

10th Retreat of the Collaborative Research Center 1182

“Origin and Function of Metaorganisms”

17-18 September 2024

GEOMAR Helmholtz Centre for Ocean Research Kiel

Building 8, Wischhofstraße 1-3, 24148 Kiel

Venue:



Types of talks:

A, B, C – 20 min presentation + 5 min discussion

Z – 5 min presentation + 5 min discussion

PR – 12 min presentation + 3 min discussion

Tuesday, 17 September

8:30-9:00 Welcome coffee

9:00-9:15 Opening: Hinrich Schulenburg & Tal Dagan

Session 1		Chair: Victor M. Flores-Nuñez
9:15-9:40	C1.1: Microbiota affects stem cell decision making in Hydra <i>Jinru He</i>	
9:40-10:05	C1.3: Function and evolution of aquatic <i>Midichloriaceae</i>, widespread intracellular symbionts of protists and animals <i>Harald Gruber-Vodicka</i>	
10:05-10:30	C2.1: The effect of the microbiome on intestinal stem cell aging <i>Mirjam Knop</i>	
10:30-10:50	Coffee break	
10:50-11:15	C2.2: Microbes leave a mark: memory mechanisms of malnutrition <i>Philip Rosenstiel</i>	
11:15-11:40	C4.3: Dynamic sponge microbiomes: phage regulation and seasonal shifts <i>Leon Steiner</i>	

11:40 Group picture

12:00-13:00 Lunch

Session 2

Chair: Liz Florez

- 13:00-13:25 **C5.1: Dynamics of microbial compositions, lineages and genomes along the evolution of the human metaorganism**
Mathieu Groussin
- 13:25-13:50 **C5.2: Global variations in IgA-bacteria interactions are linked to host lifestyles**
Ana Schaan
- 13:50-14:15 **C5.3: Functional consequence of the *Prevotella*-to-*Bacteroides* enterotype shift in the human gut microbiome**
Malte Rühlemann
- 14:15-15:15 Poster session
- 15:15-15:40 **B1.1: Molecular and cellular mechanisms for microbial discrimination in sponges**
Ute Hentschel-Humeida
- 15:40-16:05 **B1.2: Bacterial quorum sensing molecule affect the aboral axis development in *Hydra***
Jay Bathia
- 16:05-16:30 **B1.3: Shaping tiny worlds: Paternal microbiota manipulation and its impact on the offspring**
Kim Sara Wagner
- 16:30-16:55 **B2.1: The life cycle of *Aurelia aurita* depends on the presence of a microbiome in polyps prior to the onset of strobilation**
Nadine Jensen

16:55-17:25 Coffee break

Session 3

Chair: Andy Mercado Gamarra

- 17:25-17:35 **Z2.1: Microorganisms: culture and single cell analysis**
Finn Gehlert
- 17:35-17:45 **Z2.2: Microscopy solutions for the Metaorganism**
Marc Bramkamp
- 17:45-17:55 **Z3.1: Overview of next generation sequencing applications for studying metaorganisms**
John Baines & Philip Rosenstiel
- 17:55-18:05 **Z3.2: Proteomics**
Andreas Tholey/Liam Cassidy

18:05-18:15	Z3.3: Metabolomics of metaorganisms <i>Manuel Liebeke</i>
18:15-19:00	Dinner
19:00-~20:00	Initiative talks miTarget (Andre Franke), KMC / PMI (Mathieu Groussin), PlantsCoChallenge (Eva Stukenbrock), TransEvo (Olivia Roth), CSEM (John Baines)

20:00 Networking with drinks
Last ferries to the West shore: 21:24 or 21:54

Wednesday, 18 September

8:30-9:00 Welcome coffee

Session 4		Chair: Jinru He
9:00-9:15	SOP.2: Bringing science to school: insights into past and future projects <i>Martina Kapitza</i>	
9:15-9:30	SOP.3: The visual library <i>Susanne Landis</i>	
9:30-9:55	B4.1: Evolution of a domesticated symbiosis plasmid in the plant-associated <i>Pantoea</i> <i>Tal Dagan</i>	
9:55-10:20	B4.2: Bacteria-bacteria interactions in the metaorganism <i>Daniel Unterweger</i>	
10:20-10:45	B4.3: The pel gene cluster as an important target of c-di-GMP in host-specialized <i>Pseudomonas lurida</i> MYb11 <i>Anna Czerwinski</i>	
10:45-11:15	Coffee break	
11:15-11:40	A1.1: The <i>C. elegans</i> metaorganism under antibiotic stress <i>Carola Petersen</i>	
11:40-12:05	A1.2: Molecular basis of microbiome-mediated protection against pathogen infection in <i>C. elegans</i> <i>Katja Dierking & Lena Peters</i>	

12:05-12:50 Lunch
12:50-13:50 Poster session

Session 5		Chair: Jan Taubenheim
13:50-14:15	A1.5: TBD <i>Christoph Kaleta</i>	
14:15-14:40	A2.1: Sirt5 and its effect on the mouse gut microbiome <i>Shauni Doms</i>	
14:40-15:05	A2.2: ABO histo-blood group-specific microbiome profiles in the human gut <i>Johanna Saalfrank</i>	
15:05-15:25	Coffee break	
15:25-15:50	A3.1: The role of the effector AvrStb6 in activating the wheat immune response through alteration of the plant microbiota composition <i>Liz Florez</i>	
15:50-16:15	A3.2: The contribution of domesticated plasmids to <i>Pantoea agglomerans</i> wheat associated lifestyle <i>Shreya Vichare & Kai Ripcke</i>	
16:15-16:40	A4.1: Multilevel selection models for microbiomes <i>Amanda de Azevedo-Lopes</i>	
16:40-17:05	A4.3: Multilevel selection in <i>C. elegans</i>-microbiota interactions <i>Inga Hamerich</i>	
17:05-17:15	Summary and outlook: <i>Tal Dagan, Hinrich Schulenburg</i>	
17:15-18:00	Concluding discussions, chats, and developing ideas...	

Posters

Date	Poster title	Presenter	
17-Sep	ExoMod: Design of a targeted microbiome exometabolome modulation approach for the rational design of microbiome- based therapies	Andy Mercado Gamarra	A1.5
17-Sep	TBA	Jay Bathia	B1.2
17-Sep	Mom or Dad? A deep dive into microbiota transfer in the sex role reversed pipefish <i>S.typhle</i>	Silke Mareike Marten	B1.3
17-Sep	The life cycle of <i>Aurelia aurita</i> depends on the presence of a microbiome in polyps prior to the onset of strobilation	Nadin Jensen	B2.1
17-Sep	Bacteria-bacteria interactions in the metaorganism	Daniel Unterweger	B4.2
17-Sep	The <i>pel</i> gene cluster as an important target of c-di-GMP in host-specialized <i>Pseudomonas lurida</i> MYb11	Anna Czerwinski	B4.3
17-Sep	Host integration and manipulation of <i>Cand. Grellia</i> across hosts	Henry Berndt	C1.3
17-Sep	Impact of symbiosis on life history decisions at the base of the metazoan evolution	Jinru He	C1.3
17-Sep	Hormonal signaling in the fly's intestine	Mirjam Knop	C2.1
17-Sep	Protein-energy malnutrition alters the gut microbiota with expansion of pathobionts and dihydroxy fatty acids	Víctor López	C2.2
17-Sep	Dynamics of microbial compositions, lineages and genomes along the evolution of the human metaorganism	Mathieu Groussin	C5.1
17-Sep	Global variations in IgA-bacteria interactions are linked to host lifestyles	Ana Schaan	C5.2
17-Sep	Functional consequence of the Prevotella-to-Bacteroides enterotype shift in the human gut microbiome	Hina Ayub	C5.3
17-Sep	Microorganisms: Culturing, phylogenetic analysis, genetic engineering and microscopy	Finn Gehlert	Z2.1
18-Sep	The <i>C. elegans</i> metaorganism under antibiotic stress	Carola Petersen	A1.1
18-Sep	Molecular basis of microbiome-mediated protection against pathogen infection in <i>C. elegans</i>	Lena Peters	A1.2
18-Sep	Metazoan Transcriptional Responses to Microbiome Dynamics	Jan Taubenheim	A1.5
18-Sep	Metabolic modelling of host-microbiome interactions in <i>C. elegans</i>	Karlis Moors	A1.5

18-Sep	G protein-coupled receptors as key mediators of host-microbe interactions	Eva Holländer	A2.1
18-Sep	Genomic analysis of G-protein coupled receptors (GPCRs) associated with microbial traits	Svenja Landfester	A2.1
18-Sep	The impact of filamentous plant pathogens on the host microbiota	Victor M. Flores-Nuñez	A3.1
18-Sep	Identification of Essential and Host associated genes in <i>Pantoea</i> species through RB-TnSeq	Kai Ripcke	A3.2
18-Sep	T6SS-mediated competitive exclusion among <i>Pantoea agglomerans</i> associated with plants	Nils Hülter	A3.2
18-Sep	Multilevel selection in <i>C.elegans</i> -microbiota interactions	Inga Hamerich	A4.3
18-Sep	Overview of next generation sequencing applications for studying metaorganisms	John Baines	Z3.1
18-Sep	Mus musculus Famis: Cell Atlas of Malnutrition to understand acute and long-term effects of protein-energy malnutrition	Joana P. Bernardes & Fenja Schuran	C2.2

Directions by train or bus

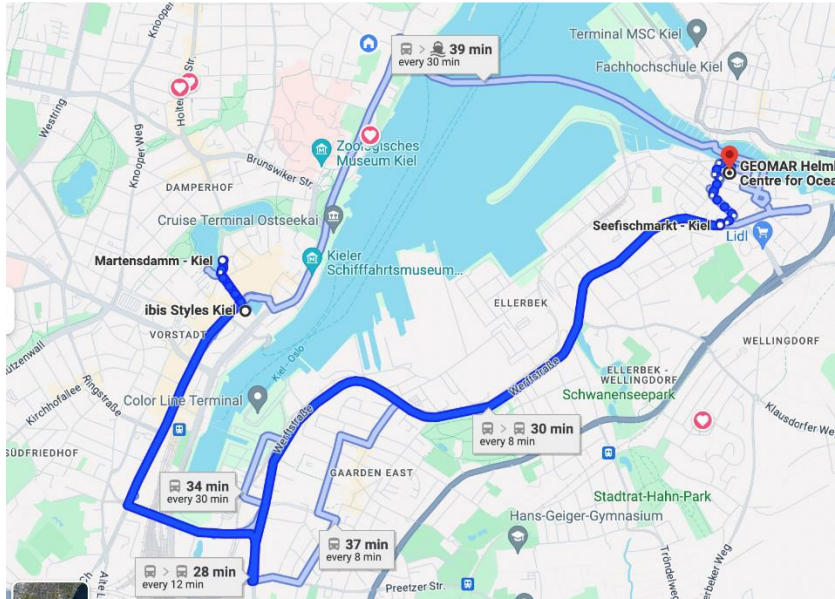
- 1) From the main train station / central bus station (ZOB): By taxi or by bus, lines 11, 60S, 100, 200/201).
- 2) Bus stops in front of the main train station (west exit/Sophienblatt): Lines 60S and 200/201 are express lines (15 min.). Exit at bus stop "Seefischmarkt" and follow the signs to "GEOMAR".

Directions by car

- 1) Via A7 from Hamburg: leave A7 at junction "Bordesholmer Dreieck" to A215 (Kiel). Leave A215 at last exit to east shore (Ostufer), B76 direction Lübeck. Leave B76 to B502 direction "Ostufer/Laboe". Follow B502 about 4 km, follow traffic signs to GEOMAR (see map for details). Sufficient parking options are available on the campus.
- 2) Via A7 from Flensburg/Schleswig: leave A7 at junction with A210 in "Rendsburg" direction Kiel. A210 meets A215 about 2 km before the exit A210 to B76.

From Ibis Styles hotel (Holstenbruecke 26, 24103 Kiel) to GEOMAR Eastern shore

- 1) By bus: there are different Bus lines (X60/11/14/200/201/210), you can check on google maps and choose spontaneously, it will take around 30 mins to oneway.
 - 2) By ferry: the ferry leaves from "Reventloubrücke", which is located at the Kiellinie You can walk to the ferry dock along the fjord in approx. 25 min. Alternatively, you can take a bus at "Bootshafen", where you can take either 41 (to Tannenber) or 42 (to Suchsdorf), and after 4 stops exit at bus stop "Landtag". From there you can take the F2 ferry to Wellingdorf, approx. 16 mins.
- Kiel also offers rental bikes all over the city. They can be rented using the DonkeyRepublic app (first 30 min are free).
- It takes 5 minutes bike to "Reventlou", there's a site directly at Reventlou to return the bike before taking the ferry.



Schwentine-Fährlinie F2

Ganzjährig gültig ab 1. Februar 2024 von montags bis samstags

montags bis freitags

Reventlou ab	-	5:23	5:53	6:23	6:53	7:08	7:23	7:38	7:53	8:08	8:23	8:38	8:53	9:08	9:38	10:38	11:08	11:38	12:08	12:38
Dietrichsdorf	5:03	5:33	6:03	6:33	7:03	7:18	7:33	7:48	8:03	8:18	8:33	8:48	9:03	9:18	9:48	10:48	11:18	11:48	12:18	12:48
Wellingdorf	5:09	5:39	6:09	6:39	7:09	7:24	7:39	7:54	8:09	8:24	8:39	8:54	9:09	9:24	9:54	10:54	11:24	11:54	12:24	12:54
Reventlou an	5:21	5:51	6:21	6:51	7:21	7:36	7:51	8:06	8:21	8:36	8:51	9:06	9:21	9:36	10:06	11:06	11:36	12:06	12:36	13:06
Reventlou ab	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	14:56	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 an	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 ab	8:30	9:00	9:30	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	8:40	9:10	9:40	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	8:46	9:16	9:46	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 an	8:58	9:28	9:58	10:28	10:58	11:28	11:58	12:58	13:28	13:58	14:28	14:58	15:28	15:58	16:43

Anleger behindertengerecht ausgebaut

An Sonntagen und Feiertagen verkehren die Schiffe der F2 nicht.

Kein Fährbetrieb von Heiligabend bis Neujahr.

An Bord der Fähren **MS DIETRICHSDORF**, **MS DÜSTERNBROOK** und **MS WELLINGDORF** befindet sich ein Fahrkartenautomat zur bargeldlosen Zahlung.

Fahrgäste ohne Fahrschein müssen sofort nach Fahrtantritt dort den gültigen Fahrpreis entrichten.

Kein Fahrscheinverkauf durch den Schiffsführer.

Für die Einhaltung des Fahrplanes wird aufgrund von Wetter, Verkehrsaufkommen und technischer Verfügbarkeit keine Gewähr übernommen.