

12th Retreat of the Collaborative Research Center 1182

“Origin and Function of Metaorganisms”

17-19 August 2026

GEOMAR Helmholtz Centre for Ocean Research Kiel

Building 8, Wischhofstraße 1-3, 24148 Kiel

Venue:



Monday, 17 August

8:30-9:00 Welcome coffee

9:00-9:15 Opening remarks

Hinrich Schulenburg & Tal Dagan, CRC Speaker and Vice-Speaker

Session 1

Chair: Georgios Marinos

9:15-9:40 Genomic basis of *Caenorhabditis elegans* adaptation to a complex mesocosm environment

Pageneck Chikondowa, CRC A1.1 project

9:40-10:05 The hydrolysis of sucrose by *Zymoseptoria tritici*'s secreted invertase impacts the biocontrol activity of leaf-associated bacteria.

Víctor M. Flores-Núñez, CRC A3.1 project

10:05-10:30 Impact of industrialization on IgA-bacteria interactions

Alexandra Deutsch, CRC C5.2 project

10:30-10:50 Coffee break

10:50-11:15 Inference of interactions in the gut microbiome

Chandan Relekar, CRC A4.1 project

11:15-11:40 Microbiomes across syngnathids: composition and insights into function

Fiete Willmer, CRC B1.3 project

11:40-12:05 How multiple levels of selection shape the characteristics of host-associated microbiomes

Inga Hamerich, CRC A4.3 project

12:05-12:30 *Prevotella*-to-*Bacteroides* enterotype shift in the human gut microbiome

Hina Ayub, CRC C5.3 project

12:30-13:30 Lunch

Session 2

Chair: Fanny Mazzamurro

- 13:30-13:55 A pathoblocker of *Pseudomonas aeruginosa* affects microbe-microbe and microbe-phage interactions
Ole Kelting, CRC B4.2 project
- 13:55-14:20 Host lifestyle impacts gut microbiome-mediated cholesterol metabolism
Emmanuel K. Quaye, CRC C5.2 project
- 14:20-14:45 Transcriptional responses of *Aurelia aurita* to contact with microbial pathogens
Vincent Reinmuth, CRC B2.1 project
- 14:45-15:05 Coffee break
- 15:05-15:20 Overview of the INF subproject
Montserrat Torres, CRC INF project
- 15:20-15:40 Teaching modern microbiome research: developing classroom practice through school and science collaboration
Martina Kapitza, CRC PR2 project
- 15:40-15:45 Z2 project microorganisms: culture and single cell analysis
Finn Gehlert, CRC Z2.1 project
- 15:45-15:50 TBD
Marc Bramkamp, CRC Z2.2 project
- 15:50-15:55 TBD
Joana Pimenta Bernardes, CRC Z3.1 project
- 15:55-16:00 Proteomics
Andreas Tholey, CRC Z3.2 project
- 16:00-16:05 Metabolites at the crossroads of host-microbe interactions
Manuel Liebeke, CRC Z3.3 project
- 16:05-17:35 Poster session

17:35-18:00 Secretion system mediated effector donation by intra-ER endosymbionts enhances host metabolic capacity

Henry Berndt, CRC C1.3 project

18:00-19:00 Establishing nuclear control over bacterial endosymbionts

Eva Nowack, Heinrich-Heine University Düsseldorf

19:00 Dinner at GEOMAR

Tuesday, 18 August

8:30-9:00 Welcome coffee

Session 3

Chair: Tal Dagan

9:00-9:25 Interaction between two model organisms: *Caenorhabditis elegans* and *Drosophila melanogaster*

Carola Petersen, CRC A1.1 project

9:25-9:50 Towards defining the drosophila epitracheal organ: structural and functional insights into a neurosecretory tracheal system

Shreejita Chatterjee, CRC C2.1 project

9:50-10:15 Evolution and adaptation of the gut microbiome in humans

Fanny Mazzamurro, CRC C5.1 project

10:15-10:40 Exploring the sponge virosphere: from local to global

Wenqing Shi, CRC C4.3 project

10:40-11:00 Coffee break

11:00-11:25 Systematic discovery of bacterial symbionts of rumen ciliate protozoa

Elie Jami, Agricultural Research Organization – Volcani Institute

11:25-11:50 Metabolic and lineage dynamics in the drosophila intestine-microbiota ecosystem

Thomas Roeder, CRC C2.1 project

11:50-12:15 A symbiont-derived biosurfactant engages host neuroimmune signaling to restrict colonization

Barbara Pees, CRC A1.2 project

12:15-12:30 Group photo

12:30-13:30 Lunch

Session 4

Chair: Kristina Schlicht

13:30-13:55 Genomic prediction of sea lice (*Caligus rogercresseyi*) burden in Atlantic salmon (*Salmo salar*) using host-genome and skin microbiome information

Lucas Venegas, Laval University

13:55-14:20 From formation to function: Integrative regulation of neural circuits and microbiome interactions in Hydra

Ehsan Sakib, CRC C1.1 project

14:20-14:45 Host-microbe interactions via G-protein coupled receptors

Eva Holländer, CRC A2.1 project

14:45-15:10 A multi-organ atlas reveals organ-specific responses during protein energy malnutrition and recovery

Joana Pimenta Bernardes, CRC C2.2 project

15:10-16:35 Poster session

16:35-17:00 cJUN dependent innate immunity controls microbiome through selective phagocytosis in *Nematostella*

Sebastian Fraune, CRC B1.2 project

17:00-18:00 Rewilding the zebrafish model

Brendan Bohannon, University of Oregon

19:00 Dinner at BOOTSHAUS 1862

Wednesday, 19 August

8:30-9:00 Welcome coffee

9:00-10:15 Career paths beyond academia – perspectives from industry and entrepreneurship
*A panel discussion featuring: **Anton Eisenhauer**, Osteolabs GmbH; **Kristina Hartwig**, Kieler Meeresfarm; **Jana Mahnken**, Postdoc Center CAU Kiel; **Ben Schwedhelm**, MySpirulina GmbH
 Moderated by: **Hina Ayub & Alexandra Deutsch***

A closed meeting of the CRC Steering Committee will take place in parallel.

10:15-10:35 Coffee break

Session 5

Chair: Jan Taubenheim

10:35-11:00 Model-guided microbiome intervention design for nucleotide metabolism in SIHUMIX
Andy Mercado Gamarra, CRC A1.5 project

11:00-11:25 Microbiome-mediated rescue of host populations
Corinna Bang, CRC A2.2 project

11:25-11:50 Domesticated symbiosis plasmids are regulatory and metabolically integrated in plant-associated *Pantoea*
Tal Dagan, CRC A3.2 project

11:50-12:15 *Metabolic modelling of host-microbiome-interactions in metaorganisms*
Christoph Kaleta, CRC A1.5 project

12:15-12:30 2026 Young Investigator Awards announcement & closing remarks
Hinrich Schulenburg & Tal Dagan, CRC Speaker and Vice-Speaker

12:30 Lunch

Posters

Monday, 17 August

TBD

Finn Gehlert, CRC Z2.1 project

TBD

Marc Bramkamp, CRC Z2.2 project

TBD

Joana Pimenta Bernardes, CRC Z3.1 project

TBD

Andreas Tholey, CRC Z3.2 project

Metabolites at the crossroads of host-microbe interactions

Manuel Liebeke, CRC Z3.3 project

Variation in gut microbiome diversity and structure across host lifestyles in Pakistan

Hina Ayub, CRC C5.3 project

Population genomics of wild zebrafish (*Danio rerio*) from Chitwan, Nepal: a population genomic framework for microbiome research

Mark Currey, University of Oregon

Impact of industrialization on IgA-bacteria interactions

Alexandra Deutsch, CRC C5.2 project

The hydrolysis of sucrose by *Zymoseptoria tritici*'s secreted invertase impacts the biocontrol activity of leaf-associated bacteria

Victor M. Flores-Nunez, CRC A3.1 project

Circadian clock in *Nematostella vectensis*

Julian Giemsa, CRC B1.2 project

Diversity and functional relevance of the fungal microbiome in the model organism

Hydra vulgaris AEP

Clara Igelmann, CRC A3.1 project

From selective phagocytosis to immune memory: trained innate immunity in

Nematostella vectensis

Nida Kaya, CRC B1.2 project

The effect of FoxO on stem cell aging

Mirjam Knop, CRC C2.1 project

Training the mitochondria: exercise-associated enrichment of *Cetobacterium somerae* identifies a candidate mediator of skeletal muscle mitohormesis

Victor Lewis, University of Oregon

Origins of the human gut microbes

Fanny Mazzamurro, CRC C5.1 project

Host-microbiota interactions shape transposable element dynamics in Amazonian teleosts under seasonal environmental variation

Josephine Michelot, Laval University

Progress towards a single-cell atlas for *Halichondria panicea*

Alexi Pearson-Lund, CRC B1.1 project

Transcriptional responses of *Aurelia aurita* to contact with microbial pathogens

Vincent Reinmuth, CRC B2.1 project

The unique microbiomes of free-living zebrafish (*Danio rerio*) from Chitwan, Nepal

Caitlin Smith, University of Oregon

Tuesday, 18 August

Cand. Midichloriaceae endosymbionts feature effector encoding self-transmissible megaplasms

Henry Berndt, CRC C1.3 project

Multilevel selection in multitype populations

Amanda de Azevedo-Lopes, CRC A4.1 project

Roles of biofilters for positive microbial environments in recirculating aquaculture systems (RAS)

Fernando Fernando, Norwegian University of Science and Technology

Pangenomics of *Curvibacter* - which candidate genes might provide insights into host-microbiome interactions on *Hydra*?

Liam Fürbach, CRC B1.2 project

Host-microbe interactions via G-protein coupled receptors

Eva Holländer, CRC A2.1 project

Predicting strain-specific metabolic interactions between *C. elegans* and its commensal bacteria: integrating dual RNA-seq with genome-scale metabolic modeling

Rupinder Kaur, CRC A1.5 project

A pathoblocker of *Pseudomonas aeruginosa* affects microbe-microbe and microbe-phage interactions

Ole Kelting, CRC B4.2 project

Deploying an endogenous CRISPR-Cas system for genetic manipulation in *Curvibacter* sp. AEP1-3

Edajla Lalaj, CRC B1.2 project

The microbiota's impact on the expression of transposable element in zebrafish

Antoine Lortie, Laval University

EcoGS: Decoding microbial ecological interactions through metabolic modelling

Georgios Marinos, CRC A1.5 project

Selective immune tolerance? Differential phagocytic recognition and tolerance of resident vs. non-resident bacteria

Silke-Mareike Marten, CRC B1.3 project

A model-guided route toward microbiome intervention design

Andy Mercado Gamarra, CRC A1.5 project

MicroMucus: Utilizing an Atlantic salmon (*Salmo salar*) model to investigate microbial contributions to the skin mucosal barrier

Catherine Nordgård, Norwegian University of Science and Technology

Microbiome-mediated plasticity: how pathogen pressure shapes *Caenorhabditis elegans* microbiota composition and host protection

Lena Peters, CRC A1.2 project

Neuro-microbial interactions in the non-senescent *Hydra*

Ehsan Sakib, CRC C1.1 project

Viral diversity and dynamics in the sponge *Halichondria panicea*

Wenqing Shi, CRC C4.3 project

Exploring resource constraints for modeling pairwise microbial metabolic interactions in the *Hydra*-associated microbes

Natchapon Srinak, CRC A1.5 project

Microbiome-mediated rescue of host populations

Bob Week, CRC A4.3 project

The role of *Vibrio* ankyrin in modulating mechanisms of microbial discrimination by the marine sponge *Halichondria panicea*

Lukka Zenke, CRC B1.1 project

Metabolic modelling of *C. elegans* host-microbiome interactions

Karlis A. Moors, CRC A1.5 project

General information

Sessions

Oral presentations will take place in Room 8A-002 of GEOMAR Building 8. The poster sessions will be held in the foyer in front of this room. The panel discussion will take place in the same location as the oral presentations, while the Steering Committee meeting will be held in Room 8A-101 of GEOMAR Building 8.

Food

Lunches and refreshments will be provided in the foyer outside Room 8A-002 of GEOMAR Building 8.

On Monday, 17 August, dinner will be provided at the same location.

On Tuesday, 18 August, dinner will be held at the restaurant BOOTSHAUS, located at Düsternbrooker Weg 16. The easiest way to reach the restaurant is by taking [ferry line F2](#) from the Wellingdorf ferry stop, located next to GEOMAR, and getting off at the Reventloubbrücke stop. Suitable ferries depart from Wellingdorf at 18:09 and 18:51. The ferry ride towards Reventloubbrücke takes approximately 12 minutes. From the Reventloubbrücke ferry stop, the restaurant is about a 600 m walk (approximately 8 minutes). Dinner will be served as a buffet and will start at 19:00.

Oral presentations

Presenting from your personal laptop is preferred. However, a Windows laptop will also be available in the session room. If you wish to use it, please prepare your talk in PowerPoint (.ppt/.pptx) or PDF (.pdf) format and bring it on a USB drive. Include your name in the file name for easy identification, and upload your presentation before your session begins. Alternatively, you can send your presentation to Barbara Cania (bcania@ifam.uni-kiel.de) latest on the evening before your session. If your presentation includes embedded videos or other external files, ensure that they function properly before your talk.

Each speaker has been allocated the amount of time indicated in the conference program. Please gauge the length of your talk accordingly, making sure to leave time for questions.

Poster presentations

Provided poster walls can accommodate A0-sized (841 × 1189 mm / 33.1 × 46.8 inches) posters hanged vertically (portrait orientation). Please note that A0 is slightly smaller than the standard U.S. poster size of 3 × 4 feet.

Poster presenters may use any available poster board – spaces are available on a first-come, first-served basis. Please hang your poster no later than the end of the lunch break on the day of your poster presentation.

Travel to the venue

By bus

From Kiel's central train station/central bus station (ZOB), you can take bus lines X60, 11, 14, 200, 201, or 210. All lines take approximately 15 minutes. Exit at the stop "Seefischmarkt" and follow the signs to GEOMAR.

Tickets can be purchased from the driver with cash (Euros) or in advance via the NAH SH app or the [NAH.SH website](#). You can also buy a multi-journey ticket (4er-Karte) for four rides or a weekly ticket (Wochenkarte) at the KVG Service Centre at the central bus station, at the Tourist Information Office on Andreas-Gayk-Straße or from a ticket machine at the central train station.

By car

If you're arriving via the A7 from Hamburg, take the "Bordesholmer Dreieck" junction onto the A215 toward Kiel. Leave the A215 at the final exit toward the east shore (Ostufer), following signs for B76 direction Lübeck. From the B76, take the exit onto B502 toward Ostufer/Laboe and follow this road for about 4 km, then follow local signage to GEOMAR (see map for details).

If coming via the A7 from Flensburg/Schleswig, take the A210 at the Rendsburg junction in the direction of Kiel. The A210 merges with the A215 about 2 km before the exit to B76.

There are sufficient parking options available on campus.

By ferry

You can also reach GEOMAR via [ferry line F2](#). The ferry departs from the Reventloubrücke ferry stop on the Kiellinie and takes 16 minutes to reach the Wellingdorf stop, which is located directly next to GEOMAR. You can use the same tickets on the ferry as on the bus (see information on travel by bus). There is a ticket machine available on board.

Kiel offers rental bikes throughout the city, available via the DonkeyRepublic app (the first 30 minutes are free). There is a SprottenFlotte station next to Reventloubrücke, where you can return your bike before boarding the ferry.

Schwentine - Fährlinie F2

Ganzjährig gültig ab 22. März 2026

Montag bis Freitag	Reventlou Abfahrt	05:23	05:53	06:23	06:53	07:08	07:23	07:38	07:53	08:08	08:23	08:38	08:53	09:08	09:38	10:38	11:08	11:38	12:08	12:38
	Dietrichsdorf	05:03	05:33	06:03	06:33	07:03	07:18	07:33	07:48	08:03	08:18	08:33	08:48	09:03	09:18	09:48	10:48	11:18	11:48	12:18
	Wellingdorf	05:09	05:39	06:09	06:39	07:09	07:24	07:39	07:54	08:09	08:24	08:39	08:54	09:09	09:24	09:54	10:54	11:24	11:54	12:24
	Reventlou Ankunft	05:21	05:51	06:21	06:51	07:21	07:36	07:51	08:06	08:21	08:36	08:51	09:06	09:21	09:36	10:06	11:06	11:36	12:06	13:06

Reventlou Abfahrt	13:08	14:08	14:23	14:38	14:53	15:08	15:23	15:38	15:53	16:21	16:53	17:23	17:53	18:23	18:53	19:38	20:08	20:38	21:08	21:38
Dietrichsdorf	13:18	14:18	14:33	14:48	15:03	15:18	15:33	15:48	16:03	16:31	17:03	17:33	18:03	18:33	19:03	19:48	20:18	20:48	21:18	21:48
Wellingdorf	13:24	14:24	14:39	14:54	15:09	15:24	15:39	15:54	16:09	16:37	17:09	17:39	18:09	18:39	19:09	19:54	20:24	20:54	21:24	21:54
Reventlou Ankunft	13:36	14:36	14:51	15:06	15:21	15:36	15:51	16:06	16:21	16:53	17:21	17:51	18:21	18:51	19:21	20:06	20:36	21:06	21:36	22:06

Samstags	Reventlou Abfahrt	8:30	09:00	09:30	10:00	10:30	11:00	11:30	12:30	13:00	13:30	14:00	14:30	15:00	15:30	16:15
	Dietrichsdorf	08:40	09:10	09:40	10:10	10:40	11:10	11:40	12:40	13:10	13:40	14:10	14:40	15:10	15:40	16:25
	Wellingdorf	08:46	09:16	09:46	10:16	10:46	11:16	11:46	12:46	13:16	13:46	14:16	14:46	15:16	15:46	16:31
	Reventlou Ankunft	08:58	09:28	09:58	10:28	10:58	11:28	11:58	12:58	13:28	13:58	14:28	14:58	15:28	15:58	16:43

Sonntags und Feiertags	Reventlou Abfahrt	09:30	10:00	10:30	11:00	11:30	12:00	12:30	13:30	14:00	14:30	15:00	15:30	16:00	16:30
	Dietrichsdorf	09:40	10:10	10:40	11:10	11:40	12:10	12:40	13:40	14:10	14:40	15:10	15:40	16:10	16:40
	Wellingdorf	09:46	10:16	10:46	11:16	11:46	12:16	12:46	13:46	14:16	14:46	15:16	15:46	16:16	16:46
	Reventlou Ankunft	09:58	10:28	10:58	11:28	11:58	12:28	12:58	13:58	14:28	14:58	15:28	15:58	16:28	16:58



Alle Anleger sind barrierefrei ausgebaut
Kein Fahrbetrieb von Heiligabend bis Neujahr
An Bord der Fähre gibt es einen Fahrkartenautomat für bargeldlose Zahlungen
Fahrgäste ohne Fahrschein müssen sofort nach Fahrtantritt einen gültigen Fahrschein erwerben.
Fahrkartenverkauf erfolgt nicht mehr durch den Schiffsführer
Für die Einhaltung des Fahrplanes wird aufgrund von Wetter, Verkehrsaufkommen und technischer Verfügbarkeit keine Gewähr übernommen





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Schlepp- und Fähr-
gesellschaft Kiel mbH - SFK

Information for guests

Arriving by plane

If you travel by plane, the best way to reach Kiel is via Hamburg Airport. From there, we recommend taking the Kielius bus service, which departs for Kiel every hour directly in front of the airport building, between the departure and arrival terminals.



The journey takes approximately 90 minutes. You can check exact departure times [online](#). Tickets can be purchased [online](#) or from the driver. However, the driver accepts only cash (Euros). A cash machine is available near the arrivals area at the airport.

For your return trip, we recommend using the same service. In Kiel, the Kielius bus departs from bus platform 11 at the central bus station (ZOB) on Auguste-Viktoria-Strasse, next to the central train station.



Alternatively, you can take the [suburban train](#) (S-Bahn) line S1 from Hamburg Airport (Flughafen) to Hamburg central train station (Hauptbahnhof). The S1 runs every 10

minutes, and the journey takes 25 minutes. You can access the S-Bahn station directly from Terminals 1 and 2.

From Hamburg central train station, you can continue your journey to Kiel by [train](#), which takes approximately 75 minutes. You will arrive at Kiel central train station. The exit for the bus stop is to the left. The exit for taxis is straight ahead.

Travel to Hotel Kiel-Schwedenkai

Whether you arrive in Kiel by train or by Kiellius, the Hotel Kiel-Schwedenkai is located within a few hundred meters of the station and is easily reachable on foot.

Alternatively, taxis are available directly in front of the train station entrance. Several bus lines also depart from the area and stop at the Bootshafen bus stop, which is located directly in front of the hotel.

Getting around Kiel

Kiel is a compact city and, especially on the western side of the fjord, many places can easily be reached on foot. To reach the eastern side of the fjord, the easiest option is to take a ferry, although buses are also available.

In fact, Kiel has a good bus system. Tickets can be purchased from the driver with cash (Euros) or in advance via the NAH.SH app or the [NAH.SH website](#). Multi-journey tickets (4er-Karte) and weekly tickets (Wochenkarte) are available at the KVG Service Centre at the central bus station, the Tourist Information Office on Andreas-Gayk-Straße, or from ticket machines at the central train station.

