Exploring Human Host-Microbiome Interactions in Health and Disease  
5-7 December 2018  
Wellcome Genome Campus,  
Hinxton, Cambridge, UK 

Conference Programme 

Wednesday 5 December 2018 

12:00-13:00 Registration with lunch 

13:00-13:15 Welcome and introduction  
Programme Committee: Julian Marchesi, Imperial College London and Cardiff University, UK 

13:15-14:15 Keynote lecture  
Chair: Colin Hill, University College Cork, Ireland 

A gut (microbiome) feeling about stress and brain development  
John Cryan  
University College Cork, Ireland 

14:15-15:45 Session 1: Translation between model organisms to humans  
Chair: Julian Marchesi, Imperial College London and Cardiff University, UK 

14:15 Systems ecology of human-microbiome interactions: identifying key molecular transactions  
Paul Wilmes  
University of Luxembourg, Luxembourg 

14:45 Exploring the host-microbe dialogue: bile acid cross talk in metabolism for health and in Inflammatory Bowel Disease (IBD)  
Susan Joyce  
University College Cork, Ireland 

15:15 Assessing differences in the salivary microbiome of rural vs. urban participants raised with regular or no animal contact, respectively  
Dominik Langgartner  
University Clinic Ulm, Germany
15:30  Evolution of YdjC gene in mammalian genomes and microbiomes to promote intestinal homeostasis  
Giulia Falivelli  
Wellcome Sanger Institute, UK

15:45-16:15  Afternoon tea

16:15-17:45  Session 2: Microbiota-based interventions  
Chair: Patricia Hibberd, Boston University School of Public Health, USA

16:15  Exploring probiotic effector molecules: past, present and future  
Sarah Lebeer  
University of Antwerp, Belgium

16:45  Treating the gut microbiome with faecal microbiota transplantation to improve outcomes in chronic liver disease  
Debbie Shawcross  
King’s College London, UK

17:15  The respiratory microbiome in chronic hypersensitivity pneumonitis  
Rachele Invernizzi  
Imperial College London, UK

17:30  Faecal microbiota transplantation reverses the ageing-related defect in the germinal centre response of Peyer’s patches  
Marisa Stebegg  
Babraham Institute, UK

17:45-18:10  Lightning talks  
Chair: Catherine O’Neill, University of Manchester, UK

18:10-19:40  Poster session 1 (odd numbers) with drinks reception

19:40  Dinner
Thursday 6 December 2018

09:00-11:00  **Session 3: Gut-brain axis**  
*Chair: John Cryan, University College Cork, Ireland*

09:00  Targeted modulation of the gut microbiota with dietary fibre fractions for prevention of Alzheimer’s disease  
*Frida Hållenius*  
*Lund University, Sweden*

09:30  Microbiota and neurodevelopment: moving towards mechanisms  
*Rochellys Diaz Heijtz*  
*Karolinska Institutet, Sweden*

10:00  The microbiota-immune-brain axis in acute brain injuries  
*Arthur Liesz*  
*Institute for Stroke and Dementia Research, Germany*

10:30  Ability of small intestinal gut microbiota to impact intestinal nutrient sensing and gut-brain-liver axis regulation of hepatic glucose production  
*Frank Duca*  
*University of Arizona, USA*

10:45  Regulatory effects of gut-derived methylamines on blood–brain barrier integrity  
*Simon McArthur*  
*Queen Mary, University of London, UK*

11:00-11:30  **Morning coffee**

11:30-12:30  **Session 4: Keynote debate**  
*Chair: Colin Hill, University College Cork, Ireland*

Time to stop measuring and start delivering  
*Jack Gilbert*  
*University of Chicago, USA*

12:30-14:00  **Lunch and meet the speakers**

14:00-15:30  **Session 5: Cancer and the microbiome**  
*Chair: Catherine O’Neill, University of Manchester, UK*

14:00  Gut microbiome and cancer therapeutics  
*Laurence Zitvogel*  
*Gustave Roussy, France*

14:30  The gut microbiome and colon cancer: Passenger or driver?  
*James Kinross*  
*Imperial College London, UK*
15:00  The role of Siglec-7 in the modulation of innate immune response by F. nucleatum ssp. in colorectal cancer  
Dimitra Lamprinaki  
Quadram Institute Bioscience, UK

15:15  Intestinal tumor development in Lynch Syndrome: a role for the microbiota?  
Wietske Pieters  
The Netherlands Cancer Institute, Netherlands

15:30-16:00  Afternoon tea

16:00-17:30  Session 6: Data analysis approaches  
Chair: Julian Marchesi, Imperial College London and Cardiff University, UK

16:00  Exploring gut microbiome composition and health in a large human cohort: approaches to analysing 16S rRNA gene sequencing  
Matthew Jackson  
University of Oxford, UK

16:30  Shotgun metagenomics: the pros and cons  
Lesley Hoyles  
Nottingham Trent University, UK

17:00  A new genomic blueprint of the human gut microbiota  
Alexandre Almeida  
EMBL-EBI, UK

17:15  A comprehensive analysis of the faecal microbiome and metabolome of Strongyloides stercoralis infected volunteers from a non-endemic area  
Timothy Jenkins  
University of Cambridge, UK

17:30-17:55  Lightning talks  
Chair: Colin Hill, University College Cork, Ireland

17:55-19:25  Poster session 2 (even numbers) with drinks reception

19:25  Conference Dinner
Friday 7 December 2018

09:30-10:30  **Session 7: Microbiome and drug interactions**  
*Chair: Julian Marchesi, Imperial College London and Cardiff University, UK*

09:30  The interface of drugs and the human gut microbiome  
*Nassos Typas*  
*EMBL, Germany*

10:00  Characterising beta-lactam antibiotic resistance in healthy human gut microbiota  
*Lindsay Pike*  
*Wellcome Sanger Institute, UK*

10:15  Person-specific gut mucosal colonization resistance to probiotics and their detrimental effect on post-antibiotics microbiome recovery  
*Jotham Suez*  
*Weizmann Institute of Science, Israel*

10:30-11:00  **Morning coffee**

11:00-12:00  **Keynote lecture**  
*Chair: Catherine O'Neill, University of Manchester, UK*

Human skin microbiome: trans-kingdom, host-immune interactions  
*Julie Segre*  
*National Institutes of Health, USA*

12:00-12:15  **Closing remarks**  
*Programme Committee:*
*Catherine O'Neill, University of Manchester, UK*  
*and*  
*Patricia Hibberd, Boston University School of Public Health, USA*

12:15  **Take away lunch**

12:30  **Coaches to Cambridge and Heathrow airport via Stansted airport depart**