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**Sunday 16 September 2018**


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- 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  
Paolo Nuciforo  
*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

**EMBO|EMBL Symposium: The Human Microbiome**

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

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**Monday 17 September 2018**


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

**EMBO|EMBL Symposium: The Human Microbiome**

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

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## Tuesday 18 September 2018

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09:00 - 10:00	<b>Session 4: Microbiome in Nutrition and Metabolism</b> ATC Auditorium	
09:00 - 09:30	<b>Tackling metabolic health through diet-microbiome-host alliances</b> Yolanda Sanz <i>National Research Council, Spain</i>	26
09:30 - 09:45	<b>Diet and specific commensal microbes alter brain and behavior in a murine model of environmental enteropathy</b> Kylynda Bauer <i>University of British Columbia, Canada</i>	27
09:45 - 10:00	<b>Gut-liver-brain axis in Alzheimer's disease</b> Rima Kaddurah-Daouk <i>Duke University Medical Center, United States of America</i>	28
10:00 - 10:30	<b>Publishing Panel Discussion</b> ATC Auditorium	
10:30 - 11:00	<b>Coffee Break and Meet the Speakers</b> ATC Auditorium Foyer	
11:00 - 12:00	<b>Session 4: Microbiome in Nutrition and Metabolism (continued)</b> ATC Auditorium	
11:00 - 11:30	<b>Mechanistic studies of the impact of the gut microbiome on obesity and type 2 diabetes</b> Fredrik Bäckhed <i>University of Gothenburg, Sweden</i>	29
11:30 - 11:45	<b>Bacterial microcompartments and glycol radical enzymes in the human gut microbiome: a comparative genomic analysis</b> 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

**EMBO|EMBL Symposium: The Human Microbiome**

- 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, 102, 111, 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



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**Wednesday 19 September 2018**


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

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