



ComMet

Microbiomes and Metagenomes

Warwick Business School, The Shard, London

Programme

Tuesday 3rd March

10.30 Coffee and Registration

11.00 Introduction by Prof Liz Wellington, University of Warwick

11.15 Keynote Speaker: Prof Phil Poole, University of Oxford “Control of the plant microbiome ”

12.15 Lunch

Human Microbiomics

Chair: Dr Julian Marchesi, Imperial College London

13.15 Prof Paul O’Toole, University College Cork “Exploring the ageing gut microbiome using metagenomics”

13.35 Dr Alan Walker, University of Aberdeen “Single cell genomics”

13.55 Prof Dusko Ehrlich, King’s College London “The microbiome and its constituents as therapeutic tools”

14.15 Dr Elizabeth Rettedal, Technical University of Denmark “Metagenomics for combating antibiotic resistance in the microbiome”

14.35 Tea Break

15.05 Dr James Kinross, Imperial College London “The cancer microbiome”

15.25 Dr Josef Wagner, Wellcome Trust Sanger Institute " Is it time to use PacBio sequencing for the full length bacterial 16s ribosomal gene?"

15. 45 Breakout session networking groups

16.30 Reports from groups and wrap up

17.00-18.00 Committee meeting

19.30 Dinner for committee members, speakers and industry guests at Hutong restaurant.

Wednesday 4th March

Animal Microbiomics

Chair: Dr Sharon Huws, Aberystwyth University

09.30 Dr Sharon Huws, Aberystwyth University “Rumen microbiome”

09.50 Prof Mark Pallen, University of Warwick “Chicken caecal microbiomes”

10.10 Prof John Wallace, University of Aberdeen “The ruminal microbiome, metagenome and methane”

10.30 Prof Chris Proudman, University of Surrey " Microbiome of an elite athlete: The Thoroughbred racehorse"

10.50 Coffee

11.20 Prof Martin Woodward, University of Reading “The application of host microbiome and metabolome studies in gastro-intestinal pathogen interventions in poultry”

11.40 Dr. Jim Huggett, Principle Scientist, Nucleic Acid Research, Molecular and Cell Biology Team, LGC " How Accurate is Molecular Microbial Profiling?"

Plant and environment meta-omics

Chair: Dr Gary Bending, University of Warwick

12.00 Prof Neil Bruce, University of York, “Mining compost communities for lignocellulose degrading enzymes”

12.20 Dr Rob Griffiths, CEH Wallingford “Whole genome sequencing across soil gradients: are diversity patterns consistent with 16S based approaches?”

12.40 Lunch

13.40 Dr Robin Allaby, University of Warwick “A Palaeometagenomic approach to track the Neolithisation of Northern Europe from marine sediments”

14.00 Prof Penny Hirsch, Rothamsted Research “Soil metagenomics and transcriptomics applied to long-term field experiments ”

14.20 Dr Hendrik Schafer, University of Warwick “Characterisation of uncultured dimethylsulfide-degrading populations using stable isotope probing, metagenomics and single-cell genomics ”

14.40 Prof Liz Wellington, University of Warwick " Metaproteomic analysis of microbial communities in soil"

15.00 Tea

15.20 Breakout groups and networking

16.00 Reporting and sum up

16.15 View from the Shard (optional)



We gratefully acknowledge Warwick Business School for use of the venue in The Shard

and

BBSRC for funding the ComMet network



Additional information

Wi-fi connectivity is available through eduroam. Connection can be arranged if your institution is not automatically connected.

In addition to catered teas and coffees provided at set times in the programme, filtered water and hot drink facilities are available throughout the workshop.

Dress code for Hutong restaurant is smart casual.

University of Warwick team - available to help throughout the workshop.



Prof Elizabeth M H Wellington

Molecular microbial ecologist

Professor Liz Wellington is leader of the Environment theme within the School of Life Sciences and director of Warwick Environmental Systems Interdisciplinary Centre at the University of Warwick. She holds a personal chair and, with her research group, is involved in the study of bacteria in soil and survival of pathogenic bacteria in the environment. The focus is on understanding activity of bacterial communities in soil, interactions with plants and the survival, activity and interaction of human, animal and plant pathogens with indigenous soil bacteria and the respective microbiomes.



Dr Emma Travis

Emma Travis is currently involved in coordinating a network of UK researchers interested in the exploitation of metagenomics and metagenomics approaches in life science research. (Community network in metagenomics, ComMet.) She has expertise in epidemiological modelling and integration of data sets, recently focusing on the coordination of infection analysis and recorded data from different tests done at three centres. This involved a large scale field sampling study to optimise sampling strategies across time and space.



Dr Ian Lidbury

I have just started a postdoctoral research post in the Wellington Lab which focuses on phosphorus cycling in the rhizosphere of the economically important crop, oilseed rape (*Brassica rapa*). My project involves the implementation of metagenomics, metatranscriptomics and metaproteomics to determine the key bacterial taxa involved in phosphorus cycling and which biological mechanisms they are utilising to liberate phosphorus for the plant.

Chiara Borsetto



My PhD project focus is on the use of metagenomics to explore different soil environments in order to identify and exploit environments with the most diverse potential of secondary metabolites with antimicrobial activity. Amplicon sequencing analysis of target functional genes and functional screening of metagenomic libraries created from soil are two of the main aspects of interest in this project."