
Sunday 16 September 2018

- 12:15 - 14:15 **Arrival and Registration with light refreshments**
ATC Registration Desk & ATC Auditorium Foyer
- 14:15 - 14:30 **Opening Remarks**
ATC Auditorium
- 14:30 - 15:45 **Session 1: Microbiome Technologies**
ATC Auditorium
- 14:30 - 15:00 **The Human Microbiome Project and next steps in microbiome population studies** 1
Curtis Huttenhower
Harvard University, United States of America
- 15:00 - 15:15 **Bacterial communities within the intestinal mucus layer exhibit distinct spatial variation in composition and diversity** 2
Kellyanne Duncan
Brown University, United States of America
- 15:15 - 15:30 **Fusobacterium nucleatum (FN) visualization and quantification in colorectal cancer (CRC) using RNA in situ hybridization (ISH) and image analysis (IA)** 3
Garazi Serna
Vall d'Hebron Institute of Oncology, Spain
- 15:30 - 15:45 **Cell wall lysis with Adaptive Focused Acoustics reveals hidden components of microbiome diversity** 4
Shurjo Sen
National Institutes of Health, United States of America
- 15:45 - 16:15 **Coffee Break and Meet the Speakers**
ATC Auditorium Foyer
- 16:15 - 17:45 **Session 1: Microbiome Technologies (continued)**
ATC Auditorium

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16:15 - 16:45	Mapping the mammalian microbiome in 3D Rob Knight <i>University of California, San Diego, United States of America</i>	5
16:45 - 17:00	Genotyping microbes and mobile elements in the gut microbiome using Hi-C Eitan Yaffe <i>Stanford University, United States of America</i>	6
17:00 - 17:15	Experimental dissection of host- and microbiome-mediated metabolism to model drug pharmacokinetics and toxicity Michael Zimmermann <i>Yale University, United States of America</i>	7
17:15 - 17:45	Mapping the human oral microbiome at the micron scale Gary Borisy <i>The Forsyth Institute, United States of America</i>	8
17:45 - 19:00	Speed Networking Session ATC Auditorium Foyer	
19:00 - 20:30	Dinner EMBL Canteen	
20:30 - 23:00	Welcome Reception with Live Music ATC Auditorium Foyer	

Monday 17 September 2018

09:00 - 10:30	Session 2: Challenges in Microbiome Bioinformatics ATC Auditorium	
09:00 - 09:30	Identifying subgenomic variation across the gut microbiota and unraveling its role in host metabolic health	9
	Eran Segal <i>Weizmann Institute of Science, Israel</i>	
09:30 - 09:45	Strain profiling of bacterial species from metagenomic sequencing using Lasso regression	10
	Donati Claudio <i>Edmund Mach Foundation, Italy</i>	
09:45 - 10:00	The dynamic landscape of human intestinal microbiota: a population-level view	11
	Leo Lahti <i>University of Turku, Finland</i>	
10:00 - 10:30	Critical assessment of metagenome interpretation	12
	Alice McHardy <i>Helmholtz Centre for Infection Research, Germany</i>	
10:30 - 11:00	Coffee Break and Meet the Speakers ATC Auditorium Foyer	
11:00 - 12:00	Session 2: Challenges in Microbiome Bioinformatics (continued) ATC Auditorium	
11:00 - 11:30	Resolving de novo strain variation from metagenomes for high resolution analysis of the human microbiome	13
	Christopher Quince <i>University of Warwick, United Kingdom</i>	
11:30 - 11:45	Resolving the context of AMR genes	14
	Sebastien Raguideau <i>University of Warwick, United Kingdom</i>	

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- 11:45 - 12:00 **Meta-analysis of colorectal cancer metagenomic studies** 15
Jakob Wirbel
EMBL Heidelberg, Germany
- 12:00 - 13:15 **Lunch and Meet the Editors**
ATC Auditorium Foyer
- 13:15 - 15:00 **Session 3: Host-microbiome Interactions**
ATC Auditorium
- 13:15 - 13:45 **Social microbes: microbiome as a key regulator of brain and behaviour** 16
John F Cryan
University College Cork, Ireland
- 13:45 - 14:00 **Intestinal serotonin and antidepressant exposure regulate bacterial colonization in the gut** 17
Thomas Fung
University of California, Los Angeles, United States of America
- 14:00 - 14:15 **Global evolution of genomes and functions in the human gut microbiome** 18
Mathieu Groussin
Massachusetts Institute of Technology, United States of America
- 14:15 - 14:30 **Akkermansia muciniphila in fecal microbiota transplantation** 19
Barbara Jelusic
Medical University of Graz, Austria
- 14:30 - 15:00 **Origin of the human gut virome in early life** 20
Frederic D Bushman
University of Pennsylvania, United States of America
- 15:00 - 15:30 **Coffee Break and Meet the Speakers**
ATC Auditorium Foyer
- 15:30 - 17:15 **Session 3: Host-microbiome Interactions (continued)**
ATC Auditorium

15:30 - 16:00	Disentangling host and microbiome contributions to the production of a toxic drug metabolite Andrew Goodman <i>Yale University, United States of America</i>	21
16:00 - 16:15	Unexpected diversity of <i>Prevotella copri</i> lineages in the human gut and its loss in westernized populations Adrian Tett <i>University of Trento, Italy</i>	22
16:15 - 16:30	Neuroactive potential of the gut microbiota: a framework for gut-brain axis annotation from metagenomic data Mireia Valles-Colomer <i>VIB-KU Leuven, Belgium</i>	23
16:30 - 16:45	Host genetics and microbial impact on plasma metabolites and proteomics is linked to disease risk Alexandra Zhemakova <i>University Medical Center Groningen, The Netherlands</i>	24
16:45 - 17:15	Skin microbiome-host interactions: contributions to skin defense, inflammation and repair Elizabeth Grice <i>University of Pennsylvania, United States of America</i>	25
17:15 - 19:00	Poster Session I (odd numbers) ATC Helix A & B	
19:00 - 20:30	Dinner EMBL Canteen	
20:30 - 23:00	After Dinner Drinks ATC Rooftop Lounge	

Tuesday 18 September 2018

09:00 - 10:00	Session 4: Microbiome in Nutrition and Metabolism ATC Auditorium	
09:00 - 09:30	Tackling metabolic health through diet-microbiome-host alliances Yolanda Sanz <i>National Research Council, Spain</i>	26
09:30 - 09:45	Diet and specific commensal microbes alter brain and behavior in a murine model of environmental enteropathy Kylynda Bauer <i>University of British Columbia, Canada</i>	27
09:45 - 10:00	The phylogeographic structure of the strain-level variation of the human oral microbiome Alexander Hübner <i>Max Planck Institute for Evolutionary Anthropology, Germany</i>	111
10:00 - 10:30	Publishing Panel Discussion Chairs: Peer Bork and Celine Carret ATC Auditorium	
10:30 - 11:00	Coffee Break and Meet the Speakers ATC Auditorium Foyer	
11:00 - 12:00	Session 4: Microbiome in Nutrition and Metabolism (continued) ATC Auditorium	
11:00 - 11:30	Mechanistic studies of the impact of the gut microbiome on obesity and type 2 diabetes Fredrik Bäckhed <i>University of Gothenburg, Sweden</i>	29
11:30 - 11:45	Bacterial microcompartments and glycol radical enzymes in the human gut microbiome: a comparative genomic analysis Dmitry Ravcheev <i>University of Luxembourg, Luxembourg</i>	30

- 11:45 - 12:00 **Red meat derived glycan alters gut microbiome: discovery of bacterial sialidases with novel substrate preferences** 31
 Livia S Zaramela
University of California, San Diego, United States of America
- 12:00 - 13:15 **Lunch and Meet the Editors**
 ATC Auditorium Foyer
- 13:15 - 14:45 **Session 5: Microbiome-mediated Therapies**
 ATC Auditorium
- 13:15 - 13:45 **Charting the drug-bug interaction landscape: towards personalized medicine** 32
 Kiran Patil
EMBL Heidelberg, Germany
- 13:45 - 14:00 **Human beta Defensin 2 is effective in the treatment of experimental colitis and is reversibly increasing microbiome diversity** 33
 Louis Koeninger
University Hospital Tübingen, Germany
- 14:00 - 14:15 **Optimization of allosteric modulation of digestive enzymes and the potential impact in the gut microbiome** 34
 Ariane Menden
Roskamp Institute, United States of America
- 14:15 - 14:45 **Identification of novel beneficial microbes: from the bench to the bedside** 35
 Patrice D Cani
Université Catholique de Louvain, WELBIO, Belgium
- 14:45 - 15:15 **Coffee Break and Meet the Speakers**
 ATC Auditorium Foyer
- 15:15 - 16:00 **Session 5: Microbiome-mediated Therapies (continued)**
 ATC Auditorium

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- 15:15 - 15:45 **Using FMT to dissect causality in human cardiometabolic disease: from lead to cure** 36
Max Nieuwdorp
Academic University Medical Center, The Netherlands
- 15:45 - 16:00 **Computer-guided design of optimal microbial consortia for immune system modulation** 37
Richard R Stein
Dana-Farber Cancer Institute, United States of America
- 16:00 - 16:30 **Flash Talks Session**
Abstract no.: 94, 138, 153, 162, 176, 187, 197, 204, 211 and 213
ATC Auditorium
- 16:30 - 18:30 **Poster Session II (even numbers)**
ATC Helix A & B
- 18:30 - 20:30 **Conference Dinner**
EMBL Canteen
- 20:30 - 00:00 **Conference Party**
ATC Auditorium Foyer

Wednesday 19 September 2018

09:00 - 10:45	Session 6: Human Microbiome and Infections ATC Auditorium	
09:00 - 09:30	Microbiota-mediated defense against infection with antibiotic-resistant intestinal pathogens Eric Pamer <i>Memorial Sloan Kettering Cancer Center, United States of America</i>	38
09:30 - 09:45	Strain-level and functional characterization of supragingival microbiome associated with dental caries in children Divyashri Baraniya <i>Temple University, United States of America</i>	39
09:45 - 10:00	HIV-associated gut microbiome differences are dependent on host context David B Gootenberg <i>Ragon Institute of MGH, MIT and Harvard, United States of America</i>	40
10:00 - 10:15	The biogeography of the human eye microbiota Jerome Ozkan <i>University of New South Wales, Australia</i>	41
10:15 - 10:45	Drug:Microbe interactions in HIV transmission Nichole R Klatt <i>University of Miami, United States of America</i>	42
10:45 - 11:15	Coffee Break and Meet the Speakers ATC Auditorium Foyer	
11:15 - 12:45	Session 6: Human Microbiome and Infections (continued) ATC Auditorium	
11:15 - 11:45	Nose picking for progress: mining the nasal microbiome for new insights into pathobionts Katherine Lemon <i>The Forsyth Institute, United States of America</i>	43

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11:45 - 12:00	Integrative systems analysis of host-fungal pathogenicity interactions Stefania Vaga <i>King's College London, United Kingdom</i>	44
12:00 - 12:15	Obtaining natural antibiotic-producing microbes from tonsillar microbiomes via culturomics Peter van Baarlen <i>Wageningen University and Research, The Netherlands</i>	45
12:15 - 12:45	Facultative pathogens in human microbiomes – fighting the enemy within Andreas Peschel <i>University of Tübingen, Germany</i>	46
12:45 - 13:00	Poster Prize and Closing Remarks ATC Auditorium	
13:00	Packed Lunch and Departure ATC Auditorium Foyer	

Poster removal. Please remember to collect your poster. Posters which have not been collected will be disposed of after the meeting.

Feedback questionnaire. Check your inbox when the meeting ends. You will find an email with the link to the online feedback questionnaire. Please take time to complete it.