

## CONFERENCE PROGRAMME

“Single Cell Technology meets Microbiomics 2021”

<https://www.microbiomics2021.org/>

5<sup>th</sup> – 6<sup>th</sup> July 2021

Time zones:

9:00 am/London; 10:00 am/Brussels; 16:00 pm/Beijing; 17:00 pm/Seoul.

13:30 pm/New Delhi

### Day 1- 5<sup>th</sup> July 2021

8:30	Virtual platform opens
8:50 -9:00	Welcome: Professor Huabing Yin (conference Chair)
9:00- 9:40	<b>Keynote Speaker:</b> <b>Professor Petra S. Dittrich, ETH Zurich, Switzerland</b> <i>Single-cell analysis in nanoliter compartments</i>
	<b>Session 1: Single cell technologies (I)</b>
9:45-10:10	<b>Dr Stefano Pagliara, University of Exeter, UK</b> <i>Dissecting the mechanisms underlying molecular accumulation and antibiotic efficacy in gram-negative bacteria</i>
10:10-10:35	<b>Professor Shuangjiang Liu, Institute of microbiology, Chinese Academy of Science</b> <i>Microdroplets for microbial cell culture</i>
10:35-10:50	<b>Dr Yanqing Song, University of Glasgow, UK</b> <i>Single-cell Microfluidics for studying microbial communities</i>
10:50-11:05	<b>Dr Mariona Nadal-Ribelles, IRB Barcelona, Spain</b> <i>Sensitive high-throughput single-cell RNA-Seq reveals within-clonal transcript-correlations in yeast populations</i>
11:05-11:20	Meet the speakers
11:20-11:30	Break
11:30-12:10	<b>Keynote Speaker:</b> <b>Professor Nico Boon, Ghent University, Belgium</b> <i>Flow cytometry fingerprinting as microbial community indicators in aquatic systems</i>
12:10-13:30	Break followed by poster reviewing
	<b>Session 2: Single cell technologies (II)</b>
13:30-13:55	<b>Dr Wei Huang, University of Oxford, UK</b> <i>Application of single cell Raman biotechnology to microbiology</i>

13:55-14:20	<b>Dr Tae Kwoon Lee, Yonsei University, South Korea</b> <i>Functional single cell approach to evaluate drought-tolerance ability in soil using Raman-DIP</i>
14:20-14:35	<b>Dr Kim De Paepe, Ghent University, Belgium</b> <i>Unravelling necrotrophy by human gut microbes through powerful single cell labeling and detection methods</i>
14:35-14:50	<b>Dr Nathan Cumberbatch, Horiba</b> <i>Raman technology for single cell analysis</i>
14:50-15:05	<b>Meet the speakers</b>
15:05-15:15	Break
	<b>Session 3: Antibiotic resistance detection and tracking</b>
15:20- 15:45	<b>Prof. Elizabeth Wellington, University of Warwick, UK</b> <i>Tracking antimicrobial resistance in the environment</i>
15:45-16:10	<b>Dr. Matt Bawn, Earlham Institute, UK</b> <i>Bacterial single-cell genomics enables phylogenetic analysis and reveals population structures from in vitro evolutionary studies</i>
16:10-16:35	<b>Dr Antonia Sagona, University of Warwick, UK</b> <i>The use of bacteriophages for detection of infection</i>
16:35-16:50	<b>Meet the speakers</b>
16:50	Close of day one

## Day 2: 6<sup>th</sup> July

8:30	<b>Virtual platform opens</b>
8:55	<b>Welcome</b>
9:00-9:40	<b>Keynote speaker:</b> <b>Professor David Berry, University of Vienna, Austria</b> <i>Probing microbiome function with single cell stable isotope-based approaches</i>
	<b>Session 4: Microbiomics in healthcare</b>
9:40-10:05	<b>Professor Chris Quince, Earlham Institute, UK</b> <i>Linking antimicrobial resistance genes to taxa using metagenomics in the human gut and environment</i>
10:05- 10:30	<b>Dr Jia Li, Imperial College, UK</b> <i>Application of microbiomics in weight loss surgery</i>

10:30-11:05	<b>Professor Neelam Taneja, Dept of Medical Microbiology Postgraduate Institute of Medical Education and Research, India.</b> <i>Characterization and antibiofilm activity of phage RDN8.1 active against multidrug resistant uropathogenic E.coli isolates</i>
11:05-11:20	<b>Dr Hongzhe Li, Institute of Urban Environment, Chinese Academy of Sciences</b> <i>Phenotypic and genotypic profiling of antibiotic resistance in environment and their spread to clinic by single-cell Raman and molecular tools</i>
11:20-11:35	<b>Professor Bei Li, Changchun Institute of Optics, Chinese Academy of Sciences</b> <i>Application of Single Cell Ejection Sorting Technology in Isolation and Cultivation of Microorganisms</i>
11:35-11:50	<b>Meet the speakers</b>
11:50- 13:30	Live poster presentation
13:30-14:10	<b>Keynote speaker:</b> <b>Professor Jon Cooper, University of Glasgow, UK</b> <i>Low-Cost, Mobile Phone Enabled Infectious Disease Diagnosis in Remote, Under-served Communities</i>
	<b>Session 5: Emerging opportunities and applications</b>
14:10-14:35	<b>Professor Chris Probert, University of Liverpool, UK</b> <i>The cause of inflammatory bowel disease and why the microbiome matters</i>
14:35-15:00	<b>Dr Jerome Charmet, University of Warwick, UK</b> <i>Low cost fabrication of microfluidic devices</i>
15:00 – 15:15	<b>Professor Defeng Xing, Harbin Institute of Technology, China</b> <i>Single-cell metagenomics reveal metabolic function of anammox granule</i>
15:15-15:40	<b>Dr Umer Zeeshan Ijaz, University of Glasgow, UK</b> <i>Recent developments in integrated 'omic data synthesis and microbial ecology</i>
15:40-15:55	<b>Meet the speakers</b>
15:55 – 16:10	<b>Professor Huabing Yin</b> <b>Concluding remarks &amp; Poster Prize Announcements.</b>