



GESELLSCHAFT FÜR BIOCHEMIE  
UND MOLEKULARBIOLOGIE E.V.

75<sup>th</sup>

# Mosbacher Kolloquium

"The Microbiome  
– from Understanding  
to Modulation"

March 21 – 23, 2024

## Preliminary Program

ABclonal Technology is an innovative growth company that provides high-quality biology research reagents, tools, and custom services. Since its establishment in 2011, ABclonal has set up R&D centers in Boston, Shanghai, Wuhan, and direct sales office in the US, China, UK, Germany, South Korea, and Japan.

# Content

## Antibody

15,000+ Antibodies

- Rabbit Monoclonal Ab
- Flow Cytometry Ab
- IHC Pahtology Ab
- Post-translational modification Ab
- Secondary Ab
- Polymab Ab

## ELISA Kit

4000+ ELISA kits & ABplex platform

- High sensitivy ELISA
- High performance ELISA
- Fast ELISA
- Multiplex assay
- Custom immunoassay development

## Recombinant Protein

1900+ Recombinant proteins

- CD antigen
- Fc & Fc receptor
- Immune checkpoint
- Cytokines & Cytokine receptor
- C. R-T therapy related

## Molecular Biology

Molecular enzymes & NGS solution

- Enzymes
- PCR & RT-PCR & qPCR & RT
- NGS lib prep kits
- Vector construction
- DNA/RNA extraction

## Consumable

Lab consumables & Instruments

- PCR related consumables
- Centrifuge tubes
- Pipette tips
- Vortex mixer
- Thermal cycler
- Tissue Cell-destroyer

## CRO Service

Antibody & immunoassay development service

- Rabbit mAb discovery
- Camelid nanobody development
- Antibody pairs development
- Immunoassay development
- Multiplex assay development
- Antibody engineering

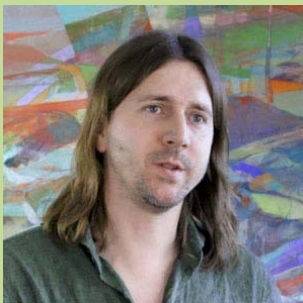
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Jörg Vogel



Ruth Ley



Nassos Typas

Dear Friends and Colleagues,

The Mosbacher Kolloquium is the traditional spring meeting of the German Society for Biochemistry and Molecular Biology (GBM). The meeting is held annually in Mosbach, which provides a picturesque setting for scientific discussions over the latest scientific discoveries and emerging topics. The intimate setting encourages exchange between seasoned and junior researchers.

At the 75th Mosbacher Kolloquium we will highlight recent techniques to characterize and manipulate complex microbiomes. For example, the human microbiome comprises a vast array of microbes, with the gut alone harboring more than 1,000 bacterial species. The complex interactions between the microbiome, pathogens, and the immune system can impact health and disease states. Yet we lack a precise understanding of the individual or synergistic contributions of gut bacteria to human health, and we lack the ability to modulate the functions of the majority of human-associated microbes. These deficiencies also apply to other microbial communities in/on plants, animals, and entire ecosystems.

The Mosbacher Kolloquium 2024 seeks to address these problems by bringing together leaders in the next iteration of microbiome sciences. An interdisciplinary panel of leading scientists from around the world will provide an overview of the state-of-the-art research, allowing us to chart future developments at the interface of basic science and clinical development.

We look forward to an exciting meeting in Mosbach!

Jörg Vogel

Ruth Ley

Nassos Typas



Congress center „Alte Mälzerei“



City hall and market place



Helena Schulz-Mirbach



Marius Lange

16:00

## Arrival and registration

18:00

## Introductory lecture („Primer“)

A short intro to the topic of this year's Mosbacher Kolloquium (delivered by the organizers)

19:00 - 19:30

## Rainer Rudolph Awards

### Helena Schulz-Mirbach /Marburg [DE]

Towards synthetic CO<sub>2</sub> assimilation: the growth-coupled improvement of a new-to-nature mutase activity

### Marius Lange /Zürich [CH]

Modeling dynamical biological processes through the lens of single-cell genomics

20:00

## Welcome reception /Get together

The steering committee of the German Society for Biochemistry and Molecular Biology (GBM) and the city of Mosbach invite you to a welcome reception in the town hall of Mosbach (no registration required)

City hall

We thank the city of Mosbach for the kind hospitality.



Tami Lieberman



Robert Bücking



Maria Vehreschild



Francesca Odoardi



Kelsey Huus



Dirk Haller

08:50 **Opening remarks**  
by the scientific organizers

**Session 1 (09:00 - 12:00)**  
**The microbiome in human health and disease**  
(Chair: Jörg Vogel)

09:00 **Tami Lieberman** /Cambridge [USA]  
Local adaptation in human microbiomes

09:30 **Early career investigator talk 1**  
**Robert Bücking** /Berlin [DE]  
Maturation of the infant microbiome in time and space

09:45 **Maria Vehreschild** /Frankfurt am Main [DE]  
Where do we stand? – Current status of clinically relevant interventions in microbiome research

Coffee break (10:15 - 10:45)

10:45 **Francesca Odoardi** /Göttingen [DE]  
Role of the lung microbiota in CNS autoimmunity

11:15 **Early career investigator talk 2**  
**Kelsey Huus** /Tübingen [DE]  
Vaccine-induced fevers are associated with flagellar activity of the gut microbiome

11:30 **Dirk Haller** /München [DE]  
Understanding the functional relevance of microbiome signatures

Lunch break (12:00 - 13:00)



Laurie Comstock



Hannes Link



Michael Zimmermann



Elena Fajardo-Ruiz

- 
- 12:00 **Meet the industrial scientist with Thomas Wieseemann**  
(more information > > page 25)
- 
- 12:00 **Meet the Prof with Johannes Buchner**  
(more information > > page 25)
- 
- 12:15 **Panel discussion „Science & Sustainability“**  
more information > > page 27)
- 
- 13:00 **Workshop „BioPharma Cluster South Germany – Job opportunities and advantages for careers within a cooperative ecosystem**  
(more information > > page 29)
- 
- 13:00 **Poster session I (even numbers)**  
(more information > > page 33)
- 
- Session 2 (14:30 - 16:45)**  
**Biochemical reactions in the human microbiome** (Chair: Clara Correia-Melo)
- 
- 14:30 **Laurie Comstock** /Chicago [USA]  
Mechanisms of bacterial interactions in the gut microbiota
- 
- 15:00 **Hannes Link** /Tübingen [DE]  
Mapping and understanding bacterial metabolism with multi-omics approaches: from E. coli to microbiomes
- 
- Coffee break (15:30 - 16:00)
- 
- 16:00 **Michael Zimmermann** /Heidelberg [DE]  
Systematic investigation of metabolic microbiota-host interactions (preliminary)
- 
- 16:30 **Early career investigator talk 3**  
**Elena Fajardo-Ruiz** /München [DE]  
The role of lactate and *Desulfovibrio* in inflammatory bowel diseases





Michelle Rönspies



Luca Schulz



Julia Vorholt

16:45

**Bayer Pharmaceuticals PhD Award**  
(Laudatio: Volker Haucke)



**Michelle Rönspies** /Karlsruhe [DE]  
Redirecting meiotic recombination in plants by  
CRISPR/Cas-mediated chromosome engineering

17:00

**GBM PhD Award**  
(Laudatio: Volker Haucke)

**Luca Schulz** /Marburg [DE]  
Evolution of essential complexity in Rubisco

17:15

**GBM General Meeting** (17:15 - 19:30)  
(for GBM members only)

19:30

**Feodor Lynen Lecture**  
(Laudatio: Jörg Vogel)

**Julia Vorholt** /Zürich [CH]  
Reverse engineering of plant  
microbiomes  
  
The German Society for Biochemistry and Molecular Biology  
honors Julia Vorholt with  
the distinguished Feodor Lynen  
medal.



After the prize lecture the GBM  
invites all participants to join the  
Lynen reception.

The Lynen Lecture is sponsored by



20:30

**Lynen reception & poster session II**  
(even & odd numbers, more on >> page 33)

22:00

**Get Together & Networking**



Ute Hentschel



Daniel Erny



Ami Bhatt



Peer Bork



Maya Kissner



Harris Wang

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**Session 3 (09:00 - 12:00)**  
**Microbial networks & diversity of functions**  
 (Chair: Ruth Ley)

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09:00 **Ute Hentschel** /Kiel [DE]  
 Title not submitted yet

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09:30 **Early career investigator talk 4**  
**Daniel Erny** /Freiburg [DE]  
 How gut bacteria modulate brain-resident immune cells

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09:45 **Ami Bhatt** /Stanford [USA]  
 From Precise Microbiome Genomics to Precision Medicine

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Coffee break (10:15 - 10:45)

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10:45 **Peer Bork** /Heidelberg [DE]  
 Microbiome analysis for human and planetary health

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11:15 **Early career investigator talk 5**  
**Maya Kissner** /Berlin [DE]  
 Commensal 3D Skin – An In Situ Model to Explore Microbiome-Mediated Skin Toxicity

---

11:30 **Harris Wang** /New York [USA]  
 Spatial metagenomics and culturomics of the gut microbiome

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Lunch break (12:00 - 13:00)



# Program

Fri., March 22



Bärbel Stecher



Fiona Powrie



Till Strowig



Katharina Höfer

12:00 **Meet the prof with Julia Vorholt**  
(more information >> page 25)

12:00 **Workshop: How to write a good article and where to submit it**  
(more information >> page 31)

13:00 **Poster session III** (odd numbers)  
(more information >> page 33)

**Session 4 (14:30 - 16:30)**  
**The microbiome's impact on host-pathogen interactions**  
(Chair: Thomas Clavel)

14:30 **Bärbel Stecher** /München [DE]  
Unraveling the interplay of ecology & evolution in colonization resistance

15:00 **Fiona Powrie** /Oxford [UK]  
Title not submitted yet

Coffee break (15:30 - 16:00)

16:00 **Till Strowig** /Braunschweig [DE]  
Competition in the gut: From ecology to novel therapeutics

16:30 **Otto Meyerhof Prize**  
(Laudatio: Volker Haucke)



**Katharina Höfer** /Marburg [DE]  
RNAylation of proteins: Discovery of a molecular glue to link RNA and proteins



Johannes Buchner



Otto Warburg Medal

17:00

## Otto Warburg Lecture & Medal (Laudatio: Volker Haucke)

**Johannes Buchner** /München [DE]  
Molecular Chaperones – cellular machines of protein folding

This year the GBM, Elsevier and Biochimica et Biophysica Acta (BBA) will honor Johannes Buchner from the Technical University of Munich in recognition of his fundamental contributions to the structure formation of proteins and the role of chaperones with the Otto Warburg Medal.

The highest award in Germany for biochemists and molecular biologists promotes outstanding scientific excellence and encourages groundbreaking achievements in the field of fundamental biochemical and molecular biological research.

Since 1963 the Otto Warburg Medal is intended to commemorate the outstanding achievements of Otto Heinrich Warburg. Elsevier and its flagship title Biochimica et Biophysica Acta (BBA) are exclusive sponsors of the Medal. To emphasize the importance of excellent scientific research and motivate young researchers to achieve outstanding results, the prize is endowed with 25.000 Euro.

sponsored by





Lisa Maier



Valentina Cusi



KC Huang



Karina Xavier



Michael Knopp



Andrew Goodman

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**Session 5 (09:00 - 12:00)**  
**Modulating microbiome's composition & functions**  
 (Chair: Nassos Typas)

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09:00 **Lisa Maier** /Tübingen [DE]  
 Drug-microbiome interactions and their consequences on the host

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09:30 **Early career investigator talk 6**  
**Valentina Cusi** /Braunschweig [DE]  
 Investigating peptide nucleic acids (PNAs) as antimicrobial agents against *Fusobacterium nucleatum*

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09:45 **KC Huang** /Stanford [USA]  
 Eco-evolutionary dynamics of gut bacteria within and across hosts (preliminary)

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Coffee break (10:15 - 10:45)

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10:45 **Karina Xavier** /Oeiras [PO]  
 Keystone gut microbiota promoting pathobiont clearance by nutrition competition and microbiota recovering

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11:15 **Early career investigator talk 7**  
**Michael Knopp** /Heidelberg [DE]  
 Microbiome context-dependence in the evolution of antibiotic resistant *Klebsiella pneumoniae*

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11:30 **Andrew Goodman** /West Haven [USA]  
 Microbial transformation of dietary xenobiotics shapes gut microbiome composition



Ilana Brito



Kiran R. Patil

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## Junior GBM Session

(Chairs: Nicola Bopp & Marcel Zimmeck)

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12:00

**Ilana Brito** /Ithaca [USA]  
Title not submitted yet

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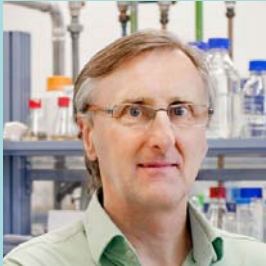
12:30

**Kiran R. Patil** /Cambridge [UK]  
Modulating microbiome metabolism through  
small molecules

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13:00

Poster prizes & closing remarks



Johannes Buchner



Julia Vorholt



Thomas Wiesemann

## Meet the Prof

This year's guests of our Junior GBM are Julia Vorholt and Johannes Buchner.

The scientists will give insights into their lives as researchers and their personal careers.

In addition, you can ask questions in an informal atmosphere that may help you with your personal orientation in research and career or that simply interest you.

Thursday, March 21, 12:00 - 13:00

(Room: Schalander)

(Chair: Kerstin Schmiederer)

**Johannes Buchner** (Technical University Munich)

Friday, March 22, 12:00 - 13:00 (Room: Darre)

(Chair: Benedikt Moissl)

**Julia Vorholt** (ETH Zürich)

The number of participants is limited. A registration is required.

## Meet the industrial Scientist

The Junior GBM succeeded in winning Thomas Wiesemann from Biomol for the „Meet the industrial Scientist“.

Similar to the „Meet the Prof“ format, the scientist will talk about his work and career and answer your questions.

Friday, March 22, 12:00 - 13:00 (Room: Tenne)

(Chair: Lydia Bosse)

**Thomas Wiesemann** (Biomol, Hamburg)

The number of participants is limited. A registration is required.



Volker Haucke



Patrick Frick



Jan Bebermeier



Caterina Baars



Sven Kannenberg



Christina Wüst

## Penal Discussion: Science & Sustainability

The GBM working group "Young Investigators" (AK YI) kindly invites all interested participants of the Mosbacher Kolloquium to a panel discussion about "Science & Sustainability".

Do you think that we have a responsibility to reduce our carbon footprint?  
Do you wonder how green initiatives can be supported, both in academia as well as in industry?  
Do you ask yourself whether you should reduce your travel for conferences?

Discuss with experts from both academia and industry how we can make research more sustainable!

Thursday, March 21, 12:00 - 13:00 (Lecture hall)  
(Chairs: Jürgen Lassak & Karla Feijs-Žaja)

### Guests:

Volker Haucke (FMP, Berlin)  
Patrick Frick (Pan-Biotech, Aidenbach)  
Jan Bebermeier (Eppendorf, Hamburg)  
Caterina Baars (NachLabs Team, Hamburg)  
Sven Kannenberg (NachLabs Team, Hamburg)  
Christina Wüst (Junior GBM, AK Nachhaltigkeit)





Uwe Buecheler



## Job opportunities and advantages for careers within a cooperative ecosystem

(BioPharma Cluster South Germany)

The Life Science Research department of the DiaThis lunch session will provide an overview of the vast variety of career opportunities within the BioPharma Cluster South Germany, ranging from basic and applied education and research to material- drug- and process development as well as clinical – and commercial supply.

It is aimed at university graduates and postgraduates at all levels of education with a particular focus on the added value that goes beyond the individual institutional level and results from the cooperative ecosystem within the cluster.

Thursday, March 21, 13:00 - 14:00 (Room: Tenne)

Speaker:

**Uwe Buecheler**

(Chairman of BioPharma Cluster South Germany)

The BioPharma Cluster South Germany is the leading European hub for the research-based development and manufacturing of biopharmaceuticals. We create an attractive, cross-functional, and innovation-driven environment that strengthens healthcare as a whole and benefits patients worldwide.



Daniel Erik Otzen



## Workshop: How to write a good article and where to submit it

This session is aimed at Master and PhD Students as well as Post-Docs in Life Sciences.

Professor Otzen will provide some guidelines on how you best construct a compelling scientific narrative and how to identify appropriate journals to which to submit the manuscript. He will also discuss ethical concerns such as plagiarism and other inappropriate scientific behavior as well as how to merit, share and distribute authorships.

Friday, March 22, 12:00 - 13:30 (Room: Malzboden)  
Registration is required

Speaker:

**Daniel Erik Otzen**

(Professor at the Interdisciplinary Nanoscience Centre at Aarhus University, Denmark and Editor-in-Chief of the Biochimica et Biophysica Acta (BBA) journals, He has authored over 300 peer-reviewed articles and heads the entire BBA portfolio of journals.)

About the BBA journals: BBA is a set of international journals, encompassing biochemistry, biophysics, molecular biology, cell biology, genomics, bioinformatics, metabolomics, proteomics, systems biology, and clinical studies. BBA was established in 1947, making it the one of the oldest life science journals and the first scientific journal published by Elsevier. The BBA family currently encompasses ten members with different subtopics (the latest added in 2020) and is published by Elsevier with a total of 100 annual issues.

## Session Times

Thursday, 13:00 - 14:30 (even numbers)

Thursday, 20:30 - 22:00 (all numbers)

Friday, 13:00 - 14:30 (odd numbers)

During the poster sessions the presenting authors are requested to stay near their posters. Posters should be presented throughout the whole meeting.

## Poster Specifications

The posters should be presented in portrait format (DIN A0 resp. ~120 x 85 cm).

## Poster Abstracts

All poster abstracts are available as pdf-file for download on the meeting homepage.

A printed abstract booklet is available for viewing purposes at the registration desk.

## Poster Numbers

Please see the poster list on page 38 for poster numbers.

## Poster Prizes

The best three posters will be awarded (with certificate and 300 € each). Three further poster prizes will be awarded by the Junior GBM. The winners will each receive a book voucher of 150 Euro from ChemBio-Chem/Wiley-VCH.

The winners will be announced at the end of the meeting on Saturday. To receive the prize, personal attendance is required.



March 20	14:00 - 16:30	(Room: Schalander)
March 20	Sitzung: Arbeitskreis Studium Molekulare Biowissenschaften	
March 20	17:00 - 19:00	(Room: Malzboden)
March 20	Sitzung: Sprecher der GBM-Studiengruppen und Arbeitskreise	
March 21	12:30 - 14:00	(Room: Malzboden)
March 21	Sitzung: GBM-Kontaktpersonen	
March 21	15:15 - 16:30	(Room: Schalander)
March 21	Meeting of Senior Experts in the GBM - discus- sion on future perspectives and activities	
March 21	17:15 - 19:30	(Lecture hall)
March 21	GBM-Mitgliederversammlung	
March 22	12:00 - 14:30	(Room: Schalander)
March 22	Sitzung: Arbeitskreis „Biochemie in der Medizin“	
March 22	13:30 - 14:30	(Room: Tenne)
March 22	Sitzung: Junior GBM Stadt- und Bundessprecher	
March 22	13:45 - 15:00	(Room: Darre)
March 22	Sitzung: Arbeitskreis „Geschichte der Biochemie“	
March 22	13:30 - 14:30	(Room: Malzboden)
March 22	Meeting Postdocs@GBM	
March 22	19:00 - 21:00	(Lecture hall)
March 22	Vollversammlung: junior GBM	

## Conference Office

Opening hours are

Wednesday: 16.00 - 19:45  
Thursday: 08:00 - 17:00  
Friday: 08:30 - 16:00  
Saturday: 08:30 - 11:00

Phone: +49 6261 9292 78

## Venue

The Kolloquium takes place in the „Alte Mälzerei“ in Mosbach/Baden (Germany)

Alte Mälzerei  
Alte Bergsteige 7  
74821 Mosbach/Baden

## Internet

There will be a wireless LAN access point in the conference centre.

SSID: GBM  
Key: gbm-online

## Lunch & Coffee Breaks

Coffee, tea and mineral water will be provided for free during the coffee breaks.

Lunch and Dinner is available at your own expense in the conference center or in one of the restaurants in the city of Mosbach.

## Proceedings

Your name badge and the program booklet are available at the registration desk.

We kindly ask to wear your name badge as an entry ticket during the whole meeting.



1 Oberer Torturm



2 Haus Kickelhain



3 Altes Hospital



3a Scharfrichter-Haus



4 Palm'sches Haus



5 Rathaus



6 Salzhaus



7 Synagogenplatz



8 Altenzentrum Pfalzgrafenstift



9 Mosbacher Schloss



10 Kandel



11 Kiwwelschisserbrunnen



12 Stiftskirche



i Congress Centre „Alte Mälzerei“



ii Hotel „Zum Amtsstüble“



iii City Hall





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BIOTREND (Booth 5)  
Nikon (Booth 6)  
Zymo Research (Booth 7)  
BMG LABTECH (Booth 8)  
siTOOLS Biotech (Booth 9)

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O 03

Aichane, Khadija

Increasing the cell surface expression of the adenovirus protein E3/49K to optimize its immunomodulatory function for potential therapeutic applications

O 24

Al-Anati, Bayan

Just a side product? Tracking of 6S RNA activity in biofilms and microbiomes using product RNAs

I 01

Amend, Lena

PUL-dependent cross-feeding mechanisms between the gut commensal *Bacteroides thetaiotaomicron* and the enteric pathogen *Salmonella Typhimurium*

M 06

Anandakumar, Harithaa

Unraveling the role of microbiome-immune dysregulation in early onset chronic kidney disease

M 17

Arlt, Miriam

Elucidating the influence of the human microbiome on the metabolism of pesticides: a case study on tebuconazole

R 03

Aveta, Erica Flora

Maillard reaction products in the gut: unraveling the metabolism of N $\epsilon$ -carboxymethyllysine (CML) in *Escherichia coli*

O 14

Aydin, Yasmin

PHL7 - Breaking the Plastic Wave from Within the Compost Metagenome

M 09

Bell, Michael

Common silent and agonistic flagellins display temporally distinct binding profiles in interactions with Toll-Like Receptor 5

O 06

Bornet, Elise

Single-cell analyses to dissect morphological heterogeneity in the gut commensal *Bacteroides thetaiotaomicron*

M 22

Bücking, Robert

Maturation of the infant microbiome in time and space

N 04

Camus, Laura

The ability of *Staphylococcus aureus* to proliferate within the nasal ecosystem is strain- and community-specific

M 21

Cheaib, Bachar

The dynamics of the upper respiratory microbiome and its relationship with lung function in children with cystic fibrosis

R 04

Davis, Tara

The Role of the Gut Microbiota in Determining Pyrrolizidine Alkaloid Toxicity

I 05

de la Cuesta Zuluaga, Juan Jacobo

Drug-induced alterations in community composition drive the loss of colonization resistance against *Salmonella Typhimurium*



M 07

Henseler, Zachariah

Quantifying the bidirectional interactions between anti-cancer drugs and the human gut microbiome

N 02

Heyer, Robert

Supporting microbiome research by latest metaproteomics software development

M 20

Hitch, Thomas

High-throughput anaerobic cultivation facilitates host-specific culture collections and the creation of synthetic communities for targeted functional study of microbiomes

O 08

Itani, Ahmad

Spatiotemporal Probing of Microbial Communities from Winogradsky Columns as a Model Ecosystem

N 07

Jarquín-Díaz, Víctor Hugo

Wild-ARGI Map: Molecular-based profiling of the gastrointestinal resistome in wild mice

M 04

Jokisch, Florian

Lipid metabolism as critical link between gut microbiota and colorectal cancer

I 02

Kartal, Ece

Spatial Host-Microbiome Interactions in the Murine Intestine: Dynamics between Altered Microbiota and Host Immunity

O 12

Knoke, Lisa Roxanne

Hypochlorous acid (HOCl)-derived lipid N-chloramines in host-microbe interactions

M 23

Knopp, Michael

Microbial context-dependence in the evolution of antibiotic resistant *Klebsiella pneumoniae*

R 05

Krause, Jannike

Microbial glycan coating may be modulated by disease-associated factors

O 22

Krause, Jonas

Regulation of sialic acid synthesis pathway enzymes after supplementation with N-acetylmannosamine (ManNAc) and N-Acetylneuraminic (Neu5Ac) in C2C12 and HEK cell culture models.

O 13

Lassak, Jürgen

Degradation of Advanced glycation endproducts by the soil microbiota: *Pseudomonas bavariensis* as the first N $\epsilon$ -carboxy(m)ethyllysine degrading bacterium

O 23

Lindholm, Nicolas

Synthesis of Multivalent Cell-Penetrating Peptide Conjugates as Potential Tools for Drug Delivery

D 05

Lossow, Kristina

Effects of trace element modulation on the intestine of mice with different age

N 12

Masood, Fareha

Inferring Horizontal Gene Transfer and Gene Fusion/Fission in Microbial Communities from Orthology Data

- O 04  
Mayer, Ivy  
Surface-Patterned DNA Origami Rulers for the Study of the Nanoscale Distance-Dependency of the Epidermal Growth Factor Receptor Activation
- N 06  
Meisch, Laura  
Macroporous Silicone Chips for Decoding Microbial Dark Matter in Environmental Microbiomes
- O 02  
Moench, Svenja  
DNA-based Hydrogels as Functional Materials in Cell Culture and Their Use as Templates for Cell-Free Protein Synthesis
- D 02  
Nentwich, Sarah  
Antisense oligomers repress the genotoxic activity of colibactin producing *E. coli*
- M 10  
Nishijima, Suguru  
Fecal microbial load is a major determinant of gut microbiome variation and a confounder for disease associations
- I 03  
Osbelt, Lisa  
Eat or die - microbial context in the gut shapes toxin-dependent and independent protection against *Salmonella*
- N 05  
Petschak, Stefan  
Adenylyl-Cyclases of *Sinorhizobium meliloti* and cAMP-Signaling-Models

- O 07  
Prezza, Gianluca  
Probing transcriptional dynamics of gut epithelium colonization by the human commensal *Bacteroides thetaiotaomicron*
- O 10  
Reifenrath, Luna  
Metabolic Profile Analysis of an Omnivorous and Vegetarian Diet using <sup>1</sup>H-Nuclear Magnetic Resonance Spectroscopy on Human Faeces Samples
- M 02  
Roderer, Daniel  
Structural basis of *Fusobacterium nucleatum* adhesin Fap2 interaction with receptors on cancer and immune cells
- O 17  
Röhlrig, Annalena Marie  
Structural insights into the  $\mu$ -opioid receptor,  $\beta$ -arrestin, GRK interaction
- M 11  
Rosenboom, Ilona  
Airway microbial metagenomics from premature birth to end-stage lung disease
- M 16  
Rosin, Aline  
A commensal 3D skin model to study the interplay of skin bacteria and melanoma progression in situ
- O 19  
Rudolph, Lorena  
When clinical goes sweet – Early detection of hepatocellular cancer and other inflammation-related diseases using NMR glycosylation profiles from serum samples

R 01

Rüttiger, Ann-Sophie

The RNA-binding protein RbpB is a central regulator of polysaccharide utilization in gut Bacteroides

I 06

Saalfank, Johanna

18S rRNA sequencing to detect microbial eukaryotes in human samples from rural Madagascar

D 03

Sarkar, Paramita

Quest for Novel Species-specific Carriers for Antisense Oligonucleotides into Bacteria

N 10

Schorr, Eva-Magdalena

A phenotypic landscape of key Bacteroides species

M 03

Sempert, Toni

Multi-parameter microbiota flow cytometry for disease-specific microbiota phenotyping and identification of disease-associated bacteria

M 13

Shafiq, Jazib

Antibiotic-induced gut microbiome dysbiosis negatively modulate CNS serotonin levels and affects anxiety-like behavior

N 09

Shcherbakova, Anastasiia

Genome-scale mapping of genetic regulators of uracil exchange in yeast

M 15

Shitut, Shraddha

Mapping microbes in the tumor microenvironment

O 05

Sobkowiak, Annika

Monitoring of antimicrobial resistance carrying plasmids – adaptation to long-term antibiotic treatment

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