

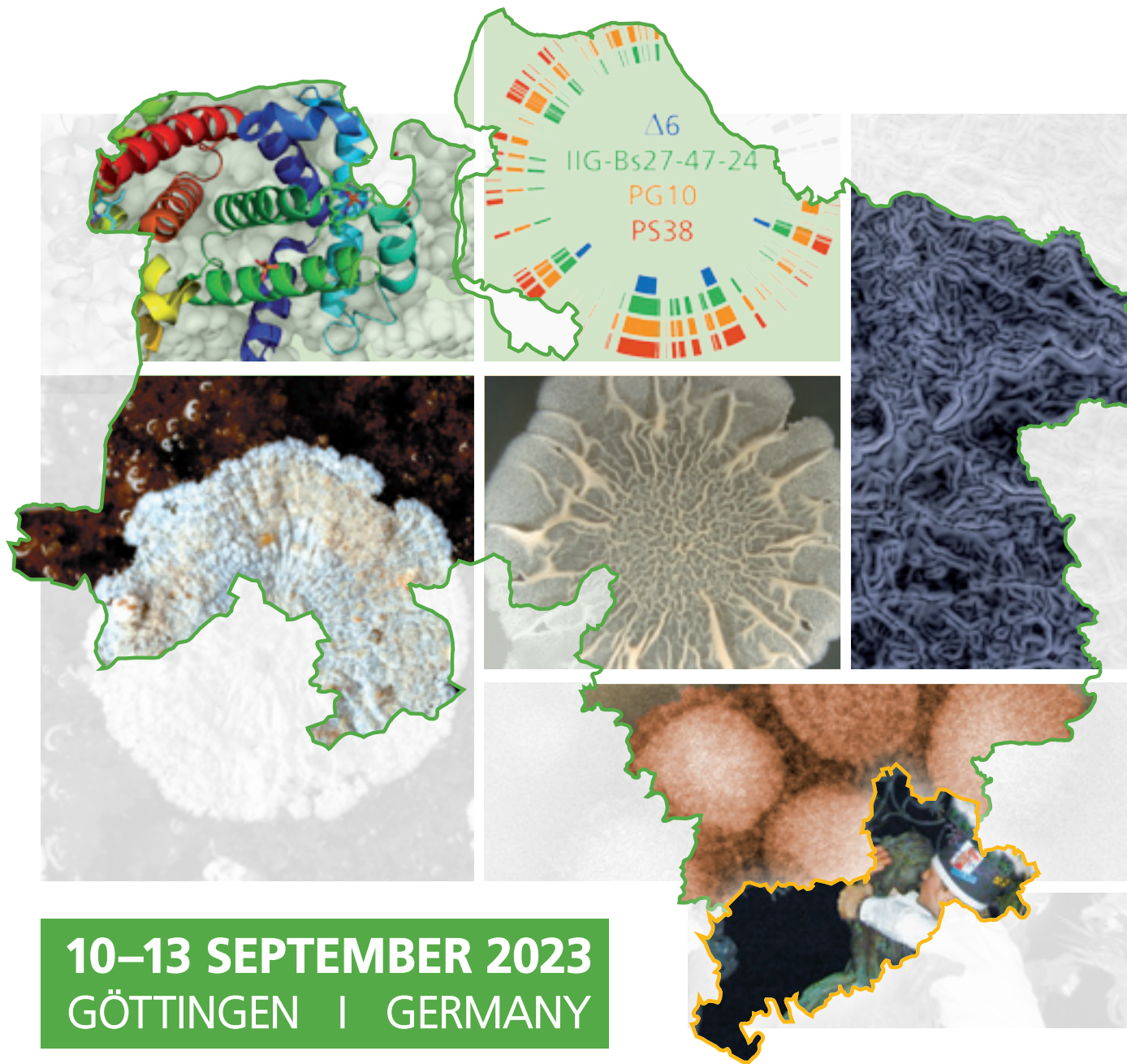


JAHRESTAGUNG

Annual Conference

of the Association for General
and Applied Microbiology

2023



10–13 SEPTEMBER 2023
GÖTTINGEN | GERMANY

PROGRAMME

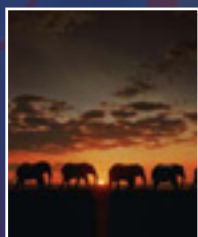


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Microbe of the Year	p. 14

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17:30–19:30	17:30–19:30	17:30–19:30	17:30–19:30	17:30–19:30	17:30–19:30	17:30–19:30	17:30–19:30	
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Plenum	EG 009	1. OG 104	1. OG 103	EG 007	EG 006	EG 001	EG 005
08:30–10:30	08:30–10:30	08:30–10:30	08:30–10:30	08:30–10:15	08:30–10:45	08:30–10:30	08:30–10:00
Minisymposium 7 FG Biotransformation 							

PROGRAMME OVERVIEW | WEDNESDAY, 13 SEPTEMBER

Plenum	EG 009	1. OG 104	1. OG 103	EG 007	EG 006	EG 001	EG 005
09:00–11:00	09:00–11:00	09:00–11:00	09:00–11:00	09:00–11:00	09:00–11:00	09:00–11:00	09:00–11:00
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13:15–13:30
Closing remarks p. 36

Special group meeting	Minisymposium
Opening, Awards, Special sessions	Events for young scientists
DFG-Antragsberatung	Poster session
Plenary session	Social programme
Short lecture	Symposium

ORGANISATION AND IMPRINT

Venue

Georg-August-Universität
Platz der Göttinger Sieben 5 | 37073 Göttingen

Date

10–13 September 2023

Hosting society

Association for General and Applied Microbiology (VAAM) | www.vaam.de

Conference chair

Prof. Dr. Jörg Stülke
Georg-August-Universität Göttingen
Institute for Microbiology and Genetics
Dept. General Microbiology



Organising committee Göttingen

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Gerhard Braus
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Congress app

In the app you can find all important information on the congress as well as the detailed scientific programme.
Scan the QR code to open the app!



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Association for General and Applied Microbiology (VAAM)
Dr. Katrin Muth
www.vaam.de

WELCOME NOTE OF THE CONFERENCE PRESIDENT

Dear Microbiologists, Dear Colleagues and Students,

The Association for General and Applied Microbiology (VAAM) is delighted to welcome you to their Annual Conference 2023 in Göttingen!

After more than two years of the pandemics and several lock-downs, we all thirst for personal meetings and direct discussion of science! Don't miss the opportunity to meet your colleagues in person again as well as an exciting scientific programme with the following main topics:

- Regulation and Signal Transduction
- Biotechnology
- Computational Microbiology
- Fungal Interactions

The conference will take place from 10–13 September 2023 at the Georg-August University in picturesque Göttingen. Make sure you pay a visit to the famous “Gänseliesel”, the most often kissed girl in the world! Moreover, it even belongs to the luckiest places in the world!

Participate, follow the exciting programme, enjoy the mixer and visit beautiful Göttingen! Further information can be found on the conference homepage.

We look forward to welcoming you in Göttingen this year!

With best regards

Jörg Stülke
Stefanie Pöggeler, Gerhard Braus & Rolf Daniel

WELCOME NOTE OF THE PRESIDENT OF THE VAAM

Dear colleagues and friends,

On behalf of the board of the Association for General and Applied Microbiology (VAAM) I warmly welcome you to our annual meeting in Göttingen, a university town with a long history in Microbiology. It is the first in-person meeting since 2020. The pandemic forced us to hold two online meetings in 2021 and 2022. In another twist of fate, we had to postpone this year's spring meeting to September due to the looming energy crisis. Now, we are finally looking forward to convening in a beautiful city, to listen to fantastic keynote lectures and short talks, to interact with fellow scientists during poster sessions, industry exhibitions and coffee breaks, and to enjoy social interactions during the welcome reception and the mixer. Let's reconnect with old friends and make new ones!

We are extremely grateful to the local organizers for hosting us. Jörg Stülke as conference chair and the organizing committee put together an attractive scientific programme that reflects the full breadth of our society. Talks will cover topics like Regulation and Signal Transduction, Biotechnology, Computational Microbiology and Fungal Interactions. Poster sessions on 17 different topics ranging from Anaerobic Metabolism to Systems Biology, mini symposia organized by our Special Groups and the Industry-Academia Panel will complement the wonderful programme.

Among the many highlights of this conference will be two Hans-Günter-Schlegel lectures from this and last year, the annual VAAM Research Award and the biennial VAAM Innovation Award. Four recently graduated doctoral students will receive a PhD award for their excellent theses, and we will continue the Invited Postdoc Lecture series that was established last year to showcase the achievements of a selected junior researcher.

The VAAM has always been committed to supporting early career researchers and a few years ago we established VAAMentoring, a mentoring programme specifically tailored to the needs of junior microbiologists. We are pleased to announce that the meeting will offer two events to foster personal interactions, an informal get-together on Sunday evening and a lunch meeting on Tuesday to present and discuss the current status of VAAMentoring. You are cordially invited to join and help us shape the future of the mentoring programme.

Welcome to Göttingen!

With best wishes

Franz Narberhaus | President of the VAAM

GENERAL MEETING OF THE VAAM

Einladung zur Mitgliederversammlung der VAAM

Hiermit lade ich alle Mitglieder der VAAM zur Mitgliederversammlung ein. Sie wird am **Dienstag, den 12. September 2023**, um 18 Uhr im Hörsaal 009 des Zentralen Hörsaal-Gebäudes der Universität Göttingen stattfinden.

Vorläufige Tagesordnung:

1. Festlegung der Tagesordnung und Genehmigung der Niederschrift der Online-Mitgliederversammlung vom 23. Februar 2022 (siehe BIOSpektrum 3/22, Seiten 312 bis 314)
2. Bericht aus dem Vorstand, u. a. Ort und Zeit der nächsten Jahrestagung, Aktivitäten der Fachgruppen, u. a. Verlängerung von Fachgruppen und Umbenennung, VBIO, BIOSpektrum, Mikrobe des Jahres, Beiratsmitglieder nach § 4.4 der Satzung, Geschäftsstelle, Haushalt 2022 und Haushaltsplan 2023
3. Bericht der Kassenprüfung
4. Entlastung des Vorstands
5. Wahl des Präsidiums (Präsident/Präsidentin, 1. Vizepräsident:in, 2. Vizepräsident:in, Schatzmeister:in, Schriftführer:in) und drei der sechs Mitglieder des Beirats (geheime Wahl während der Mitgliederversammlung)
6. Wiedereintritt der VAAM in die IUMS
7. Verschiedenes

Im Anschluss: Verleihung einer Ehrenmitgliedschaft

Hiermit bitte ich alle Mitglieder, Vorschläge zur Wahl des Präsidiums und des Beirats beim Präsidenten einzureichen (bis 14 Tage vor der Mitgliederversammlung), wobei Vorschläge für das Präsidium von zehn VAAM-Mitgliedern und für den Beirat von drei Mitgliedern unterschrieben sein müssen. Ich weise darauf hin, dass der Vorstand der VAAM den jetzigen 1. Vizepräsidenten wie üblich zur Wahl zum Präsidenten vorschlagen wird und für das Amt des 2. Vizepräsidenten entsprechend unserer Geschäftsordnung den bisherigen Präsidenten. Ordentliche und studentische Mitglieder haben auf der Mitgliederversammlung gleiches Stimmrecht.

Reisekostenzuschüsse für studentische Mitglieder werden bei fristgerecht eingegangenen Anträgen und bei Vorliegen der sonstigen Voraussetzungen nach Tagungsende auf das der VAAM bekannte Konto überwiesen. Dazu muss das Mitglied die aktive Teilnahme an der Tagung durch Unterschrift nochmals bestätigen. Dies ist ab Dienstag, den 12. September 2023 am Registrierungscounter möglich.

Hubert Bahl
Schriftführer

MEETINGS OF THE VAAM SPECIAL GROUPS

Monday, 11 September

- 10:30–11:00 Microbial Pathogenicity
- 16:30–17:00 Cyanobacteria
- 17:00–17:30 Regulation

Tuesday, 12 September

- 10:15–10:30 Microbiom (with elections)
- 10:45–11:00 Archaea & Microbial Cell Biology (with elections)
- 10:00–10:30 Microbial Viruses

Wednesday, 13 September

- 11:00–11:15 Water and Wastewater

SCIENTIFIC PROGRAMME | SUNDAY, 10 SEPTEMBER

15:00–15:45 Opening of the conference & Welcome addresses

Plenum

15:00 Opening and welcome address
Jörg Stülke (Conference president) (Göttingen/DE)
Metin Tolan (President of the University of Göttingen) (Göttingen/DE)

15:15 Award of honorary doctorate to Professor Michael Hecker
Rolf Daniel (Dean of the Faculty of Biology and Psychology, University of Göttingen) (Göttingen/DE)

15:30 Honoring the work of Professor Gerhard Gottschalk
Jörg Stülke (Conference president) (Göttingen/DE)

15:45–16:30 Hans-Günter-Schlegel-Lecture 2023

Plenum

Laudation Natalia Tschowri (Hannover/DE)

15:45 c-di-GMP signaling – the unexpected complexity of bacterial second messenger synthesis, function and turnover
Regine Hengge (Berlin/DE)

16:30–16:45 Microbe of the Year

Plenum

Laudation Fabian Commichau (Hohenheim/DE)

17:15–17:45 VAAM Research Award

Plenum

17:45–19:00 Plenary Session 1

Plenum

Chair Andreas Peschel (Tübingen/DE)

17:45 Shaping Yersinia virulence through post-transcriptional control mechanisms
IL01 Petra Dersch (Münster/DE)

18:15 Natural Products in Antibacterial Drug Discovery
IL02 Heike Brötz-Oesterhelt (Tuebingen/DE)

19:00–21:30 Welcome Reception

Plenum

(see page 71 for details)

SCIENTIFIC PROGRAMME I MONDAY, 11 SEPTEMBER

08:30–10:30	Short Lecture 1
Plenum	Natural Products
Chairs	Rebekka Biedendieck (Braunschweig/DE), Elvio Benatto Perino (Hohenheim/DE)
08:30 BT01	Natural products from interacting microorganisms and ancient microbiomes Pierre Stallforth (Jena/DE)
08:45 BT02	Development of a co-culture platform for natural product-targeted bioprocesses Ana Palacio-Barrera, Jethro Hemmann, Ivan Schlembach (Jena/DE), Maurice Finger Jochen Büchs (Aachen/DE), Gerald Lackner, Miriam A. Rosenbaum (Jena/DE)
09:00 BT03	In vitro evolution of a synthetic organelle inside a picoliter habitat Lennart Witting (Jülich/DE), Marion Eisenhut (Bielefeld/DE), Andreas Weber (Düsseldorf/DE) Dietrich Kohlheyer (Jülich/DE)
09:15 BT04	Controlling macromorphologies of <i>Aspergillus niger</i> during high and low shear stress bioreactor cultivation Karin Engelbert, Tölue Kheirkhah (Berlin/DE), Henri Müller, Charlotte Deffur (Freising/DE) Stefan Junne (Berlin/DE), Heiko Briesen (Freising/DE), Peter Neubauer, Vera Meyer (Berlin/DE)
09:30 BT05	Strategies for improved surfactin production by <i>Bacillus subtilis</i> Lars Lilge (Groningen/NL, Stuttgart/DE), Maliheh Vahidinasab (Stuttgart/DE), Chantal Treinen (Freising/DE) Mareen Hoffmann, Peter Klausmann, Elvio Benatto Perino (Stuttgart/DE), Marius Henkel (Freising/DE) Rudolf Hausmann (Stuttgart/DE)
09:45 BT06	Antibiotic effect of high power blue laser Mattes Hintmann (Braunschweig/DE), Stanislav Zimbelmann, Benjamin Emde (Hannover/DE), Dieter Jahn Rebekka Biedendieck (Braunschweig/DE)
10:00 BT07	Valorization of lignin waste by filamentous fungi – Seeking new aromatic compounds Anna-Lena Hiller, Tim Pfrengle, Lara Schön, Jana Klein, Luis Antelo, Siegfried R. Waldvogel Eckhard Thines (Mainz/DE)
10:15 BT08	Design of experiment approach for improved fermentative astaxanthin production by <i>Corynebacterium glutamicum</i> Florian Meyer, Ina Schmitt, Alina Witt, Thomas Schäffer, Volker F. Wendisch, Nadja A. Henke (Bielefeld/DE)
08:30–10:30	Short Lecture 2
EG I 009	Aquatic habitats – Freshwater to marine; enzymes to ecosystems
Chairs	Rudolf Amann (Bremen/DE), Till L. V. Bornemann (Essen/DE)
08:30 EME01	Electrochemical characterization of recombinant respiratory proteins of the acidophilic iron oxidizer <i>Ferrovum</i> sp. PN-J47-F6 Sophie Ullrich, Helena Fuchs, Charlotte Ashworth-Güth, Michael Schlömann (Freiberg/DE)
08:45 EME02	Between light and shadow – Consequences of exposure to photosynthetically active radiation for <i>Paramecium bursaria</i> and its suitability as model random walker in statistical physics Felicita Elisabeth Flemming, Andreas Härtel, Martina Schrällhammer (Freiburg i. Br./DE)
09:00 EME03	Bacterial and viral response to treated wastewater in an urban stream Tom Lennard Stach, Guido Sieber, Manan Shah, Sophie A. Simon, André Soares, Till L. V. Bornemann Julia Plewka, Julian Künkel (Essen/DE), Christian Becker (Cologne/DE), Folker Meyer, Jens Boenigk Alexander J. Probst (Essen/DE)
09:15 EME04	Resistance of freshwater sediment bacterial communities to salinity disturbance and implication for industrial salt discharge and climate change based salinization Helen Tammert, Veljo Kisand, Carmen Kivistik, Kairi Käiro, Daniel Herlemann (Tartu/EE)

SCIENTIFIC PROGRAMME | MONDAY, 11 SEPTEMBER

09:30 EME05	Function-based screening for novel CODH enzymes from hydrothermal vent environments and marine sediment <u>Rebecca Bährle</u> , Stefanie Böhnke-Brandt (Kiel/DE), Jonas Englhard, Julien Bachmann (Erlangen/DE) <u>Mirjam Perner</u> (Kiel/DE)
09:45 EME06	Proteomic insight into the degradation of arabinogalactan by marine, particle-associated bacteria <i>Maribacter</i> <u>Saskia Kalenborn</u> (Bremen/DE), Daniela Zühlke (Greifswald/DE), Rudolf Amann, Jens Harder (Bremen/DE)
10:00 EME07	Antarctic krill gut communities are a reservoir of biopolymer hydrolysing enzymes <u>Lars Möller</u> (Oldenburg/DE), Yevhen Vainshtein (Stuttgart/DE), Bettina Meyer (Bremerhaven/DE) <u>Kai Sohn</u> (Stuttgart/DE), Ralf Rabus (Oldenburg/DE)
10:15 EME08	Effect of multiple stressors and their release on microbial biomass recycling in sediment of the river boye <u>Una Hadžiomerović</u> , Rainer Meckenstock, Verena Brauer, Iris Madge Pimentel (Essen/DE)
08:30–10:30 1. OG 104 Chairs	Short Lecture 3 Biology of yeast and fungi Gerhard H. Braus (Göttingen/DE), Daniela Nordziede (Göttingen/DE)
08:30 BYF01	Versatile DHN melanin –Spotlight on its function in microcolonial black fungi Antonia Brandhorst (Berlin/DE), Ilaria Catanzaro (Berlin/DE, Viterbo/IT), Sarah Nitsche, Eileen Erdmann Ruben Gerrits, Anna A. Gorbushina, <u>Julia Schumacher</u> (Berlin/DE)
08:45 BYF02	Dark stipe mutants in fruiting body development of <i>Coprinopsis cinerea</i> <u>Shanta Subba</u> , Vandana Pulusu, Le Chen, Mohammed Nahid Hossain, Ursula Kües (Göttingen/DE)
09:00 BYF03	Analysis of the <i>Aspergillus fumigatus</i> proteomic response to amphotericin B (AmB) reveals involvement of the Rta1-like protein RtaA in resistance Annica Pschibul (Jena/DE), Ammar Abou-Kandil (Tel Aviv/IL), Sophie Tröger, Thomas Krüger, Maira Rosin Franziska Schmidt (Jena/DE), Yana Shadkchan (Tel Aviv/IL), Thorsten Heinekamp, Thilo Figge, Markus Gräler Axel A. Brakhage (Jena/DE), Nir Osherov (Tel Aviv/IL), <u>Olaf Kniemeyer</u> (Jena/DE)
09:15 BYF04	Structural and functional analysis of the cerato-platanin-like protein Cpl1 suggests diverging functions in smut fungi Paul Weiland (Marburg/DE), Hui Tian (Cologne/DE), Timo Glatter (Marburg/DE), Bart Thomma (Cologne/DE) <u>Florian Altegoer</u> (Düsseldorf/DE)
09:30 BYF05	Spore germination patterns and host-guided chemotropic growth determine maize root infection by <i>Colletotrichum graminicola</i> Anina Rudolph (Göttingen/DE), Luis Antelo (Mainz/DE), Christoph Sasse, Jennifer Gerke, Carolin Schunke Gerhard H. Braus, Stefanie Pöggeler, <u>Daniela Nordziede</u> (Göttingen/DE)
09:45 BYF06	A conserved polyprotein structure escorts the peptide toxin candidalysin through the secretory pathway in <i>Candida albicans</i> <u>Rita Müller</u> , Annika König (Jena/DE), Tom Handrianz, Sabrina Groth (Borstel/DE) <u>Robert Zarnowski</u> (Madison, WI/US), Corissa Visser (Jena/DE), Corinne Maufrais (Paris/FR), Sejeong Lee Emily L. Priest (London/GB), Deniz Yildirim (Jena/DE), Jonathan P. Richardson (London/GB) Matthew G. Blango (Jena/DE), Marie-Elisabeth Bougnoux, Christophe d'Enfert (Paris/FR) Axel A. Brakhage (Jena/DE), David Andes (Madison, WI/US), Christian Nehls (Borstel/DE), Lydia Kasper Selene Mogavero (Jena/DE), Thomas Gutschmann (Borstel/DE), Julian R. Naglik (London/GB), Stefanie Allert Bernhard Hube (Jena/DE)
10:00 BYF07	Histone binding of ASF1 is required for fruiting body development, but not for genome stability in the filamentous fungus <i>Sordaria macrospora</i> Jan Breuer, <u>Minou Nowrousian</u> (Bochum/DE)
10:15 BYF08	Establishment of a CRISPR/Cas9 system for <i>Neurospora crassa</i> <u>Stefanie Grüttner</u> , Frank Kempken (Kiel/DE)

08:30–10:30 1. OG 103 Chair	Minisymposium 1 Microbial Pathogenicity Samuel Wagner (Tübingen/DE)
08:30 MP-FG01	A novel T10SS contributes to the virulence of <i>Yersinia enterocolitica</i> towards invertebrates Thilo Fuchs (Jena/DE)
08:50 MP-FG02	Identification of translocation inhibitors targeting the type III secretion system of enteropathogenic <i>Escherichia coli</i> Sabrina Mühlen (Bochum, Braunschweig, Münster/DE), Viktor Zapol'skii (Clausthal-Zellerfeld/DE) Ursula Bilitewski (Braunschweig/DE), Petra Dersch (Braunschweig, Münster/DE)
09:10 MP-FG03	The zoonotic pathogen <i>Chlamydia psittaci</i> exits the host cell via formation of Chlamydia-containing spheres, a novel non-lytic egress pathway Jana Scholz, Sebastian Banhart, Dagmar Heuer (Berlin/DE)
09:30 MP-FG04	Protein sociology of the secreted zinc metalloprotease ProA from <i>Legionella pneumophila</i> Lina Scheithauer (Braunschweig/DE), Benjamin E. Mayer (Darmstadt/DE), Mustafa Safa Karagöz Ansgar Dellmann, Michael Steinert (Braunschweig/DE)
09:50 MP-FG05	Structure-function relationships underpin disulfide loop cleavage-dependent activation of <i>Legionella pneumophila</i> lysophospholipase A PlaA Miriam Hiller (Wernigerode/DE), Maurice Diwo (Braunschweig/DE), Sabrina Wamp (Wernigerode/DE) Thomas Gutsman (Borstel/DE), Christina Lang (Wernigerode/DE), Wulf Blankenfeldt (Braunschweig/DE) Antje Flieger (Wernigerode/DE)
10:10 MP-FG06	The expanding toolbox to investigate intracellular <i>Staphylococcus aureus</i> Adriana Moldovan, Marcel Rühling, Kathrin Stelzner, Aziza Boyny, Kerstin Paprotka Martin Fraunholz (Würzburg/DE)
08:30–10:30 EG 007 Chair	iGEMs and NoGEM – Junge Forschung hautnah Anja Störko (Hofheim/DE)
08:30	Development of a Lithium Detection Method Using a Lithium-sensing Riboswitch – Li+onSwitch Josefine Huth (Braunschweig/DE)
08:43	Mixed plastic degradation using smart co-culture Nina Gutzeit (Heidelberg/DE)
08:56	DRIP – Diatom-based Remediation using Immobilized Proteins Aleksandra Kievets (Dresden/DE)
09:09	transFERRITIN – A Ferritin based drug delivery system to target antibiotic resistant bacteria Maren Hinz, Lennert Weber, Melina Baar (Hamburg/DE)
09:22	Fungilyzer, der Dünger aus Pilzen Ben Lenkewitz, Niklas Küppers (Düsseldorf/DE)
09:35	RhizoGene: Engineering the Engineer Simon Klute (Marburg/DE)
09:48	Potential of cytochrome P450 enzymes to fight water pollution employing <i>Chlamydomonas</i> Luca Langenberg, Maximilian Meßmer (Kaiserslautern/DE)
10:01	Breaking Beta-Lactams – Biosensoren detektieren Antibiotika im Abwasser Danko Vulas (Bochum/DE)
10:14	Under control – combat Listeria infections Fabia Koch, Ostap Krynytskyy (Göttingen/DE)

SCIENTIFIC PROGRAMME | MONDAY, 11 SEPTEMBER

08:30–10:30 Minisymposium 2

EG I 006 Microbiomes – Are you ready to explore the cultivable microbiota?
Chairs Richard L. Hahnke (Braunschweig/DE), Matthias Labrenz (Rostock-Warnemünde/DE)

08:30 What is in a name? Not much without a description!
IUS-FG01 Thomas Hitch (Aachen/DE)

09:00 Selectively targeting microbes associated with childhood stunting
IUS-FG02 Nermin Akduman (Tübingen/DE)

09:30 Host and microbiome jointly contribute to adaptation to a complex environment
IUS-FG03 Carola Petersen, Inga Hamerich (Kiel/DE), Karen Adair (Eugene, OR/US), Hanne Griem-Krey (Kiel/DE)
Brendan J. M. Bohannan (Eugene, OR/US), Hinrich Schulenburg (Kiel/DE)

09:45 Using natural experiments to reconstruct symbiotic adaptation in lucinid clams and their bacterial partners
IUS-FG04 Laetitia Wilkins, Isidora Morel Letelier, Anna Carlotta Kück (Bremen/DE)

08:30–10:30 Short Lecture 4

EG I 001 Anaerobic metabolism
Chairs Bernhard Schink (Konstanz/DE), Matthias Boll (Freiburg i. Br./DE)

08:30 Degradation of sulfoquinovose in *Faecalicatena* spp. via parallel 6-deoxy-sulfofructose transaldolase and
AM01 6-deoxy-sulfofructose transketolase pathways?
Sabrina Borusak, Karin Denger, Till Dorendorf, Corentin Fournier, Harry Lerner, Dieter Spiteller
David Schleheck (Konstanz/DE)

08:45 Enzymatic benzene ring reduction at a 4Fe-4S-O cluster, a key reaction of aromatic degradation in anaerobes
AM02 Jonathan Fuchs (Freiburg i. Br./DE), Unai Fernandez Arevalo (Madrid/ES), Oliver Tiedt (Freiburg i. Br./DE)
Ulrike Demmer (Frankfurt a. M./DE), Eduardo Díaz (Madrid/ES), Ulrich Ermler (Frankfurt a. M./DE)
Matthias Boll (Freiburg i. Br./DE)

09:00 Novel substrate level phosphorylation catalyzed by an AMP-dependent phosphite dehydrogenase
AM03 Nicolai Müller, Zhuqing Mao, David Schleheck, Bernhard Schink, Jennifer Fleming, Olga Mayans
Jasmin Frey (Konstanz/DE)

09:15 Novel citramalate lyase involved in glutamate fermentation of enterobacteria
AM04 Lukas Schäfer, Eric A. Cassens, Lara Schmidt, Jessica Eggers (Münster/DE), Sophie A. Simon
Alexander J. Probst (Essen/DE), Ulrike Demmer, Ulrich Ermler (Frankfurt a. M./DE), Ivan A. Berg (Münster/DE)

09:30 Overflow metabolism at the thermodynamic limit of life – How carboxydutrophic acetogens mitigate carbon
AM05 monoxide toxicity
Maximilienne Allaart (Delft/NL), Martijn Diender, Diana Sousa (Wageningen/NL)
Robbert Kleerebezem (Delft/NL)

09:45 Characterising electron transport to the Fe-nitrogenase in *Rhodobacter capsulatus*
AM06 Holly Addison, Johannes Rebelein, Timo Glatter (Marburg/DE)

10:00 Allocation of cellular resources in *Thermoanaerobacter kivui* under catabolic and anabolic limitation
AM07 Franziska Maria Mueller, Albert Leopold Mueller, Wenyu Gu (Stanford, CA/US)
Alfred Spormann (Stanford, CA/US, Aarhus/DK)

10:15 High-ordered protein complex formation of the ferredoxin – NAD⁺ oxidoreductase (Rnf) in *Clostridium*
AM08 *ljungdahlii*
Kim Eileen Rennhack, Mirita Franz-Wachtel, Katharina Hipp, Iris Koch, Christian-Marco Klask, Bastian Molitor
Largus Theodora Angenent (Tübingen/DE)

08:30–10:30	Short Lecture 5
EG 005	Computational microbiology
Chairs	Johannes Söding (Munich/DE), Heiko Liesegang (Göttingen/DE)
08:30	Cross-link aided modeling of protein-RNA complexes
CM01	Dennis Wicke, Aleksandar Chernev, Henning Urlaub, Jörg Stülke, Ralf Ficner, <u>Piotr Neumann</u> (Göttingen/DE)
08:45	Bacterial nanomotions, combined with supervised machine learning, accurately classify antibiotic susceptibility
CM02	<u>Alexander Sturm</u> , Grzegorz Jozwiak, Marta Pla Verge, Laura Munch, Gino Cathomen <u>Danuta Cichocka</u> (Muttentz/CH)
09:00	Methylome evolution through lineage-dependent selection in the gastric pathogen <i>Helicobacter pylori</i>
CM03	<u>Florent Ailloud</u> , Wilhelm Gottschall, Sebastian Suerbaum (Munich/DE)
09:15	An artificial intelligence tool for lactic acid bacterial species identification
CM04	<u>Sebastian Fischer</u> , Emile Dehn, Nadine Mariani Corea, Xiaoyi Jiang, Fritz Titgemeyer (Münster/DE)
09:30	Application of SERS technique and deep learning algorithms in the rapid differentiation of four <i>Shigella</i> species
CM05	Jia-Wei Tang, Jing-Wen Lyu, Jin-Xin Lai (Guangzhou/CN), Xue-Di Zhang, Yang-Guang Du (Xuzhou/CN) Xin-Qiang Zhang (Guangzhou/CN), Yu-Dong Zhang (Xuzhou/CN), Bin Gu (Guangzhou/CN) Xiao Zhang (Xuzhou/CN), Bing Gu, <u>Liang Wang</u> (Guangzhou/CN)
09:45	National research data infrastructure for the research of microbiota (NFDI4Microbiota) – Democratize access to microbiota data and high-end computational analyzes
CM06	<u>Barbara Götz</u> (Cologne/DE), Carmen Paulmann, Cordula Hege, Alice McHardy (Braunschweig/DE) <u>Anke Becker</u> (Marburg/DE), Peer Bork (Heidelberg/DE), Thomas Clavel (Aachen/DE) Ulisses Nunes da Rocha (Leipzig/DE), Konrad Förster (Cologne/DE), Alexander Goesmann (Gießen/DE) Manja Marz (Jena/DE), Jörg Overmann (Braunschweig/DE), Alexander Sczyrba, Jens Stoye (Bielefeld/DE)
10:00	Effect of seasonality on microbial community dynamics in a full-scale wastewater treatment plant in Göttingen, Germany
CM07	<u>Bharat Manna</u> , Naresh Singhal (Auckland/NZ)
10:15	Recent updates on Bakta – a rapid & standardized software tool for the annotation of bacterial genomes
CM08	<u>Oliver Schwengers</u> , Julian Hahnfeld, Jochen Blom, Alexander Goesmann (Gießen/DE)
11:00–12:00	VAAM PhD Awards
Plenum	
Laudation	Jörg Stülke (Göttingen/DE)
12:00–12:45	Hans-Günter-Schlegel-Lecture 2022
Plenum	
Laudation	Lutz Schmitt (Düsseldorf/DE)
	Life under stress – osmotic forces at work
	Erhard Bremer (Marburg/DE)

SCIENTIFIC PROGRAMME | MONDAY, 11 SEPTEMBER

13:00–14:30 1. OG 104	Karrieresymposium organisiert durch die FG Qualitätsmanagement
13:00	Wie kann ich Laborleiter*in oder Projektmanager*in in der Industrie werden? Einstieg in die Life-Science Industrie Michael Merli (Frankfurt a. M./DE)
13:30	Beruf oder Berufung? Mikrobiologie mit Leidenschaft in Industrie, Academia und Start-up – ein Erfahrungsbericht Katrin Steinhauer (Itzehoe/DE)
14:00	Traineeprogramm Provadis und Tätigkeit als Qualitätsleiter*in Andreas Seiffert-Störko (Frankfurt a. M./DE)
14:00–15:00 Plenum Chair	Plenary Session 2 Fungal Interactions Stefanie Pöggeler (Göttingen/DE)
14:00 IL03	Insights into the defense (immune) system of a mushroom Markus Künzler (Zürich/CH)
14:30 IL04	Bacterial-Fungal interactions underpinning virulence Elizabeth Ballou (Exeter/GB)
15:00–16:30 1. OG 1.104	Workshop zur Händedesinfektion: Sauber und keimfrei? Die richtige Händehygiene für die Sterilproduktion
15:00–17:00 1. OG 103 Chairs	Information on the nomenclature of prokaryotes Richard Hahnke (Braunschweig/DE), Matthias Labrenz (Rostock-Warnemünde/DE) The SeqCode – a nomenclatural code for prokaryotes described from sequence data Kostas Konstantinidis (Atlanta, GA/US) The International Code of Nomenclature of Prokaryotes Markus Göker (Braunschweig/DE)
15:00–17:15 Foyer	Poster Session 1 (see also page 38) Note: On Monday all authors with an even poster number will present, on Tuesday all with an odd number.
17:30–19:30 Plenum Chairs	Short Lecture 6 Bioconversion Katja Bühler (Leipzig/DE), Jan Marienhagen (Jülich/DE)
17:30 BT09	Enzyme engineering to accelerate the Calvin-Benson-Bassham cycle in cyanobacteria <u>Ute A. Hoffmann</u> , Anna Schuppe, Axel Knave, Emil Sporre, Rui Miao, Elton P. Hudson (Solna/SE)
17:45 BT10	Carbon-efficient production of α -ketoglutarate from C5 and C6 sugars with <i>Corynebacterium glutamicum</i> <u>Daniela Brücker</u> , Jan Marienhagen, Stephan Noack (Jülich/DE)
18:00 BT11	N ₂ -limitation boosts bioH ₂ production in <i>Rhodospseudomonas palustris</i> dominated mixed species biofilms <u>Hannah Berreth</u> , Johannes Lambrecht, Katja Bühler (Leipzig/DE)
18:15 BT12	Hydrogen production with <i>Parageobacillus thermoglucosidasius</i> DSM 6285 – Impact of hydraulic retention time in a continuous fermentation <u>Magda Ardila</u> , Habibu Aliyu, Anke Neumann (Karlsruhe/DE)
18:30 BT13	Application of the glutathione S-transferase Styl for kinetic racemic resolution towards chiral epoxides Melody Haarmann, Daniel Eggerichs, Artur Maier, <u>Dirk Tischler</u> (Bochum/DE)

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18:45 BT14	Screening oxygen-dependent promoters for applications of dynamic metabolic engineering Julian Wichmann, <u>Gerrich Behrendt</u> , Simon Boecker, Steffen Klamt (Magdeburg/DE)
19:00 BT15	Influence of electrode material on the performance, assembly, and composition of the microbial community in microbial electrolysis cells <u>Marie Abadikhah</u> (Gothenburg/SE), Ming Liu (Beijing/CN), Frank Persson, Britt-Marie Wilén <u>Anne Farewell</u> (Gothenburg/SE), Jie Sun (Fuzhou/CN, Gothenburg/SE), Oskar Modin (Gothenburg/SE)
19:15 BT16	Biodegradation of phthalic acid esters using immobilized bacteria on a natural carbonaceous porous material <u>Emanuel G. Armanu</u> , Simone Bertoldi, Zeel Chauhan, Christian Eberlein, Marcell Nikolausz, Matthias Schmidt <u>Hermann J. Heipieper</u> (Leipzig/DE), Irina Volf (Iasi/RO)
17:30–19:30 EG I 009 Chair	Minisymposium 3 Microbial ecosystem functions in a changing world Julia Nuy (Düsseldorf/DE)
17:30	Comparative omics reveals an ANI-gap within species to define strains and the mechanism that underlies the species and subspecies gaps Kostas Konstantinidis (Atlanta, GA/US)
18:00 UM-FG01	Effect of elevated atmospheric CO ₂ and warming on the soil microbiome of a grassland ecosystem <u>David Rosado Porto</u> (Gießen/DE, Barranquilla/CO), David Premalal Senarath (Gießen/DE) <u>Christian Orozco Sánchez</u> (Gießen/DE, Barranquilla/CO), Verena Pfaff, Stefan Ratering, Gerald Moser <u>Marianna Deppe</u> (Gießen/DE), Christoph Müller (Gießen/DE, Dublin/IE), Sylvia Schnell (Gießen/DE)
18:15 UM-FG02	Unraveling the impact of pioneer bacterial communities on the transformation of arid and semiarid soils under simulated humid climate conditions <u>Rómulo Oses</u> (Copiapó/CL), Thomas Scholten (Tübingen/DE), <u>Victoria Rodriguez</u> , Dirk Wagner (Potsdam/DE) <u>Nicolás Riveras-Muñoz</u> (Tübingen/DE), Kristina Witzgall (Freising/DE), Alexander Bartholomäus (Potsdam/DE) Carsten Mueller (Copenhagen/DK), Oscar Seguel (Santiago/CL), Susanne Liebner Jens Kallmeyer (Potsdam/DE)
18:30 UM-FG03	Hunting for pigments in plastic biofilms from the Great Pacific Garbage Patch Brittan Scales, Christiane Hassenrück, Lynn Moldaenke (Rostock/DE), Corinna Völkner (Magdeburg/DE) Christoph Rummel (Leipzig/DE), Julia Hassa, Christian Rückert, Tobias Busche, Jörn Kalinowski (Bielefeld/DE) Annika Jahnke, Mechthild Schmitt-Jansen (Leipzig/DE), Katrin Wendt-Potthoff (Magdeburg/DE) <u>Sonja Oberbeckmann</u> (Rostock/DE)
18:45 UM-FG04	Heterotrophic marine bacteria employ a laminarin-fueled intra-population α -glycan recycling loop <u>Irena Beidler</u> (Greifswald/DE), Nicola Steinke (Bremen/DE), Tim Schulze (Greifswald/DE) <u>Chandni Sidhu</u> (Bremen/DE), Daniel Bartosik (Greifswald/DE), Joris Krull (Bremen, Greifswald/DE) Theresa Dutschei, Borja Ferrero, Julia Rielicke (Greifswald/DE), Hanno Teeling (Bremen/DE), Dörte Becher Mia Maria Bengtsson (Greifswald/DE), Jan-Hendrik Hehemann (Bremen/DE) Uwe T. Bornscheuer (Greifswald/DE), Rudolf Amann (Bremen/DE), Thomas Schweder (Greifswald/DE)
19:00 UM-FG05	<i>Candidatus thiovulum stygium</i> , a new veil-forming giant bacterium from caves and subterrenean aquifers <u>Mina Bizic</u> (Stechlin/DE), Traian Brad (Cluj-Napoca/RO), Danny Ionescu (Stechlin/DE) <u>Lucian Barbu-Tudoran</u> (Cluj-Napoca/RO), Luca Zoccarato (Vienna/AT), Daniel Vellone (Burlington, VT/US) Jean-François Flot (Brussels/BE), Scott Tighe (Burlington, VT/US), Serban M. Sarbu (Chico, CA/US)
19:15 UM-FG06	Bromoxynil changes virus-prokaryote host interactions in soils, a genome-centric analyses of metagenomes recovered from a microcosm succession study <u>Gennuo Wang</u> , Mahsa Namini-Moritz, Joao Pedro Saraiva, René Kallies, Anja Miltner, Matthias Kästner <u>Peter F. Stadler</u> , Ulisses Nunes da Rocha (Leipzig/DE)

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17:30–19:30 Minisymposium 4

1. OG | 104
Chair Posttranslational Regulation in Microorganisms
Jürgen Lassak (Planegg-Martinsried/DE)

17:30
REG-FG01 Discovery of a molecular glue to link RNAs with proteins
Katharina Höfer (Marburg/DE)

18:00
REG-FG02 Interplay between GTP, (p)ppGpp and c-di-GMP in controlling biofilm formation by *Escherichia coli* via the diguanylate cyclase DgcE and its GTPase partner system
Ronja Offer, Vanessa Pfiffer, Regine Hengge (Berlin/DE)

18:15
REG-FG03 PASTA kinase-dependent phosphorylation of ReoM controls bacterial peptidoglycan homeostasis
Sven Halbedel (Wernigerode/DE)

18:45
REG-FG04 A bacterial-type phosphorelay in the methanogenic archaeon *Methanosarcina acetivorans*
Nora Georgiev, Anne Sexauer, Nicole Frankenberg-Dinkel (Kaiserslautern/DE)

19:00
REG-FG05 Genetic code expansion with backbone modified amino acids
Jürgen Lassak, Giovanni Gallo, Alina Sieber (Planegg-Martinsried/DE)

17:30–19:30 Short Lecture 7

1. OG | 103
Chairs Infection biology | Phage biology | Systems & synthetic Microbiology
Jens Georg (Freiburg i. Br./DE), Steffen Lindner-Mehlich (Berlin/DE)

17:30
IM-PB01 The abortive infection system CBASS controls mode of action and resistance to antifolate antibiotics in *Vibrio cholerae*
Susanne Brenzinger, Martina Airoidi, Adewale Joseph Ogunleye, Karl Jugovic
Ana Rita Brochado (Würzburg/DE)

17:45
IM-PB02 Isolation, characterization, and comparative genomic analysis of bacteriophage Ec_MI-02 from pigeon feces infecting *Escherichia coli* O157:H7
Khaled El-Tarabily, Mohamed Sultan-Alolama, Amr Amin, Ranjit Vijayan (Al-Ain/AE)

18:00
IM-PB03 Structural characterization flavin specific phosphatases
Tanya Joshi (Heidelberg/DE), Matthias Mack (Mannheim/DE), Matthias Mayer (Heidelberg/DE)

18:15
IM-PB04 Predicting phage infection in *Staphylococcus aureus* with receptor-binding proteins
Janes Krusche, Christian Beck, Andreas Peschel (Tübingen/DE)

18:30
IM-PB05 Metabolic burden and resource allocation in *Pseudomonas putida* during the expression of a synthetic pathway for geranic acid production
Carina Meiners, Katharina Pflüger-Grau, Andreas Kremling (Garching b. München/DE)

18:45
IM-PB06 Fermentation with a twist – Combining fermentative metabolism with respiratory modules
Jan Lukas Krüsemann (Berlin, Potsdam/DE), Helena Schulz-Mirbach (Marburg/DE)
Theofania Andreadaki (Potsdam/DE), Jana Natalie Nerlich (Berlin/DE), Simon Boecker (Magdeburg/DE)
Eleni Mavrothalassiti (Potsdam/DE), Philipp Schneider (Magdeburg/DE), Moritz Weresow (Potsdam/DE)
Omar Abdelwahab (Berlin/DE), Nicole Paczia, Beau Dronsella, Tobias Erb (Marburg/DE)
Arren Bar-Even (Potsdam/DE), Steffen Klamt (Magdeburg/DE), Steffen N Lindner (Berlin, Potsdam/DE)

19:00
IM-PB07 Developing a standardized cloning toolbox to metabolically engineer *Lactiplantibacillus plantarum* as an aroma-adding microorganism in beverage fermentation
Xiangang Li, Pascal Schönberg, Tabea Wucherpfennig, Christoph Hinze, Thomas Henle
Thorsten Mascher (Dresden/DE)

19:15
IM-PB08 A toolbox for the design and construction of synthetic small regulatory RNAs in bacteria
Michel Brück (Gießen, Marburg/DE), Niklas Philipp (Gießen/DE), Cedric K. Brinkmann
Tania S. Köbel (Marburg/DE), Jens Georg (Freiburg i. Br./DE), Daniel Schindler (Marburg/DE)
Bork Berghoff (Gießen/DE)

17:30–19:30 EG I 007 Chairs	Minisymposium 5 The next generation in microbial omics Anne Busch (Jena/DE), Minou Nowrousian (Bochum/DE)
17:30 FGB-FG01	A comprehensive comparison of feature selection methods for machine learning on microbial datasets <u>Erik Zschaubitz</u> , Henning Schröder, Christiane Hassenrück, Matthias Labrenz, Theodor Sperlea (Rostock/DE)
17:45 FGB-FG02	Using artificial intelligence and a novel media database to predict cultivation conditions for bacteria <u>Julia Koblit</u> , Philipp Halama, Stefan Spring, Vera Thiel, Christiane Baschien, Richard L. Hahnke Michael Pester, Lorenz C. Reimer, Jörg Overmann (Braunschweig/DE)
18:00 FGB-FG03	Functional characterization of hypothetical proteins in <i>Escherichia coli</i> using artificial intelligence and big data <u>Sagarika Chakraborty</u> (Eggenstein-Leopoldshafen/DE), Zachary Ardern (Hinxton/GB) Anne-Kristin Kaster (Eggenstein-Leopoldshafen/DE)
18:15 FGB-FG04	Exploring the theoretical limits – Kinetic modelling of cyanobacterial metabolism for optimization of terpenoid production in <i>Synechocystis</i> <u>Andreas Nakielski</u> (Aachen, Düsseldorf/DE), Ilka Maria Axmann (Düsseldorf/DE) Anna Matuszyńska (Aachen/DE)
18:30 FGB-FG05	Synthetic intra- and inter-species symbiosis between <i>E. coli</i> and <i>V. natriegens</i> helps understanding the fundamental regulations of abundance ratios in microbial communities <u>Maurice Mager</u> , Saint Elmo Wilkens (Düsseldorf/DE)
18:45 FGB-FG06	Identification of modulators of microbial abundances based on genome-scale metabolic modelling <u>Georgios Marinos</u> , Inga Hamerich (Kiel/DE), Reena Debray (Berkeley, CA/US), Nancy Obeng, Carola Petersen Jan Taubenheim (Kiel/DE), Johannes Zimmermann (Plön, Kiel/DE), Dana Blackburn Buck Samuel (Houston, TX/US), Katja Dierking, Andre Franke, Matthias Laudes, Silvio Waschina (Kiel/DE) Hinrich Schulenburg (Plön, Kiel/DE), Christoph Kaleta (Kiel/DE)
19:00 FGB-FG07	Technological advances and synthetic yeast for the next level of genome investigation Timon Alexander Lindeboom, Stijn Tobias de Vries, María del Carmen Sánchez Olmos Adán Andrés Ramírez Rojas, <u>Daniel Schindler</u> (Marburg/DE)
19:15 FGB-FG08	Application of high-throughput sequencing technologies for comprehensive analysis of bacterial genome methylation and epigenetics in the model bacterium <i>Helicobacter pylori</i> Lubna Patel, Florent Ailloud, Sebastian Suerbaum, <u>Christine Josenhans</u> (Munich/DE)
17:30–19:30 EG I 006 Chairs	Short Lecture 8 Prokaryotic cell biology Nicolai Kallscheuer (Jena/DE), Dirk Schüler (Bayreuth/DE)
17:30 PCB01	Principles of circadian organisation exemplified in <i>B. subtilis</i> <u>Martha Merrow</u> , <u>Francesca Sartor</u> (Munich/DE), Zheng Eelderink-Chen (Leipzig/DE), Xinming Xu (Leiden/NL) Antony Dodd (Norwich/GB), Akos Kovacs (Leiden/NL)
17:45 PCB02	ATPase activity of <i>B. subtilis</i> RecA affects the dynamic formation of RecA filaments at DNA double strand breaks <u>Rogelio Hernandez Tamayo</u> , Peter Ludwig Graumann, Martin Thanbichler (Marburg/DE)
18:00 PCB03	Different mobilities of cell wall hydrolases within the cell wall of <i>Bacillus subtilis</i> <u>Svenja Fiedler</u> , Peter Ludwig Graumann (Marburg/DE)
18:15 PCB04	Mechanisms of contact-dependent prey cell killing by the predatory soil bacterium <i>Myxococcus xanthus</i> Susanne Thiery, Pia Turowski, <u>Christine Kaimer</u> (Bochum/DE)
18:30 PCB05	Bacterial type 4 pili dynamics shape <i>Neisseria gonorrhoeae</i> interactions from single cells to biofilms Sebastian Kraus-Römer, Isabelle Wielert, <u>Stephan Wimm</u> , Berenike Maier (Cologne/DE)

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- 18:45
PCB06 The role of glutathione in periplasmic redox homeostasis and oxidative protein folding in *Escherichia coli*
Lisa Roxanne Knoke (Bochum/DE), Jannik Zimmermann (Saarland/DE), Natalie Lupilov, Jannis F. Schneider
Beyzanur Celebi (Bochum/DE), Bruce Morgan (Saarland/DE), Lars I. Leichert (Bochum/DE)
- 19:00
PCB07 Assembly of non-photosynthetic organelles by Tic20-like proteins in bacteria
Anja Paulus, Frederik Ahrens, Annika Schraut, Hannah Hofmann, Tim Schiller (Bayreuth/DE), Thomas Sura
Dörte Becher (Greifswald/DE), René Uebe (Bayreuth/DE)
- 19:15
PCB08 Some noteworthy updates on the planctomycetal cell biology
Carmen Elisabeth Wurzbacher (Jena/DE), Sandra Wiegand (Karlsruhe/DE), Tom Haufschild
Mareike Jogler (Jena/DE), Timo Kohn (Braunschweig/DE), Ram Prasad Awal (Bayreuth/DE)
Sonja Oberbeckmann, Katharina Keszy (Warnemünde/DE), Olga Jeske, Peter Schumann (Braunschweig/DE)
Mike Strauss (Montréal/CA), Anja Heuer (Braunschweig/DE), Matthias Labrenz (Warnemünde/DE)
Manfred Rohde, Christian Boedeker (Braunschweig/DE), Harald Engelhardt (Martinsried/DE)
Dirk Schüler (Bayreuth/DE), Nicolai Kallscheuer, Christian Jogler (Jena/DE)
- 17:30–19:30
EG I 001 **Minisymposium 6**
Chair Symbiotic interactions – the ecological and evolutionary consequences of living together
Jillian Petersen (Wien/AT)
- 17:30
SI-FG01 The rare coenzyme F420 as an essential symbiosis factor
Ingrid Richter (Jena/DE)
- 17:54
SI-FG02 Origin of a streamlined digestive symbiosis in leaf beetles
Hassan Salem (Tübingen/DE)
- 18:18
SI-FG03 Bacterial c-di-GMP mediates the evolution of host-association
Nancy Obeng (Kiel/DE)
- 18:42
SI-FG04 Diversity of horizontally transferred bacterial symbionts within their lucinid host and the environmental
reservoir
Margaret Vogel (Lausanne/CH)
- 19:06
SI-FG05 Hidden eaters – How chemosynthetic symbionts thrive in organosulfur-rich environments
Eileen Kröber (Bremen/DE)
- 17:30–19:30
EG I 005 **Short Lecture 9**
Chairs Membranes and transport
Volker Müller (Frankfurt a. M./DE), Heinrich Jung (Martinsried/DE)
- 17:45
MT02 Puzzle pieces to a bigger picture – Identification and characterization of novel amino acid transporters in
Bacillus subtilis
Janek Meißner, Jörg Stülke (Göttingen/DE)
- 18:00
MT03 Structure, cofactor composition and electron transfer pathway of the Rnf complex from *Acetobacterium*
woodii
Jennifer Roth (Frankfurt a. M./DE), Anuj Kumar (Frankfurt a. M., Marburg/DE)
Anja Schubert (Frankfurt a. M./DE), Jan Michael Schuller (Marburg/DE), Volker Müller (Frankfurt a. M./DE)
- 18:15
MT04 Protein dynamics control toxin injection through the bacterial type III secretion system
Andreas Diepold (Marburg/DE)
- 18:30
MT05 Investigating transfer protein functions and key amino acid residues in pIP501 conjugative resistance transfer
Claudia Michaelis, Rangina Ghulam, Vanessa Schröder (Berlin/DE), Tamara Berger, Kirill Kuhlmann
Walter Keller (Graz/AT), Elisabeth Grohmann (Berlin/DE)

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- 18:45
MT06 *Pseudomonas aeruginosa* responds to altered membrane phospholipid composition by adjusting the production of two-component systems, proteases and iron uptake proteins
Muttalip Caliskan (Jülich/DE), Gereon Poschmann, Daniel Waldera-Lupa, Rebeca Molitor (Düsseldorf/DE)
Karl-Erich Jaeger (Jülich/DE), Kai Stühler (Düsseldorf/DE), Filip Kovacic (Jülich/DE)
- 19:00
MT07 Understanding the transport of homodimeric Tat substrates
Ali Nazmi Burdur, Thomas Brüser (Hannover/DE)
- 19:15
MT08 Resurrecting ancestral membranes with minimal bacterial cells
James Saenz, Nataliya Safronova, Isaac Justice, Ha Ngoc Anh Nguyen (Dresden/DE)

SCIENTIFIC PROGRAMME | TUESDAY, 12 SEPTEMBER

08:30–10:30 Minisymposium 7

Plenum FG Biotransformation
Chairs Dirk Tischler (Bochum/DE), Martin Schürmann (Frankfurt a. M./DE)

08:30 Recent Advances in Enzymatic Plastic Recycling and Upcycling
BT-FG01 Ren Wei (Greifswald/DE)

09:00 Directed evolution of a nonribosomal peptide synthetase
BT-FG02 Hajo Kries (Jena/DE)

09:15 Discovery and engineering of coenzyme F420-dependent glucose-6-phosphate dehydrogenase from
BT-FG03 *Thermomicrobium roseum*
Mahmudul Hasan, Daniel Last (Jena/DE), Gottfried J. Palm, Michael Lammers (Greifswald/DE)
Gerald Lackner (Jena/DE)

09:30 Driving bacterial cytochrome P450s – Investigation of a novel specialized, yet broadly applicable electron
BT-FG04 transport system from *Acinetobacter* Sp. EB104
Fabian Peter Josef Schultes, Leon Welter, Doreen Hufnagel, Carolin Mügge (Bochum/DE)

09:45 Metabolic engineering of *Corynebacterium glutamicum* for the production of the low-caloric natural
BT-FG05 sweetener D-allulose
Alexander Lehnert, Maja Deditius, Claudia Tahiraj, Meike Baumgart, Michael Bott (Jülich/DE)

10:00 Engineering methane-converting platform organisms for a future bioeconomy
Domenic Zill, Elisabeth Lettau (Aachen/DE), Christian Lorent (Berlin/DE), Franziska Seifert (Halle (Saale)/DE)
Lars Lauterbach (Aachen/DE)

10:15 Antibiotic-free plasmid maintenance – A long-awaited tool for biotechnology
BT-FG07 Marlen Schmidt, Katherine E. Brechun, Sven Reislöhner, Marion Förschle, Harald Kranz (Heidelberg/DE)

08:30–10:30 Short Lecture 10

EG I 009 Terrestrial microbiology – From deep subsurface to land use
Chairs Jeanine Rismondo (Göttingen/DE), Erika Kothe (Jena/DE)

08:30 CO₂ degassing drives metabolic processes in unique Eger rift subsurface microbiome
EME09 Daniel Lipus, Zeyu Jia, Jens Kallmeyer, Dirk Wagner, Alexander Bartholomäus (Potsdam/DE)

08:45 Mycorrhizosphere community structures – Plant versus soil impact at a former uranium mining site
EME10 Olga Bogdanova, Erika Kothe, Katrin Krause (Jena/DE)

09:00 Sodium chloride affects biosynthesis and emission of the sesquiterpene sodorifen in *Serratia plymuthica*
EME11 4Rx13
Philip Kirianki Ruciaka, Marie Chantal Lemfack, Birgit Piechulla (Rostock/DE)

09:15 More than defense metabolites? – Revisiting the effect of diverse glucosinolates on microbial leaf
EME12 colonization in *Arabidopsis thaliana*
Kerstin Unger, Teresa Mayer (Jena/DE), Johannes Stuttmann (Halle (Saale)/DE), Michael Reichelt
Jonathan Gershenzon, Matthew Agler (Jena/DE)

09:30 Acidobacteriota under the spotlight – A metabolomic and genomic endeavour
EME13 Celine Mara Zumkeller, Maria Alexandra Patras, Sanja Mihajlovic, Michael Marner, Marius Spohn
Till Schäberle (Gießen/DE)

09:45 Traversing the canopy – Throughfall-mediated transport of microorganisms interconnects microbial habitats
EME14 within forest tree crowns
Martina Herrmann (Leipzig, Jena/DE), Marina Martin Sandoval (Jena, Leipzig/DE)
Beate Michalzik (Leipzig, Jena/DE), Patrick Zerhusen (Jena/DE), Alexander Tischer (Jena, Leipzig/DE)
Johanna Bruschi (Jena/DE), Ronny Richter, Rolf Engelmann, Tom Künne, Christian Wirth (Leipzig/DE)
Kirsten Küsel (Jena, Leipzig/DE)

10:00 EME15	Denitrifiers vs. nitrate ammonifiers – How land use intensity and environmental parameters influence the competition in grasslands <u>Tobias Spanner</u> (Hannover/DE), <u>Timsy Timsy</u> (Müncheberg/DE), <u>Sören Budig</u> <u>Frank Schaarschmidt</u> (Hannover/DE), <u>Andreas Ulrich</u> , <u>Undine Behrendt</u> (Müncheberg/DE) <u>Runa S. Boeddinghaus</u> , <u>Doreen Berner</u> (Stuttgart/DE), <u>Johannes Sikorski</u> (Braunschweig/DE), <u>Ingo Schoening</u> <u>Marion Schrumpf</u> (Jena/DE), <u>Sven Marhan</u> , <u>Ellen Kandeler</u> (Stuttgart/DE), <u>Jörg Overmann</u> (Braunschweig/DE) <u>Steffen Kolb</u> (Müncheberg/DE), <u>Marcus A. Horn</u> (Hannover/DE)
10:15 EME16	Bacterial drivers of nitrogen cycling in grasslands under different land use intensities <u>Julia Katharina Kurth</u> (Freising, Munich/DE), <u>Susanne Kublik</u> (Munich/DE), <u>Selma Vieira</u> , <u>Johannes Sikorski</u> <u>Jörg Overmann</u> (Braunschweig/DE), <u>Ingo Schöning</u> , <u>Marion Schrumpf</u> (Jena/DE), <u>Ellen Kandeler</u> <u>Sven Marhan</u> (Hohenheim/DE), <u>Stefanie Schulz</u> (Munich/DE), <u>Michael Schloter</u> (Munich, Freising/DE)
08:30–10:30 1. OG 104 Chairs	Short Lecture 11 Regulation in Pathogenicity and Stress Response <u>Kirsten Jung</u> (Martinsried/DE), <u>Jürgen Lassak</u> (Planegg-Martinsried/DE)
08:30 STGR01	Interkingdom communication between insect pathogenic <i>Photorhabdus luminescens</i> and plants via the LuxR solo SdiA <u>Nazzareno Dominelli</u> , <u>Alice Regaiolo</u> , <u>Leon Wily</u> , <u>Ralf Heermann</u> (Mainz/DE)
08:45 STGR02	How the LysR-type transcription factor LsrB navigates the plant-pathogen <i>Agrobacterium tumefaciens</i> through stress <u>Janka Schmidt</u> , <u>Ronja Fiedler</u> , <u>Donata Remme</u> , <u>Franz Narberhaus</u> (Bochum/DE)
09:00 STGR03	The putative membrane protein RcrB provides exquisite protection to uropathogenic <i>Escherichia coli</i> during phagocytosis and exposure to neutrophilic oxidants <u>Sadia Sultana</u> , <u>Mary E. Crompton</u> , <u>Luca Finn Gaessler</u> , <u>Sydney Camfield</u> , <u>Meurer Ledoux</u> , <u>Greg Anderson</u> <u>Patrick Tawiah</u> , <u>Lisa Pfirsching</u> , <u>Jan-Ulrik Dahl</u> (Normal, IL/US)
09:15 STGR04	Role of zur-regulated transporters in <i>Mycobacterium avium</i> spp. paratuberculosis during zinc starvation <u>Janita Lührs</u> , <u>Kristin Laarmann</u> , <u>Ralph Goethe</u> , <u>Elke Goethe</u> (Hannover/DE)
09:30 STGR05	Ribosome profiling reveals novel small proteins and adaptations to mild and severe acid stress in <i>Escherichia coli</i> <u>Kilian Schumacher</u> (Martinsried/DE), <u>Rick Gelhausen</u> (Freiburg i. Br./DE), <u>Willow Kion-Crosby</u> <u>Lars Barquist</u> (Würzburg/DE), <u>Rolf Backofen</u> (Freiburg i. Br./DE), <u>Kirsten Jung</u> (Martinsried/DE)
09:45 STGR06	Solute/sodium symporter-dependent signal transduction – Significance and molecular mechanism of function of the two-component system MxtR/ErdR of <i>Pseudomonas putida</i> KT2440 <u>Tania Henriquez</u> (Siena/IT), <u>Michelle Eder</u> , <u>Fabienne Burr</u> , <u>Heinrich Jung</u> (Martinsried/DE)
10:00 STGR07	Structure and function of the high-torque bacterial flagellar motor from <i>Helicobacter pylori</i> <u>Anna Roujeinikova</u> (Clayton/AU)
10:15 STGR08	Regulation of flagellar motility by the global anaerobic regulator FNR in <i>Salmonella Typhimurium</i> <u>Caroline Kühne</u> (Berlin/DE), <u>Carsten Kröger</u> (Dublin/IE), <u>Marc Erhardt</u> (Berlin/DE)

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08:30–10:30 1. OG 103 Chairs	Short Lecture 12 Infection biology Petra Dersch (Münster/DE), Christine Josenhans (Munich/DE)
08:30 IB01	How to survive in a sepsis patient – Using bioinformatics to elucidate strategies of potentially pathogenic bacteria Anna Barborski, Sebastian Seelbinder, Marco Mauri, Frank Bloos, Jürgen Rödel, Bettina Loeffler Gianni Panagiotou, Rosalind Allen, Michael Bauer, <u>Anne Busch</u> (Jena/DE)
08:45 IB02	Outer membrane-selective antimicrobial peptides derived from innate bacterial proteins as new antibiotic potentiators Jonatan Persson, August Qvist, Loise Råberg, Coralie Bianco, Pragya Kamal, Ireny Abdelmesseheh Nekhala Inger Mattsby-Baltzer, Alexandra Stubelius, <u>Michaela Wenzel</u> (Gothenburg/SE)
09:00 IB03	Expression and activation control of the T6SS4 machinery in <i>Yersinia pseudotuberculosis</i> <u>Anna Kerwien</u> , Cassandra Köster, Petra Dersch, Anne-Sophie Herbrüggen (Münster/DE)
09:15 IB04	Dual mechanism antimicrobial agents – Trans-translation inhibition synergizes with copper stress <u>Melissa Vázquez-Hernández</u> , Julia Elisabeth Bandow (Bochum/DE), John Alumasa Kenneth Keiler (Philadelphia, PA/US), Huriye Deniz Uzun, Thomas Günther Pomorski Sascha Heinrich (Bochum/DE), Christoph Senges (Bochum, Hamburg/DE)
09:30 IB05	The VBNC state as global stress response in different <i>Acinetobacter baumannii</i> strains <u>Patricia König</u> , Volker Müller, Beate Averhoff (Frankfurt a. M./DE)
09:45 IB06	Community dynamics of milk microbiota in healthy and mastitis cows <u>Julius Degenhardt</u> (Braunschweig/DE), Tina Kabelitz (Potsdam/DE), Thomas Peters (Wunstorf/DE) <u>Ulrich Nübel</u> (Braunschweig/DE)
10:00 IB07	Extremely short-lived peptide-polyene antimicrobial enables nasal commensal to eliminate <i>Staphylococcus aureus</i> Benjamin O. Torres Salazar, Taulant Dema, Anne Berscheid, Heike Brötz-Oesterhelt, Stephanie Grond <u>Bernhard Krismer</u> , Andreas Peschel (Tübingen/DE)
10:15 IB08	Evolutionary trajectories of gut bacteria determine resistance against pathogen colonization <u>Simon Woelfel</u> , Marta Salvado Silva, Claudia Eberl, Abilash Chakravarthy Durai Raj, Diana Ring (Munich/DE) Karin Kleigrewé (Freising/DE), Marijana Basic (Hannover/DE), Bärbel Stecher (Munich/DE)
08:30–10:15 EG 007 Chairs	Minisymposium 8 FG Mikrobiom Christine Moissl-Eichinger (Graz/AT), Michael Schlöter (Munich/DE)
08:30 MB-FG01	Resistance to host antimicrobial peptides mediates resilience of gut commensals during infection in <i>Drosophila melanogaster</i> <u>Igor Iatsenko</u> , Aranzazu Arias-Rojas, Dagmar Frahm (Berlin/DE)
08:45 MB-FG02	Antibiotic resistances spread through wastewater treatment plants – and can be restrained <u>Tjorven Hinzke</u> (Greifswald/DE), Dominik Schneider (Göttingen/DE), Veronika Hahn (Greifswald/DE) Franziska Stressmann, Katrin Premke (Berlin/DE), Aygun Ganbarzade, Jürgen Kolb (Greifswald/DE) Rolf Daniel (Göttingen/DE), Katharina Riedel, Susanne Sievers, Daniela Zühlke (Greifswald/DE)
09:00 MB-FG03	Predatory bacteria influence host-associated microbial communities and <i>C. elegans</i> fitness Janna Wülbern, Levke Hansen, Katharina Rathjen (Kiel/DE), Hinrich Schulenburg (Kiel, Plön/DE) <u>Julia Johnke</u> (Kiel/DE)
09:15 MB-FG04	Presence of microplastic-antifouling paint particles alter microbial communities in surrounding marine sediment Alexander Tagg (Rostock/DE)

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09:30 MB-FG05	Susceptibility of human oral bacteria to roseoflavin, a vitamin B2 analogue <u>Nadja Schwendenmann</u> , Leonie Steiner (Villingen-Schwenningen/DE), Lars Seufert Matthias Mack (Mannheim/DE), Markus Egert (Villingen-Schwenningen/DE)
09:45 MB-FG06	One Health Antimicrobial resistance – the role of the agro-ecosystem Kornelia Smalla (Braunschweig/DE)
10:15–10:30 EG 007	Elections FG Microbiom
08:30–10:45 EG 006 Chairs	Minisymposium 9 FG Archaea & FG Microbial Cell Biology Dina Grohmann (Regensburg/DE), Dieter Jendrossek (Stuttgart/DE)
08:30 AMZ-FG01	Multi-scale imaging of an Asgard archaeon illuminates the origin of the eukaryotic cytoskeleton Florian Wollweber (Zürich/CH)
09:05 AMZ-FG02	Investigating the archaeal cell envelope by electron cryo-microscopy Bertram Daum (Exeter/GB)
09:40 AMZ-FG03	New players in FtsZ-based cell division in Archaea Sonja-Verena Albers (Freiburg im Breisgau/DE)
10:15 AMZ-FG04	Important roles of Zinc Finger μ -Proteins in <i>Haloferax volcanii</i> <u>Deniz Üresin</u> , Andreas Borst, Dennis Pyper (Frankfurt a. M./DE), Lydia Hadjeras (Würzburg/DE) Rick Gelhausen, Rolf Backofen (Freiburg i. Br./DE), Cynthia Sharma (Würzburg/DE), Harald Schwalbe Jörg Soppa (Frankfurt a. M./DE)
10:30 AMZ-FG05	Linking cell architecture and genomics features in the genus <i>Achromatium</i> <u>Danny Ionescu</u> (Stechlin OT Neuglobsow/DE), Joana Da Vanda Mariz Christian Wurzbacher (Garching b. München/DE), Mina Bizic (Stechlin OT Neuglobsow/DE), Dietrich Walsh Anna Steyer (Heidelberg/DE)
10:45–11:00 EG 006	Wahl der FG Sprecher*innen in der FG Archaea und FG Mikrobielle Zellbiologie
08:30–10:30 EG 001 Chairs	Short Lecture 13 Prokaryotic physiology and metabolism I Haik Antelmann (Berlin/DE), Christiane Dahl (Bonn/DE)
08:30 PPM01	Rates of iron(III) reduction coupled to elemental sulfur or tetrathionate oxidation by acidophilic microorganisms and detection of sulfur intermediates Anja Breuker, <u>Axel Schippers</u> (Hannover/DE)
08:45 PPM02	Two homologous metabolic enzyme complexes as novel targets for bispecific protein-protein interaction inhibitor antibiotics <u>Franziska Funke</u> , Sandra Schlee, Reinhard Sterner (Regensburg/DE)
09:00 PPM03	Conformational variability of cyanobacterial ChII, the AAA+ motor of magnesium chelatase involved in chlorophyll biosynthesis <u>Dmitry Shvarev</u> , Alischa Scholz, Arne Moeller (Osnabrück/DE)
09:15 PPM04	An enzymatic bottleneck defines the product spectrum of the alkyl quinolone biosynthetic pathway of <i>Burkholderia thailandensis</i> <u>Simon Ernst</u> , Susanne Fetzner (Münster/DE)
09:30 PPM05	Investigating and engineering novel carbon metabolism in <i>Rhodobacterales</i> Minrui Ren, Camillo Iacometti (Leiden/NL), Timo Glatter (Marburg/DE) <u>Lennart Schada von Borzyskowski</u> (Leiden/NL)

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09:45 PPM06	Culturing-dependent polymorphism and specialized metabolite production in the entomopathogenic bacterium <i>Xenorhabdus doucetiae</i> <u>Christoph Spahn</u> , Edna Bode, Quy Nhan Do, Daniela Vidaurre, Daniela Aßmann, Petra Happel (Marburg/DE) <u>Helge B. Bode</u> (Frankfurt a. M., Marburg/DE)
10:00 PPM07	DNA methylation, a regulator of keystone enzyme of chlorophyll biosynthesis in <i>Synechocystis</i> sp. PCC 6803 <u>Nils Schmidt</u> (Rostock/DE), Satoru Watanabe (Tokyo/JP), Roman Sobotka (Prague/CZ) <u>Wolfgang R. Hess</u> (Freiburg i. Br./DE), Martin Hagemann (Rostock/DE)
10:15 PPM08	Microbial CO ₂ recovery – Understanding resource allocation in methanogen using a quantitative biology approach <u>Wenyu Gu</u> (Lausanne/CH), Albert Müller, Jörg Deutzmann, Alfred Spormann (Stanford, CA/US)
08:30–10:30 EG I 005 Chair	Minisymposium 10 Microbial Viruses <u>Tessa E. F. Quax</u> (Groningen/NL)
08:30 MV-FG01	Unpredictable interactions between microbial viruses and host defenses <u>Uri Gophna</u> (Tel Aviv/IL)
09:00 MV-FG02	Prophage maintenance is determined by environment-dependent selective sweeps rather than mutational availability <u>Zachary Bailey</u> (Zürich/CH), <u>Claudia Igler</u> (Manchester/GB), <u>Carolin Wendling</u> (Zürich/CH)
09:10 MV-FG03	Structural insight into the exceptional binding mechanism of the halovirus HFTV1 <u>Sabine Schwarzer</u> (Groningen/NL), Daniel Zhang, Mathew McLarren, Michail N. Isupov (Exeter/GB) <u>Thomas Hackl</u> (Groningen/NL), Hanna M. Oksanen (Helsinki/FI), Bertram Daum (Exeter/GB) <u>Tessa E. F. Quax</u> (Groningen/NL)
09:20 MV-FG04	Streptomyces development during phage infection and the role of the phage-encoded transcriptional regulator WhiB <u>Tom Luthe</u> , Julia Frunzke (Jülich/DE)
09:30 MV-FG05	Interplay of lytic phages and the bacterial stringent response <u>Ekaterina Jalomo-Khayrova</u> , Gert Bange, Laura Czech (Marburg/DE)
09:40 MV-FG06	To lyse, or not to lyse – Identification of YosL, a key player controlling the lytic cycle of the <i>Bacillus</i> phage SPβ <u>Katharina Kohm</u> (Stuttgart, Senftenberg/DE), <u>Ekaterina Jalomo-Khayrova</u> , Wieland Steinchen <u>Gert Bange</u> (Marburg/DE), Robert Hertel (Senftenberg, Göttingen/DE), Laura Czech (Marburg/DE) <u>Fabian M. Commichau</u> (Stuttgart, Senftenberg/DE)
09:50 MV-FG07	Identification of huge phages from wastewater metagenomes <u>René Kallies</u> , Die Hu, Nafi’u Abdulkadir, Hauke Harms, Ulisses Nunes da Rocha (Leipzig/DE)
11:00–12:30 Plenum Chair	Plenary Session 3 Highlight Session <u>Franz Naberhaus</u> (Bochum/DE)
11:00 IL05	Small but effective! Newly Identified Players in Nitrogen Regulation in <i>Methanosarcina mazei</i> <u>Ruth Schmitz-Streit</u> (Kiel/DE)
11:30 IL06	Little things that matter <u>Anita Marchfelder</u> (Ulm/DE)
12:00 IL07	Antiphage molecules produced by bacteria <u>Julia Frunzke</u> (Jülich/DE)

12:45–14:15 EG 009	VAAMentoring
12:45	Introduction VAAMentoring Franz Narberhaus (Bochum/DE)
12:50	Impulse Lectures Markus Egert (Villingen-Schwenningen/DE), Nicole Frankenberg-Dinkel (Kaiserslautern/DE)
13:10	Paneldiscussion – Reality Check – VAAMentoring Insights from Mentees and Mentors Christine Lang (Berlin/DE)
13:40	Meet your expert on round table topics and FAQ VAAMentoring
14:15–15:15 Plenum Chair	Plenary Session 4 Bioinformatics Johannes Söding (Munich/DE)
14:15 IL08	Petri nets-based modeling techniques to explore xenophagic capturing of <i>Salmonella</i> and processes of <i>Salmonella</i> infection Ina Koch (Frankfurt a. M./DE)
14:45 IL09	Bioinformatic approaches to cyclic dinucleotide signaling Michael Y. Galperin (Bethesda, MD/US)
15:15–15:45 Plenum	VAAM Innovation Award
15:15–15:45 Foyer Note:	Poster Session 2 (see also page 54) On Monday all authors with an even poster number will present, on Tuesday all with an odd number.
16:00–17:30 1. OG 104 Chairs	Industry Academia Panel Stefan Pelzer (Halle/Westfalen/DE), Christine Lang (Berlin/DE)
16:00	Sweethoven Biotech – Our exciting journey from academia to biotechnology Marcel Hövels (Bonn/DE)
16:25	Bind-X – small microbes, huge impact Luitpold Fried (Munich/DE)
16:50	Successfully spin out your startup from University – a Venture Capital perspective Jonas Ide (Hanau/DE)
17:15	Discussion
18:00–19:30 EG 009	VAAM Assembly General meeting see p. 12 for details
19:30–23:00	Mixer see p. 71 for details

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09:00–11:00	Short Lecture 14
Plenum	Non-Model Organisms
Chairs	Michael Rother (Dresden/DE), Dmitri Meier (Bayreuth/DE)
09:00 BT17	An interesting insight into energy efficiency for an oxic microbial electrosynthesis process with <i>Kyrpidia spormannii</i> <u>Leonie Rominger</u> , Marvin Scherzinger, Martin Kaltschmitt, Johannes Gescher (Hamburg/DE)
09:15 BT18	Engineering G. oxydans for the production of functionalized sugar acids and improvement of its slime formation for solid-state fermentations <u>Lisa Pütthoff</u> , Nataliia Kucher (Freising/DE), Emmeran Bieringer, Arne Zimmermann Dirk Weuster-Botz (Garching b. München/DE), Wolfgang Liebl, Armin Ehrenreich (Freising/DE)
09:30 BT19	A thermostable reporter gene allows for characterization of promoter strength in the thermophilic acetogen <i>Thermoanaerobacter kivui</i> <u>Benjamin Zeldes</u> , Sabina Mittelstedt, Mirko Basen (Rostock/DE)
09:45 BT20	Heterologous production of c-type cytochromes in <i>Vibrio natriegens</i> <u>Helena Fuchs</u> , Sabrina Hedrich (Freiberg/DE)
10:00 BT21	Methanol-based biotechnology with <i>Methylobacterium extorquens</i> – Novel genetic tools and strain optimizations Laura Pöschel, <u>Markus Buchhaupt</u> (Frankfurt a. M./DE)
10:15 BT22	Expanding the pool of biocatalysts for production of renewable biocommodities through acetogenesis <u>Tim Böer</u> , Dominik Schneider, Rolf Daniel, Anja Poehlein (Göttingen/DE)
10:30 BT23	Towards the development of non-model organisms from the unexplored <i>Halopseudomonas pertucinogena</i> lineage <u>Luzie Kruse</u> , Anita Loeschcke, Jan de Witt, Nick Wierckx, Karl-Erich Jaeger, Stephan Thies (Jülich/DE)
09:00–11:00	Short Lecture 15
EG 009	Ecotoxicology, antibiotic resistance and combating pathogens Microbial diversity and evolution
Chairs	Tjorven Hinzke (Greifswald/DE), Yvonne Mast (Braunschweig/DE)
09:00 EME-MBE01	Active soil microbial composition and proliferation are directly affected by the presence of biocides from building materials Fabienne Reiß, Nadine Kiefer, Stefan Kalkhof, <u>Matthias Noll</u> (Coburg/DE)
09:15 EME-MBE02	Direct-geneFISH to link antibiotic resistance gene presence and phylogeny in model strains and microbial populations <u>Gangan Wang</u> (Leipzig/DE), Niculina Musat (Leipzig/DE, Aarhus/DK), Florin Musat (Aarhus/DK) <u>Sarah Unrath</u> (Leipzig/DE), Cristina Moraru (Oldenburg/DE), Christian Dusny, Kristin Lindstaedt (Leipzig/DE)
09:30 EME-MBE03	Adaptation of <i>Listeria monocytogenes</i> to quaternary ammonium compounds Lisa Maria Schulz, Fabienne Dreier, Lisa Marie de Sousa Miranda, <u>Jeanine Rismondo</u> (Göttingen/DE)
09:45 EME-MBE04	The disinfectant glutaraldehyde induces antibiotic tolerance underpinned by phenotypic heterogeneity and transcriptome remodeling <u>Niclas Nordholt</u> , Orestis Kanaris, Frank Schreiber (Berlin/DE)
10:00 EME-MBE05	Trade-offs between translational speed and polyproline-induced ribosomal stalling in bacteria Tess Brewer (Martinsried/DE)
10:15 EME-MBE06	Reductive genome evolution in <i>Ca. Ancillulaceae</i> (Bifidobacteriales), a novel lineage of endosymbionts in termite gut flagellates <u>Joana Maria Kästle Silva</u> (Marburg/DE), Vincent Hervé (Paris/FR), Andreas Brune (Marburg/DE)
10:30 EME-MBE07	Evolution of a novel lipoate assembly system in bacteria and archaea <u>Tomohisa Sebastian Tanabe</u> , Martina Grosser, Carolin Kümpel, Christiane Dahl (Bonn/DE)
10:45 EME-MBE08	Diversity of far-red light photoacclimation responses in cyanobacteria Dennis Nürnberg (Berlin/DE)

09:00–11:00 1. OG 104 Chairs	Short Lecture 16 RNA biology Katharina Höfer (Marburg/DE), Annegret Wilde (Freiburg i. Br./DE)
09:00 RNA01	Functional characterization of the RNA interference machinery of <i>Aspergillus fumigatus</i> Abdulrahman A. Kelani, Alexander Bruch, Flora Riviuccio, Thomas Krüger, Xiaoqing Pan Sascha Schäuble (Jena/DE), Gianni Panagiotou (Jena/DE, Hong Kong/CN), Olaf Knimeyer, Amelia Barber Axel A. Brakhage, Matthew G. Blango (Jena/DE)
09:15 RNA02	Early response to antibiotic exposure is characterized by induction of small genes in <i>Sinorhizobium meliloti</i> Jennifer Kothe, Robina Scheuer (Gießen/DE), Till Sauerwein (Cologne/DE), Jan Wähling (Gießen/DE) Konrad Förstner (Cologne/DE), Elena Evguenieva-Hackenberg (Gießen/DE)
09:30 RNA03	Characterization of Kti12, a tRNA binder and partner protein of the Elongator complex David Scherf (Kassel/DE), Mark Helm (Mainz/DE), Raffael Schaffrath (Kassel/DE)
09:45 RNA04	Improved RNA stability estimation indicates that transcriptional interference is frequent in diverse bacteria Jens Georg, Walja Wanney, Loubna Youssar, Gergana Kostova (Freiburg i. Br./DE)
10:00 RNA05	Functional and structural characterization of type IV-A CRISPR-Cas-mediated DNA interference Selina Rust, Mariana Sanchez-Londono, Nathalie Klein, Lennart Randau (Marburg/DE)
10:15 RNA06	The fate of RNA in a cyanobacterial cell – Translation-independent RNA localisation in <i>Synechocystis</i> Elisabeth Lichtenberg, Dominik Rabsch (Freiburg i. Br./DE), Ute A. Hoffmann (Stockholm/SE) Annegret Wilde (Freiburg i. Br./DE)
10:30 RNA07	RNA interaction and localization of NudC, the NAD-RNA decapping enzyme in <i>E. coli</i> David Rodríguez Méndez, Katharina Höfer (Marburg/DE)
10:45 RNA08	Role of edited in fruiting body development (<i>efd</i>) genes in <i>Sordaria macrospora</i> sexual development Metaxenia Skendrou, Jana Grygosch (Bochum/DE), Jessie Münzenrieder (Göttingen/DE) Ines Teichert (Göttingen, Bochum/DE)
09:00–11:00 1. OG 103 Chairs	Minisymposium 11 Fungi as friends and foes – metabolic potential and diversity of pathogenic lifestyles Florian Altegoer (Düsseldorf/DE), Slavica Janevska (Jena/DE)
09:00	Welcome
09:05 FB-FG01	Sphingolipid inhibitors from fungi – biosynthesis, spatio-temporal organisation and cross-interaction with sphingolipid metabolism Vito Valiante (Jena/DE)
09:30 FB-FG02	Unveiling the impact of UPR modulation on pathogenic development of <i>Ustilago maydis</i> Anja Katharina Sieven, Niko Pinter, Martin Hampel, Kai Heimel (Göttingen/DE)
09:45 FB-FG03	Elucidating the ability of <i>Trichoderma</i> to distinguish between plant-beneficial and plant-pathogenic fungi Pia Stange (Freising/DE), Prasath Balaji Sivaprakasam Padmanaban (Neuherberg/DE), Tanja Karl (Freising/DE) Maaria Rosenkranz, Jörg-Peter Schnitzler (Neuherberg/DE), J. Philipp Benz (Freising/DE)
10:00 FB-FG04	The isoprenyl chain length of coenzyme Q mediates the nutritional resistance of fungi to a predatory amoeba Nauman Saeed (Insel Poel/OT Malchow, Jena/DE), Johann Kufs, Vito Valiante, Lars Regestein (Jena/DE) Falk Hillmann (Insel Poel/OT Malchow/DE)
10:15 FB-FG05	Exploring the methylotrophic yeast <i>Ogataea polymorpha</i> as a host organism for producing platform chemicals from methanol Katrin Wefelmeier, Simone Schmitz, Benjamin Jonas Kösters, Anna Maria Haut Lars Mathias Blank (Aachen/DE)

SCIENTIFIC PROGRAMME | WEDNESDAY, 13 SEPTEMBER

10:30 FB-FG06	Biologically and economically sustainable – Development of a fungal heterologous host for enhanced production of astin C <u>Hannes Maier</u> , Wolfgang Wohlleben (Tübingen/DE)
10:45 FB-FG07	<i>Aspergillus niger</i> as a cell factory for the production of pyromelanin, a molecule with UV-C radiation shielding activity <u>Stella Marie Koch</u> (Cologne/DE), Carsten Pohl, Oliver Siontas (Berlin/DE), Marta Cortesão Afonso Mota (Cologne/DE), Katarína Rebrošová (Brno/CZ), Katharina Runzheimer, Ralf Möller (Cologne/DE) Vera Meyer (Berlin/DE)
09:00–11:00 EG 007 Chairs	Short Lecture 17 Microbial communities Kersten S. Rabe (Eggenstein-Leopoldshafen/DE), Christin Koch (Holzminden/DE)
09:00 MC01	Genetic manipulation of a synthetic co-culture to expand the product spectrum Luisa Klein (Garching b. München/DE)
09:15 MC02	Isolation & characterization of Trace Amines (TAs) producing human skin commensals Moushumi Purkayastha (Tübingen/DE)
09:30 MC03	Macroporous silicone chips for decoding microbial dark matter in environmental microbiomes <u>Laura Meisch</u> , Anne-Kristin Kaster, Christof M. Niemeyer, Kersten S. Rabe (Eggenstein-Leopoldshafen/DE)
09:45 MC04	Born with a silver spoon in your mouth – Establishing an oral biofilm microbiome model <u>Steffen Nordzicke</u> , Jessica Grieger, Christin Koch (Holzminden/DE)
10:00 MC05	Airway microbial metagenomics in health and bronchiectasis <u>Ilona Rosenboom</u> , Ajith Thavarasa, Colin F. Davenport, Lutz Wiehlmann (Hannover/DE), Hollian Richardson Holly R. Keir, James D. Chalmers (Dundee/GB), Burkhard Tümmler (Hannover/DE)
10:15 MC06	Mapping interactions of <i>staphylococcus aureus</i> with the human nasal microbiome using high-throughput network analysis <u>David Gerlach</u> (Martinsried/DE), Laura Camus (Tübingen/DE), Simon Heilbronner (Martinsried/DE)
10:30 MC07	Revealing taxonomy, activity, and substrate assimilation in mixed bacterial communities by GroEL-based stable isotope probing <u>Simon Klaes</u> (Leipzig, Berlin/DE), Shobhit Madan (Leipzig, Ansbach/DE), Darja Deobald (Leipzig/DE) Myriel Cooper (Berlin/DE), Lorenz Adrian (Leipzig, Berlin/DE)
10:45 MC08	Compositional and functional analyses of microbial enrichments to unravel their potential of lignocellulose degradation <u>Maria Letícia Bonatelli</u> , Christina Schäfer, Sabine Kleinsteuber, Heike Sträuber (Leipzig/DE)

09:00–11:00	Short Lecture 18
EG I 006	Archaea
Chairs	Ruth Schmitz-Streit (Kiel/DE), Sonja-Verena Albers (Freiburg im Breisgau/DE)
09:00	Characterization of the molecular architecture of the archaeal CODH/ACS complex
AR01	Tristan Reif-Trauttmansdorff (Marburg/DE)
09:15	Complete Genome Assembly and Methylome Dissection of two Archaeal species <i>Methanococcus aeolicus</i> PL15/Hp and in <i>Methanobacterium wolfei</i> DSM 2970
AR02	Alexey Fomenkov, Peter Weigle, Shuang yong Xu, Colleen McClung, Casey Madinger Richard J. Roberts (Ipswich, MA/US)
09:30	Unraveling archaeal tetramethylammonium degradation
AR03	Julia Kurth (Marburg/DE), Peter Fischer, Diana Sousa (Wageningen/NL)
09:45	Expanding the genetic toolbox for <i>Methanothermobacter thermautotrophicus</i> Δ H
AR04	Lucas Mühling, Bastian Molitor (Tübingen/DE)
10:00	A trehalose deficient <i>Sulfolobus acidocaldarius</i> strain as platform for extremolyte production
AR05	Christina Stracke, Benjamin Meyer, Christopher Bräsen, Bettina Siebers (Essen/DE)
10:15	Genome validation and expansion of the family of borg archaeal extrachromosomal elements reveals a syntenous core genetic repertoire
AR06	Marie C. Schoelmerich (Berkeley, CA/US), Lynn Ly (San Francisco, CA/US), Rohan Sachdeva (Berkeley, CA/US) David Dai, Christopher Mozsary, Scott Hickey (New York, NY/US), Christine He John Beaulaurier (San Francisco, CA/US), Sissel Juul (New York, NY/US), Jillian F. Banfield (Berkeley, CA/US)
10:30	Structure-function probing of SECIS-dependent selenocysteine insertion in Archaea
AR07	Nils Peiter, Pauline Just, Michael Rother (Dresden/DE)
10:45	Small metal-binding proteins in <i>Methanosarcina mazei</i> are differentially expressed in response to various stress
AR08	Eva Herdering, Liam Cassidy, Britta Jordan, Muhammad Aammar Tufail, Katrin Weidenbach, Andreas Tholey Ruth Anne Schmitz-Streit (Kiel/DE)
09:00–11:00	Short Lecture 19
EG I 001	Prokaryotic physiology and metabolism II
Chairs	Dietrich H. Nies (Halle Saale/DE), Stephan Klähn (Leipzig/DE)
09:00	The principle of microbial infallibility revisited – How wastewater bacteria learned to feed on a previously persistent xenobiotic
PPM09	Sabine Kleinstüber, Thore Rohwerder, Maria Letícia Bonatelli, Denny Popp (Leipzig/DE)
09:15	Discovery of a new non-canonical sesquiterpene synthase from actinobacteria
PPM10	Katja Bär (Rostock/DE), Stephan von Reuß (Neuenburg/CH), Chi Zhang (Copenhagen/DK) Feng Chen (Knoxville, TN/US), Birgit Piechulla, Nancy Magnus (Rostock/DE)
09:30	Investigating microbial carbon use efficiency using soil-free microbial cell extracts – A new approach to understanding microbial carbon utilization in soils
PPM11	Milan Varsadiya (Bayreuth/DE), Fatemeh Dehghani Mohammad Abadi Evgenia Blagodatskaya (Halle (Saale)/DE), Tillmann Lueders (Bayreuth/DE)
09:45	Maintenance of cellular metal-dependent biochemistry is mediated by evolutionary genome plasticity via acquired and fine-tuned homeostasis systems of the resistome in <i>Cupriavidus metallidurans</i> in the face of multiple metals stressor
PPM12	Martin Herzberg (Leipzig, Halle (Saale)/DE), Diana Galea, Dirk Dobritsch, Gerd Hause Dietrich H. Nies (Halle (Saale)/DE)

SCIENTIFIC PROGRAMME | WEDNESDAY, 13 SEPTEMBER

10:00 PPM13	Genetics, physiology, and evolutionary origin of a novel bacterial degradation pathway for the anthropogenic buffer compound TRIS <u>Johannes Holert</u> , Aron Borker, Laura Nübel (Münster/DE), Anja Poehlein (Göttingen/DE) Bodo Philipp (Münster/DE)
10:15 PPM14	Phenotypic heterogeneity in natural product formation of <i>Bacillus subtilis</i> Benedikt Steinfeld, Tamara Schmidt, Qinna Cui, <u>Ilka Bischofs</u> (Marburg, Heidelberg/DE)
10:30 PPM15	Bacterial cell wall recycling – Still much more to be discovered Marina Borisova-Mayer (Tübingen/DE), Alexander Titz (Saarbrücken, Braunschweig/DE) Andrew Lovering (Birmingham/GB), <u>Christoph Mayer</u> (Tübingen/DE)
10:45 PPM16	Same same but different – Gene expression changes in response to lanthanum concentration and lanthanide elements in a lanthanide-storing methylotroph <u>Linda Gorniak</u> , Julia Bechwar, Martin Westermann, Carl-Eric Wegner (Jena/DE)
09:00–11:00 EG I 005 Chairs	Minisymposium 12 Down the drain? – Wastewater-based virus and pathogen monitoring three years after the onset of Corona Tillmann Lüders (Bayreuth/DE), Christian Wurzbacher (Munich/DE), Bernd Bendinger (Mühlheim a.d.R./DE)
09:00 WA-FG01	Lessons learned and conclusions for the wastewater monitoring of the future Christian Wurzbacher (Munich/DE)
09:30 WA-FG02	Sampling across scales — An experience report on sampling Corona variants from wastewater Ivana Kraiselburd (Essen/DE)
10:00 WA-FG03	Comprehensive profiling of wastewater viromes by genomic sequencing Markus Landthaler (Berlin/DE)
10:30 WA-FG04	Establishment of a SARS-CoV-2 wastewater surveillance system in Berlin <u>Nico Linzner</u> , Vera Schumacher, Martin Meixner, Uta Böckelmann (Berlin/DE)
11:30–11:45 Plenum	VAAM Poster awards
11:45–13:15 Plenum Chair	Plenary Session 5 Postdoc Lecture & Biotechnology Rolf Daniel (Göttingen/DE)
11:45 IL10	Ancient origins of inflammatory cell death in bacterial immune systems Tanita Wein (Rehovot /IL)
12:15 IL11	Fungal biotechnology as an innovation driver for a sustainable future Vera Meyer (Berlin/DE)
12:45 IL12	From bacterial isolation of plant growth-promoting bacteria to biotechnological application Sylvia Schnell (Giessen/DE)
13:15–13:30 Plenum	Closing remarks

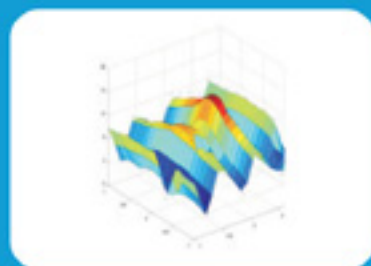
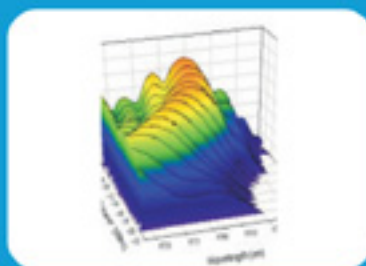
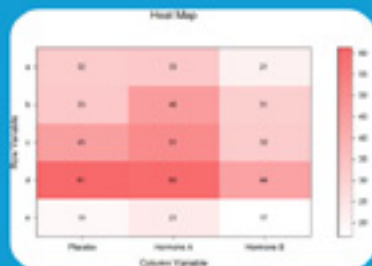
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SPECIAL EVENTS

Montag, 11. September | iGEMs and NoGM – Young research up close

Zeit: 08:30–10:30

Raum: 007

Forschungsteams stellen ihre Beiträge zum Wettbewerb der international Genetically Engineered Machines (iGEM) vor mit Vorträgen u.a. über mikrobiellen Plastikabbau, Dünger aus Pilzen, Wege gegen Wasserverschmutzung, Antibiotikaresistenzen und Infektionskrankheiten.

Sprache: Deutsch & Englisch

Montag, 11. September | Karrieresymposium für Masterstudierende, Doktorand:innen, Post-Docs (organisiert durch FG Qualitätsmanagement)

Zeit: 13:00–14:30

Raum: 007

Beratung, Tipps aus der Praxis, Wie läuft der Berufseinstieg?

Sprache: Deutsch

Referent:innen, u. a.

Michael Merli, HOX Life Sciences GmbH: „Wie kann ich Laborleiter:in oder Projektmanager:in in der Industrie werden? Einstieg in die Life-Science Industrie“

Katrin Steinhauer: „Beruf oder Berufung? Mikrobiologie mit Leidenschaft in Industrie, Academia und Start-up – ein Erfahrungsbericht“

Andreas Seiffert-Störko: Traineeprogramm Provadis und Tätigkeit als Qualitätsleiterin

Montag, 11. September | Workshop zur Händedesinfektion: Saubere und keimfrei? Die richtige Händehygiene für die Sterilproduktion

Zeit: 15:00–16:30

Raum: 1.104

Wirksame Händehygiene ist im medizinischen Bereich ein unumstrittener und wesentlicher Bestandteil bei der Infektionsprävention. In Produktionsprozessen ist die Personalhygiene von großer Bedeutung und der Händehygiene kommt insbesondere in kritischen Produktionsprozessen wie in der Sterilproduktion unter GMP (Good Manufacturing Practice) eine besondere Bedeutung zu.

In diesem Workshop zum Basiswissen Händedesinfektion geht es insbesondere um die Bedeutung der Hände als Vektor bei der Übertragung von Infektionserregern oder bei Kontaminationen in Produktionsprozessen. Es werden verschiedene Wirkspektren (z. B. Bakterizidie, Levurozidie, begrenzte Viruzidie, Viruzidie, etc.) von Händedesinfektionsmitteln gegenüber relevanten Mikroorganismen und viralen Erregern vorgestellt. Die Wirksamkeit von Händewaschen und Händedesinfektion, sowie die verschiedenen Anwendungen der Händehygiene in der Praxis werden diskutiert.

Ziel dieses Workshops ist es, einen kurzen Einblick in die wesentlichen Aspekte wirksamer Händehygiene zu geben, sowie in einer kurzen Fallstudie in Kleingruppen die historische Entdeckung der Händehygiene zu erarbeiten.

Montag, 11. September | Information on the nomenclature of prokaryotes

Zeit: 15:00–17:00

Raum: 103

Professor Kostas Konstantinidis: “The SeqCode – a nomenclatural code for prokaryotes described from sequence data”

PD Dr. Markus Göker: “The International Code of Nomenclature of Prokaryotes”

Monday, 11 September & Tuesday, 12 September | DFG-Antragsberatung

Time: 15:00–17:00

Room: 009

Interested participants are asked to refer to the check-in desk in order to register for the consultation.

Tuesday, 12 September | VAAMentoring

Time: 12:45–14:15

Room: 009

12:45–13:10

Franz Narberhaus (Bochum), President VAAM: “Introduction VAAMentoring”

Markus Egert (Furtwangen); Nicole Frankenberg-Dinkel (Kaiserslautern): “Impulse Lectures”

13:10–13:40

Moderation by Christine Lang (Berlin): “Paneldiscussion – Reality Check – VAAMentoring”; “Insights from Mentees and Mentors”

Meet your expert on round table topics and FAQ VAAMentoring

1. Academic career, Postdoc abroad
2. Opportunities in Industry
3. Managing family and career
4. Alternative Careers

Tuesday, 12 September | Industry Academia Panel

Microbiology based Spin-offs – Insights from the transition of an academic idea to a business concept

Time: 16:00–17:30

Room: 104

Chairs Stefan Pelzer (Halle/Westfalen/DE), Christine Lang (Berlin/DE)

Referenten:

Marcel Hövels, Universität Bonn

Luitpold Fried, München Bind-X GmbH

Jonas Ide, Evonik Venture Capital

Language: Englisch

Dr. Marcel Hövels: “Sweethoven Biotech – Our exciting journey from academia to biotechnology”

Luitpold Fried: “Bind-X – small microbes, huge impact”

Jonas Ide: “Successfully spin out your startup from University – a Venture Capital perspective”

POSTER SESSION I MONDAY, 11 SEPTEMBER

15:00–17:15 Poster Session 1

Anaerobic metabolism

- AMP002 From pyrolysis by-products to short-chain carboxylic acids – The metabolic versatility of anaerobic mixed cultures enables carbon and energy recovery during the co-fermentation of syngas and different pyrolysis wastewaters
Alberto Robazza, Anke Neumann (Karlsruhe/DE)
- AMP004 A higher number of DNA phages integrate in microbial genomes after a starvation event in a biomethanation reactor showed by a genome-centric analyses of 54 metagenomes
Muhammad Kabiru Nata'ala, Washington Logroño, João Pedro Saraiva, Jonas Coelho Kasmanas
Nafi'u Abdulkadir, René Kallies, Sabine Kleinsteuber, Peter F. Stadler, Marcell Nikolausz
Ulisses Nunes da Rocha (Leipzig/DE)
- AMP006 Evaluation of biotechnological propionate production in Bacteroidetes
Carolin Döring, Mirko Basen (Rostock/DE)
- AMP008 New insights into the interaction between the individual subunits of the benzylsuccinate synthase (Bss) and their influence on its activation
Kai Krämer, Johann Heider, Gabriela Oleksy (Marburg/DE)
- AMP010 Ethanologenesis from glycerol in the gut acetogen *Blautia schinkii*
Raphael Trischler (Frankfurt a. M./DE), Anja Poehlein, Rolf Daniel (Göttingen/DE)
Volker Müller (Frankfurt a. M./DE)
- AMP012 Single-particle CryoEM structure of a tungsten-containing aldehyde oxidoreductase that forms nanowires
Fidel Ramírez-Amador (Marburg/DE), Agnieszka Winiarska (Krakow/PL), Dominik Hege
Yvonne Gemmecker (Marburg/DE), Simone Prinz (Frankfurt a. M./DE), Georg Hochberg
Johann Heider (Marburg/DE), Maciej Szaleniec (Krakow/PL), Jan Michael Schuller (Marburg/DE)
- AMP014 Structure and function of the nitrogenase-like reductase CfbC/D involved in coenzyme F430 biosynthesis
Alena Kussler (Freiburg i. Br./DE)
- AMP016 Nitrogen fixation by the Iron nitrogenase is inhibited by CO₂
Niels N. Oehlmann, Frederik V. Schmidt (Marburg/DE)
- AMP018 Tungsten enzyme catalyzed reductions
Yvonne Gemmecker, Dominik Hege, Johann Heider (Marburg/DE)
- AMP020 Hexanoate production with metabolically engineered *Acetobacterium woodii* strains using methanol
Jana Gaibler (Ulm/DE), Maximilian Flaiz (Wageningen/NL), Frank Robert Bengelsdorf (Ulm/DE)
- AMP022 CO₂-based production of caproic acid by engineered a *Acetobacterium woodii* strain and *Clostridium drakei* WT applying a synthetic co-culture (CaproSyn)
Kira Baur, Frank Robert Bengelsdorf (Ulm/DE)
- AMP024 Production of substitutes for conventional plastics using greenhouse gases
Franziska Höfele, Sebastian Flüchter, Peter Dürre (Ulm/DE)
- AMP026 Adaptive metabolic strategies of autotrophic thermophilic bacteria
Isabel Krafeld, Eugenio Pettinato, Lydia Steffens, Achim Mall (Münster/DE)
Thomas Steiner (Garching b. München/DE), Simone König (Münster/DE), André Soares
Alexander J. Probst (Essen/DE), Wolfgang Eisenreich (Garching b. München/DE), Ivan A. Berg (Münster/DE)
- AMP028 Itaconate degradation in aerobic and anaerobic bacteria
Lena Gonner, Wilhelm Schulz, Simone König (Münster/DE), Sophie A. Simon, Alexander J. Probst (Essen/DE)
Ivan A. Berg (Münster/DE)

Archaea

- ARP002 Determining the molecular function of bactofilin homologues in the archaeal model organism *Haloferax volcanii*
Sabrina Gfrerer (Freiburg i. Br./DE), Solenne Ithurbide (Montréal/CA), Phillip Nußbaum
Sonja-Verena Albers (Freiburg i. Br./DE)
- ARP004 Analyzing selenium utilization in *Methanococcus maripaludis*
Katrina Funkner (Dresden/DE), Anja Poehlein, Richard Egelkamp, Rolf Daniel (Göttingen/DE)
Michael Rother (Dresden/DE)
- ARP006 Glycerol metabolism in *Sulfolobus acidocaldarius*
Carsten Schroeder, Christian Schmerling, Xiaoxiao Zhou (Essen/DE), Jan Bost, Bianca Wassmer
Sonja-Verena Albers (Freiburg i. Br./DE), Christopher Bräsen, Bettina Siebers (Essen/DE)
- ARP008 Investigating the biophysical properties of archaeal giant unilamellar vesicles derived from *Haloferax volcanii* membranes
Uliana Afonina, Bartosz Turkowyd, Koen Martens, Ulrike Endesfelder (Bonn/DE)
- ARP010 The 3-hydroxypropionate/4-hydroxybutyrate pathway as a possible CO₂ fixation pathway in *Sulfolobus acidocaldarius* – Characterisation of relevant enzymes of the pathway
Promise Akua Dziwornu, Christopher Bräsen (Essen/DE), Uta Bergstedt (Krefeld/DE)
Bettina Siebers (Essen/DE)
- ARP012 Translational coupling via termination-reinitiation in archaea and bacteria
Nico Vogel, Madeleine Huber, Martin Töpfer, Joana Muralha Schweikert Farinha
Jörg Soppa (Frankfurt a. M./DE)
- ARP014 Analysis of the low salt transcriptome in *Haloferax volcanii*
Andreas Borst, Mathias Hammelmann, Jörg Soppa (Frankfurt a. M./DE)
- ARP016 Molecular basis of methanogen-virus interactions
Mohamed Balboul (Tübingen/DE)

Biology of yeast and fungi

- BYFP002 Microbial production of polymalate by the black yeast *Aureobasidium pullulans* NRRL 62031
Difan Xiao, Lars Mathias Blank, Till Tiso (Aachen/DE)
- BYFP004 Flensburg strain collection of marine fungi
Antje Labes (Flensburg/DE)
- BYFP006 Investigating the influence of altered wee1 expression levels on kinetochore architecture in *Schizosaccharomyces pombe*
Sabine Rauh, Jannik Winkelmeier, Rehana Caspers, Ilijana Balinovic, Nicole Gallala
Ulrike Endesfelder (Bonn/DE)
- BYFP008 Unconventional suppression of plant defence responses by the signal peptide peptidase Spp1 in the *Ustilago maydis* – Maize interaction
Nora Marie Kühne, Niko Pinter, Christina Hach, Anja Poehlein, Rolf Daniel, Kai Heimel (Göttingen/DE)
- BYFP010 Adding missing pieces to the puzzle of *Aspergillus fumigatus* sexuality – TomA is required for cleistothecia formation and an a-factor-like pheromone exist
Tobias Pazen (Erlangen/DE), Barbara Ramšak (Bochum/DE), Stefanie Pöggeler (Göttingen/DE)
Minou Nowrousian, Ulrich Kück (Bochum/DE), Sven Krappmann (Erlangen/DE)
- BYFP012 Studying fungal partners of temperate forest tree species
Jannis Bock, Ines Teichert (Göttingen/DE)

POSTER SESSION I MONDAY, 11 SEPTEMBER

Biotechnology

- BTP002 Investigation of exopolysaccharide formation and its impact on anaerobic succinate production with *Vibrio natriegens*
Clarissa Schulze, Maurice Hädrich, Jennifer Borger, Broder Rühmann, Manuel Döring, Volker Sieber
Felix Thoma, Bastian Blombach (Straubing/DE)
- BTP004 Exploiting the untapped potential of *Paracoccus* as a novel chassis organism
Upasana Pal, Denise Bachmann, Lars Mathias Blank, Till Tiso (Aachen/DE)
- BTP006 Low-biomass concept for industrial biotechnology with engineered *Vibrio natriegens*
Maurice Hädrich, Clarissa Schulze, Bastian Blombach (Straubing/DE)
- BTP008 Construction and characterization of a transcription factor – Based biosensor for chorismate detection in *Corynebacterium glutamicum*
Melanie Krinke, Jan Marienhagen (Jülich/DE)
- BTP010 Metabolic engineering of *Corynebacterium glutamicum* for the production of anthranilate from glucose and xylose
Mario Mutz, Vincent Brüning, Christian Brüsseler, Moritz-Fabian Müller, Stephan Noack
Jan Marienhagen (Jülich/DE)
- BTP012 Stirred-tank reactor bioleaching of cobalt and nickel from brazilian laterite ores
Stefanie A. Hetz, Axel Schippers (Hannover/DE)
- BTP014 Sucrose utilization in recombinant *E. coli* strains for efficient cofactor regeneration
Lucija Sovic, Lenny Malihan-Yap, Robert Kourist (Graz/AT)
- BTP016 In vitro functionalization of bacterial magnetic nanoparticles by SpyTag-SpyCatcher “click biology”
Jakob Beierl, Frank Mickoleit, Dirk Schüler (Bayreuth/DE)
- BTP018 Artificial conductive biofilms in *Shewanella oneidensis*
Lukas Kneuer, René Wurst, Leah Kobza, Edina Marlen Klein, Johannes Gescher (Hamburg/DE)
- BTP020 Pre-treatment strategies enhance aromatic degradation in a synthetic actinobacterial consortium
Anna Christina Ngo, Dirk Tischler (Bochum/DE)
- BTP022 Streamlining bioprocess optimisation for bifunctional protein production in *Corynebacterium glutamicum*
Vera Waffenschmidt, Elvis Quadflieg (Jülich/DE), Tetiana Kurkina, Francisca Contreras
Ulrich Schwaneberg (Aachen/DE), Wolfgang Wiechert, Marco Oldiges (Jülich/DE)
- BTP024 Fate and microbial transformation of sulfonamide antibiotics during bankfiltration column experiments
Jimmy Köpke (Leipzig, Berlin/DE), Chang Ding, Lorenz Adrian (Leipzig/DE), Aki Sebastian Ruhl (Berlin/DE)
- BTP026 Conidia-based process for the scale-up of optimized fermentative L-malic acid production
Lukas Hartmann, Anke Neumann (Karlsruhe/DE)
- BTP028 Establishment of a biobased upcycling process of hemi- and lignocellulosic biomass
Kevin Edward Schulz, Anke Neumann (Karlsruhe/DE)
- BTP030 Oxygenic photosynthesis-driven hydrogen formation by the oxygen-sensitive [NiFe] hydrogenase of *Synechocystis* sp PCC6803
Merle Romig, Samuel Grimm, Darja Deobald, Andreas Schmid (Leipzig/DE)
- BTP032 Marine fungi as a source for mycoremediation of manure and sewage sludge
Akira Stiebeling, Antje Labes (Flensburg/DE)
- BTP034 Phage-assisted synthetic evolution of cytosine deaminases for genome editing
Patrick Buchholz, Laura Matos da Silva, Dingbo Zhang, Jens Boch (Hannover/DE)

- BTP036 Production of chitin and chitosan in *A. niger*
Sven Duda, Sascha Jung, Vera Meyer (Berlin/DE)
- BTP038 Yeast as novel vehicle for targeted drug delivery
Ruth Kiefer, Alexandra K. Kiemer, Marc Schneider, Frank Breinig (Saarbrücken/DE)
- BTP040 Genomic comparison of two *Aspergillus niger* isolates identifies differences in critical genes involved in polysaccharide degradation and metabolism
Marcel Rüllke, Kevin Schmitz, Julia Stolz, J. Philipp Benz (Freising/DE)
- BTP042 Construction of CodAB-based vectors for a markerless genetic deletion system in *Clostridium kluyveri*
Andreas Abstreiter, Martina Schneider, Armin Ehrenreich, Wolfgang Liebl (Freising/DE)
- BTP044 Shaping spatiotemporal oxygen landscapes in microbial single-cell analysis
Keitaro Kasahara, Dietrich Kohlheyer (Jülich/DE)
- BTP046 Screening Bacteroidetes type strains and new isolates for utilization of plant-based polymers and formation of SCFAs
Sonja Elisabeth Kurrer, Carolin Döring, Mirko Basen (Rostock/DE)
- BTP048 Laccase expression in the dung fungus *Coprinopsis cinerea* with 17 natural laccase genes
Shanta Subba, Lucie Schieferstein, Zhaleh Molamofrad, Hari Kapli, Michael Unger (Göttingen/DE)
Zemin Fang (Hefei/CN), Ursula Kües (Göttingen/DE)
- BTP050 Enhanced removal of sulfamethoxazole through sequential anaerobic-aerobic microbial treatment
Caglar Akay, Nadin Ulrich, Chang Ding, Ulisses Nunes da Rocha (Leipzig/DE), Lorenz Adrian (Leipzig, Berlin/DE)
- BTP052 The L-rhamnose-dependent regulator RhaS and its target promoters from *Escherichia coli* expand the genetic toolkit for regulatable gene expression in the acetic acid bacterium *Gluconobacter oxydans*
Philipp Moritz Fricke, Jochem Gätgens, Michael Bott, Tino Polen (Jülich/DE)
- BTP054 Production of L-arabinonic acid by biotransformation of L-arabinose using the acetic acid bacterium *Gluconobacter oxydans*
Philipp Moritz Fricke, Rudolf Hartmann, Astrid Wirtz, Michael Bott, Tino Polen (Jülich/DE)

Computational microbiology

- CMP002 StrainInfo – A central database for resolving microbial strain identifiers
Isabel Schober, Artur Lissin, Adam Podstawka, Lorenz C. Reimer, Julia Koblit, Boyke Bunk
Jörg Overmann (Braunschweig/DE)
- CMP004 Exploring provenance gaps between lab and computer analysis in genomics and metagenomic studies, a part of the NFDIMicrobiota consortium
Sanchita Kamath, Ulisses Nunes da Rocha (Leipzig/DE)
- CMP006 gSpreadComp – A novel open-source, user-friendly workflow – Showed plasmid-mediated horizontal transfer enrichment of antimicrobial resistance in vegans and higher virulence in ketogenic-related bacteria
Jonas Coelho Kasmanas, Stefanía Magnúsdóttir (Leipzig/DE), Junya Zhang (Beijing/CN)
Peter F. Stadler (Leipzig/DE), Andre Carlos Ponce de Leon Ferreira de Carvalho (São Carlos/BR)
Ulisses Nunes da Rocha (Leipzig/DE)
- CMP008 Computational prediction of pH changes during bacterial growth
Laura Confalonieri (Edinburgh/GB), Patrick Warren (Daresbury/GB), Simon Titmuss (Edinburgh/GB)
Rosalind Allen (Jena/DE, Edinburgh/GB)
- CMP010 TaDReP – Targeted detection and reconstruction of plasmids
Oliver Schwengers, Adrian Guthmann (Gießen/DE), Friederike Maechler (Berlin/DE)
Alexander Goesmann (Gießen/DE)

POSTER SESSION I MONDAY, 11 SEPTEMBER

- CMP012 Genomic and molecular analysis of siderophores and biosurfactans
Davide Paccagnella, Bitu Pourmohsenin (Tübingen/DE), Manuel Salvador (Sevilla/ES)
Nadine Ziemert (Tübingen/DE)
- CMP014 Evaluation of the zoonotic potential of *Streptococcus agalactiae* – A comparative analysis of cattle and human isolates
Linda Fenske (Gießen/DE), Andreas Itzek, Mark van der Linden (Aachen/DE), Elita Jauneikaite (London/GB)
Jochen Blom, Alexander Goesmann, Tobias Eisenberg (Gießen/DE)
- CMP016 Genomic exploration of prokaryotic diversity in the culture collection of the Archaea Centre Regensburg
Richard Stöckl, Robert Reichelt, Dina Grohmann (Regensburg/DE)
- CMP018 An inexpensive FHOTOBOX for high-resolution imaging
Sebastian Fischer, Emile Dehn, Donar Maffert, Ingo Franz, Fritz Titgemeyer (Münster/DE)

Environmental microbiology and ecology

- EMEP002 The application of rhizosphere competent actinobacteria as a tool to increase corn ability to ameliorate drought stress in the United Arab Emirates
Khaled El-Tarabily, Synan AbuQamar, Meera Maraqa, Razan Al Masri, Khadija Abdulsamad, Manal Almani
Maab Elawad (Al-Ain/AE)
- EMEP004 Endophytic 1-aminocyclopropane-1-carboxylic acid deaminase-producing *Streptomyces* spp. as a tool to alleviate salt stress in tomatoes in the United Arab Emirates
Khaled El-Tarabily, Synan AbuQamar, Meera Maraqa, Amira Hassan (Al-Ain/AE)
- EMEP006 Colonized 3D skin models – An advanced test system to study toxicity modulation of pesticides by the human skin microbiome
Maya Kissner, Aline Rosin, Tewes Tralau, Tessa Höper, Lisa Lemoine (Berlin/DE)
- EMEP008 *Roseobacter* bacteria alter their morphology if in touch with dead eukaryotes
Myriel Staack, Christian Jogler (Jena/DE)
- EMEP012 Microbial diversity and metabolic potential in sandstone reservoirs for thermal energy storage
Julia Mitzscherling, Lioba Virchow (Potsdam/DE), Martin Gitter (Berlin/DE), Armando Alibrandi
Simona Regenspurg, Jens Kallmeyer, Dirk Wagner (Potsdam/DE)
- EMEP014 Environmental controls of dark CO₂ fixation in wetland microbiota
Luise Grüterich (Hamburg/DE), Jason Nicholas Woodhouse (Stechlin/DE), Peter Mueller (Münster/DE)
Amos Tiemann (Hamburg/DE), Hans-Joachim Ruscheweyh, Shinichi Sunagawa (Zürich/CH)
Hans-Peter Grossart (Stechlin, Potsdam/DE), Wolfgang R. Streit (Hamburg/DE)
- EMEP016 Drivers of deadwood decay of 13 temperate tree species are similar between forest and grassland habitats
Lydia Kipping (Leipzig/DE), Florian Maurer (Coburg/DE), Martin M. Gossner (Birmensdorf/CH)
Tiemo Kahl (Schmiedefeld/DE), Harald Kellner (Zittau/DE), Wolfgang W. Weiser (Freising/DE)
Nico Jehmlich (Leipzig/DE), Matthias Noll (Coburg/DE)
- EMEP018 Influence of fertilisation strategies on the endophytic seed microbiome of barley
Kristina Bichler, Viviane Radl, Peter Schröder, Karin Pritsch, Michael Schlöter (Neuherberg/DE)
- EMEP020 Beyond plant diversity – Drivers of microbial diversity in a temperate grassland buffer zone
Rubén Martínez-Cuesta, Stefanie Schulz (Freising, Oberschleißheim/DE)
Sebastian Floßmann (Garmisch-Partenkirchen/DE), Kaiyu Lei (Freising/DE)
Michael Dannenmann (Garmisch-Partenkirchen/DE), Ingrid Kögel-Knabner (Freising/DE)
Michael Schlöter (Oberschleißheim, Freising/DE)

- EMEP022 Significant, but not biologically relevant – *Nosema ceranae* infections and colony winter losses
Sebastian Gisder, Vivian Schüler (Hohen Neuendorf/DE), Yuk-Chien Liu (Hohen Neuendorf, Potsdam/DE)
 Lennart Horchler (Hohen Neuendorf/DE), Detlef Groth (Potsdam/DE)
 Elke Genersch (Hohen Neuendorf, Berlin/DE)
- EMEP024 Microbial degradation of organophosphonates in context of lake constance oligotrophication
Dzikrina Nur Fatima, Sabrina Borusak, Marius Denner, Harry Lerner, Adrien Lapointe, Eva Riehle
 David Schleheck (Konstanz/DE)
- EMEP026 Biodegradation of novel polyethylene-like bioplastic by natural soil microbial communities under mesophilic conditions
Harry Lerner, Nele Meier, Lea Bernabeu, Marcel Eck, Stefan Mecking, David Schleheck (Konstanz/DE)
- EMEP028 Earthworm gut microbes stimulate the slow environmental degradation of polylactic acid
 Linda Hink, Stephan Rohrbach, Joey Rehkopf (Hannover/DE), Anja Holzinger, Alfons R. Weig
 Heike Feldhaar (Bayreuth/DE), Marcus A. Horn (Hannover/DE)
- EMEP030 Microplastic impacts archaeal soil communities – Journey to a blind spot of plastisphere research in Africa
Stephan Rohrbach (Hannover/DE), Gerasimos Gkoutselis (Bayreuth/DE), Linda Hink (Hannover/DE)
 Alfons Weig, Gerhard Rambold (Bayreuth/DE), Marcus A. Horn (Hannover/DE)
- EMEP032 Chloroplast and photosystem in the marine dinoflagellate *Prorocentrum cordatum*
Jana Kalvelage, Lars Wöhlbrand (Oldenburg/DE), Jennifer Senkler (Hannover/DE)
 Julian Schumacher (Oldenburg/DE), Keshav Goyal, Jennifer Grünert (Planegg-Martinsried/DE)
 Michael Winkelhofer (Oldenburg/DE), Andreas Klingl (Planegg-Martinsried/DE)
 Hans-Peter Braun (Hannover/DE), Ralf Rabus (Oldenburg/DE)
- EMEP034 Anaerobic cell extraction of live biomass from marine sediments
Yassin Mokhtar Kaspereit, H. Gerben de Zwaan, Patricia Geesink, Thijs J. G. Ettema (Wageningen/NL)
- EMEP036 Genome-resolved metaproteogenomics of gracilibacteria from cold groundwater
 Perla Abigail Figueroa Gonzalez, Till L. V. Bornemann (Essen/DE), Tjorven Hinzke
 Sandra Maass (Greifswald/DE), Jörn Starke, Carrie Moore (Essen/DE), Dörte Becher (Greifswald/DE)
 Alexander J. Probst (Essen/DE)
- EMEP038 Phenotypic and genomic comparison of spaceflight-relevant *Staphylococcus capitis*
Katharina Siems, Katharina Runzheimer (Cologne/DE), Anna Rehm (Gießen, Cologne/DE)
 Oliver Schwengers (Gießen/DE), David Heidler von Heilborn, Claudio Neidhöfer (Bonn/DE)
 Ralf Möller (Cologne/DE)
- EMEP040 Aquifer microbes – Not yet cultivated, but full of potential
Madeleine Kündgen (Jena/DE), Chang Ding (Leipzig/DE), Christian Jogler (Jena/DE)
- EMEP042 Polyphasic characterization of *Lacunimicrobium album* gen nov., sp. nov., a novel member of the phylum *Planctomycetota*
Moses Kabuu, Kumar Gaurav, Nicolai Kallscheuer (Jena/DE), Ruth Anne Schmitz-Streit (Kiel/DE)
 Christian Jogler (Jena/DE)
- EMEP044 Legionella in the water cycle of Berlin – Analyzed with established and new methods
 Vera Schumacher (Berlin/DE)
- EMEP046 The buried threat below? – Investigating the impact of microplastics on rhizosphere microbial communities in agricultural plants
Aileen Jakobs, Ryan Bartnick, Eva Lehdorff, Tillmann Lueders (Bayreuth/DE)
- EMEP048 Impact of a high-altitude temporary lake on microbial communities along a moisture transect in the Barrancas Blancas plain (Chile)
Diego Medina (Potsdam/DE), Ayón García, Rómulo Oses (Copiapó/CL), Dirk Wagner (Potsdam/DE)

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- EMEP050 The Schlesner strains collection expands the diversity of the phylum *Planctomycetota*
Kumar Gaurav, Jonathan Hammer, Tom Haufschild, Carmen Elisabeth Wurzbacher
Nicolai Kallscheuer (Jena/DE), Tal Dagan, Ruth Anne Schmitz-Streit (Kiel/DE), Christian Jogler (Jena/DE)
- EMEP052 The influence of *Zostera marina* on pelagic and benthic bacterial communities correlates with its growth characteristics
Daniel Herlemann (Tartu/EE), Luis Delgado (Stockholm/SE), David Riedinger (Rostock/DE)
Veljo Kisand (Tartu/EE), Victor Fernández-Juárez (Copenhagen/DK), Christian Pansch-Hattich (Åbo/FI)
Anders Andersson (Stockholm/SE), Lasse Riemann (Copenhagen/DK), Greta Gyraitė (Klaipeda/LT)
Sandra Kube (Copenhagen/DK), Marija Katarzyte (Klaipeda/LT), Kairi Käiro, Georg Martin (Tartu/EE)
Marcin Rakowsky (Gdynia/PL), Thorsten Reusch, Angela Stevenson (Kiel/DE), Matthias Labrenz (Rostock/DE)
- EMEP054 Establishment of dark septate endophytes (DSEs) as supplements in peat-free substrates
Dalia A. Gaber (Erfurt/DE, Assiut/EG), Jamie Lux (Erfurt/DE), Damien Blaudez (Nancy/FR)
Gábor M. Kovács (Budapest/HU), Philipp Franken (Erfurt, Jena/DE)
- EMEP056 Access to the uncultured microbial life – a functional metagenomic RubisCO screen reveals a novel ribulose-1,5-bisphosphate converting enzyme
Stefanie Böhnke-Brandt (Kiel/DE), Jan Zarzycki, Marieke Scheffen, Nicole Paczia, Tobias Erb (Marburg/DE)
Mirjam Perner (Kiel/DE)
- EMEP058 Metatranscriptomics of microbial biofilm succession on HDPE foil – Uncovering plastic-degrading potential in soil communities
Joana MacLean, Alexander Bartholomäus, Roberts Blukis, Susanne Liebner, Dirk Wagner (Potsdam/DE)
- EMEP060 “Midi-Metagenomics” – a novel approach for cultivation independent microbial genome reconstruction from environmental samples
Maximiano Correa Cassal, John Vollmers, Anne-Kristin Kaster (Eggenstein-Leopoldshafen/DE)
- EMEP062 From science to market – Potential use of *Pediococcus pentosaceus* strains as starter, probiotic or protective cultures
Sebastian Fischer, Anna Euler, Fritz Titgemeyer (Münster/DE)

Infection biology

- IBP002 The role of pneumococcal extracellular vesicles on the pathophysiology of the kidney disease Hemolytic Uremic Syndrome
Miriana Battista, Bianca Hoffmann, Yann Bachelot, Lioba Zimmermann, Laura Teuber, Aurélie Jost
Susanne Linde, Martin Westermann, Mario M. Müller (Jena/DE), Hortense Slevogt (Jena, Hannover/DE)
Sven Hammerschmidt (Greifswald/DE), Marc T. Figge, Cláudia Vilhena, Peter F. Zipfel (Jena/DE)
- IBP004 The electrophilic immunometabolite itaconate causes an acid stress response as well as S-bacillithiolation and S-itaconation in the thiol proteome of *Staphylococcus aureus*
Vu Van Loi (Berlin/DE), Tobias Busche (Bielefeld/DE), Benno Kuropka (Berlin/DE), Karen Methling
Michael Lalk (Greifswald/DE), Jörn Kalinowski (Bielefeld/DE), Haike Antelmann (Berlin/DE)
- IBP006 Identification of targets and function of the *Yersinia pseudotuberculosis* type VI secretion system
Cassandra Köster, Anna Kerwien, Petra Dersch, Anne-Sophie Herbrüggen (Münster/DE)
- IBP008 Paenilamicin – A secondary metabolite from *Paenibacillus larvae* – Defense against microbial competitors and self-resistance mechanism
Julia Ebeling, Josefine Göbel, Niklas Sibus (Hohen Neuendorf/DE), Tam Dang, Timur Bulatov
Roderich D. Süssmuth (Berlin/DE), Elke Genersch (Hohen Neuendorf, Berlin/DE)
- IBP010 Fast and reliable purification method of non-tagged S100A8/A9 to assess its antimicrobial properties
Hannah Eblenkamp, Jann-Louis Hau, Ludwig Hoelzle, Volker Stefanski, Julia Steuber
Günter Fritz (Stuttgart/DE)

- IBP012 *Staphylococcus aureus* maximizes killing of phagocytes by a coordinated biogenesis of purine deoxyribonucleosides
Nicoletta Schwermann, Eshraq Tantawy, Tjorven Ostermeier, Annette Garbe, Heike Bähre, Marius Vital Volker Winstel (Hannover/DE)
- IBP014 The TAL-effector TalAO from *Xanthomonas oryzae* pv. *oryzae* induces a phosphate exporter to enable bacterial growth during the infection of rice
René Pascal Grove, Stefanie Mücke (Hannover/DE), Annett Erkes, Jan Grau (Halle (Saale)/DE)
Jens Boch (Hannover/DE)
- IBP016 Zinc transporter MptABC is required for *Mycobacterium avium* subspecies paratuberculosis fitness and virulence
Elke Goethe, Wiebke Ahrend, Kristin Laarmann, Janita Lühns, Guntram Graßl, Ralph Goethe (Hannover/DE)
- IBP018 Rifampicin tolerance and growth fitness among isoniazid-resistant clinical *Mycobacterium tuberculosis* isolates – an in-vitro longitudinal study
Srinivasan Vijay (Jena/DE, Edinburgh/GB, Ho Chi Minh City/VN, Oxford/GB), Nguyen Le Hoai Bao Dao Nguyen Vinh, Le Thanh Hoang Nhat, Do Dang Anh Thu, Nguyen Le Quang, Le Pham Tien Trieu Hoang Ngoc Nhung, Vu Thi Ngoc Ha, Phan Vuong Khac Thai, Dang Thi Minh Ha Nguyen Huu Lan (Ho Chi Minh City/VN), Maxine Caws (Liverpool/GB)
Guy E. Thwaites (Oxford/GB, Ho Chi Minh City/VN), Babak Javid (California, CA/US)
Nguyen Thuy Thuong Thuong (Oxford/GB, Ho Chi Minh City/VN)
- IBP020 Preclinical evaluation of phospholipase PlaF and the membrane phospholipid remodeling pathway as an antibiotic target
Matea Modric, Karl-Erich Jaeger, Filip Kovacic (Jülich/DE)
- IBP022 Tet-controlled gene expression in *Stenotrophomonas maltophilia*
Rebecca Horch, Diana Rasp, Annika Dietz, Ronald Ebbert, Jörg Steinmann (Nuremberg/DE), Ulrich E. Schaible Uwe Mamat (Borstel/DE), Ralph Bertram, Jennifer Gillich (Nuremberg/DE)

Membranes and transport

- MTP002 Insights into the molecular mechanism of the Na⁺ – Translocating NADH – Quinone-oxidoreductase (Na⁺-NQR) from *Vibrio cholerae*
Sebastian Herdan, Jann-Louis Hau, Sophia Strobel, Julia Fritz-Steuber, Günter Fritz (Stuttgart/DE)
- MTP004 Identification of heteropolymeric subcomplexes and interaction of subunits of the DNA transporter in *Thermus thermophilus* HB27
Deniz Yaman, Beate Averhoff (Frankfurt a. M./DE)
- MTP006 Exploring the extracellular domain of the BceAB-type ABC-transporter NsrFP from *S. agalactiae*
Christian Mammen, Julia Gottstein, Sander Smits (Düsseldorf/DE)
- MTP008 The ABC transporter MsbA adopts the wide inward-open conformation in *E. coli* cells
Kristian Parey (Osnabrück/DE), Laura Galazzo (Bochum/DE), Gianmarco Meier (Geneva/CH)
Dovile Janulienė (Osnabrück/DE), Lars Schäfer (Southampton/GB), Enrica Bordignon (Bochum/DE)
Markus Seeger (Geneva/CH), Arne Moeller (Osnabrück/DE)
- MTP010 The tat complexes that are detected by BN-PAGE differ in their association with TatA
Max-Hinrich Werner, Thomas Brüser (Hannover/DE)
- MTP012 The balance between the type III secretion system activity and bacterial replication during *Yersinia* infection
Francesca Ermoli, Andreas Diepold (Marburg/DE)
- MTP014 Lipid rafts in *Schizophyllum commune* – insights in localization and composition
Berit Frizzy Porsche, Erika Kothe, Katrin Krause, Robert Jesse (Jena/DE)

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- MTP016 New insights into the proton translocation mechanism of the organohalide respiratory complex of *Dehalococcoides mccartyi* strain CBDB1
Darja Deobald, Nadine Hellmold, Marie Eberwein (Leipzig/DE), Lorenz Adrian (Leipzig, Berlin/DE)
- MTP018 Enzyme activity screening of hundreds of proteins of unknown function revealed novel lipolytic hydrolases of *Pseudomonas aeruginosa*
Diana Lorenz, Nikolina Babic, Karl-Erich Jaeger, Filip Kovacic (Jülich/DE), Sebastian Felgner (Braunschweig/DE)

Microbial biodiversity and evolution

- MBEP002 From subsurface to the termite gut – Novel isolates expand our knowledge on the distribution and diversity of the planctomycetal order *Isosphaerales*
Jonathan Hammer, Emanuel Petre, Martina Hermann (Jena/DE), Kim-Loreen Carlstedt (Jena, Heidelberg/DE)
Madeleine Mutter, Nicolai Kallscheuer, Katharina Lehmann (Jena/DE), Ruth Anne Schmitz-Streit
Z. Wilhelm de Beer (Kiel/DE), Christine Beemelmans (Saarbrücken, Jena/DE), Kai Uwe Totsche, Kirsten Küsel
Christian Jogler (Jena/DE)
- MBEP004 A microfluidic chip for adaption and selection of whole-cells
Camilla Stolle, Christof M. Niemeyer, Kersten S. Rabe (Eggenstein-Leopoldshafen/DE)
- MBEP006 A novel clade of fastidious purple sulfur bacteria exhibits unique capabilities for harvesting near infrared light
Steven Kuzyk, Anika Methner, Jörn Petersen, Sabine Bauer, Henner Brinkmann, Katja Sichau
Gerhard Wanner, Jacqueline Wolf, Meina Neumann-Schaal, Petra Henke, Marcus Tank, Cathrin Spröer
Boyke Bunk, Jörg Overmann (Braunschweig/DE)
- MBEP008 Natural transformation in non-model cyanobacteria
Fabian Nies, Tal Dagan (Kiel/DE)
- MBEP010 *E. coli* colony growth, filamentation and resistance evolution under tetracycline and acrAB-tolC multidrug efflux pump overexpression
Srinivasan Vijay (Jena/DE, Edinburgh/GB), Sharareh Tavaddod (Edinburgh/GB)
Marie-Luise Enghardt (Jena/DE), Tilen Voncina (Edinburgh/GB), Rosalind J. Allen (Jena/DE, Edinburgh/GB)
- MBEP012 “*Mesoanaerobacter kivui*?” – Evolution of a thermophile to thrive at lower temperatures
Christoph Prohaska, Maria Lehmann (Rostock/DE), Anja Poehlein (Göttingen/DE), Mirko Basen (Rostock/DE)
Rolf Daniel (Göttingen/DE)
- MBEP014 Robust collateral sensitivity to aminoglycoside antibiotics due to ciprofloxacin resistance evolution in *Pseudomonas aeruginosa*
Aditi Batra, Daniel Schuetz, Kim Flinder, Nadja Steinbach, Alexandra Tietze, Hinrich Schulenburg (Kiel/DE)

Microbial communities

- MCP002 Microbiome friendly – Testing cosmetic ingredients in vivo on the example of UV filters
Christin Koch, Ev Suess, Imke Meyer, Steffen Nordzieke (Holzminden/DE)
- MCP004 Investigation of the water kefir grain formation and growth by a new image analysis method
Pia Bethge, Berenike Schmalfuß, Thomas Henle, Thorsten Mascher (Dresden/DE)
- MCP006 Metagenomic analysis of an anoxygenic photosynthetic microbial consortium from a pond ecosystem
Lucia Winkler, Heiko Nacke, Joachim Reitner, Michael Hoppert (Göttingen/DE)
- MCP008 Characterisation of non-axenic cyanobacteria – PacBio amplicon sequencing of the complete 16S-ITS region of *Coleofasciculus* and associated bacteria
Pia Marter, Heike M. Freese, Jörn Petersen (Braunschweig/DE)
- MCP010 An approach to investigate interbacterial interactions in a community of human gut microbes
Julia Schumacher, Patrick Müller, Lisa Maier, Bastian Molitor (Tübingen/DE)

- MCP012 More than just bacteria – Metagenomic analysis reveals a diverse, skin-like microbial community on worn spectacles
Birgit Fritz, Susanne Jacksch, Nazma Sultana Lupin (Villingen-Schwenningen/DE)
 Siegfried Wahl (Tübingen/DE), Focke Ziemssen (Tübingen, Leipzig/DE)
 Markus Egert (Villingen-Schwenningen/DE)
- MCP014 Enzymatic textile recycling – Microbial upcycling of synthetic fiber monomers from hydrolysates
Dominik Steffens, Lars Mathias Blank, Hendrik Ballerstedt (Aachen/DE)
- MCP016 How do bacteria adapt to life in the community? Answers for a model community using metabolic modelling and proteomic data integration
Anna Burrichter (Munich/DE), Johannes Zimmermann (Kiel/DE), Christina Ludwig, Chen Meng (Freising/DE)
 Christoph Kaleta (Kiel/DE), Bärbel Stecher-Letsch (Munich/DE)
- MCP018 RNA seq analysis of multispecies biofilms provides information about interaction and competition among lung pathogens in their niche
 Raphael Moll (Hamburg/DE)
- MCP020 Development of a bioelectrochemical system to uncouple and interrogate H₂-syntrophic partners in the human gut microbiota
Ulrike Biehain, Largus Theodora Angenent, Sofia Esquivel-Elizondo, Ruth E. Ley, Nils Rohbohm, Tianran Sun
 Daniel H. Huson, Timo N. Lucas (Tübingen/DE)
- MCP022 Capacity of the swine gut microbiome in phytate dephosphorylation and inositol catabolism
Lena-Sophie Paul, Michael Weber, Mohammad Hamza Farooq, Hannes Axt, Thilo M. Fuchs (Jena/DE)
- MCP024 Towards the production of sesquiterpenoids in a light-driven microbial consortium
Joana Charlot Pohlentz, Valerie Bühren, Philipp Westhoff, Michael Feldbrügge
 Kerstin Schipper (Düsseldorf/DE)
- MCP026 Plant growth-promoting (PGP) effects of microbial consortia in a peat-free substrate
Katja Burow, Julius Dawydow, Dirk Möcker, Miriam Bradl (Erfurt/DE), Rhedia Proma (Jena/DE)
 Sarah Kühne (Erfurt/DE), Erika Kothe (Jena/DE), Philipp Franken (Erfurt, Jena/DE)
- MCP028 Mining novel quorum quenching biomolecules from *Aplysina aerophoba* for harmful biofilm inhibition
Elsa Beyene Gebreslassie, Nicole Pinnow (Kiel/DE), Lucia Pita (Barcelona/ES), Nancy Weiland-Bräuer
 Ruth Anne Schmitz (Kiel/DE)

Open topics

- OTP002 Fragment-based drug discovery targeting the flavin transferase enzyme to combat antimicrobial resistance in gram-negative bacteria
Mustafa Zeno, Jonatan Vering, Günter Fritz, Julia Steuber (Stuttgart/DE)
- OTP004 The DSMZ collection of cyanobacteria and protists – Characterisation of non-axenic cyanobacterial cultures by metagenomic sequencing
Silke Pradella, Ellruth Bitter, Maja Marheine, Steph Seufert, Martina Westphal
 Michael Pester (Braunschweig/DE)
- OTP006 Characterization of the three CobW proteins shed new light on the metal pools of *Cupriavidus metallidurans* CH34
Diana Galea, Martin Herzberg, Lucy Bütof, Dietrich H. Nies (Halle (Saale)/DE)
- OTP008 Investigation of the unusual PE-III phycobiliprotein of *Prochlorococcus marinus* SS120, using *Synechocystis* sp. PCC 6803 as a biosynthetic platform
Jacqueline Hackh, Bin Gu, Nicole Frankenberg-Dinkel (Kaiserslautern/DE)
- OTP010 Metabologenomic workflow development for strain prioritization
Joana Bauer, Celine Mara Zumkeller, Sanja Mihajlovic, Marius Spohn, Till Schäberle (Gießen/DE)

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- OTP012 Characterizing microbial growth in single-cell microfluidics
Shamla Mohamed Farees, Marlene Hecker, Ulrike Endesfelder, Bartosz Turkowyd, Koen Martens (Bonn/DE)
- OTP014 The next level – OpenBIS supporting encryption and workflows via a novel user interface
Fabienne Thelen, Jannis Hochmuth, Benedikt Schwab, Sven Griep, Patrick Barth, Lukas Jelonek
Alexander Goesmann, Frank Förster (Gießen/DE)
- OTP016 Analysis of Asc1/RACK1s function in hooking cellular signaling to the sensing and processing of stalled and collided ribosomes
Kerstin Schmitt, Merle Aden, Lorenz Winter, Gerhard H. Braus, Oliver Valerius (Göttingen/DE)
- OTP018 Sphingolipid inhibitors from fungi – biosynthesis, spatio-temporal organisation and cross-interaction with sphingolipid metabolism
Katarina Jojić, Fabio Gherlone, Alexander U. Bissell, Sandra Hoefgen, Zoltan Cseresnyés, Ying Huang
Slavica Janevska, Marc Thilo Figge, Vito Valiante (Jena/DE)
- OTP020 Enrichment and isolation of acetogenic bacteria as biocatalysts for industrial waste gas fermentation
Alina Lüschen, Tim Böer, Dominik Schneider, Rolf Daniel, Anja Poehlein (Göttingen/DE)

Phage biology

- PBP002 Antiphage properties of aminoglycoside antibiotics produced by *Streptomyces spp*
Bente Rackow, Larissa Kever, Aël Hardy, Julia Frunzke (Jülich/DE)
- PBP004 Metabolic footprint of prophage induction
Nawras Ghanem (Leipzig/DE), Christian Zerfaß, Simon Schroeter, Gerd Gleixner, Georg Pohnert (Jena/DE)
Lukas Wick, Antonis Chatzinotas (Leipzig/DE)
- PBP006 Identification of a novel bacteriophage receptor in *Staphylococcus epidermidis*
Christian Beck, Janes Krusche, Axel Walter, Andreas Peschel (Tübingen/DE)

Prokaryotic cell biology

- PCBP002 Well protected – Three CRISPR-Cas systems in antibiotic producer *Streptoalloteichus tenebrarius*
Lena Mitousis, Ewa M. Musiol-Kroll, Wolfgang Wohlleben (Tübingen/DE)
- PCBP004 Molecular and mechanistic basis for spatiotemporal organization of polar flagella
Lisa Marie Schmidt, Kai Thormann (Gießen/DE)
- PCBP008 The Incredibles – Insights into the non-canonical cell division of the *Planctomycetota*
Tom Haufschild, Nicolai Kallscheuer, Christian Jogler (Jena/DE)
- PCBP010 Uptake of environmental DNA in *Bacillus subtilis* occurs all over the cell surface through a dynamic pilus structure
Alexandra Kilb, Marie Burghard-Schrod, Sven Holtrup, Peter Ludwig Graumann (Marburg/DE)
- PCBP012 Analysis of the interactions of chromosome segregation and cell division proteins in *Caulobacter crescentus*
Nidhi Kalidas, Revathi Pulpetta, Martin Thanbichler (Marburg/DE)
- PCB014 The D,D-endopeptidase Csd2 within the helical-cell-shape-promoting protein complex of *Helicobacter pylori*
Maximilian Greger, Barbara Waidner (Marburg/DE)

Prokaryotic physiology and metabolism

- PPMP002 Beyond peptides – a RiPP pathway produces an unusual protein complex with post-translational modifications
Jethro Hemmann (Jena/DE), Leona Berndt, Gottfried J. Palm, Michael Lammers (Greifswald/DE)
Gerald Lackner (Jena/DE)
- PPMP004 The regulatory axis of PII-PirC-PGAM in cyanobacterial carbon metabolism
Tim Orthwein, Karl Forchhammer (Tübingen/DE)
- PPMP006 Same same but different – The global response of *Escherichia coli* to five different LpxC inhibitors
Anna-Maria Möller, Melissa Vázquez-Hernández, Blanka Kutscher, Raffael Brysch, Simon Brückner
Emily Marino, Julia Kleetz, Christoph Senges, Sina Schäkermann, Julia Elisabeth Bandow
Franz Narberhaus (Bochum/DE)
- PPMP008 The role of MftG in respiration and mycofactocin regeneration in *Mycobacterium smegmatis* under ethanol metabolism
Ana Patrícia Graça, Vadim Nikitushkin, Mark Ellerhorst, Gerald Lackner (Jena/DE)
- PPMP010 Investigation of the biological function of small DUF1127 proteins in *Agrobacterium tumefaciens*
Donata Remme, Lea-Janina Tilg, Alexander Kraus, Yvonne Pfänder, Franz Narberhaus (Bochum/DE)
- PPMP012 Utilization of the key regulatory protein CP12 to re-direct energy flux towards products in cyanobacteria
Marvin Amadeus Itzenhäuser, Fabian Brandenburg, Samuel Grimm, Stephan Klähn (Leipzig/DE)
- PPMP014 Exploring the targetome of IsrR, a Fur-regulated sRNA controlling the synthesis of iron-containing proteins in *Staphylococcus aureus*
Alexander Ganske, Larissa Busch, Sebastian Reißel, Christian Hentschker, Alexander Reder, Kristin Surmann
Petra Hildebrandt, Uwe Völker, Ulrike Mäder (Greifswald/DE)
- PPMP016 Unravelling the function of YejL – Another potential regulator of the LPS biosynthesis
Lea-Janina Tilg, Anna-Maria Möller, Milena Noreen Sellmann, Emily Marino, Franz Narberhaus (Bochum/DE)
- PPMP018 The sulfur relay system, which delivers sulfur to a lipoate-binding protein involved in sulfane sulfur oxidation
Marc Gregor Mohr, Tomohisa Sebastian Tanabe, Kaja Grewe, Freya Behrens, Christiane Dahl (Bonn/DE)
- PPMP020 Catabolic network of *Phocaeicola vulgatus*
Urte Clausen, Soeren-Tobias Vital, Lars Woehlbrand, Pia Lambertus, Sabine Scheve, Martina Gehler
Ralf Rabus (Oldenburg/DE)
- PPMP022 Non-canonical amino acids in food – Unraveling the metabolism of the advanced glycation end product Nε-Carboxymethyllysine in bacteria
Erica Aveta, Judith Mehler (Munich/DE), Kim Ina Behringer (Braunschweig/DE), Nicola Gericke (Munich/DE)
Marlene Walczak, Patroklos Vougioukas, Michael Hellwig (Dresden/DE), Jürgen Lassak (Munich/DE)
- PPMP024 Identification and characterization of a novel pathway for aldopentose degradation in *Acinetobacter baumannii* ATCC 19606
Lydia Alberti, Patricia König, Sabine Zeidler, Beate Averhoff, Volker Müller (Frankfurt a. M./DE)
- PPMP026 Unravelling the physiological function of the Entner-Doudoroff pathway in *Synechocystis* sp. PCC 6803 by enzyme characterization
Ravi shankar Ojha (Essen/DE), Kirstin Gutekunst (Kassel/DE), Bettina Siebers, Christopher Bräsen (Essen/DE)
- PPMP028 Influence of the gut microbiota on the formation of nitrosamines from drug substances
Mélanie Gindt, Natalie Hager, Uwe Deppenmeier (Bonn/DE)

POSTER SESSION I MONDAY, 11 SEPTEMBER

RNA biology

- RNAP002 A guard protein mediated quality control mechanism monitors 5-capping of pre-mRNAs
Sandra Klama, Anna Greta Hirsch, Ulla Maria Schneider, Gesa Zander, Anika Seel
Heike Krebber (Göttingen/DE)
- RNAP004 Multiple functions of the SAM-II riboswitch in *Sinorhizobium meliloti*
Theresa Dietz, Robina Scheuer, Elena Evguenieva-Hackenberg (Gießen/DE)

Signal transduction & gene regulation

- STRGP002 The MerR-family regulator NmlR is involved in the oxidative stress defense in *Streptococcus pneumoniae*
Verena Nadin Fritsch, Nico Linzner (Berlin/DE), Tobias Busche (Bielefeld/DE), Nelly Said
Christoph Weise (Berlin/DE), Jörn Kalinowski (Bielefeld/DE), Markus Wahl, Haike Antelmann (Berlin/DE)
- STRGP004 Understanding the role of transcriptional and post-transcriptional regulation for the production of the antimicrobial epeptide EpeX
Sarah Miercke (Dresden/DE), Emma Denham (Bath/GB), Thorsten Mascher (Dresden/DE)
- STRGP006 SoxR, a sulfane sulfur-responsive repressor of sulfur oxidation
Kaya Törkel, Jingjing Li, Christiane Dahl (Bonn/DE)
- STRGP008 Characteristics of the GlnH and GlnX signal transduction proteins controlling PknG-mediated phosphorylation of the 2-oxoglutarate dehydrogenase inhibitor OdhI in *Corynebacterium glutamicum*
Srushti Gujar (Jülich, Düsseldorf/DE), Lea Sundermeyer, Graziella Bosco, Melanie Brocker
Meike Baumgart (Jülich/DE), Dieter Willbold (Jülich, Düsseldorf/DE), Oliver H. Weiergräber (Jülich/DE)
Marco Bellinzoni (Paris/FR), Michael Bott (Jülich/DE)
- STRGP010 Genome-wide analysis of iron- and heme-dependent regulatory networks in *Corynebacterium glutamicum*
Aileen Krüger, Julia Frunzke, Ulrike Weber (Jülich/DE)
- STRGP012 Characterisation of the Cpx system of *Pseudomonas aeruginosa*
Lina Marie Upterworth (Kiel/DE), Badri N. Dubey, Holger Sondermann (Hamburg/DE)
Hinrich Schulenburg (Kiel, Plön/DE)
- STRGP014 pH-dependent activation of the transcriptional regulator AdiY of *E. coli*
Sophie Brameyer, Sonja Kuppermann, Kirsten Jung (Planegg-Martinsried/DE)
- STRGP016 Role of Asp23 family proteins in fatty acid acquisition in *Bacillus subtilis*
Dennis Wicke, Sabine Lentjes, Jörg Stülke (Göttingen/DE)
- STRGP018 Lost in Translation? – The role of elongation factor P paralog EfpL in efficient protein synthesis in bacteria
Alina Sieber (Martinsried/DE), Marina Parr, Dimitrij Frishman (Freising/DE), Kirsten Jung
Jürgen Lassak (Martinsried/DE)
- STRGP020 LsrB- A conserved LysR-type transcription factor in pathogenic and symbiotic Rhizobiales
Hannah Bille, Ronja Fiedler, Janka Schmidt, Maren Peters, Franz Narberhaus (Bochum/DE)
- STRGP022 Characterisation of LysR-type transcription regulator YdcI in *Escherichia coli*
Ria Basu Roy, Karin Schnetz (Cologne/DE)

Systems and synthetic microbiology

- SSMP002 Engineering methane-converting platform organisms for a future bioeconomy
Domenic Zill, Elisabeth Lettau (Aachen/DE), Christian Lorent (Berlin/DE), Franziska Seifert (Halle (Saale)/DE)
Lars Lauterbach (Aachen/DE)
- SSMP004 Targeting of antibiotic resistance and biofilm genes with synthetic small RNAs in *Escherichia coli*
Sophie Dittmar (Gießen/DE), Rafael Melo Palhares (Gießen, Marburg/DE), Daniel Schindler (Marburg/DE)
Bork Berghoff (Gießen/DE)
- SSMP006 Establishing *Bacillus subtilis* as production platform for mersacidin bioproduction
Lars Lilge, Oscar Kuipers (Groningen/NL)
- SSMP008 In vivo control of siderophore-mediated interspecies communication by light
Seung-Hyun Paik, Fabienne Knapp, Andrea Weiler, Antonia Zeisel, Aileen Krüger, Dietrich Kohlheyer
Julia Frunzke, Jörg Pietruszka, Karl-Erich Jaeger, Thomas Drepper (Jülich/DE)
- SSMP010 A novel promoter-repressor system for tunable gene expression in *Magnetospirillum gryphiswaldense*
Alexandra Woller, Marina Dziuba, Dirk Schüler (Bayreuth/DE)
- SSMP012 Analyzing phenotype-less SCRaMbLEd synthetic yeast strains in high-throughput
Timon Alexander Lindeboom, Daniel Schindler, María Sánchez Olmos, Adán Andrés Ramírez Rojas
Cedric K. Brinkmann (Marburg/DE), Lena Hochrein (Potsdam/DE)
- SSMP014 Enhanced carbon fixation in *Synechocystis* sp. PCC 6803 by implementation of a new-to-nature
 β -keto-acid-cleavage enzyme
Eva-Maria Brouwer, Tillmann Wolff, Paul-Anton Tornow, Saskia Kürten (Rostock/DE)
Tobias Erb (Marburg/DE), Martin Hagemann (Rostock/DE)

POSTER SESSION I TUESDAY, 12 SEPTEMBER

15:45–18:00 Poster Session 2

Anaerobic metabolism

- AMP001 Characterizing the bacteria-like O-demethylase system of the methanogenic archaeon *Methermicoccus shengliensis*
Johannes Willemsen, Julia Kurth (Marburg/DE)
- AMP003 Lactate formation from fructose or C1 compounds in the acetogen *Acetobacterium woodii* by metabolic engineering
Jimyung Moon, Lara Marie Waschinger, Volker Müller (Frankfurt a. M./DE)
- AMP005 Metabolic pathways involved in anaerobic degradation of C1 or C2 compounds during axenic versus syntrophic growth of *Thermacetogenium phaeum*
Yanlin Cai, Anja Keller, Nicolai Müller (Konstanz/DE)
- AMP007 Characterization of ferredoxins from the thermophilic, acetogenic bacterium *Thermoanaerobacter kivui*
Melanie Essig, Alexander Katsyv, Volker Müller (Frankfurt a. M./DE)
- AMP009 Metagenomic and metatranscriptomic analyses reveal a new limonene degradation pathway in a methanogenic enrichment
Almud Lonsing, Anastasia Resteu, Jana Kizina, Jens Harder (Bremen/DE)
- AMP011 The formate-hydrogenlyase complex of *Trabulsiella guamensis*
Maximilian Hardelt, Constanze Pinske (Halle (Saale)/DE)
- AMP013 Optimization and biochemical characterization of hydrogen formation from formate by the acetogen *Thermoanaerobacter kivui*
Yvonne Burger, Volker Müller (Frankfurt a. M./DE)
- AMP015 Molecular architecture and electron transfer pathways in the Stn family of transhydrogenases
Anuj Kumar (Marburg, Frankfurt a. M./DE), Florian Kremp, Volker Müller (Frankfurt a. M./DE)
Jan Michael Schuller (Marburg/DE)
- AMP017 Methane formation driven by reactive oxygen species across all living organisms and the early earth
Leonard Ernst, Johannes Rebelein (Marburg/DE)
- AMP019 Characterization of the cobalamin-dependent *Radical* SAM methyltransferase QCMT involved in maturation of methyl-coenzyme M reductase
Hannah Antonia Herrmann, Gunhild Layer (Freiburg i. Br./DE)
- AMP021 Expanding the repertoire of counterselection markers for markerless gene deletion in the human gut bacterium *Phocaeicola vulgatus*
André Neff, Rebecca Lück, Marcel Hövels (Bonn/DE)
- AMP023 Structure and function of a 1-MDa electron-confurcating/bifurcating, dearomatising enzyme complex from obligately anaerobic bacteria
Lena Appel (Freiburg i. Br./DE), Anuj Kumar (Freiburg i. Br., Marburg/DE), Kanwal Kayastha (Leiden/NL)
Jan Michael Schuller (Marburg/DE), Ulrich Ermler (Frankfurt a. M./DE), Matthias Boll (Freiburg i. Br./DE)
- AMP025 Anaerobic degradation of side chain-containing steroids – ATP-dependent and-independent mechanism to achieve hydroxylation of a primary carbon
Tingyi Zhan, Christian Jacoby (Freiburg i. Br./DE), Ulrike Demmer (Frankfurt a. M./DE)
Andreas Guenter (Freiburg i. Br./DE), Ulrich Ermler (Frankfurt a. M./DE), Stefan Weber
Matthias Boll (Freiburg i. Br./DE)
- AMP027 Structural and functional analysis of tRNA^{sec} from different bacterial species
Sarah Schmidt, Johann Heider (Marburg/DE)

- AMP029 Identification of enzymes responsible for anaerobic transformation of sulfamethoxazole in sulfate reducing bacteria
Yu Liu (Leipzig, Berlin/DE), Chang Ding (Leipzig/DE), Lorenz Adrian (Leipzig, Berlin/DE)

Archaea

- ARP001 Unraveling the regulation of methoxydotrophic methanogenesis
Zeynep Dogru, Julia Kurth (Marburg/DE)
- ARP003 Unraveling the dynamic interaction of ArII and ArII in the archaeellum motor complex
Marie Joest, Shamphavi Sivabalasarma, Moritz Kirchner, Julia Schimpf, Leonie Vollmer, Thorsten Hugel
Sonja-Verena Albers (Freiburg i. Br./DE)
- ARP005 Investigating the nucleotide excision DNA repair system uvrABCD of the archaeon *Haloferax volcanii* by single-molecule microscopy
Paula Schrage, Koen Martens, Ulrike Endesfelder (Bonn/DE)
- ARP007 Unveiling the ecophysiology and genome complexity of *Candidatus Altiarchaeum* with high-quality genome recovery via nanopore sequencing
Sophie A. Simon, Till L. V. Bornemann, Perla Abigail Figueroa Gonzalez, Lea Griesdorn, Julia Plewka
Itr Geydirici, André R. Soares, Alexander J. Probst (Essen/DE)
- ARP009 Use of fluorescent proteins for live imaging in *Sulfolobus acidocaldarius*
Alejandra Recalde, Sonja-Verena Albers (Freiburg i. Br./DE)
- ARP011 Intermolecular gene conversion in the polyploid haloarchaeon *Haloferax volcanii*
Daniel Wasser, Lara Sandner, Hanna Özer, Elisa Ravaro, Andreas Borst, Mathias Hammelmann
Katharina Ludt, Jörg Soppa (Frankfurt a. M./DE)
- ARP013 Enriching bathyarchaeota from freshwater sediments using genome-guided cultivation
Patricia Geesink, Thijs J. G. Ettema (Wageningen/NL)
- ARP015 Characterization and localization of enzymes involved in amino acid biosynthesis in the hyperthermophilic archaeon *Ignicoccus hospitalis*
Qinglei Sun (Münster/DE), Thomas Heimerl (Marburg/DE), Ivan A. Berg (Münster/DE)

Biology of yeast and fungi

- BYFP001 Molecular identification of two endophytic filamentous fungi and in-vitro antibacterial activities of their secondary metabolites
Mobolaji Titilawo, Temitope Ajani, Dorcas Adedeji, Esther Jegede, Folashade Adeyemi (Osogbo/NG)
Omotayo Abioye, Taiwo Olumakinde (Ile-Ife/NG), Janet Olaitan (Osogbo/NG)
Olabisi Ojo (Lagos/NG, Albany, GA/US), Sunday Akinde (Osogbo/NG)
- BYFP003 In vivo proximity labeling with biotin to identify protein-protein interactions in sordaria macrospora
Lucas Hollstein, Kerstin Schmitt, Gertrud Stahlhut, Oliver Valerius, Stefanie Pöggeler (Göttingen/DE)
- BYFP005 Cell surface expression of enzymes using different cell wall anchorage systems in yeast
Matthias Lermen (Saarbrücken/DE)
- BYFP007 Evolution of chromosomal regions with A mating type loci in agaricomycetes
Ming Fang (Göttingen/DE, Changchun/CN), Fangjie Yao, Lixin Lu (Changchun/CN), Ursula Kües (Göttingen/DE)
- BYFP009 Genetic analyses of a pleiotropic fruiting body mutant of *Coprinopsis cinerea*
Hari Kapli, Shanta Subba, Sophia Marie Schilling, Ursula Kües (Göttingen/DE)

POSTER SESSION I TUESDAY, 12 SEPTEMBER

BYFP011 Mode of action *Penicillium steckii* IBWF104-06 as biological control agent
Alina Borger, Antea Dulaj, Dennis Dammköhler, Veronika Hanke, Jemal Wilkening, Luis Antelo
Eckhard Thines (Mainz/DE)

Biotechnology

- BTP001 Metaproteomic approach to discovering novel biocatalysts from environmental sources
Felix Dicks, Premankur Sukul, Sina Schäkermann, Sascha Heinrich, Julia Elisabeth Bandow
Lars I. Leichert (Bochum/DE)
- BTP003 From natural to heterologous production of sakacin P in *Corynebacterium glutamicum*
Lisa Prigolovkin, Anna Wichterich (Jülich/DE), Tobias Neddermann (Freilassing/DE), Valentin Steier
Wolfgang Wiechert (Jülich/DE), Sebastian J. Reich, Christian U. Riedel (Ulm/DE), Marco Oldiges (Jülich/DE)
- BTP005 Metabolic engineering of *Pseudomonas putida* for fermentative production of flavor compound from green tea
Leonie Benninghaus, Volker F. Wendisch (Bielefeld/DE)
- BTP007 A genetic toolbox to facilitate metabolic engineering and new biotechnological applications of *Zymomonas mobilis*
Gerrich Behrendt, Jonas Frohwitter, Maria Vlachonikolou, Steffen Klamt, Katja Bettenbrock (Magdeburg/DE)
- BTP009 Establishing enzymatic cascade reactions on multifunctional bacterial magnetosomes
Simon Markert, Frank Mickoleit, Clarissa Lanzloth, Dirk Schüler (Bayreuth/DE)
- BTP011 Genetic engineering via CRISPR-Cas9 enhances PHB production in methanotrophs
Alessandra Mauri, Hendrik Ballerstedt, Lars Mathias Blank (Aachen/DE)
- BTP013 Membrane manipulation by free fatty acids improves microbial plant polyphenol synthesis
Apilaasha Tharmasothirajan, Karin Krumbach, Jan Marienhagen (Jülich/DE)
- BTP015 Screening approaches to identify bottlenecks in carotenoid production in *Corynebacterium glutamicum* through CRISPRi and application of structurally different lycopene β -cyclases
Vanessa Göttl, Nadja A. Henke, Volker F. Wendisch (Bielefeld/DE)
- BTP017 A temperature dependent pilin promoter for production of thermostable enzymes in *Thermus thermophilus*
Lennart Kirchner, Beate Averhoff (Frankfurt a. M./DE)
- BTP019 Metabolic engineering of *Hydrogenophaga pseudoflava* for fatty acid production
Simon Grieshaber, Fiona Nothaaß, Daniel Siebert, Bastian Blombach (Straubing/DE)
- BTP021 Linker mutagenesis – changes in fusion protein activities by varying linker length and properties
Beyzanur Celebi, Simon Niklas Hermann Hadewig, Fabian Schultes, Dirk Tischler
Anna Christina Ngo (Bochum/DE)
- BTP023 From waste to bioplastic – the genetic modification of bacterial isolates from waste to force PHB production during growth on waste
Frederik Eck, Matthew McIntosh (Gießen/DE)
- BTP025 Expansion of plasma-driven biocatalysis using the unspecific peroxygenase from *Collariella virescens* and a capillary plasma jet
Sabrina Klopsch, Tim Dirks, Davina Stoesser, Océane Michels, Steffen Schüttler, Judith Golda
Julia Elisabeth Bandow (Bochum/DE)
- BTP027 The FAST way to assess promoter strength, riboswitches and inducibility in *Clostridium cellulovorans*
Aline Schöllkopf, Luciana Mayara Mendonça de Almeida, Cristina Gonzalez Rivero, Wolfgang Liebl
Armin Ehrenreich (Freising/DE)

- BTP029 Characterization of a multi-modular xanthanase from *Cohnella* sp
Rui Han, Melanie Baudrexl, Holger Edelmann (Freising/DE), Sonja Vanderhaeghen (Planegg-Martinsried/DE)
Oxana V Berezina (Moscow/RU), Wolfgang Liebl (Freising/DE)
- BTP031 Generation of a genetic toolbox for protein production in actinobacteria
Nils Weindorf, Melody Haarmann, Anna Christina Ngo, Chiara Weickardt, Alexandra Wessely
Dirk Tischler (Bochum/DE)
- BTP033 Evaluation of dynamic stress responses of *Pseudomonas putida* with fluorescent dual reporters
Jakob Grether, Holger Dittmann (Stuttgart/DE), Lars Lilje (Groningen/NL), Rudolf Hausmann (Stuttgart/DE)
- BTP035 Accelerated secretion efficiency screening for the production of microplastic-binding peptides in
C. glutamicum
Rebecca Hamel, Annika Neumann (Jülich/DE), Marian Bienstein, Francisca Contreras
Ulrich Schwaneberg (Aachen/DE), Wolfgang Wiechert, Marco Oldiges (Jülich/DE)
- BTP037 Exploring the potential of water-dependent steroid C25 hydroxylases for 25-OH-vitamin D3 synthesis
Dennis Kosian, Ralf Weißbecher, Max Willstein, Christian Jacoby, Matthias Boll (Freiburg i. Br./DE)
- BTP039 Caproate production from enset fibers in two step fermentation using anaerobic fungi (*Neocallimastix*
cameroonii G341) and *Clostridium kluyveri*
Nebyat Seid, Anke Neumann (Karlsruhe/DE)
- BTP041 Structure-function characterization of antifungal peptides and development of high-level production chassis
strains
Lena Heber, Vera Meyer, Sascha Jung (Berlin/DE)
- BTP043 Determination of plasmid stability and copy number in *C. cellulovorans* 743B
Luciana Mayara Mendonça de Almeida, Aline Schöllkopf, Wolfgang Liebl, Armin Ehrenreich (Freising/DE)
- BTP045 The evolution and diversity of PETases in the bacteroidota phylum
Ly Trinh, Ifey Alio (Hamburg/DE), Pablo Perez-Garcia (Hamburg, Kiel/DE), Robert Dierkes
Wolfgang R. Streit (Hamburg/DE)
- BTP047 Broadening the power-to-X platform – conceptualizing a two-stage bioreactor system for bioindustrial syngas
processing
Sarah Deniz Akinci (Tübingen/DE), Christian Schöne (Dresden/DE), Hiroki Yoshida
Largus Theodora Angenent (Tübingen/DE), Michael Rother (Dresden/DE), Bastian Molitor (Tübingen/DE)
- BTP049 Accelerated bioprocess development for peroxidase producing *K. phaffii* strains with automated sample
processing and microscale cultivation
Christian Wagner, Philipp Dante Zinn (Jülich/DE), Julia Schwing, Tina Radespiel (Wesel/DE)
Wolfgang Wiechert (Jülich/DE), Anton Glieder (Hofstätten/AT), Marco Oldiges (Jülich/DE)
- BTP051 Microbial production and application of double-stranded RNAs as innovative bio-agents in agri- and
horticulture
Philipp Moritz Fricke (Jülich/DE), Sylvia Schleker, Florian Grundler (Bonn/DE), Michael Bott
Tino Polen (Jülich/DE)
- BTP053 Isolation and characterisation of *Sphingopyxis* strains using droplet-based microfluidics
Linda Ehrhardt, Jialan Cao, Michael Köhler (Ilmenau/DE)
- BTP055 Centrifuge-Free Clarification of Bacterial Lysates using Alluvial Filtration with Diatomaceous Earth
Florian Hebenstreit, Klaus Schöne, Andreas Pickl (Göttingen/DE)

POSTER SESSION I TUESDAY, 12 SEPTEMBER

Computational microbiology

- CMP001 Long-term investigation of the interaction between the microbial and viral communities in a biogas reactor
Cynthia Maria Chibani, Martin Fischer, Almut Werner, Ruth Anne Schmitz-Streit (Kiel/DE)
- CMP003 BakRep – a searchable web repository for bacterial genomes and standardized characterizations
Linda Fenske, Lukas Jelonek, Frank Förster, Jochen Blom, Alexander Goesmann
Oliver Schwengers (Gießen/DE)
- CMP005 Current developments in SubtiWiki – Structure prediction, genomic neighborhood, and metabolites
Christoph Elfmann, Vincenz Dumann, Tim van den Berg, Jörg Stülke (Göttingen/DE)
- CMP007 Comparative analysis of functional categories for pan-genomes on the EDGAR platform
Max Pfister, Linda Fenske, Marius Dieckmann, Sebastian Beyvers, Jochen Blom
Alexander Goesmann (Gießen/DE)
- CMP009 SymBLAST – A browser-based user-friendly solution for custom reciprocal ortholog identification using BLAST
Lukas Becker, Sebastian Fraune, Ilka Maria Axmann, Nicolas Schmelling (Düsseldorf/DE)
- CMP011 Large scale comparative genomics and phylogenomics using EDGAR3.2
Jochen Blom, Max Pfister, Linda Fenske, Marius Dieckmann, Sebastian Beyvers
Alexander Goesmann (Gießen/DE)
- CMP013 A new foundation for *SubtiWiki* – Introducing *CoreWiki*
Vincenz Dumann, Christoph Elfmann, Tim van den Berg, Jörg Stülke (Göttingen/DE)
- CMP015 Predicting microbiome life history traits
Johannes Zimmermann (Kiel/DE)
- CMP017 Efflux pumps and nutrient availability – the impact on *Escherichia coli* susceptibility to tetracycline
Marie-Luise Enghardt, Marco Mauri, Vijay Srinivasan, Anne Busch, Rosalind Allen (Jena/DE)
- CMP019 Modelling the host specificity of a biopesticide
Sebastian Burk, Stefanie Díaz Valerio, Heiko Liesegang (Göttingen/DE)

Environmental microbiology and ecology

- EMEP001 Soil type and irrigation water quality influence variety and abundance of antibiotic resistance genes and mobile genetic elements in gram positive soil bacteria
Leila Soufi (Berlin/DE), Sara Gallego (Braunschweig/DE), Katharina Werner, Jana Schakowski (Berlin/DE)
Benjamin J. Heyde, Jan Siemens (Gießen/DE), Kornelia Smalla (Braunschweig/DE)
Elisabeth Grohmann (Berlin/DE)
- EMEP003 Application of halotolerant plant growth promoting actinobacteria along with fish emulsion further improves growth and development of mangrove (*Avicennia marina*)
Khaled El-Tarabily, Synan AbuQamar, Al Anoud Alshamsi (Al-Ain/AE)
- EMEP005 In vitro assessment of fungal volatile organic compounds – a two-chamber system for evaluating respiratory health
Kustrim Cerimi, Udo Jäckel, Stefanie Klar, Vera Meyer (Berlin/DE)
- EMEP007 Bacteria in stress – Effect of multiple stressors on microbial degradation of organic carbon in river ecosystem as revealed by mesocosm experiments
Daria Baikova, Rainer Meckenstock, Verena Brauer, Iris Madge Pimentel, Guido Sieber (Essen/DE)
- EMEP009 Hydrogen-driven microbial redox reactions in deep geosystems
Anja Dohrmann, Martin Krüger (Hannover/DE)

- EMEP011 Effect of fungicide tebuconazole on the mice microbiome
Stephan Barthels (Braunschweig/DE), Alona Velynska (Kyiv/UA, Braunschweig/DE), Martina Jahn
Dieter Jahn (Braunschweig/DE)
- EMEP013 Community analysis of complex environments using 3D macroporous materials
Marta Velaz Martín, Anne-Kristin Kaster, Kersten S. Rabe, Christof M. Niemeyer (Karlsruhe/DE)
- EMEP015 Biodegradable plastic in forest soil – Dominant tree species and forest types drive changes in microbial community assembly, influence the composition of plastisphere, and affect poly(butylene succinate-co-adipate) degradation
Benjawan Tanunchai (Coburg, Halle (Saale)/DE), Li Ji (Halle (Saale)/DE), Olaf Schröder (Coburg/DE)
Andreas Geisler (Darmstadt/DE), Sara Fareed Mohamed Wahdan, François Buscot (Halle (Saale)/DE)
Stefan Kalkhof (Coburg/DE), Ernst-Detlef Schulze (Jena/DE), Witoon Purahong (Halle (Saale)/DE)
Matthias Noll (Coburg/DE)
- EMEP017 Bacterial degradation of polymer plasticizers on the example of diethyl phthalate (DEP)
Simone Bertoldi, Zeel Chauhan, Dietmar Schlosser, Marcell Nikolausz, Hermann J. Heipieper
Christian Eberlein (Leipzig/DE)
- EMEP019 Microbial transplants as a tool to improve soil quality from technical origin
Alexandra Schröder (Neuherberg, Freising/DE), Michael Schlöter (Neuherberg/DE), Wolfgang Weisser
Jens Joschinski (Freising/DE), Stefanie Schulz (Neuherberg/DE)
- EMEP021 Determinants of the activity of soil bacteria and their contribution to key ecosystem function
Johannes Sikorski, Selma Vieira, Yu Shang (Braunschweig/DE), Klaus Birkhofer (Cottbus/DE)
Runa S. Boeddinghaus (Karlsruhe/DE), Markus Fischer (Bern/CH), Norbert Hölzel (Münster/DE)
Valentin Klaus (Zürich/CH), Till Kleinebecker (Gießen/DE), Daniel Prati (Bern/CH), Ingo Schöning
Marion Schrupf (Jena/DE), Sven Marhan, Ellen Kandeler (Hohenheim/DE), Katharina Huber-Fischer
Jörg Overmann (Braunschweig/DE)
- EMEP023 Bacterial microbiome structure of corbicular pollen of honey bees is related to the collection month
Haoran Shi, Stefan Ratering, Sylvia Schnell (Gießen/DE)
- EMEP025 Genomic adaptation of *Burkholderia anthina* to glyphosate uncovers a novel herbicide resistance mechanism
Inge Schwedt (Stuttgart/DE), Madeline Collignon, Florian Guidici, Carolin Mittelstädt
Robert Hertel (Senftenberg/DE), Fabian M. Commichau (Stuttgart/DE)
- EMEP027 Phosphatidylcholine biosynthesis in *Rhizobium leguminosarum* and its importance for symbiosis with clover
Irina Shevyreva, Julia Kleetz, Ann-Sophie Mizza, Claudia Brocks, Leon Welter, Meriyem Aktas (Bochum/DE)
- EMEP029 Chromatic acclimation in the cryptophyte alga *Hemiselmis cryptochromatica*
Thomas Schmidt, Federica Frascogna (Kaiserslautern/DE), Tammi Richardson (Columbia, SC/US)
Matthew Greenwold (Tyler, TX/US), Nicole Frankenberg-Dinkel (Kaiserslautern/DE)
- EMEP031 A year of microbial dynamics in the Warnow estuary and the Baltic Sea coast in high spatiotemporal resolution
Theodor Sperlea, Conor Glackin, Lukas Vogel, Erik Zschaubitz, Christiane Hassenrück
Matthias Labrenz (Rostock/DE)
- EMEP033 Co-selection for biocide and antibiotic resistance in microbial wastewater communities upon exposure to the biocide didecyldimethylammonium chloride (DDAC)
Anne-Christine Schulz, Frank Schreiber (Berlin/DE)
- EMEP035 Exploring the diversity of Nitrospira infecting viruses
Jörn Starke, Cristina Moraru, Tom Lennard Stach, Sarah P. Esser, Katharina Sures, Julia Plewka
Till L. V. Bornemann, André Soares, Alexander J. Probst (Essen/DE)
- EMEP037 A novel GFPs-nanoluciferase reporter system to identify natural products mediating cross-kingdom microbial interactions
Maira Rosin, Mario Krespach, Maria Stroe, Axel A. Brakhage (Jena/DE)

POSTER SESSION I TUESDAY, 12 SEPTEMBER

- EMEP039 The T6SS membrane-disrupting effector Tme1 of *Photorhabdus luminescens* deploys antibacterial activity
Friederike Pizarz, Alice Regaiolo, Ralf Heermann (Mainz/DE)
- EMEP041 Unveiling microbial communities in granite deep subsurface environments along a climate gradient in Chile
Lucas Horstmann (Göttingen, Potsdam/DE), Thomas Friedl (Göttingen/DE), Rómulo Osés (Copiapó/CL)
Dirk Wagner (Potsdam/DE)
- EMEP043 Impact of climate change on the diversity and abundance of marine *Vibrio* species
Avril von Hoyningen-Huene, Nancy Weiland-Bräuer, Birte Mensch, Lisa Mark, Lea Teifel
Ruth Anne Schmitz-Streit (Kiel/DE)
- EMEP045 Identification of polyester-degrading esterases from deep-sea samples
Tobias Horbach, Rebecka Molitor (Jülich/DE), Pablo Perez-Garcia (Hamburg/DE), Stephan Thies (Jülich/DE)
Peter Golyshin (Bangor/GB), Wolfgang R. Streit (Hamburg/DE), Karl-Erich Jaeger (Jülich/DE)
- EMEP047 Bacterial populations in different parts of domestic drinking water systems are distinct and adapted to the
given ambient temperatures
Benjamin Meyer, Mark Pannekens (Mülheim an der Ruhr/DE), André R. Soares (Essen/DE)
Lara Timmermann (Mülheim an der Ruhr/DE), Alexander J. Probst (Mülheim an der Ruhr, Essen/DE)
Martin Hippelein (Kiel/DE), Bernd Bendinger, Andreas Nocker (Mülheim an der Ruhr/DE)
- EMEP049 Experimental and mathematical optimization of energy efficiency in microbial electrolysis cell dealing with
hydrolysate
Mahshid Golalikhani, Nikolai Jürgensen, Johannes Gescher (Hamburg/DE)
- EMEP051 Impacts of CaO₂ treatment on the biogeochemistry and microbiology of freshwater sediments
Felix Pfaff, Thomas Kaupper, Tillmann Lueders (Bayreuth/DE)
- EMEP053 Citizen-Science in action – Discovery of untapped magnetotactic bacteria
Velemir Lavrinenko, Selma P. E. Kreiss, Nicolai Kallscheuer, Muriel C. F. van Teeseling, Tom Haufschild
Christian Jogler (Jena/DE)
- EMEP055 Isolation of antarctic actinomycetes and investigation of their natural product biosynthetic potential
Ulrike Tarazona Janampa, Juan Pablo Gomez Escribano, Imen Nouioui, Karen Harms, Frank Surup
Shadi Khodamoradi (Braunschweig/DE), Luis Cerpa Cornejo (Lima/PE), Joachim Wink
Yvonne Mast (Braunschweig/DE)
- EMEP057 Identification and growth characteristics of PE-degrading bacteria
Selina Granderath-Miegel, Kristina Bitter, Lars Mathias Blank (Aachen/DE)
- EMEP059 Exploring the antibiotic resistomes in activated sludge and wastewater treatment plants via genome-centric
analyses
Nafi'u Abdulkadir, Joao Pedro Saraiva, Junya Zhang (Leipzig/DE), Stefan Stolte (Dresden/DE)
Osnat Gillor (Israel/IL), Hauke Harms, Ulisses Rocha (Leipzig/DE)
- EMEP061 A simple, reliable and inexpensive method for the identification of lactic acid bacteria
Sebastian Fischer, Lars Vollenbröker, Tim Fechtner, Nadine Mariani Corea, Fritz Titgemeyer (Münster/DE)
- EMEP063 Biodiversity of lactic acid bacteria isolated from dairy cattle
Sebastian Fischer, Jennifer Wachtarczyk, Frank Meyer, Fritz Titgemeyer (Münster/DE)

Infection biology

- IBP001 Unexpected diversity and evolutionary advantage of antimicrobial heteroresistance in *Pseudomonas aeruginosa*
Hinrich Schulenburg, Junqi Liao (Kiel/DE)
- IBP003 Carbon utilization of *Salmonella Typhimurium* during colonization in different mouse models
Christopher Schubert, Wolf-Dietrich Hardt (Zürich/CH)
- IBP005 Studying the molecular basis of interaction and physiological effect for *Staphylococcus aureus* adhesion factor SdrC in the mammalian retina
Swarnali Kundu (Homburg/DE)
- IBP007 Regulation of the hydrogen peroxide sensing protein perR in *Clostridioides difficile*
Wiebke Bartram, Stefan Barthels, Martina Jahn, Dieter Jahn (Braunschweig/DE)
- IBP009 Molecular classification by multi locus VNTR analysis for epidemiological analysis of *Paenibacillus larvae*
Anne Fünfhaus, Julia Ebeling (Hohen Neuendorf/DE), Elke Genersch (Hohen Neuendorf, Berlin/DE)
- IBP011 The role of flagella in swarming motility, biofilm formation and virulence of *Paenibacillus larvae*
Josefine Göbel, Julia Ebeling, Anne Fünfhaus (Hohen Neuendorf/DE)
Elke Genersch (Hohen Neuendorf, Berlin/DE)
- IBP013 Interaction of emerging *Staphylococcus pseudintermedius* with neutrophil extracellular traps
Rita Haller, Nicole de Buhr, Maren von Köckritz-Blickwede, Volker Winstel (Hannover/DE)
- IBP015 Balance in plant bacterial recruitment affects resilience to fungal invasion of the phyllosphere
Erik Teutloff, Jisna Jose, Rayko Halitschke, Aurélie Jost, Patrick Then, Matthew Agler (Jena/DE)
- IBP017 Temperature-dependent fis control – unraveling its influence on motility and virulence in *Yersinia*
Soheila Javadi (Bochum/DE)
- IBP019 The metalloprotease immune inhibitor A – a potential virulence factor for *Paenibacillus larvae*?
Sarah Riebschläger, Juliane Schreiber, Julia Ebeling, Anne Fünfhaus (Hohen Neuendorf/DE)
Elke Genersch (Hohen Neuendorf, Berlin/DE)
- IBP021 Sugar uptake of the brassicaceae smut fungus *Thecaphora thlaspeos* during biotrophic interactions
Natascha Heßler (Düsseldorf/DE)

Membranes and transport

- MTP001 Tartrolon resistance mechanisms in *Listeria monocytogenes* depend on the TimAB transporter and the ClpP proteasome
Tim Engelgeh (Wernigerode/DE), Jennifer Herrmann, Rolf Müller (Saarbrücken, Braunschweig/DE)
Sven Halbedel (Wernigerode, Magdeburg/DE)
- MTP003 Towards characterising the putative ABC transporter EslABC in the human pathogen *Listeria monocytogenes*
Lisa Schulz (Göttingen/DE), Patricia Rothe, Sven Halbedel (Wernigerode/DE)
Angelika Gründling (London/GB), Jeanine Rismondo (Göttingen/DE)
- MTP005 Bidirectional formic acid translocation by FocA – Interplay with the formate hydrogenlyase complex
Christopher Erdmann, Michelle Kammel, Gary Sawers (Halle (Saale)/DE)
- MTP007 The impact of single amino acids on functionality of membrane toxin TisB in *Escherichia coli*
Florian Leinberger, Nicole Schmid, Nasrine Bekhedda, Bork Berghoff (Gießen/DE)

POSTER SESSION I TUESDAY, 12 SEPTEMBER

- MTP009 Outer membrane vesicle formation of *Pseudomonas aeruginosa*
Svea Holland (Braunschweig/DE), José Manuel Borrero de Acuña (Sevilla/ES), Alejandro Arce-Rodriguez
Rebekka Biedendieck, Dieter Jahn, Meina Neumann-Schaal (Braunschweig/DE)
- MTP011 From assembly to function – How inner membrane ring mobility governs the type III secretion system
Corentin Brianceau (Marburg/DE), Stephan Wimmi (Cologne/DE), Andreas Diepold (Marburg/DE)
- MTP013 *In vitro* transport of NisT
Hans Hannig, Marcel Lagedroste, Sander Smits, Lutz Schmitt (Düsseldorf/DE)
- MTP015 Cell type specific KDEL-receptor clustering
Achim Bauer, Frank Breinig, Manfred J. Schmitt (Saarbrücken/DE)
- MTP017 Advances in purification of the organohalide respiratory complex of *Dehalococcoides mccartyi* strain CBDB1
Nadine Hellmold, Rebecca Klemencic, Darja Deobald, Lorenz Adrian (Leipzig/DE)

Microbial biodiversity and evolution

- MBEP001 Isolation, identification and functional characterization of microorganisms from traditional kefir grains
Maryam Aboubakr (Dresden/DE)
- MBEP003 Discovery of coerumycin, a novel cinnamycin analog from an *Actinomadura coerulea* strain isolated from meerkat feces
Denis Iliasov, Thorsten Mascher (Dresden/DE)
- MBEP005 Comparative genomics reveals early speciation in aquatic bacteria with implications for bacterial systematics
Philipp Halama, Boyke Bunk, Cathrin Spröer, Jörg Overmann (Braunschweig/DE)
- MBEP007 Convergent evolution in a novel lineage of *Opitutales* (*Verrucomicrobiota*) and other endosymbionts of termite gut flagellates
Undine Sophie Mies, Christopher Feldewert, Vincent Hervé, Andreas Brune (Marburg/DE)
- MBEP009 Insights into the diversity and fitness of the potential nasal probiotic *Corynebacterium accolens*
Ahmed M. A. Elsherbini, Simon Heilbronner, Andreas Peschel, Bernhard Krismer (Tübingen/DE)
- MBEP011 Geographic and ecological diversity of green sulfur bacteria in microbial hot spring mat communities
Donna Bedard, Greta Van Slyke (Troy, NY/US), Ulrich Nübel (Braunschweig/DE, Bozeman, MT/US)
Mary M. Bateson, Susan Brumfield (Bozeman, MT/US), Yong Jun An (Troy, NY/US)
Eric D. Becraft (Florence, AL, Bozeman, MT/US), Jason M. Wood (Bozeman, MT, Chicago, IL/US)
Vera Thiel (Braunschweig/DE), David M. Ward (Bozeman, MT/US)
- MBEP013 Time-kill kinetics reveal heterogeneous tolerance to disinfectants
Niclas Nordholt, Lydia-Yasmin Sobisch, Dominique Lewerenz, Frank Schreiber (Berlin/DE)
- MBEP015 High diversity of the emerging pathogen *Acinetobacter baumannii* in livestock and human wastewaters
Stefanie P. Glaeser, Dipen Pulami, Peter Kämpfer (Gießen/DE)

Microbial communities

- MCP001 Bacterial vaginosis associated bacteria act as pathobionts of the protozoal pathogen *Trichomonas vaginalis*
Shu-fang Chiu, Kuo-Yang Huang (Taipei/TW)
- MCP003 The role of secondary metabolites in plant associated microbial communities
Franziska Höhn, Vasvi Chaudhry, Paolo Stincone, Daniel Petras, Eric Kemen, Heike Brötz-Oesterhelt
Nadine Ziemert (Tübingen/DE)
- MCP005 Microbiology of activated carbon filters used in the fourth stage of wastewater treatment plants
Yulduzhon Abdullaeva, Marie Löwe, Bodo Philipp (Münster/DE)
- MCP007 Spatiotemporal Probing of Microbial Communities from Winogradsky Columns as a Model Ecosystem
Ahmad Itani, Laura Meisch, Martha Velaz Martin, Kersten S. Rabe, Christof M. Niemeyer (Karlsruhe/DE)
- MCP009 Modeling phototrophic microbial communities using biochemical resource allocation analysis
Ralf Steuer (Berlin/DE)
- MCP011 Investigation of a novel transcriptional regulator of secondary metabolism in *Streptomyces iranensis* required for activation of fungal silent gene clusters
Lukas Zehner, Tina Netzker, Maria C. Stroe, Maira Rosin, Peter Hortschansky, Thomas Krüger
Mario K. C. Krespach, Volker Schroeckh, Axel A. Brakhage (Jena/DE)
- MCP013 Linking host genetic landscapes to phyllosphere microbiota recruitment and balance
Jisna Jose, Rayko Halitschke, Erik Teutloff, Matthew Agler (Jena/DE)
- MCP015 Establishment of an interspecies cross-feeding community to identify novel players in vitamin B6 metabolism
Saba Mardoukhi, Fabian M. Commichau (Stuttgart/DE)
- MCP017 Touching surfaces-testing antimicrobial surfaces in space for life on earth
Carolin Krämer (Rheinbach, Cologne/DE), Katharina Siems, Yen-Tran Ly, Franca Arndt (Cologne/DE)
Daniel Müller (Saarbrücken/DE), Alessa L. Boschert (Cologne/DE), Frank Mücklich (Saarbrücken/DE)
Ralf Moeller (Rheinbach, Cologne/DE)
- MCP019 Effects of seed inoculation of wheat and barley in organic farming on plant parameter and the rhizosphere microbiome
Santiago Quiroga, Stefan Ratering (Gießen/DE), Azin Rekowski, Christian Zörb (Stuttgart/DE)
Sylvia Schnell (Gießen/DE)
- MCP021 Interspecies interaction between *P. putida* and *R. capsulatus* based on the fluorescent siderophore pyoverdine
Antonia Christine Zeisel, Andrea Jeanette Weiler, Luzie Kruse, Seung-Hyun Paik, Fabienne Knapp
Vera Svensson, Johanna Wiechert, Dietrich Kohlheyer, Julia Frunzke, Karl-Erich Jaeger
Thomas Drepper (Jülich/DE)
- MCP023 Characterizing the sucrose metabolism of *Ustilago maydis* as a prerequisite to study carbon economics in a microbial cross-kingdom consortium
Tom Berwanger, Joana Charlot Pohlentz, Michael Feldbrügge, Kerstin Schipper (Düsseldorf/DE)
- MCP025 Calcium peroxide-induced elevated dissolved oxygen (eDO) for ecological lake restoration
Thomas Kaupper, Felix Pfaff, Tillmann Lueders (Bayreuth/DE)
- MCP027 Preliminary comparison of microbiota composition of odorous and non-odorous domestic washing machines using metagenome shotgun sequencing
Susanne Jacksch, Evgenia Magiera (Villingen-Schwenningen/DE), Mirko Weide (Düsseldorf/DE)
Markus Egert (Villingen-Schwenningen/DE)

POSTER SESSION I TUESDAY, 12 SEPTEMBER

Open topics

- OTP001 Temporal dynamics of BGC regulation in the myxobacterium *Sorangium* sp
Judith Boldt, Laima Lukoševičiūtė (Braunschweig/DE), Chengzhang Fu (Saarbrücken/DE)
Matthias Steglich (Braunschweig, Hannover/DE), Boyke Bunk, Vera Junker, Aileen Gollasch, Birte Trunkwalter
Kathrin I. Mohr (Braunschweig/DE), Michael Beckstette (Bielefeld/DE), Joachim Wink
Jörg Overmann (Braunschweig/DE), Rolf Müller (Braunschweig, Saarbrücken/DE)
Ulrich Nübel (Braunschweig/DE)
- OTP003 A ciliate bridging biology and physics – *Paramecium bursaria* as a model ambassador
Felicitas Elisabeth Flemming, Martina Schrollhammer, Andreas Härtel (Freiburg i. Br./DE)
- OTP005 Investigating the antibacterial mode of action of gold nanoparticle – peptide deformylase inhibitor conjugates
Andre Schultz (Bochum/DE), Tianyi Zhou (Wuppertal/DE), Milena John, Pascal Dietze
Nils Metzler-Nolte (Bochum/DE), Jürgen Scherkenbeck (Wuppertal/DE), Julia Elisabeth Bandow (Bochum/DE)
- OTP007 Investigating the production of natural products with antibacterial activity by *Streptomyces* isolates
Lara-Sophie Kaufmann, Leonie Sagurna, Sascha Heinrich (Bochum/DE), Tobias Busche, Christian Rückert
Jörn Kalinowski (Bielefeld/DE), Julia Elisabeth Bandow (Bochum/DE)
- OTP009 Tropolone natural product biosynthesis in *Streptomyces* sp
Lars Höing, Roman Jakob, Jakob Reinhardt, Timm Maier, Robin Teufel (Basel/CH)
- OTP011 Selecting an optimal fluorescent marker for single-particle-tracking PALM imaging in bacteria
Maren Heine, Maren Eilers, Bartosz Turkowyd, Ulrike Endesfelder (Bonn/DE)
- OTP013 Cultivation of yet unknown microorganisms from extreme aquatic environments
Lena Gagesch (Düsseldorf/DE), Katharina Runzheimer, Stefan Leuko (Cologne/DE)
Ilka Maria Axmann (Düsseldorf, Cologne/DE), Ralf Möller (Cologne/DE)
- OTP015 A streptolysin S-like hemolysin in *Brachyspira* species
Judith Rohde (Hannover/DE), Emma Stubberfield, Roderick Card (Addlestone/GB)
Ralph Goethe (Hannover/DE)
- OTP017 Production of tailored biosurfactants in *Pseudomonas putida*
Sonja Kubicki, Amina Bouchenafa (Jülich/DE), Tobias Karmainski (Aachen/DE), Jiaxin Cui (Bonn/DE)
Till Tiso (Aachen/DE), Georg Hölzl, Peter Dörmann (Bonn/DE), Lars Mathias Blank (Aachen/DE)
Karl-Erich Jaeger, Stephan Thies (Jülich/DE)
- OTP019 Innovative Strategies for Enhanced Microalgal Production
Lars Bähr, A. Wüstenberg, R. Steuer, R. Ehwald (Berlin/DE)

Phage biology

- PBP001 Structural and biochemical dissection of the SPbeta arbitrium prophage master repressor MprR (YopR)
Katharina Kohm (Stuttgart/DE), Ekaterina Jalomo-Khayrova, Wieland Steinchen, Gert Bange (Marburg/DE)
Robert Hertel (Göttingen/DE), Fabian M. Commichau (Stuttgart/DE), Laura Czech (Marburg/DE)
- PBP003 Lysis inhibition (LIN) of phage T4 requires a dimeric T4 holin/antiholin complex
Jan Michel Frederik Schwarzkopf, Denise Mehner-Breitfeld, Thomas Brüser (Hannover/DE)
- PBP005 Archaeoviral binding and recognition of HCTV-6 & HCTV-8 to their host *Haloarcula californiae*
Anna M. C. Schöntag, Tessa E. F. Quax (Groningen/NL)
- PBP007 Induction of violacein synthesis in *Janthinobacterium lividum* by an unknown signal molecule
Ines Friedrich, Alisa Kuritsyn, Robert Hertel, Rolf Daniel (Göttingen/DE)

Prokaryotic cell biology

- PCBP001 Elucidating Auranofin's (AF) mechanism of action in bacterial cells
Laísa Quadros Barsé, Agnes Ulfig, Marharyta Varatnitskaya, Astrid Imann, Melissa Vázquez-Hernández
Natalie Lupilov, Julia Elisabeth Bandow, Lars I. Leichert (Bochum/DE)
- PCBP003 A direct link between control of peptidoglycan biosynthesis via MurA degradation and cell division in *Listeria monocytogenes*
Patricia Rothe, Sabrina Wamp (Wernigerode/DE), Sven Halbedel (Wernigerode, Magdeburg/DE)
Lisa Rosemeyer (Wernigerode/DE), Jörg Döllinger (Berlin/DE)
- PCBP005 Novel insights into the peptidoglycan remodeling machinery of *Caulobacter crescentus*
Pia Richter, Martin Thanbichler (Marburg/DE)
- PCBP007 A chimeric KaiA-like regulator extends the KaiB3-KaiC3 clock system in bacteria
Kim Nadine Sebastian, Christin Köbler (Freiburg i. Br./DE), Nicolas Schmelling
Alice Pawlowski (Düsseldorf/DE), Philipp Spät (Tübingen/DE), Nina Scheurer (Freiburg i. Br./DE)
Lutz Berwanger, Anika Wiegand (Düsseldorf/DE), Boris Maček (Tübingen/DE)
Ilka Maria Axmann (Düsseldorf/DE), Annegret Wilde (Freiburg i. Br./DE)
- PCBP009 Single molecule dynamics during replication restart
Robert Christian Raatz, Peter Ludwig Graumann (Marburg/DE)
- PCBP011 Novel oxidoreductases from *Pseudomonas aeruginosa*
Sajedeh Mirshahvalad, Karl-Erich Jaeger, Filip Kovacic (Jülich/DE)
- PCBP013 Transcription factor YhbD has different effects on motility in different strains of *Bacillus subtilis*
Kristin Velten, Peter Ludwig Graumann, Sven Holtrup (Marburg/DE)

Prokaryotic physiology and metabolism

- PPMP001 Elucidating the function of host-derived cysteine in bacterial virulence
Anna Roujeinikova (Clayton/AU)
- PPMP003 Regulation of the carbon flux in *Synechocystis* using the PGAM-PirC switch
Nathalie Sofie Becker, Tim Orthwein, Karl Forchhammer (Tübingen/DE)
- PPMP005 Studies on specificity and distribution of the $\Delta^{4,6}$ -variant of bacterial bile acid degradation
Julio César Coutiño-Montes, Johannes Holert, Bodo Philipp (Münster/DE)
- PPMP007 Protein on a double mission – the (p)ppGpp-binding RNase RnhB influences lipopolysaccharide biosynthesis in *Escherichia coli*
Simon Brückner, Fabian Müller, Laura Schadowski, Tyll Kalle, Sophia Weber, Emily Marino, Blanka Kutscher
Anna-Maria Möller, Sabine Adler (Bochum/DE), Dominik Begerow (Bochum, Hamburg/DE)
Wieland Steinchen, Gert Bange (Marburg/DE), Franz Narberhaus (Bochum/DE)
- PPMP009 A novel protein lipoylation pathway demonstrated in sulfur oxidizing bacteria
Martina Grosser, Carolin Kümpel, Lea Hahn, Tom Leon Rünz, Hanna Hartenfels, Evelyn Vtulkin
Wanda Flegler, Christiane Dahl (Bonn/DE)
- PPMP011 A novel silver-containing antimicrobial potentiates aminoglycoside activity against gram-negative pathogens
Gracious Yoofi Donkor, Greg Anderson, Michael Stadler (Normal, IL/US)
Kevin Pierre Hoffmann (Normal, IL/US, Braunschweig/DE), Patrick Tawiah (Normal, IL/US), Luca Finn Gaessler
Lisa Pfirsching (Normal, IL/US, Braunschweig/DE), Jan-Ulrik Dahl (Normal, IL/US)
- PPMP013 Phosphoglucomutases – Overlooked key enzymes in bacterial glycogen metabolism
Janette Alford, Niels Neumann, Karl Forchhammer (Tübingen/DE)

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- PPMP015 Biosynthesis of the unusual redox cofactor mycofactocin and the impact of glycosylation on its physiology
Mark Ellerhorst, Ana Patrícia Graça, Vadim Nikitushkin, Gerald Lackner (Jena/DE)
- PPMP017 A tool box to investigate Clp protease-mediated protein homeostasis in *Staphylococcus aureus* and its function in pathophysiology
Larissa Busch, Meike Kröber, Emilia Schmidt, Hannes Wolfgramm, Alexander Ganske, Christian Hentschker
Ulrike Mäder (Greifswald/DE), Dorte Frees (Copenhagen/DK), Ulf Gerth, Stephan Michalik, Alexander Reder
Kristin Surmann, Uwe Völker (Greifswald/DE)
- PPMP019 The non-canonical NRPS PA14_11140 of *Pseudomonas aeruginosa* is involved in regulation of virulence factors
Miriam Jaegers, Susanne Fetzner (Münster/DE)
- PPMP021 5-Keto-D-Fructose, a natural diketone and potential sugar substitute, significantly reduces the viability of prokaryotic and eukaryotic cells
Anna Paulina König, Marcel Hövels, Nicole Gallala, Samara Lisa Keriakes, Jacqueline Schiessl, Tobias Laporte
Konrad Kosciow, Uwe Deppenmeier (Bonn/DE)
- PPMP023 Beyond MurA – Investigating how *Escherichia coli* responds to fosfomycin
Martina Bianchi, Marina Borisova-Mayer, Jan Bornikoel, Theresa Harbig, Johanna Rapp (Tübingen/DE)
Mathias Winterhalter (Bremen/DE), Hannes Link, Kay Nieselt, Heike Brötz-Oesterhelt, Philipp Oesterhelt
Christoph Mayer, Daniel Hörömpöli (Tübingen/DE)
- PPMP025 Unraveling the physiological relevance of pyruvate – Quinone oxidoreductase (PQO) from *Corynebacterium glutamicum* – Activity highlighted under acidic pH and low growth rates
Cristiano Da Silva Lameira, Sini Münßinger, Bernhard J. Eikmanns (Ulm/DE)
- PPMP027 *Zymomonas mobilis* ZM4 ATPase mutants dependent on O₂ for growth
Gerrich Behrendt, Katja Bettenbrock (Magdeburg/DE)
- PPMP029 Investigating the cellular role of CutA proteins – Identification of a putative binder through native mass spectrometry-based metabolomics
Berenike C. Wagner, Chambers C. Hughes, Khaled Selim, Daniel Petras, Karl Forchhammer (Tübingen/DE)

RNA biology

- RNAP001 Characterization of *Aspergillus fumigatus* sRNA biogenesis pathways
Neshima Mavani, Abdulrahman A. Kelani, Matthew G. Blango (Jena/DE)
- RNAP003 Surveillance of 3' mRNA cleavage during transcription termination requires CF IB/Hrp1
Jing Li, Luisa Querl, Ivo Coban, Gabriela Salinas, Heike Krebber (Göttingen/DE)
- RNAP005 Determination of 5' and 3' RNA-ends in *Aspergillus fumigatus*
Lukas Schrettenbrunner, Matthew G. Blango (Jena/DE)

Signal transduction & gene regulation

- STRGP001 A novel locally c-di-GMP-controlled exopolysaccharide synthase required for bacteriophage N4 infection of *E. coli*
Eike H. Junkermeier, Regine Hengge (Berlin/DE)
- STRGP003 The c-di-AMP-binding protein DarA of *Bacillus subtilis* plays a role in osmoadaptation
Robert Warneke, Björn Hormes (Göttingen/DE), Ulrike Mäder (Greifswald/DE), Jörg Kalinowski (Bielefeld/DE), Christina Herzberg, Jörg Stülke (Göttingen/DE)
- STRGP005 Activation of cryptic genes by antagonizing xenogeneic silencing
Johanna Wiechert, Biel Badia Roigé, Julia Frunzke (Jülich/DE)
- STRGP007 PrrA/B and MSMEG_0243 potentially regulate phosphatidylinositol mannoside acetylation in mycobacteria
Melissa Weldle, Miaomiao Li, Yu Zhang, Claudia Jessen-Trefzer (Freiburg i. Br./DE)
- STRGP009 First insights into the role of second messengers for regulation of symbiosis and pathogenicity in *Photorhabdus luminescens*
Fabio Platz (Mainz/DE), Heike Bähre, Roland Seifert (Hannover/DE), Ralf Heermann (Mainz/DE)
- STRGP011 The eipeptide toxin EPE and its role in multicellular differentiation processes of *Bacillus subtilis*
Lena Friebe (Dresden/DE), Nathalie Sofie Becker (Dresden, Tübingen/DE), Sarah Miercke (Dresden/DE), Jan-Philipp Knepper, Klaus Dreisewerd (Münster/DE), Thorsten Mascher (Dresden/DE)
- STRGP013 A regulatory duet – sHdrR and SoxR team up for transcriptional repression of sulfur oxidation in *Hyphomicrobium denitrificans*
Jingjing Li, Kaya Törkel, Julian Koch, Christiane Dahl (Bonn/DE)
- STRGP015 A novel regulatory module important for cell cycle regulation in the stalked budding bacterium *Hyphomonas neptunium*
Jannik Harberding, Oliver Leicht (Marburg/DE), Muriel van Teseling (Jena/DE), Celine Reif (Marburg, Jena/DE), Undine Sophie Mies, Wieland Steinchen, Timo Glatter, Andreas Brune, Gert Bange, Martin Thanbichler (Marburg/DE)
- STRGP017 Dshi_1135 protein of *Dinoroseobacter shibae* is activating expression of the photosynthetic gene cluster by acting as a light-dependent antirepressor of PpsR
Saskia Pucelik, Dieter Jahn, Elisabeth Härtig (Braunschweig/DE)
- STRGP021 The role of pulcherriminic acid in multicellular differentiation of *Bacillus subtilis* biofilms
Evrin Özdemir, Sarah Miercke, Lena Friebe, Thorsten Mascher (Dresden/DE)
- STRGP019 Under control – Combat *Listeria monocytogenes* infections
Lena Rübeling, Fabia Koch, Ostap Krynytskyy, Nele Sievers, Oskar Geissel, Tom Nowak, Jörg Stülke, Jeanine Rismondo (Göttingen/DE)
- STRGP023 Spatio-temporal regulation of type IV pilus assembly in *Synechocystis* sp. PCC 6803
Jonas Hammerl, Yu Han, Nils Schürgers, Annegret Wilde (Freiburg i. Br./DE)

Systems and synthetic microbiology

- SSMP001 Resource allocation in engineered *Pseudomonas putida* – Synthetic amino acid sinks through recombinant derivatization
Marleen Beentjes, Andreas Kremling, Katharina Pflüger-Grau (Garching b. München/DE)
- SSMP003 SporoBeads – Using the inner and outer coat of *Bacillus subtilis* endospores as a protein displaying platform
Elif Öztel, Thorsten Mascher (Dresden/DE)
- SSMP005 Metabolic network reconstruction and analysis of the cyanobacterium *Synechocystis* sp. PCC 6803
Rune Höper, Ralf Steuer, Daria Komkova (Berlin/DE), Tomáš Zavřel (Brno/CZ)

POSTER SESSION | TUESDAY, 12 SEPTEMBER

- SSMP007 Reinventing nature's No. 1 CO₂-fixing enzyme – Using synthetic (micro)biology to build RubisCO de novo
Hai He, Nicole Paczia, Tobias Erb (Marburg/DE)
- SSMP009 A synthetic genomics approach to decipher the moonlighting function of the yeast SEN complex
Adán Andrés Ramírez Rojas (Marburg/DE), Tomasz W. Turowski (Warsaw/PL), Daniel Schindler (Marburg/DE)
- SSMP011 Establishment of a CRISPR-Cas9-based mutagenesis procedure in the roseoflavin producer *Streptomyces davaonensis*
Guoxia Liao (Heidelberg/DE), Matthias Mack (Heidelberg, Mannheim/DE)
- SSMP013 Engineering cyanobacteria as the basis for a synthetic microbial community
Dennis Hasenklever, Tom Berwanger, Joana Charlot Pohlentz, Kerstin Schipper (Düsseldorf/DE)
Anna Matuszyńska (Aachen/DE), Ilka Maria Axmann (Düsseldorf/DE)

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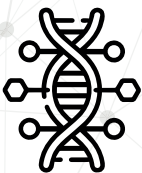


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GENERAL INFORMATION



Registration

Please register online at www.vaam-kongress.de. There you can find all information on registration fees, payment and confirmation of payment as well as the general terms and conditions.



Conference language

The official conference language is English.



Publication of abstracts

All abstracts will be published in the digital abstract book and are available online on our conference website.



Poster awards

From all poster presentations, the best 9 will be awarded. The awarding of the best posters will be on Wednesday, 13 September from 11:30–11:45.

TIPS FOR ABSTRACT AUTHORS

Time allocation

Please prepare your presentation for the allotted amount of time. Chairs and moderators may interrupt, should you overrun your time limit.

Poster session

The poster presentations are taking place during the poster sessions on Monday from 15:00–17:15 and on Tuesday from 15:45–18:00.

The posters have been distributed on both days, so that all poster topics are represented on both days. Poster authors present only on one of the two days.

Note: On Monday all authors with an even poster number will present, on Tuesday all with an odd number.

TYPES OF PRESENTATIONS AND SESSIONS

Plenary session

An expert presents his/her point of view on a certain topic within a plenary lecture.

Short lecture

Similar to the plenary sessions, empirical works, theoretical and methodological findings and innovations, including the experts' point of view on a certain topic, will be presented. The selected presentations have been chosen from submitted abstracts and provide therefore a good platform for (young) scientists and researchers to provide their research.

Minisymposia (VAAM Special Groups)

The minisymposia are organised by the special groups of the VAAM. Speakers have been invited and abstracts have been selected for presentation.

Poster presentations

During our poster sessions, abstract authors gain the possibility to present their poster. Please note that there will be no guided poster presentations.

Events for young scientists

Various sessions for young scientists point out career opportunities and offer support.

Sunday, 10 September | Welcome Reception “Brezel & Bier”

The organisers welcome all participants of the conference in the industrial exhibition area. Meet colleagues and other participants by fresh drinks and snacks.

Time 19:00
Place Foyer and industrial exhibition



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Tuesday, 12 September | Mixer

We invite you to join a memorable evening at the Mixer. Enjoy a great barbecue with colleagues and friends, have casual conversations on our outdoor area and get to know each other even better – socialise and extend your network! A DJ as well as a musician will provide musical support for the evening in the indoor and outdoor area and may even encourage you to dance.



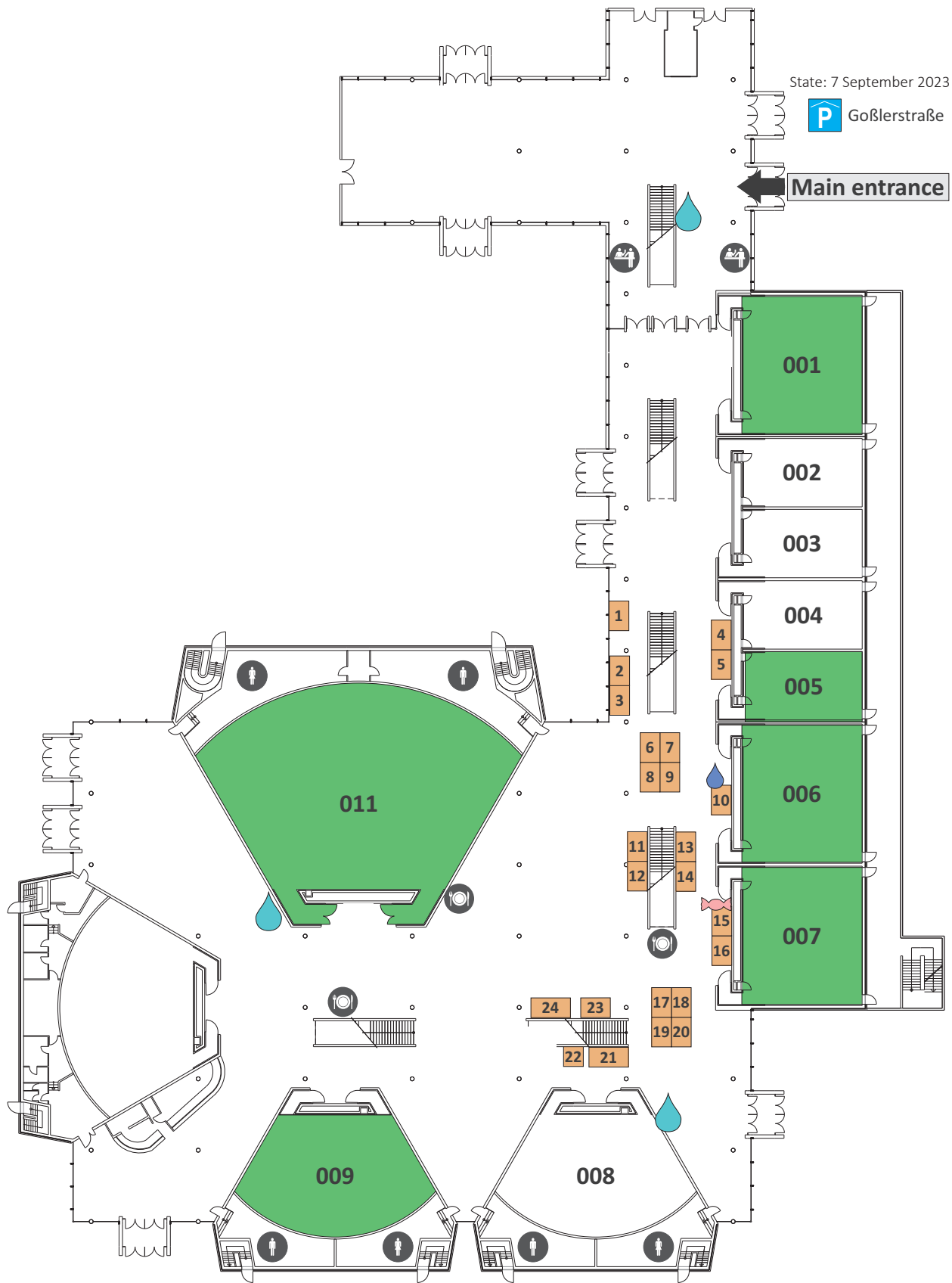
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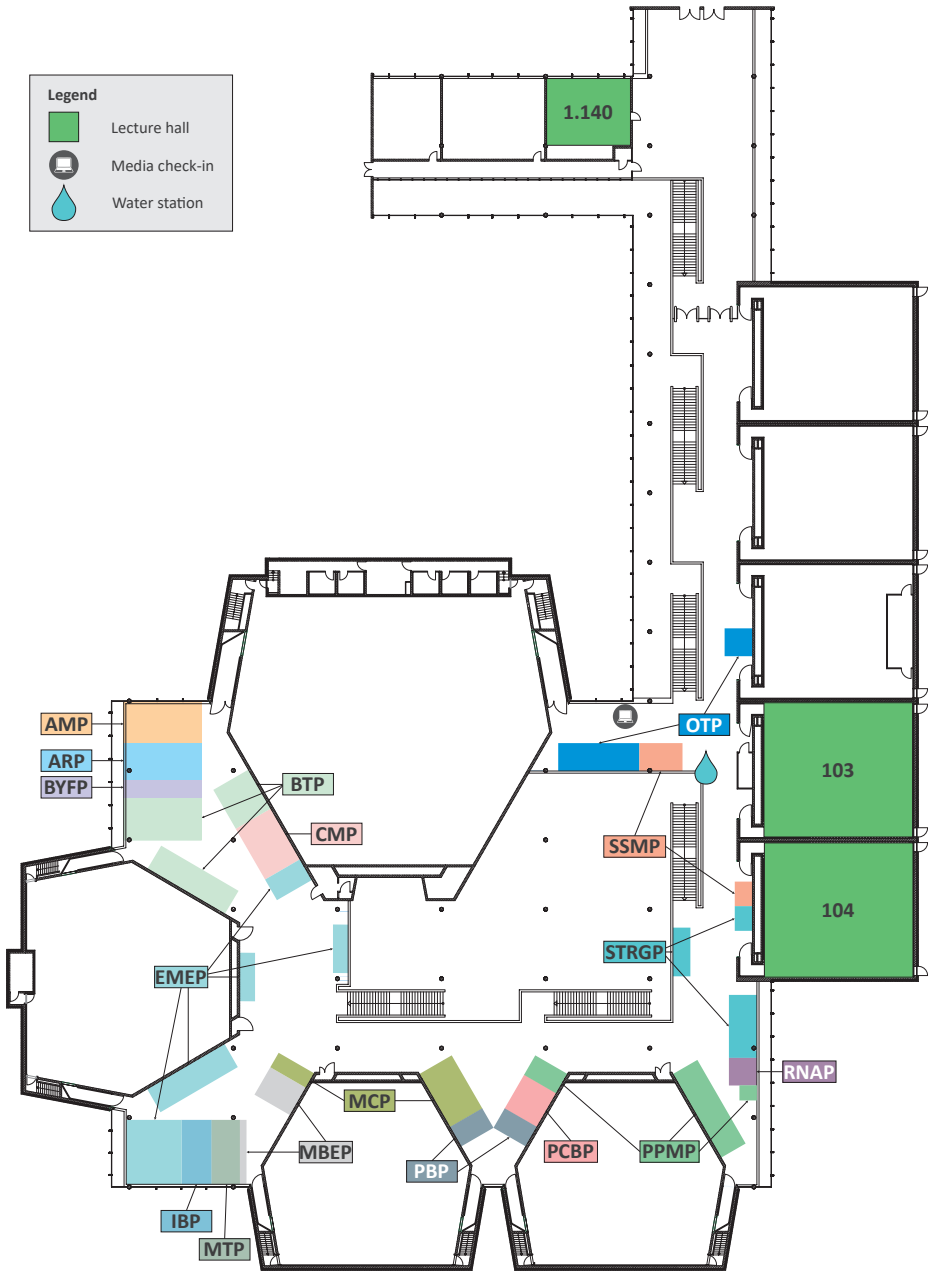
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Topic		ID
AMP	Anaerobic metabolism	AMP001–AMP029
ARP	Archaea	ARP001–ARP016
BYFP	Biology of yeast and fungi	BYFP001–BYFP012
BTP	Biotechnology	BTP001–BTP055
CMP	Computational microbiology	CMP001–CMP019
EMEP	Environmental microbiology and ecology	EMEP001–EMEP063
IBP	Infection biology	IBP001–IBP022
MTP	Membranes and transport	MTP001–MTP018
MBEP	Microbial biodiversity and evolution	MBEP001–MBEP015
MCP	Microbial communities	MCP001–MCP028
PBP	Phage biology	PBP001–PBP007
PCBP	Prokaryotic cell biology	PCBP001–PCBP014
PPMP	Prokaryotic physiology and metabolism	PPMP001–PPMP029
RNAP	RNA biology	RNAP001–RNAP005
STRGP	Signal transduction & gene regulation	STRGP001–STRGP023
SSMP	Systems and synthetic microbiology	SSMP001–SSMP014
OTP	Open topics	OTP001–OTP020

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Brötz-Oesterhelt, Heike
Eberhard Karls Universität Tübingen

Ballou, Elizabeth
University of Exeter

Bremer, Erhard
Philipps-Universität Marburg

Dersch, Petra
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