



SPP 2330: New Concepts in Prokaryotic Virus-host Interactions

International Symposium

October 2nd – 4th 2023, Berlin

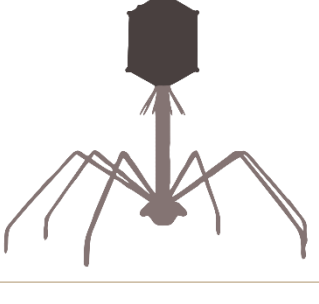
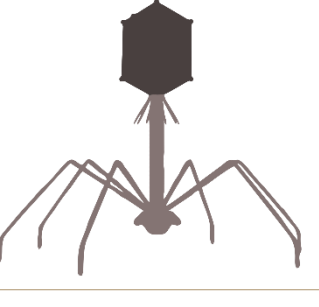
PROGRAM

Monday, October 2nd

09:30 – 12:30	Career & Industry Workshop Closed session for SPP 2330 young scientists	
13:00 – 14:00	Registration, Snacks and Drinks	
14:00 – 14:15	Julia Frunzke, Jülich	Welcome and Opening Remarks
		Viral impact on microbial communities and horizontal gene transfer Chairs: Laura Czech, Kai Thormann
14:15 – 14:45	Eduardo Rocha, Paris	Phage-plasmids: bridges between phages and plasmids
14:45 – 15:00	Mercedes Gomez de Agüero, Würzburg	Bacteriophages and <i>Staphylococcus epidermidis</i> in neonatal skin
15:00 – 15:15	Knut Drescher, Basel	Bacteria use exogenous peptidoglycan as a danger signal to trigger protective biofilm formation
15:15 – 15:30	Janine Bowring, Copenhagen	Genomic mobilisation by rRNA operon recombination – another route of phage transduction?
15:30 – 16:00	Kilian Voegelé – Invitris, Munich	Cell-free production of personalized therapeutic phages targeting multidrug-resistant bacteria
16:00 – 16:45	Coffee break	Group picture
16:45 – 17:00	Luís Melo, Braga	Exploitation of bacteriophage SEP1 interaction with <i>Staphylococcus epidermidis</i> 9142 exponential and stationary cells: a transcriptomic analysis
17:00 – 17:15	Andreas Peschel, Tübingen	<i>Staphylococcus</i> evasion of phage predation by dynamic receptor glycosylation
17:15 – 17:30	Bärbel Stecher, Munich	In vitro and in vivo selection and cost of phage resistance in natural <i>Escherichia coli</i>
17:30 – 17:45	Ovidiu Popa, Düsseldorf	Characterizing Virome Co-occurrence in the Arctic: Insights from Metagenomic Samples (2016-2020)
17:45 – 18:30	Lothar Schulz, Berlin	Longing for freedom
18:30 – 20:00	Dinner	
20:00 – 23:00	Poster Session	

Tuesday, October 3rd

		Life cycle & Regulation Chairs: Bärbel Stecher, Knut Drescher
09:00 – 09:30	Sivaramesh Wigneshweraraj, London	Traffic Management during T7 Phage Gene Expression
09:30 – 09:45	Katharina Höfer, Marburg	Discovery of a molecular glue to link RNAs with proteins
09:45 – 10:00	Kai Papenfort, Jena	A quorum sensing phage employs Hfq-dependent small RNAs to modulate phage replication
10:00 – 10:15	Enea Maffei, Zurich	Phage Paride hijacks bacterial stress responses to kill dormant, antibiotic-tolerant cells
10:15 – 10:30	Aleksandr Korotaev, Basel	Part of the ship, part of the crew: regulation of the domesticated phage <i>Bartonella</i> Gene Transfer Agent
10:30 – 10:45	Laura Czech, Marburg	Structural and functional analysis of the SPβ prophage master repressor MprR (YopR)
10:45 – 11:15	Coffee break	
		Phage sensing and interaction with host defenses Chairs: Katharina Höfer, Kai Papenfort
11:15 – 11:45	Stan Brouns, Delft	Accumulation of defense systems in phage resistant strains of <i>Pseudomonas aeruginosa</i>
11:45 – 12:00	Véronique Ongena, Leiden	Identification of a protein-based phage receptor required for membrane homeostasis in <i>Streptomyces coelicolor</i>
12:00 – 12:15	Véronique Taylor, Toronto	Prophages listen-in on bacterial communication to activate anti-phage defence
12:15 – 12:30	Uri Gophna, Tel Aviv	Unpredictable interactions between microbial viruses and host defenses
12:30 – 12:45	Jens Hör, Rehovot	Bacteria conjugate ubiquitin-like proteins to interfere with phage assembly
12:45 – 14:00	Lunch	

14:00 – 14:15	Vasili Haurlyuk, Lund	Mechanism of phage sensing and abortion by toxin-antitoxin-chaperon systems
14:15 – 14:30	Avigdor Eldar, Tel Aviv	Arbitrium communication controls phage lysogeny through non-lethal activation and inhibition of a bacterial toxin-antitoxin defense system
		Bacteriophage applications Chairs: Li Deng, Andreas Peschel
14:30 – 15:00	Martin Loessner, Zürich	Bacteriophages reinvented: tiny killers, live savers, and detectives
15:00 – 15:15	Kawtar Tiamani, Munich	Studying the transcriptional organization and infection process in <i>A. baumannii</i> phage model using differential RNA-Sequencing in order to discover novel phage based antibacterials
15:15 – 15:45	Martha Clokie, Leicester	Getting Phages Closer to Clinical Development
15:45 – 16:15	Coffee break	
		Viral ecology and diversity Chairs: Tessa Quax, Johannes Wittmann
16:15 – 16:30	Maor Sarah Berkovich, Haifa	Identification and investigation of phage and host factors that regulate T4-like cyanophage genome expression
16:30 – 16:45	Michelle Gehringer, Kaiserslautern	What genes are you packing? Phages and their auxiliary metabolic genes
16:45 – 17:00	Clara Rolland, Braunschweig	PhageDive: the new data resource on prokaryotic viruses
19:00 – 22:00	Social Event	

Wednesday, October 4th

		Archaeal viruses Chairs: Michelle Gehringer, Uri Gophna
09:00 – 09:30	Hanna Oksanen, Helsinki	Molecular mechanisms of host recognition and entry of haloarchaeal tailed double-stranded DNA viruses
09:30 – 09:45	Bastiaan Kuiper, Groningen	Release mechanisms of archaeal viruses infecting halophilic euryarchaeon <i>Haloferax gibbonsii</i> LR2-5
09:45 – 10:00	Susanne Erdmann, Bremen	The role of extracellular vesicles in virus-host interactions in Archaea
10:00 – 10:15	Cynthia Chibani, Kiel	Long-term investigation of the interaction between the microbial and viral communities in a biogas reactor
10:15 – 10:30	Mindaugas Zaremba, Vilnius	The missing part: the <i>Archaeoglobus fulgidus</i> Argonaute forms a functional heterodimer with an N-L1-L2 domain protein
10:30 – 11:00	Coffee Break	
		Prokaryotic antiviral immunity Chairs: Milan Gerovac, Rotem Sorek
11:00 – 11:30	Aude Bernheim, Paris	Conservation of anti-viral immunity across domains of life
11:30 – 11:45	Larissa Kever, Jülich	Bacterial small molecules as efficient antiphage defense
11:45 – 12:00	Thomas Gaudin, Würzburg	Deciphering the Druantia type III defense system against phage infection
12:00 – 12:15	Larissa Krüger, St. Andrews	Regulation of a CBASS nucleotide cyclase by reversible conjugation
12:15 – 12:30	Benoit Pons, Penryn	Antibiotics that affect translation antagonize phage infectivity by interfering with anti-CRISPR
12:30 – 12:45	Federico Corona, Heidelberg	Phages have evolved myriads of ways to circumvent bacterial retrons
12:45 – 13:00	Julia Frunzke, Jülich	Poster Awards
13:00 – 14:00	Lunch	
14:00 – 14:45	Jörg Vogel, Würzburg	Abundant targeting of central host complexes by jumbo phage-encoded proteins
14:45 – 15:15	Coffee Break	
15:15 – 16:00	Rotem Sorek, Rehovot	New insights in phage-bacteria interactions

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SPP 2002

Chairs: Julia Frunzke, Ruth Schmitz-Streit