

**Session 2**

Poster Number	First Name	Last Name	Paper Title
1-1	Nishu	Kanwa	AI-assisted approach to building synthetic cells
1-2	Andrey	Sysoev	Engineering Emergent Protein Functions with De Novo Binders
1-3	Elibio	Rech	BIOBLOQU: ADVANCED GENOMICS WITH QUANTUM CIRCUITS
1-4	Taylor/Ojaswita	Nichols	Modular Integration of Developer Cells into Materials for Chemical Detection and Color-Based Reporting
1-5	Niall	Mcintyre	Developer Cells: A Cross-Laboratory Synthetic Cell Platform for Colorimetric Bacteria Detection
1-6	Keith	Pardee	Pop-Up Biomanufacturing: Hardware and Cell-Free Systems for On-Demand Protein Production for Human Health.
1-7	Max	Allewijn	Transcriptomics and IVT – understanding gene regulation from the bottom up
1-8	Nastasja	Kaletta	Engineering DNA Condensate-based Synthetic Nuclei for Spatially Controlled Protein Synthesis and Protein Targeting
1-9	Seyed Saeed	Mottaghi	PURE makes PURE: reconstitution of the PURE cell-free system from self-synthesized non-ribosomal proteins
1-10	Shivendra	Singh	Exploring Hybrid Artificial Cells for Cell-Free Protein Synthesis and Biosensing
1-11	Jan	Kalkowski	Long-term cell-free gene expression from immobilised DNA in a microfluidic environment
1-12	Luca	Buccolieri	The interplay of transcription factors to establish processive bacterial transcription
1-13	Yusei	Kudo	An Isothermal DNA Amplification for the Autonomous Growth of DNA Droplets
1-14	Aleksandra	Šakanović	Optimizing spatial organization of FtsZ rings for large-scale constriction in synthetic cells
1-15	Moe	Yabuta	Reconstitution of DNA segregation system in the LLPS-droplet based synthetic cell
1-16	Diego	Laxalde Fernández	Understanding Division in the Minimal Synthetic Cell JCVI-syn3A Through Integrated Biochemical Reconstitution and Quantitative Physiology
1-17	James F.	Pelletier	Cell division in the genomically minimal cell JCVI-syn3A integrates generation of membrane curvature, osmoregulation, and metabolism
1-18	Michelle	Emmert	Enzyme-driven motion and tubulation of lipid vesicles
1-19	Bert	Van Herck	Lipid-conjugated DNA enables programmable delivery of lipids and proteins to synthetic cells
1-20	Richard	Archer	Spatial Organization and Collective Behavior in Synthetic Lipid-Hybrid Multicompartments
1-21	Julia	Breed	Controlled Release of Packaged Nucleic Acid Cargo from Synthetic Cells for Long-Range Communication
1-22	Samuel	Chen	Developing mechano-responsive synthetic cells for therapeutic protein release
1-23	Beyzanur	Kaya	Active Transport in Polymersome-based Artificial Organelles
1-24	Dana	Venkert	RNA based Transmembrane Signaling in Synthetic Cells
1-25	Viktoriiia	Belousova	Cell Cycle Stage Switch Prototype for Synthetic Cells
1-26	Mathilde	Ravn Malm	DNA encoding of protein activity
1-27	Alexander	Lin	An Insertion-Ligation Strategy for Modular Reconstitution of Transmembrane Proteins in Synthetic Cells
1-28	Yusei	Sato	Emergence of compartmentalized protocells from LLPS and liposome clustering
1-29	Risa	Togo	Bacterial Actin MreB-Based Control of Synthetic Cell Shape and Division
1-30	Birte	Achilles	Elucidating interactions of FtsZ with hydrogel matrices as prerequisite for stepwise reconstitution of cell division
1-31	Laura	Heinen	Lipocoacervates: A Simple Route for the Bottom-up Self-Assembly of Complex Synthetic Cells
1-32	Shomdutta	Roy	Tunable PEGDA–acrylamide hydrogels for artificial cytoskeleton applications
1-33	Aileen	Cooney	Leveraging Hydrogels to Programme Membrane Transport in Liposome-Based Synthetic Cells
1-34	Udit	Ghosh	Triggered to Separate: Programmable Phase Domains for Compartmentalizing Synthetic Cells
1-35	Frida Sofia	Garcia Castro	Towards sustained protein synthesis in metabolically active protocells
1-36	Eleni	Kopsini	Harvesting Energy Through Light and the Transport of Chemicals in Synthetic Cells
1-37	Gaku	Sato	Integration of glycolysis and PURE system
1-38	José Manuel	Blasco Losa	Physicochemical homeostasis in a genomically minimal cell
1-39	Vítězslav	Kučera	Reduction of amino acid alphabet in minimal cell.
1-40	Fenja	Murken	Cryo-EM of an RNA origami nanopore for synthetic cells
1-41	Alena	Taskina	Rolling Circle Transcription Amplification for In Vitro Evolution of Synthetic Cells
1-42	Mostafa	Bakouei	Solvent mediated dewetting for microfluidic production of giant liposomes as synthetic cell templates
1-43	Tiziana	Russo	A LEGO® like approach to i-combisomes origami
1-44	Joshua	Davisson	Codon Reassignment Undermines Sequence-Based Biosecurity Screening
1-45	Alexander	Floroni	Protocells assemble in heated rock pores