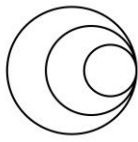


Hybrid Conference Programme

Start (GMT)	Finish (GMT)	Presenter details
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Monday 13 March 2023

12:00	13:00	Registration, lunch and networking
12:45		<i>Briefing for Keynote, Session 1 speakers, chair, moderator, all microphone runners & committee - Auditorium</i>
13:00	13:10	Welcome Scientific Programme Committee: Yasunori Aizawa, Tokyo Institute of Technology, Japan Sonja Billerbeck, University of Groningen, Netherlands Tom Ellis, Imperial College London, UK Katie Galloway, Massachusetts Institute of Technology, USA
13:10	14:10	Keynote 1 <i>Chair: Tom Ellis, Imperial College London, UK</i> <i>Moderator: Sonja Billerbeck, University of Groningen, Netherlands</i>
13:10	14:10	Engineering Next-Generation T Cells for Cancer Immunotherapy Yvonne Chen, University of California, Los Angeles, USA
14:10	14:20	Comfort break
14:20	15:50	Session 1: Cells Engineered as Therapies <i>Chair: Tom Ellis, Imperial College London, UK</i> <i>Moderator: Jonas Koeppel, Wellcome Sanger Institute, UK</i>
14:20	14:50	Targeted engineering of human gut microbiome Lei Dai, SIAT, Chinese Academy of Sciences, China
14:50	15:20	Synthetic biology in biomedicine: towards the design of improved T cell therapies Velia Siciliano, Istituto Italiano de Tecnologia, Italy
15:20	15:35	A rapid and efficient platform for targeted large gene insertions in human pluripotent stem cells <i>Albert Blanch Asensio, Leiden University Medical Center, Netherlands</i>
15:35	15:50	A pipeline for the evolution and delivery of therapeutic cargo by Salmonella <i>Marc Biarnes Carrera, Prokarium Ltd, UK</i>
15:50	16:35	Refreshment break



16:20 Briefing for Session 2 speakers, keynote 2, chair & moderator - Auditorium

16:35 18:05 Session 2: SocioTechnological readiness and entrepreneurship

Chair: Sonja Billerbeck, University of Groningen, Netherlands

Moderator: Alison Heggie, Imperial College London, UK

16:35 17:05 Synthetic Biology from Molecular to Social Scales

[*Megan Palmer, Stanford University, USA*](#)

17:05 17:35 Standardisation in Synthetic Biology: squaring the circle?

[*Manuel Porcar, Universidad de Valencia, Spain*](#)

17:35 17:50 Open source toolkits to enable synthetic biology for future health in the global South

Jennifer Molloy, University of Cambridge, UK

17:50 18:05 Indirect human engineering as a societal concern for synthetic genomics

Erika Szymanski, Colorado State University, USA

18:05 18:15 Comfort break

18:15 19:15 Keynote 2

Chair: Yasunori Aizawa, Tokyo Institute of Technology, Japan

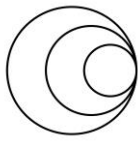
Moderator: Katie Galloway, Massachusetts Institute of Technology, USA

18:20 19:15 Reprogramming the Genetic Code

Jason Chin, University of Cambridge, UK

19:15 Dinner

19:15 23:00 Bar open (card payments only)



Tuesday 14 March 2023

09:15 Briefing for Session 3 speakers, chair & moderator - Auditorium

09:30 11:00 Session 3: Engineering Gene Regulation

Chair: Katie Galloway, Massachusetts Institute of Technology, USA
Moderator: Jacob Hepkema, Wellcome Sanger Institute, UK

09:30 10:00 Host-aware construct design in mammalian cells.
[Francesca Ceroni, Imperial College London, UK](#)

10:00 10:30 Teaching cells to perform new therapeutic functions
[Mo Khalil, Boston University, USA](#) VIRTUAL

10:30 10:45 Programming nuclear phase separation states and gene expression in human cells using precision targeting of synthetic intrinsically disordered regions
[Isaac Hilton, Rice University, USA](#)

10:45 11:00 Towards precision targeting of non-coding RNAs using oligonucleotide catalysts
[Maria Donde, University of Cambridge, UK](#)

11:00 11:30 Refreshment break

11:15 Briefing for chair - Auditorium

11:30 12:15 Poster Pitches

Chair: Sonja Billerbeck, University of Groningen, Netherlands

12:15 14:15 Lunch with posters
Odd numbers 12:30 - 13:15 Even numbers 13:15-14:00

14:00 Briefing for Session 4 speakers, chair & moderator - Auditorium

14:15 15:45 Session 4: Infectious Disease and Biosensing

Chair: Yasunori Aizawa, Tokyo Institute of Technology, Japan
Moderator: Juliane Weller, Wellcome Sanger Institute, UK

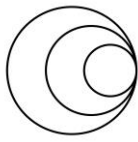
14:15 14:45 Engineering sustainable resources for CRISPR-based diagnostics
[Chayasith Uttamapinant, VISTEC, Thailand](#)

14:45 15:15 Targeting fungal diseases using the secreted yeast toxicome
[Sonja Billerbeck, University of Groningen, Netherlands](#)

15:15 15:30 Resolving spatial variation in engineered biosensor response within the mammalian gut
[David Riglar, Imperial College London, UK](#)

15:30 15:45 Humanized CB1R and CB2R yeast biosensors enable facile screening of cannabinoid compounds
[Colleen Mulvihill, University of Texas at Austin, USA](#)

15:45 16:30 Refreshment break



16:15		Briefing for Session 5 speakers, chair & moderator - Auditorium
16:30	18:00	Session 5: Designing Synthetic Biomolecules
		<i>Chair: Katie Galloway, Massachusetts Institute of Technology, USA</i> <i>Moderator: Clare Robinson, Imperial College London, UK</i>
16:30	17:00	Build to understand -- the Secret Life of Feedback Circuits <i>Hana El-Samad, University of California, San Francisco/Altos Labs, USA</i>
17:00	17:30	Engineered mammalian synthetic biology towards therapy <i>Roman Jerala, Kemijski Inštitut, Slovenia</i>
17:30	17:45	Finding all our switches: biophysics at scale to understand, predict and engineer allostery <i>Ben Lehner, Wellcome Sanger Institute, UK</i>
17:45	18:00	Multi-input drug-controlled switches of mammalian gene expression based on engineered nuclear hormone receptors <i>Simon Kretschmer, University of California, San Francisco, USA</i>
18:00	19:00	Reception/networking
19:00		Dinner
19:00	23:00	Bar open (card payments only)

Wednesday 15 March 2023

09:15	<i>Briefing for Session 6 speakers, chair & moderator - Auditorium</i>	
09:30	11:15	Session 6: Synthetic Genomes, Cells and Multicellularity
		<i>Chair: Sonja Billerbeck, University of Groningen, Netherlands</i> <i>Moderator: Juliane Weller, Wellcome Sanger Institute, UK</i>
09:30	10:00	Sub-megabase and biallelic genome writing technology creates multi-functional human iPS cells Yasunori Aizawa, Tokyo Institute of Technology, Japan
10:00	10:30	Limb regeneration reveals novel programming of development signaling modalities Elly Tanaka, Research Institute of Molecular Pathology, Austria
10:30	10:45	Drag-and-drop genome insertion of large sequences without double-strand DNA cleavage using CRISPR-directed integrases <i>Matthew Yarnall, MIT, USA</i>
10:45	11:00	Temperature-responsive synthetic cells for advanced drug delivery <i>Carolina Monck, Imperial College London, UK</i>
11:00	11:15	Randomizing gene regulatory regions using prime editing <i>Jonas Koepfel, Wellcome Sanger Institute, UK</i>
11:15	11:45	Refreshment break
11:30	<i>Briefing for panel members, chair, moderator & committee - Auditorium</i>	
11:45	12:45	Panel Session: Translating tools to therapies
		<i>Chair: Adrian Woolfson, Replay Holding, LLC, USA</i> <i>Moderator: Yasunori Aizawa, Tokyo Institute of Technology, Japan</i> <i>Harold P. de Vladar, Ribbon Biolabs, Austria</i> <i>Jennifer Molloy, University of Cambridge, UK</i> <i>Anne-Marie Mooney, New England Biolabs UK Ltd, UK</i> <i>Serge Pampfer, EureKARE SAS, France - VIRTUAL</i>
12:45	13:00	Closing remarks and prize presentation
		Scientific Programme Committee: Yasunori Aizawa, Tokyo Institute of Technology, Japan Sonja Billerbeck, University of Groningen, Netherlands Tom Ellis, Imperial College London, UK Katie Galloway, Massachusetts Institute of Technology, USA
13:00	13:50	Lunch and departures
13:50	Coach departures for Stansted and Heathrow airports	
14:00	Coach departures for Cambridge train station and city centre	