



International VAAM Workshop 2019

Biology of Microorganisms Producing Natural Products

September 15-17, 2019



Posters

Leibniz Institute for Natural Product Research and Infection Biology
Hans Knöll Institute (HKI)
Beutenbergstraße 11a
07745 Jena, Germany

POSTERS

Poster Session I | Sunday, September 15, 2019, 19:00-20:00

P01	Martina Adamek, <i>University of Tübingen, Tübingen, Germany</i> Pathway associated regulators in biosynthetic gene clusters
P02	Patricia Arlt, <i>University of Tübingen, Tübingen, Germany</i> Identification of the biosynthetic gene cluster of the lipopeptide antibiotic plusbacin
P03	Lina Assad, <i>University of Tübingen, Tübingen, Germany</i> Investigation of new siderophores from the strains <i>Yersinia pseudotuberculosis</i> YPIII and <i>Bacillus velezensis</i> FZB42 using TAR technology
P04	Celine Aubry, <i>Institute of Integrative Biology of the Cell, Orsay, France</i> Towards combinatorial biosynthesis of pyrrolamide non-ribosomal peptides produced by <i>Streptomyces</i>
P05	Marius Bader, <i>University of Tübingen, Tübingen, Germany</i> Discovery of a novel siderophore with a rare α -Methyl- β -Alanine
P06	Bikash Baral, <i>University of Turku, Turku, Finland</i> RecET recombination mediated direct cloning of biosynthetic pathways reveal novel chemical scaffolds
P07	Martin Baunach, <i>University of Potsdam, Potsdam, Germany</i> Elucidation of RiPP biosynthesis in the symbiotic cyanobacterium <i>Nostoc punctiforme</i>
P08	Peter Biber, <i>Technische Universität Braunschweig, Braunschweig, Germany</i> Sulphur containing volatile organic compounds of <i>Pigmentiphaga aceris</i> MVM1488 and <i>Clostridium difficile</i> MSN001
P09	Stephan Brinkmann, <i>Fraunhofer Institute for Molecular Biology and Applied Ecology, Giessen, Germany</i> A genome mining guided cultivation approach reveals the potential of the genus Chitinophaga (Bacteroidetes) to produce bioactive natural products with possible structural novelty
P10	Hannah Büttner, <i>Leibniz Institute for Natural Product Research and Infection Biology – Hans Knöll Institute (HKI), Jena, Germany</i> Biosynthesis of polythioamide antibiotics in anaerobic bacteria
P11	Anthony Chukwubuike, <i>Leibniz Institute for Natural Product Research and Infection Biology – Hans Knöll Institute (HKI), Jena, Germany</i> Elucidating the enzyme based-phenazine reduction for efficient bioprocess development
P12	Jan Dastbaz, <i>Helmholtz Institute for Pharmaceutical Research Saarland (HIPS), Helmholtz Centre for Infection Research (HZI), Saarland University, Saarbrücken, Germany</i> Studies on the biosynthesis of cittilin, an unusual secondary metabolite from <i>Myxococcus xanthus</i>
P13	Andri Frediansyah, <i>University of Tübingen, Tübingen, Germany</i> Genome-driven isolation of NRPS-based siderophores from <i>Telluria</i> sp.
P14	Melanie Gonsior, <i>Technische Universität Berlin, Berlin, Germany</i> Biochemical characterization of the Lanthipeptide Class II Synthetase LicM2
P15	Gina L. C. Grammbitter, <i>Goethe University Frankfurt am Main, Frankfurt am Main, Germany</i> Biosynthesis of the multifunctional isopropylstilbene in <i>Photorhabdus luminescens</i> involves cross-talk between specialized and primary metabolism



P16	Sebastian Groß, <i>Helmholtz Institute for Pharmaceutical Research Saarland (HIPS), Saarbrücken, Germany</i> Design, assembly and heterologous expression of a synthetic gene cluster for the production of cystobactamids	
P17	Nils Gummerlich, <i>Saarland University, Saarbrücken, Germany</i> Isolation of two unique polyketides through genome mining of <i>S. espanaensis</i>	
P18	Juan Guzman, <i>Czech Academy of Sciences, Prague, Czech Republic</i> Intervencin, a genome-mined lincosamide antibiotic from <i>Rhodococcus</i> sp. 06-235-1A	
P19	Wiebke Hanke, <i>University of Bonn, Bonn, Germany</i> The cyclic depsipeptide FR900359: An insecticide with a novel mode of action from <i>Cand. Burkholderia crenata</i>	
P20	Julian Hegemann, <i>University of Tübingen, Tübingen, Germany</i> Lasso peptide binders of ClpP protease complexes	
P21	Eric J. N. Helfrich, <i>Harvard Medical School, Boston, USA</i> Bacteria are neglected producers of complex sesqui- and diterpenoids	
P22	Irina Helmle, <i>University of Tübingen, Tübingen, Germany</i> NMR-based mode of action study of the lipopeptide antibiotic plusbacin	
P23	Sundar Hengoju, <i>Leibniz Institute for Natural Product Research and Infection Biology – Hans Knöll Institute (HKI), Jena, Germany</i> Multiplexing antibiotic screening in droplet microfluidics using an optofluidic platform	
P24	Oliver Hennrich, <i>University of Tübingen, Tübingen, Germany</i> Generation of novel pristinaamycin derivatives by mutasynthesis approaches	
P25	Naybel Hernandez Perez, <i>University of Tübingen, Tübingen, Germany</i> Role of complexing agents in the survival of microorganisms in the soil	
P26	Florian Hubrich, <i>ETH Zurich, Zurich, Switzerland</i> Proteusin peptides, a large resource of novel bioactive natural products	
P27	Joachim Hug, <i>Helmholtz Institute for Pharmaceutical Research Saarland (HIPS), Helmholtz Centre for Infection Research (HZI), Saarland University, Saarbrücken, Germany</i> Genomic investigation and activation of myxobacterial type III PKS gene clusters	
P28	Junjing Jiao, <i>University of Tübingen, Tübingen, Germany</i> Chemical exploration of secondary metabolites from the rhizosphere bacterium <i>Micromonospora</i> sp. MW13	
P29	Benjamin Kachel, <i>Mannheim University of Applied Sciences, Mannheim, Germany</i> Engineering the cyanobacterium <i>Synechococcus</i> PCC 7002 for the photosynthetic production of vitamin B2 (riboflavin)	
P30	Stella Kössler, <i>University of Potsdam, Potsdam, Germany</i> Functional characterization of novel NRPS/RIPP hybrid biosynthetic pathways in cyanobacteria	
P31	Janik Kranz, <i>Goethe University Frankfurt, Frankfurt am Main, Germany</i> Influence of condensation-adenylation domain interactions on the substrate specificity and production rate of NRPS	
P32	Lukas Kreling, <i>Goethe University Frankfurt am Main, Frankfurt am Main, Germany</i> Late stage Anthraquinone biosynthesis in <i>Photorhabdus luminescens</i>	

POSTERS

P33 I Dewa Made Kresna, *Justus Liebig University Giessen, Giessen, Germany*
Involvement of a radical SAM in intermolecular cyclization reaction(s) in Darobactin maturation

P34 Mario K. C. Krespach, *Leibniz Institute for Natural Product Research and Infection Biology – Hans Knöll Institute (HKI), Jena, Germany*
Lichen-like association of *Chlamydomonas reinhardtii* and *Aspergillus nidulans* leads to algal resistance to harmful bacterial azalomycin F

P35 Daniel Krug, *Helmholtz Institute for Pharmaceutical Research Saarland (HIPS), Saarbrücken, Germany and Helmholtz Centre for Infection Research (HZI), Braunschweig, Germany*
Sample das Saarland: Expanding myxobacterial phylogeny for chemical diversity

P36 Alexander Lammers, *University of Greifswald, Greifswald, Germany*
Search for bioactive compounds produced by social spider holobionts

P37 Luis Linares-Otoya, *Justus Liebig University Giessen, Giessen, Germany*
Investigation on ariakemicin biosynthesis and its evolutionary context

P38 Friederike Lünne, *University of Münster, Münster, Germany*
Novel Xanthone dimers produced by the ergot fungus – *Claviceps purpurea*

P39 Roman Makitrynsky, *University of Freiburg, Freiburg, Germany*
Cyclic di-GMP is implicated in natural products biosynthesis in streptomycetes

Poster Session II | Monday, September 16, 2019, 17:00-18:00

P40 Richenda McFarlane, *University of Ottawa, Ottawa, Canada*
Genome mining of *Streptomyces armeniacus* for the production of novel antibiotics

P41 Silja Mordhorst, *ETH Zurich, Zurich, Switzerland*
The remarkable substrate promiscuity of OspR - a new ornithine-generating maturase involved in the biosynthesis of the cryptic antiviral proteusin natural product landornamide A

P42 Ewa M. Musiol-Kroll, *University of Tübingen, Tübingen, Germany*
The discrete acyltransferase KirCII - a potential tool for "bioderivatization" of polyketide compounds

P43 Timo Negri, *University of Tübingen, Tübingen, Germany*
Discovery of natural products from soil metagenomes at the Schönbuch Forest

P44 Markus Neuber, *Helmholtz Institute for Pharmaceutical Research Saarland (HIPS), Helmholtz Centre for Infection Research (HZI), Saarland University, Saarbrücken, Germany*
Development of a co-cultivation strategies to access novel secondary metabolites from myxobacteria

P45 Markus Oberpaul, *Branch for Bioresources of the Fraunhofer Institute for Molecular Biology and Applied Ecology, Giessen, Germany*
High-throughput cultivation and screening platform for natural product discovery from environmental bioresources

P46 Fabian Panter, *Helmholtz Institute for Pharmaceutical Research Saarland (HIPS), Helmholtz Centre for Infection Research (HZI), Saarland University, Saarbrücken, Germany*
Self-resistance guided genome mining uncovers the Pyxidicycline class of myxobacterial natural products

P47 Alexander Popoff, *Helmholtz Institute for Pharmaceutical Research Saarland (HIPS), Saarbrücken, Germany*
Genome mining revealed a new myxobacterial glycolipopeptide containing non-proteinogenic amino acids



P48	<p>Panward Prasongpholchai, <i>University of Warwick, Coventry, United Kingdom</i> Chemical probing of type II iterative polyketide assembly</p>	
P49	<p>Silke Probst, <i>ETH Zurich, Zurich, Switzerland</i> New roots to uncover buried natural products</p>	
P50	<p>Christin Reimer, <i>Leibniz Institute for Natural Product Research and Infection Biology – Hans Knöll Institute (HKI), Jena, Germany</i> <i>Dictyostelium discoideum</i> as a source of natural products and expression host for polyketide synthases from amoebozoia</p>	
P51	<p>Silke Reiter, <i>Justus Liebig University Giessen, Giessen, Germany</i> Of salamanders and burying beetles – Exploring untapped microbial resources</p>	
P52	<p>Riyanti, <i>Justus Liebig University Giessen, Giessen, Germany</i> Isolation and screening of antimicrobial compounds producing bacteria associated with sponges</p>	
P53	<p>Michael Rust, <i>ETH Zurich, Zurich, Switzerland</i> A multi-producer microbiome generates chemical diversity in the marine sponge <i>Mycale hentscheli</i></p>	
P54	<p>Felix Schalk, <i>Leibniz Institute for Natural Product Research and Infection Biology – Hans Knöll Institute (HKI), Jena, Germany</i> The chemical interplay between <i>Termitomyces</i> and <i>Pseudoxylaria</i> – Exploring the biochemistry and biosynthetic potential of termite-associated fungi</p>	
P55	<p>Christian Schmidt, <i>University of Greifswald, Greifswald, Germany</i> Proteogenomic characterization of <i>Teredinibacter</i> sp. TN10130 – a shipworm endosymbiont with versatile secondary metabolism</p>	
P56	<p>Carmen Schneider, <i>Mannheim University of Applied Sciences, Mannheim, Germany</i> The phosphatase RosC catalyzes the last elusive step of roseoflavin biosynthesis in <i>Streptomyces davaonensis</i></p>	
P57	<p>Jan Schwitalla, <i>Leibniz Institute for Natural Product Research and Infection Biology – Hans Knöll Institute (HKI), Jena, Germany</i> Prokaryotic guardians? – The antimicrobial potential of termite associated gut symbionts</p>	
P58	<p>Angela Sester, <i>TU Dortmund University, Dortmund, Germany</i> Precursor-directed biosynthesis towards aurachin derivatives</p>	
P59	<p>Maria Guadalupe Soto Zarazua, <i>University of Bonn, Bonn, Germany</i> Investigations on structure and biosynthesis of the novel antifungal RiPPs Conprimycin and Grisin</p>	
P60	<p>Philipp Stephan, <i>Leibniz Institute for Natural Product Research and Infection Biology – Hans Knöll Institute (HKI), Jena, Germany</i> Biosynthetic incorporation of masked ornithine into gramicidin S</p>	
P61	<p>Hilda Sucipto, <i>Saarland University, Saarbrücken, Germany</i> Genome engineering in <i>Streptomyces rimosus</i> chassis</p>	
P62	<p>Andreas Tietze, <i>Goethe University Frankfurt am Main, Frankfurt am Main, Germany</i> Modified peptides from engineering of non-ribosomal peptide synthetases</p>	
P63	<p>Anna Tippelt, <i>TU Dortmund University, Dortmund, Germany</i> Towards the reconstitution of Cryptophycin biosynthesis</p>	

POSTERS

P64	Mai Anh Tran, <i>Johannes Gutenberg University, Mainz, Germany</i> Natural product and natural product binding proteins interaction with membranes	
P65	Olga Tsypik, <i>University of Freiburg, Freiburg, Germany</i> Insight into tailoring steps of rishirilide biosynthesis	
P66	Irina Voitsekhovskaia, <i>University of Tübingen, Tübingen, Germany</i> Generation of new active balhimycin derivatives using mutasynthesis approach	
P67	Sebastian Walesch, <i>Helmholtz Institute for Pharmaceutical Research (HIPS), Saarbrücken, Germany</i> Investigation of MSr12523 – a myxobacterium with intriguing biosynthetic potential for anti-Gram-negative secondary metabolite production	
P68	Lei Wang, <i>Justus Liebig University Giessen, Giessen, Germany</i> Antimicrobial natural products from <i>Tenacibaculum discolor</i> S11	
P69	Sebastian Wenski, <i>Goethe University Frankfurt, Frankfurt am Main, Germany</i> Fabclavine derivatives in <i>Xenorhabdus</i> : How to create a large chemical diversity	
P70	Margaretha Westphalen, <i>Goethe University Frankfurt am Main, Frankfurt am Main, Germany</i> Natural product biosynthesis in the entomopathogenic bacterium <i>Xenorhabdus hominickii</i>	
P71	Vincent Wiebach, <i>Technische Universität Berlin, Berlin, Germany</i> Lipolanthines – An expanding class of ribosomally synthesized lipopeptides	
P72	Lea Winand, <i>TU Dortmund University, Dortmund, Germany</i> Plasmid-based expression of natural product gene clusters in <i>Myxococcus xanthus</i>	
P73	Daniel Wirtz, <i>University of Bonn, Bonn, Germany</i> β -Hydroxylases in NRPS: Functionality and substrate recognition	
P74	Zerlina Gabriela Wuisan, <i>Justus Liebig University Giessen, Giessen, Germany</i> Heterologous expression of the darobactin biosynthetic gene cluster	
P75	Jacob Martin Wurlitzer, <i>Friedrich Schiller University Jena, Jena, Germany</i> Malpicyclins - novel nonribosomal peptides from <i>Mortierella alpina</i>	
P76	Lei Zhang, <i>University of Freiburg, Freiburg, Germany</i> Screening the potential of <i>Nocardiosis synnemataformans</i> for natural product formation	
P77	Lei Zhao, <i>Goethe University Frankfurt, Frankfurt am Main, Germany</i> Structure elucidation and biosynthesis of nonribosomally derived peptides from entomopathogenic <i>Photorhabdus</i> strains	
P78	Celine M. Zumkeller, <i>Fraunhofer Institute for Molecular Biology and Applied Ecology, Giessen, Germany</i> Implementation of a high-throughput microfluidic/FACS platform for antimicrobial screening of (meta) genomic libraries	