

## Thursday 26 March

- 08:30 Registration and Refreshments
- 09:20 Welcome
- 09:30 (Invited) The shape of early life: primitive cells, primitive compartments  
**Claudia Bonfio**, University of Cambridge
- 10:15 Lipid flip-flop regulates the shape of growing and dividing synthetic cells  
**Rafael Lira**, Tu Delft
- 10:30 QuantGUV: A Standardised Pipeline for the High-Throughput Characterisation of Encapsulation in Synthetic Cells  
**Zak Marshall**, University of Surrey
- 10:45 Coffee Break and Poster Session 1
- 11:30 (Invited) Microfluidics, automation, and engineered bio membranes as enabling technologies in synthetic cell design  
**Yuval Elani**, Imperial College London
- 12:15 Bio-hybrid light harvesting membranes: exploring novel combinations of LH proteins, synthetic pigments, lipids, polymers and quantum dots  
**Peter Adams**, University of Leeds
- 12:30 Engineering Artificial Molecular Channels for Switchable Transmembrane Ion and Water Transport  
**Associate Javid Ahmad Malla**, Francis Crick Institute
- 12:45 Lunch and Poster Session 1
- 14:30 (Invited) The catalytic role of membranes in biological pattern formation  
**Petra Schwille**, Max Planck Institute for Biochemistry
- 15:15 Wax Esters as Prebiotically Plausible Modulators of Primitive Membranes  
**Krishnakavya Thaipurayil Madanan**, University of Cambridge
- 15:30 Characterizing the structure, interactions, and organization of membranized coacervate protocells and developing strategies to control them  
**Sadaf Javed**, Radboud University
- 15:45 Tea Break and Poster Session 1
- 16:30 (Invited) Engineering Hybrid Membranes as Durable Functional Interfaces for Biotechnology and Artificial Cells  
**Paul Beales**, University of Leeds
- 17:15 Developing bacterial outer-membrane models – balancing between greater physiological relevance and experimental control  
**Corrin Blake**, University College London

- 17:30 Probing the interaction of liposome delivery systems with Gram negative bacterial cell envelopes: a comprehensive investigative approach  
**Yixuan Yan**, University of Birmingham
- 18:00 Drinks Reception
- 19:00 Conference Dinner

## Friday 27 March

- 08:30 Arrival Refreshments
- 09:00 (Invited) Watching Translocation: From Botulinum Toxin to DNA Through Nanopores  
**Mark Wallace**, King's College London
- 09:45 3D Printed Bioelectronic Model of the Intestinal Tissue Architecture  
**Maria Lopez Cavestany**, University of Cambridge
- 10:00 Crowding-controlled adsorption and diffusion of streptavidin on supported lipid bilayers  
**Wanchung Chiang**, CNRS LIPHY
- 10:15 Coffee Break and Poster Session 2
- 11:00 (Invited) Non-equilibrium giant unilamellar vesicles  
**Laura Alvarez**, University of Bordeaux
- 11:45 Self-synthesizing artificial cells via enzymatic polymerization  
**Andrea Belluati**, TU Darmstadt
- 12:00 Membrane prewetting by condensates promotes tight-junction belt formation  
**Karina Pombo-Garcia**, Rosalind Franklin Institute
- 12:15 Lunch and Poster Session 2
- 14:00 (Invited) Leveraging Macromolecular Topology and Random Heterogeneity to Design Non-living Predators  
**César Rodriguez-Emmenegger**, Institute For Bioengineering of Catalonia (IBEC) and Catalan Institution for Research and Advanced Studies
- 14:45 Soft But Tough! Engineering of Protein Nanosheet-Stabilised Microdroplets for Stem Cell Technologies  
**Julien Gautrot**, Queen Mary University of London
- 15:00 Biomimetic Lipid-Based Lubrication for Therapeutic Solution in Osteoarthritis  
**Di Jin**, Hong Kong City University
- 15:15 Tea Break and Poster Session 2

- 16:00 (Invited) Artificial Cells: from Soft Matter to Cell-Like Behaviours  
**Claudia Contini**, Imperial College London
- 16:45 Emergent Motility of Self-Organized Particle-Giant Unilamellar Vesicle Assembly  
**Gaurav Gardi**, Max Planck Institute For Intelligent Systems
- 17:00 Discriminating cancer and healthy prostate Extracellular Vesicles through  
membrane rigidity: a Molecular Dynamics approach  
**Lakshmi Kumar Kunche**, Sapienza University of Rome
- 17:15 Poster Awards and Closing Remarks
- 17:30 End