Forchhammer Chemical analysis of peptidoglycan from Anabaena sp PCC 7120 **9. Klaus Brilisauer**, IMIT/Forchhammer A novel allelopathic molecule from *Synechococcus elongatus* PCC 7942 **10. Shilpa George**, IMIT/Wolz Quorum sensing “cheaters” within *Staphylococcus aureus* populations – Role of the SOS response and Hypoxia **11. Petra Horvatek**, IMIT/Wolz The impact of RelP, RelQ and the functional domains of RSH on the stringent response on *Staphylococcus aureus* **12. Janina Jüngert**, University of Stuttgart/Jendrossek Stringent response affects PHB metabolism in *Ralstonia eutropha* ***13.*** **Christina Kästle**, **Daniela Keinhörster**, IMIT/Wolz Role of the stringent response for biofilm formation in *Staphylococcus aureus* **14. Sergii Krysenko**, IMIT/Wohlleben How to survive as a non-pathogenic or pathogenic microbe under high polyamine concentrations **15. Khaled Selim**, IMIT/Forchhammer Sensory properties of signal transducers PII-like proteins: function and structural insights **16. Dmitry Shvarev,** IMIT/Maldener Type-1-secretion systems involved in cell differentiation of the filamentous cyanobacterium Anabaena PCC7120
12:15 – 13:45	Lunch

13:45 – 16:45	**Session 3: Host-Pathogen Interactions** Chair: Frank Stubenrauch
13.45 – 14:20	**Jan Münch, University of Ulm** Exploiting the Human Peptidome for Novel Antimicrobial and Anticancer Agents
14.20 – 14:55	**C.-Thomas Bock, Robert-Koch-Institute, Berlin** Impact of hepatitis E virus variability on virus-host interference
15:00 – 16:00	**Short presentations by Doctoral Students: Host-Pathogen Interactions** **17. Julia Hahn,** Internal Medicine/S. Autenrieth Sleep enhances numbers and function of monocytes and improves bacterial infection outcome in mice **18. Thomas Hagemann**, IMIT/Frick Characterisation of fliC on commensal *E. coli* on healthy patients **19. Lisa Kraft**, Pathology/Klingel Unravelling cross-reactions of the CVB5 VP1 clone 5-D8/1antibody (Dako GmbH) in human and mouse tissues: Identification of cellular targets for the antibody **20. Anna Lange**, IMIT/Frick Extensive mobilome-driven genome diversification in mouse gut-associated *Bacteroides vulgatus* mpk **21. Lisa Münzenmayer**, IMIT/Wolz Escape of *Staphylococcus aureus* from human macrophages – what´s the mechanism behind? **22. Peter Popella,** IMIT/Götz VraH of *Staphylococcus aureus contributes* to AMP resistance and pathogenicity **23. Claudia Torres Vargas**, IMIT/Wagner Needle length control in bacterial type III secretion systems **24. Sibel Westerhausen**, IMIT/Wagner Development of a quick and robust Nanoluc-based type III secretion host cell injection assay **25. Jin Xi**, Inst. Medical Virology/Stubenrauch Immunosuppression contributes to cottontail Papillomavirus latent infection and accelerates pre-existing Papilloma growth **26. Minh Thu Nguyen**, IMIT/Götz Contribution of Staphylococcus aureus and Staphylococcus hyicus lipases in pathogenicity
16:00 – 17:15	**Posters and Coffee**
17:15 – 18.00	**Guided Tour House of the Alb in English and German**
18:00	**Beer Brewery Information and Barbecue**

Program

Friday 29.07.2016	
8:00 – 9:00	Breakfast
9:00 – 12:00	**Session 4: Bacterial Cell Envelope** Chair: Wolfgang Wohlleben
9:00 – 9:35	**Waldemar Vollmer, University of Newcastle, UK** Regulation of peptidoglycan growth in *E. coli*
9:35 – 10:10	**Susan Schlimpert, J. Innes Centre, Norwich, UK** Two dynamin-like proteins are important for the stabilization of FtsZ rings during sporulation-specific cell division in *Streptomyces*
10.10 – 11:00	**Short presentations by Doctoral Students: Bacterial Cell Envelope** **27. Tobias Dietsche,** IMIT/Wagner In vivo analysis of the assembly of the complete type III secretion needle complex **28. Katharina Faulhaber**, IMIT/Maldener AmiC2, a cell-wall amidase essential for communication ***29.*** **Jan Lennings,** IMIT/Schwarz Determinants of the polar localization of the host cell targeting type VI secretion system 5 in *Burkholderia thailandensis* **30. Silke Malmsheimer,** IMIT/Wagner A reduced hydrophobicity helps to avoid mistargeting of membrane proteins in type IV secretion **31. Maraike Mühleck,** IMIT/Mayer Cell lysis and consumption during cannibalistic growth of *Bacillus subtilis* **32. Nadja Steblau,** IMIT/Muth Activity of the Streptomyces spore wall synthesizing complex **33. Sandra Unsleber,** IMIT/Mayer Glycerophosphodiesterase GlpQ of *Bacillus subtilis* is involved in wall teichoic acid reutilization under phosphate limitation **34. Liam Whiteley,** IMIT/Schwarz Host membrane proteins and cholesterol are required for efficient multinucleated giant cell formation induced by the Burkholderia type VI secretion system 5
10.40 – 11:45	**Posters and Coffee**
11:45 – 12:00	**Poster Awards**
12:00 – 13:00	Lunch and farewell
13:30	Bus Departure to Tübingen