

27–29 June 2022 Edinburgh, UK and Online

Monday 27 June 2022 (all timings are BST)

11:00	Registration and refreshments (Lunch available from 12:00)		
12:50	Welcome and introduction Greg Challis University of Warwick		
	n 1: Fungal natural products chair: Kira Weissman		
13:00	Genome Mining for Unknown Unknowns in Fungi Yi Tang UC Los Angeles, USA	K01	
13:40	Structural studies of transient and higher-order interactions in polyketide synthases Timm Maier University of Basel, Switzerland	K02	
14:20	Identification and Characterization of Bifunctional Fungal Terpene Synthases Jaclyn Winter University of Utah, USA	C01	
14:40	Flash poster presentations		
15:10	Poster session and refreshments		
	n 2: Peptide Biosynthesis chair: Hajo Kries		
16:20	Structures and functions of nonribosomal and non-nonribosomal peptide synthetases Martin Schmeing McGill University, Canada	K03	
17:00	Structure and Function of a Peptide Crosslinking P450 from Biarylitide Biosynthesis Max Cryle Monash University, Australia	C02	
17:20	Iterative Peptide Backbone N-Methylation in Borosin RiPP Biosynthesis Michael Freeman University of Minnesota, USA	C03	
17:40	Investigating the mechanisms of lanthipeptide biosynthesis using structural mass spectrometry Chris Thibodeaux McGill University, Canada	C04	
18:00	Poster session and wine reception		
19:00	Close of sessions		

Tuesday 28 June (all timings are BST)

Session	3: Biosynthetic engineering I	
	hair: Sacha Pidot	
	Repurposed Biocatalysts for the Assembly of Antibiotics and Toxins	
09.00	Christian Hertweck	K04
33.00	Leibniz Institute for Natural Product Research and Infection Biology (HKI),	1101
	Germany Engineering of Polyketide Synthase Leads to 'low-fat' Stambomycins	
09.40	Su Li**	C05
	Max-Planck-Institute for Terrestrial Microbiology, Germany	
	CRISPR-Cas9 in vivo editing enables rapid engineering of a complex	
10.00	antibiotic assembly line	C06
	Wei Li Thong University of Manchester, UK	
	Towards new more efficient and clinically relevant lincosamide	
10.20	antibiotics	C07
10.20	Zdenek Kamenik	007
	Institute of Microbiology Czech Acad Sci, Czech Republic	
	Refreshments Kindly sponsored by:	
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10.40		
	NCIMB	
Session	4: Unusual C-C bond forming enzymes	
	hair: Sarah Barry	
	Title TBC	
11.10	Squire Booker	K05
	Pennsylvania State University, USA Biosynthesis of the unusual carbon skeleton of nocuolin A	
11.50	Teresa Patricia Martins	C08
	CIIMAR, Portugal	
	Enzymatic assembly of the salinosporamide gamma-lactam-beta-	
12.10	lactone anticancer warhead	C09
	Katherine Bauman University of San Diego, USA	
40.00		
12.30	Flash poster presentations	
	Poster session and lunch	
13:00	Session to include any online-only posters in addition to in-person	
Session	│ 5: Polyketide biosynthesis in Gram-negative bacteria	
	hair: Jeroen Dickschadt	
	Combining organic synthesis and synthetic biology to explore and	
15.00	exploit polyketide biosynthesis	K06
	Chris Willis	
	University of Bristol, UK Unveiling the iterative programming of the zeamine II enzymatic	
15.10	assembly line	C40
15:40	Sophie Dekimpe	C10
	KU Leuven, Belgium	
16:00	Modular α-hydroxylation in trans-AT PKSs Franziska Hemmerling	C11
	ETH Zürich, Switzerland	
16.20	Refreshments	
10.20	TAGII GOTII II GOTI	

Session 6: Plant natural products Session chair: Stefan Schulz					
16:50	TBC David Craik University of Queensland, Australia	K07			
17:30	Deciphering quassinoid biosynthesis in the invasive tree of heaven (Ailanthus altissima) Jakob Franke Leibniz University Hannover, Germany	C13			
17:50	Omics approaches to harness daphniphyllum alkaloid diversity Benjamin Lichman University of York, UK	C14			
18:10	Close of sessions				
18:30	Coaches leave for Conference Dinner				
19:00	Conference dinner – Royal Botanic Garden Edinburgh				

Wednesday 29 June (all timings are BST)

Session chair. Hai Deng K08 Ikuro Abe K08 Ikuro Abe University of Tokyo, Japan TBC Ren Xiang Tan** K09 Ren Xiang Tan** Ranjing University, China Exploring new biocatalysts for the sphingolipid synthesis in Actinobacteria C15 Gustavo Perez-Ortiz The University of Edinburgh, UK Pseudomonas pan-genomic analysis informs the discovery of plant pathogen inhibitors Andrew Truman John Innes Centre, UK Itio Refreshments Resistant Canada Resistant Ca	Session 7: Discovery and biosynthesis of nitrogenous metabolites						
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TBC Ren Xiang Tan** Nanjing University, China	9:00	Ikuro Abe	·	K08			
9:40 Ren Xiang Tan** Nanjing University, China Exploring new biocatalysts for the sphingolipid synthesis in Actinobacteria Gustavo Perez-Ortiz The University of Edinburgh, UK Pseudomonas pan-genomic analysis informs the discovery of plant pathogen inhibitors Andrew Truman John Innes Centre, UK 11:00 Refreshments Session 8: Biosynthetic engineering II Session chair: Dom Campopiano Enzymatic Routes to the Next Generation Therapeutics 11:30 Anna Fryszkowska K10 Merck Sharp & Dohme, USA Simulation-guided redesign of terpene synthase product outcome 12:10 Marc Van der Kamp University of Bristol, UK Enzymatic methylation in engineered biosynthetic pathways as a tool for product diversification Kristina Haslinger 12:30 Fatty acid synthases (FASs) enable access to new-to-nature compounds Martin Grininger Goethe University Frankfurt, Germany 13.10 Lunch Round table discussions for early-career researchers Informal discussions over lunch focusing on career directions, different systems, challenges and skills, with advice from scientists in academia and industry Session 9: New frontiers Session 19: New frontiers University of Warwick Kindly sponsored by: Chemical Characteristics Corporate access to the Natural Product Closing remarks and presentation of poster prizes Greg Challis University of Warwick Kindly sponsored by: Chemical Characteristics Corporate access to the Natural Product Corporate Access to Natural P			apan				
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