Newsletter 2023/2 -

Fachgruppe Biologie bakterieller Naturstoffproduzenten

Dear Members, We hope that you spend a wonderful Easter 2023 and you enjoyed the latest news and conferences on the biology of microbial natural product producers as we did! We have again a couple of news to share with you!

Section meeting in September from the 20th - 22nd of September! The annual symposium will take place in <u>Saarbrücken at Saarland University</u>! Program, registration and travel details will be announced continuously on the Symposium Webpage: <u>https://vaam.hips-wordpress.helmholtz-hzi.de/</u>

We will have many slots for PhD and Postdocs to present their research! REGISTRATION FOR TALKS and/or POSTERS will open soon! We are also happy that we could invite excellent speakers for the different research topics: **Marnix Medema** (*Wageningen University*, Wageningen), **Barry Wilkinson** (*John Innes Centre*), **Helge Bode** (*Max Plank Institute for Terrestrial Microbiology*) and **Pierre Stallforth** (*Leibniz Institute for Natural Product Research and Infection Biology: Hans Knöll Institute*), **Joleen Masschelein** (*KU Leuven*, BE), **Barrie Wilkinson** (John Innes Centre, UK), Lena Barra (*Universität Konstanz*, DE) and **Daniel Petras** (*Universität Tübingen*, DE).

At the end of the symposium, we also award prices for the best posters and talks of the symposium. As last year, the <u>Hendrik Wolff Prize</u> will be awarded to honour outstanding achievements at the interface of mass-spectrometry, microbiology and natural product chemistry. Application deadline for the Hendrik Wolff Prize will be in summer 2023! We are more than happy to welcome you at the Campus of Saarland University in September!

Promote our VAAM section group! Please advertise the VAAM section to your group members or students by distributing our VAAM flyers (e.g. student members are e.g. eligible for travel grants to conferences, PhD prices and other promotions).

Call for ideas! NEW Section Logo: The VAAM offers section groups to design their own VAAM logo based on the general VAAM logo! We came up with a first draft, but we would very much like to get your ideas for a new section logo!

Please send your suggestion to natural products@vaam.de

Your logo suggestions will be presented during the VAAM section meeting!

Highlights: Section members have published many excellent papers in early 2023 and it has been a difficult to select only one, so we chose three of the recent publications from different group members.

<u>Molecular mechanism of topoisomerase poisoning by the peptide antibiotic albicidin in ACIE 2023</u>: The studies present a cryoelectron microscopy structure of a ternary complex between *Escherichia coli* topoisomerase DNA gyrase, a 217 bp double-stranded DNA fragment and albicidin, uncovering a dual binding mechanism

<u>Cofunctioning of bacterial exometabolites drives root microbiota establishment in PNAS 2023</u>: The paper nicely dissects the functions of exometabolites, such as 2,4-diacetylphloroglucinol (DAPG) and the iron chelator pyoverdine, in root-associated bacterial communities using interaction studies and microbiota reconstitution experiments.

<u>Persicamidines—Unprecedented Sesquarterpenoids with Potent Antiviral Bioactivity against Coronaviruses</u> <u>in ACIE 2023</u>: The study describes a new class of antiviral compounds, persicamidines A–E (1–5), which are composed of a unusual 6/6/6/6/6-fused hexacyclic ring system and were isolated from a novel actinobacterial strain, *Kibdelosporangium persicum* sp. nov.

Meet A Member: Daniel Petras is biochemist with a background in bioanalytical and natural product chemistry. He received his diploma degree in biotechnology from the University of Applied Science Darmstadt and his PhD from the Technical University Berlin in 2016. His thesis in the group of Roderich Suessmuth focused on the discovery, structure elucidation and biosynthesis of peptide toxins, including albicidins, a group of potent antimicrobial peptides. For his postdoctoral research, Daniel joined the lab of Pieter Dorrestein at the University of California San Diego where he focused on the development of large-scale environmental metabolomics methods. In 2021, Daniel launched the Functional Metabolomics Lab at the University of Tübingen as an independent Junior Research Group. The work of

him and his team focuses on the development and application of mass spectrometry-based methods to visualize and functionally assess chemical exchange within microbial communities in the environment, host, and synthetic model systems.

Best Wishes!

Nadine Ziemert and Christine Beemelmanns

You want to get introduced in our Newsletter or write a note about a breakthrough publication important for the community? Send an Email to the speakers via our **new email: natural_products@vaam.de** and we are happy to include you. https://vaam.de/die-vaam/fachgruppen/biologie-bakterieller-naturstoffproduzenten/





Vereinigung für Allgemeine und Angewandte Mikrobiologie