

Bacterial Morphogenesis Survival and Virulence (BMSV): Molecules, Metabolism and Membranes

MEETING PROGRAM

Day	Time	Session		
Day 1 (Sun)	12:30- 14:00	Registration		
	14:00 – 16:00	Session 1: New targets Chair: Brandon Jutra		
Inv. talk 1:	14:00	Sloan Siegrist (US) "What gets into TB?"		
Inv. talk 2:	14:30	Digby Warner (SA) "Taking shape: morphological phenoprinting for new tuberculosis drug discovery"		
Inv. talk 3:	15:00	Georgia Isom (UK) "Phospholipid Transport To The Bacterial Outer Membrane Through An Envelope-Spanning Bridge"		
Inv. talk 4:	15:30	Bavesh Kana (SA) "New Frontiers in the Fight Against Tuberculosis: The Biology of Mycobacteriophages"		
	16:00- 16:45	Coffee Break		
	16:45 – 18:45	Session 2: Drugs 4 bugs Chair: Jeanne Salje		
Inv. talk 5:	16:45	Christoph Dehio (CH) "E. coli - adaptations to life in the urogenital tract"		
Inv. talk 6:	17:15	Vin Singh (SA) "In Pursuit of a Novel TB Drug: Mechanism of Action Studies"		
Inv. talk 7:	17:45	Man-Wah Tan (US) "Identification and development of novel classes of antibiotics to combat AMR"		
Short talk 1:	18:15	Michel Pieren (CH) "Early bactericidal activity of the novel alpibectir-ethionamid (AlpE) combination for TB treatment"		
Short talk 2:	18:30	Megan Keller (US) "Unveiling a Link Between Central Metabolism and Antibiotic Tolerance"		
	19:00	Welcome reception and dinner		
Day 2 (Mon)	09:00 – 10:30	Session 3: Walls Chair: Felipe Cava		
Inv. talk 8:	09:00	Mariana Pinho (PT) The EMBO Keynote Lecture "Chromosome segregation dynamics during the cell cycle of Staphylococcus aureus"		
Inv. talk 9:	09:30	Simon Foster (UK) "Staphylococcus aureus Cell Division: In Sickness and in Health"		
Short talk 3:	10:00	Kate Hummels (US) "Regulation of cell envelope biosynthesis in Pseudomonas aeruginosa"		
Short talk 4:	10:15	David Roper (UK) "Exploring the role of FtsEX-PcsB during cell division in Streptococcus pneumoniae"		
	10:30- 11:15	Coffee Break		
	11:15 – 13:00	Session 4: Small Molecules Chair: Régis Hallez		
Inv. talk 10:	11:15	Yves Brun (CA) "The role of dynamic pili in bacterial adhesion"		
Inv. talk 11:	11:45	Zeynep Baharoglu (FR) "Epitranstranscriptomic adaption of Vibrio cholerae to stress"		
Short talk 5:	12:15	Marisa Klopper (SA) "The effect of inhA promoter mutation on iron distribution in Mycobacterium tuberculosis"		
Short talk 6:	12:30	Axel Magalon (FR) "Draw me an oxidoreductase reacting with quinones"		
Short talk 7:	12:45	Jovelyn Unay (CH) "Cytidylyltransferase specificity in diverse flagellin O-glycosylation systems"		
	13:00 -	Lunch		
	14:00			
	14:00 - 16:20	Afternoon Break		
	16:30 16:30 -			
	18:30 -	Session 5: Mycobacteria Chair: Wolf Zücker		
Inv. talk 12:	16:30	Adrie Steyn (SA) "Decoding energy dynamics: Bioenergetic and metabolic shifts in Mycobacterium tuberculosis cells exposed to anti-TB drugs"		
Inv. talk 13:	17:00	Luiz Carvalho (US) "Mycobacterium tuberculosis overcomes phosphate starvation by extensively remodelling its lipidome with phosphorus-free lipids"		
Inv. talk 14:	17:30	Jessica Seeliger (US) "Measuring membrane diversity in mycobacteria"		
Inv. talk 15:	18:00	Jackson Marakalala (SA) " Mycobacterial cell wall genes required to survive host immunity'"		
Short talk 8:	18:15	Elizabeth Hart (US) "Investigating mycolate outer membrane protein assembly"		
	18:30 – 19:30	Dinner		



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Day Mon				
20:30 – 22:00 Posters I and discussion				
Day 3 (Tue)	09:00- 10:30	Session 6: Complex molecules	Chair: Juan Hermoso	
Short talk 9:	09:00	Saumya Saurabh (US) "Bacterial condensates as first responders to stress"		
Short talk 10:	09:15	Courtney Ellison (US) "Characterization of a unique cell division inhibitor in Acinetobacter species"		
Short talk 11:	09:30	Maëlle Paillat (FR)		
Inv. talk 16:	09.45	"Type IX secretion system : what makes type B CTD secretion signals special?" Markus Seeger (CH) "Siderophore export and import in mycobacteria - a safari featuring special animals"		
Short talk 12:	10:15	André Zapun (FR) "New assessment of teichoic acids in the cell envelope of Streptococcus pneumoniae"		
	10:30- 11:15	Coffee Break		
	11:15 – 13:15	Session 7: Membranes	Chair: Mariana Pinho	
Inv. talk 17:	11:15	Jean-François Collet (BE) "How bacteria deal with stress"		
Inv. talk 18:	11:45	Marc Bramkamp (DE) "A novel DNA-repair system specific for Corynebacterium glutamicum"		
Inv. talk 19:	12:15	Wolf Zückert (US) "Lipoprotein Sorting and Secretion Pathways in Spirochetes"		
Short talk 13:	12:45	Maren Ketterer (CH) "Revisiting effector translocation & secretion of the z		
Short talk 14:	13:00	Kristy Winkler (SA) "Tools for interrogating genetic interactions in mycobad	steria"	
	13:15 – 14:00	Lunch		
	14:00- 16:30	Afternoon Break		
	16:30 – 18:30	Session 8: Homeostasis	Chair: Simon Foster	
Inv. talk 20:	16:30	Coralie Fumeaux (CH) "Leveraging AmpC overproduction to discover novel factors involved in cell envelope h	omeostasis"	
Inv. talk 21:	17:00	Amrita Hazra (IN) "The choice of the adenine motif in vitamins and cofactors in the natural world"		
Inv. talk 22:	17:30	Camille Goemans (CH) "The impact of antibiotics on human gut microbes"		
Short talk 15:	18:00	Rachna Chaba (IN) "An envelope stress response regulates fatty acid metabolism via a small RNA to maintain redox homeostasis"		
Short talk 16:	18:15	Magdalena Chrabaszczewska (BE) "EllAMan - molecular switch in PTSNtr mediated control of cell cycle progression in Caulobacter crescentus"		
	18:30 – 19:30	Dinner		
	20:30 – 22:00	Posters II and discussion		
Day 4 (Wed)	09:00- 10:30	Session 9: Switches	Chair: Christophe Grangeasse	
Inv. talk 23:	09:00	Ranjana Pathania (IN) "A manganese dependent sRNA mediates regulation of Type Six Secretion System in A	Acinetohacter haumannii"	
Inv. talk 24:	09:30	Kathi Fröhlich (DE) "Global RNA interactome capture reveals new function		
Inv. talk 25:	10:00	Tâm Mignot (FR) "Mechanism(s) of prey killing in a ubiquitous soil predator"		
	10:30- 11:15	Coffee Break		
	11:15 – 13:00	Session 10: Biofilms & interactions	Chair: Angelika Gründling	
Inv. talk 26:	11:15	Kim Kline (CH) "Go with the Flow: How Fluid Flow and Quorum Sensing Shape Enterococcal Virulence	e in Infective Endocarditis"	
Inv. talk 27:	11:45	Go with the How: How Huld How and Quorum Sensing Shape Enterococcal Virulence in Infective Endocaralitis" Ian Henderson (AU) "Co-ordinating assembly of the Gram-negative cell envelope"		
	12.15	Mahlatse Maseeme (SA)		
Short talk 17:	12:15	"Complex II / succinate dehydrogenase is central to the metabolic impairment in immune cel	Is during TB and TB-HIV co-infection"	
Short talk 17: Short talk 18:	12:15 12:30	"Complex II / succinate dehydrogenase is central to the metabolic impairment in immune cel Susan Schlegel (SE) "Delivered CdiA toxins create population heterogeneity		



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Day	Time	Session		
,				
	13:00 - 14:00	Lunch		
	14:30 – 16:30	Session 11: Surfaces	Chair: Georgia Isom	
Inv. talk 28:	14:30	Tom Bernhardt (US) "Fortification of the Escherichia coli division site b	y an aPBP-type cell wall synthase"	
Inv. talk 29:	15:00	Hesper Rego (US) "Lessons from a dividing mycobacteria"		
Inv. talk 30:	15:30	Xavier de Bolle (BE) "Survival and growth of the pathogen Brucella abortus relies on lipids trafficking in its membranes"		
Short talk 20:	16:00	Unnimaya Latha (IN) "Armed to transition: RNA reserve-controlled morphogenesis in bacteria"		
Short talk 21:	16:15	Mandy Mason (SA) "Complex cords: exploration of supracellular phenotypes of Mtb"		
	16:30- 18:30	Chill Session with Mock- & Cocktails and DJ Mr. Mo		
	18:30 - 20:30	Conference Braai		
	20:30 – 22:00	Conference Party		
Day 5 (Thu)	09:00- 10:45	Session 12: DNA transactions	Chair: Christian Lesterlin	
Inv. talk 31:	09:00	Ankur Dalia (US) "Regulation and mechanisms of horizontal gene transfer by natural transformation"		
Inv. talk 32:	09:30	Reto Guler (SA) "Minor groove binders and statins for pathogen / host-directed therapy against TB"		
Short talk 22:	10:00	Kilian Dekoninck (US) "Discovery of Conservon8: A novel regulatory pathway modulating antibiotic biosynthesis and anti-phage defense in Streptomyces coelicolor"		
Short talk 23:	10:15	Asha Joseph (IN) "Toggling the replisome: ensuring integrity of the genome across contexts'."		
Short talk 24:	10:30	Justine Collier (CH) "DNA methylation by CcrM contributes to genome maintenance in the Agrobacterium tun	nefaciens plant nathogen"	
	10:45- 11:15	Coffee Break		
	11:15 – 13:15	Session 13: Morphogenesis	Chair: Coralie Fumeaux	
Inv. talk 33:	11:15	Susan Schlimpert (UK) EMBO Young Investigator Lecture "Understanding bacterial multicellular development"		
Inv. talk 34:	11:45	Jie Xiao (US) "Spatiotemporal coordination between cell wall synthesis, degradation, and pole morphogenesis in E. coli"		
Inv. talk 35:	12:15	Martin Thanbichler (DE) "Establishment of complex cell shapes in bacteria"		
Short talk 25:	12:45	Chris Rodrigues (UK)		
Short talk 26:	13:00	"A potential link between the spore envelope and developmental signalling during sporulation in Bacillus subtilis" Bernhard Kepplinger (PL) "Roles of PknB and CsIA in cell wall morphogenesis of Streptomyces"		
	13:15 – 14:15	Lunch		
	14:15- 16:30	Afternoon Break		
	16:30 – 18:45	Session 14: New Frontiers	Chair: Marc Bramkamp	
Inv. talk 36:	16:30	Jeanne Salje (UK) "The cell biology of obligate intracellular bacteria"		
Inv. talk 37:	17:00	Brandon Jutras (US) "Exploiting the unusual properties of Borrelia burgdorferi peptidoglycan to diagnose, treat, and understand Lyme disease"		
Inv. talk 38:	17:30	Angelika Gründling (UK) "Filling in the gaps – How Bacillus subtilis synthesizes the essential lipid phosphatidylglycerol"		
Short talk 27:	18:00	Sybille Tachon (FR) "Metabolic adaptation of Lactic Acid Bacteria"		
Short talk 28:	18:15	Nicholas Taylor (DK) "Structure and mechanism of Zorya anti-phage defense system"		
	18:30	Closure		
	19:00	Pizza, Beer & Beach		