

The VAAM logo consists of the letters 'VAAM' in a stylized, white, sans-serif font. The 'V' and 'A' are connected, and the 'M' has a unique shape with a vertical bar on its left side. The logo is set against a solid green square background.

VAAM

The HKI logo features the letters 'HKI' in a bold, blue, sans-serif font. The 'H' and 'K' are connected, and the 'I' is a simple vertical bar. The logo is set against a white square background.

HKI

The background of the top half of the poster is a photograph of several glass laboratory flasks. The flasks are arranged in a row, with the one in the foreground being the most prominent. They contain a brownish liquid, likely a microbial culture. The flasks are sealed with cork stoppers. The background is slightly blurred, creating a sense of depth.

International VAAM Workshop 2019

# Biology of Microorganisms Producing Natural Products

September 15-17, 2019



## Program

Leibniz Institute for Natural Product Research and Infection Biology

Hans Knöll Institute (HKI)

Beutenbergstraße 11a

07745 Jena, Germany

# PROGRAM

September 15, 2019

15:00 Registration

16:00 Welcome address

**Session I** (Chair: **Hajo Kries**, *Leibniz-HKI Jena*)

**16:10** **Kyle Dunbar**, *Leibniz Institute for Natural Product Research and Infection Biology - Hans Knöll Institute (HKI), Jena, Germany*  
Elucidation of a noncanonical pathway for thioamidated nonribosomal peptide assembly

**16:35** **Laura Franz**, *Helmholtz Institute for Pharmaceutical Research Saarland (HIPS), Saarbrücken, Germany*  
Understanding bottromycin biosynthesis

17:00 Coffee break

**17:30** **Keynote Lecture I**  
**Douglas A. Mitchell**, *University of Illinois at Urbana-Champaign, USA*  
Big data genomics for discovery of new molecules and enzyme chemistry

18:30 Dinner

19:00 Poster Session I (No. 1 - 39)



## September 16, 2019

### Session II (Chair: Ewa Maria Musiol-Kroll, University of Tübingen)

09:00 **Nils Böhringer**, Justus Liebig University Giessen, Giessen, Germany  
Biosynthesis of Darobactin, a novel antibiotic that selectively kills Gram-negative pathogens

09:25 **Cornelia Hermes**, University of Bonn, Bonn, Germany  
Biosynthesis of the depsipeptide FR900359 – Investigation of the first NRPS module FrsA

09:50 **Alicia Engelbrecht**, University of Tübingen, Tübingen, Germany  
Biosynthesis of the cyclopropyl moiety of belactosin A

10:15 **Roy Meoded**, ETH Zurich, Zurich, Switzerland  
Non-canonical polyketide synthases as a source for new enzymology

10:40 Coffee break

### Session III (Chair: Gerald Lackner, Leibniz-HKI Jena)

11:00 **Chantal Bader**, Helmholtz Institute for Pharmaceutical Research Saarland (HIPS), Saarbrücken, Germany  
Supercritical fluid extraction for myxobacterial secondary metabolomics

11:25 **Daniel Männle**, University of Tübingen, Tübingen, Germany  
Comparative genomics to metabolomics: Nocobactin production in *Nocardia*

11:50 **Daniel Last**, Leibniz Institute for Natural Product Research and Infection Biology – Hans Knöll Institute (HKI), Jena, Germany  
Surprise, surprise – A novel coenzyme F<sub>420</sub> derivative

12:15 Lunch, Poster Exchange

### Session IV (Chair: Christine Beemelmans, Leibniz-HKI Jena)

13:15 **Julia Krumbholz**, University of Potsdam, Potsdam, Germany  
Elucidation of a quorum sensing like regulatory network in *Nostoc punctiforme* PCC 73102

13:40 **Thomas Böttcher**, University of Konstanz, Konstanz, Germany  
Elucidating and controlling chemical interactions of human pathogens

14:05 **Claudius Lenz**, Friedrich Schiller University Jena, Jena, Germany  
Out of the blue: Oxidative enzymatic coupling of *Psilocybe* indole alkaloids

14:30 **Huijuan Guo**, Leibniz Institute for Natural Product Research and Infection Biology – Hans Knöll Institute (HKI), Jena, Germany  
Characterization of morphogens in the marine polyp *Hydractinia echinata*

# PROGRAM

14:55	Coffee break	
<b>Session V</b> (Chair: <b>Thomas Böttcher</b> , <i>University of Konstanz</i> )		
15:15	<b>Svetlana Kalinina</b> , <i>University of Münster, Münster, Germany</i> Auranthine – the main metabolite from <i>Penicillium aurantiogriseum</i> : Refined structure, absolute configuration, cytotoxicity and total synthesis	
15:40	<b>Jazmin Meza-Torres</b> , <i>Institut Pasteur, Paris, France</i> Listeriolysin S is a contact-dependent bacteriocin from <i>Listeria monocytogenes</i> that targets the bacterial cell membrane	
16:05	<b>Sari Rasheed</b> , <i>Helmholtz Institute for Pharmaceutical Research Saarland (HIPS), Saarbrücken, Germany</i> Using zebrafish as a model for tuberculosis to test potential anti-tubercular natural products	
16:30	<b>Afsandiyar Sikandar</b> , <i>Helmholtz Institute for Pharmaceutical Research Saarland (HIPS), Saarbrücken, Germany</i> Adaptation of a bacterial multidrug resistance system revealed by the structure and function of AlbA	
17:00	Poster Session II (No. 40 - 77)	
18:00	Break	
19:00	Conference Dinner at “Braugasthof Papiermühle“	



September 17, 2019

Session VI (Chair: Elke Dittmann, University of Potsdam)

09:00 **Maria Lopatniuk**, Saarland University, Saarbrücken, Germany  
The platform for biosynthetic engineering of RiPPs

09:25 **Marta Rodríguez Estévez**, Saarland University, Saarbrücken, Germany  
Discovering new natural drugs and biosynthetic gene clusters through heterologous expression

09:50 **Ryan Musumba Awori**, Goethe University Frankfurt, Frankfurt am Main, Germany  
Refactoring a silent biosynthetic gene cluster in *Xenorhabdus ishibashii* yields a novel dodecapeptide

10:15 **Caroline Autenrieth**, University of Stuttgart, Stuttgart, Germany  
High-Level production of industrially interesting carotenoids in the purple bacterium *Rhodospirillum rubrum* using new synthetic biology tools ("Purple BioBricks™") and rational design

10:40 Coffee break

11:00 **Keynote lecture II**  
**Mohammad R. Seyedsayamdost**, Princeton University, USA  
Using old antibiotics to find new ones

12:00 Poster Awards, Closing remarks

12:15 VAAM Business Meeting

12:15 Small lunch