

**Session 1**

Poster Number	First Name	Last Name	Paper Title
1-1	Jayesh	Aher	AI-Guided Optimization of Transcription in Crowded Synthetic Cells
1-2	Rayane	Lima	Integrated AI solutions for complete, end-to-end sequence engineering and analytics workflows.
1-3	Christoph	Wagner	Uncovering fundamental mechanisms of cell-free protein synthesis using tailored coarse-grained models
1-4	Xuemin	Chen	Ultrasound-Triggered Artificial Organelles for Remote Activation of Artificial Cells and Communication with Living Cells
1-5	JIAVIN	TIAN	Programmable Histidine Clusters in Ferritin Nanocages Enable Metal-Free Peroxidase Catalysis
1-6	Laura	Beltrán	DNA Condensates Containing client Silica Nanoparticles (SiNPs) for Theranostic Applications
1-7	Lazaros	Ilias Primpas	Liver-like Semi-Synthetic Microtissues Made of HepaRG Cells and Cell Membrane Vesicles-Cloaked Artificial Cells
1-8	Franziska	Giesler	Towards investigating the interplay between lipid membranes and the PURE system for robust synthetic cell engineering
1-9	Justin	Kipness	Investigating DNA as a crowding agent in Synthetic Transcription Systems
1-10	Hilke	Schenkel	Generating and assembling featureless sequences for synthetic genome design
1-11	Yael	Fink	Using Nanoparticles to Deliver Active Molecules to Synthetic Cells
1-12	Hongfei	Liu	Gene-Encoded Osmotic Actuation for Programmable Permeability Transition in Polymeric Artificial Cells Produced by Microfluidics
1-13	Takafumi	Ueno	Cell-Free Protein Crystallization as a High-Throughput Platform for Structural Synthetic Biology
1-14	Joris	Dommissie	Establishing a robust FtsZ-based divisome for synthetic cell constriction
1-15	Tomoya	Maruyama	Controlled division of DNA-droplet coupled with enzymatic reaction
1-16	Daiki	Tanaka	Construction of a self-sustaining artificial cells enabling NAD <sup>+</sup> /NADH recycling for lipid-synthesis
1-17	Nicolas	Glueck	A Minimal Synthetic Cell Platform for Genotype-Phenotype Coupling via DNA-Based Replication and RNA Nanostructure Expression
1-18	Rayane	Lima	Reprogrammed Zika virus as a synthetic oncolytic and delivery platform for glioblastoma immunotherapy
1-19	Alejandro	Serrano Sánchez	Effect of cell division-related genes on cellular growth in a genomically minimal cell
1-20	William	Verstraeten	Genetically encoded phenotype and function in RNA droplets
1-21	Mohamed	Soufi	Cell-Free Ribosome Biogenesis for Synthetic Cells
1-22	Shree	Bagchi	Enzyme-driven pH-responsive artificial cells towards tissue-like assemblies
1-23	Eric	Bumüller	A Modular Transmembrane Peptide Platform for Functionalizing Synthetic Cell Membranes
1-24	Chelsea	Dack	Programmable and dynamic DNA localisation at synthetic cell membranes
1-25	Julian Peter Manuel	Kiesel	Toward Implementing a Two-Component Signaling and Sensing Module for Synthetic Cells
1-26	Hannah Lena	Wienecke	Making synthetic cells talk through adhesion-triggered pore-based exchange
1-27	Emmanuel	Joseph	Selective and reversible coacervate droplet wetting of membrane domains in phase separated giant unilamellar vesicles
1-28	Lucy	Chen	Synthetic cells with density dependent sensing and collective gene activation
1-29	Saniye Gul	Kaya	Building functional compartments in synthetic cell using encapsulins
1-30	Jiangyu	Gan	Hybrid Emulsions for the Efficient Formation of Giant Unilamellar Vesicles In Artificial Cell Engineering
1-31	Vincent	Louis	Mechanosensing for artificial cells
1-32	Ted	Lindström	Engineering biomolecular condensates for synthetic cells
1-33	Juliette	Bucci	ATP-responsive membraneless compartments in synthetic cells
1-34	Ariel	Chen	Myosin-Independent Bleb-Like Deformations Driven by Actin Cortex Heterogeneity in Synthetic Cell-Like Vesicles
1-35	Bashayr	Khalifah	Tunable phase behavior in synthetic cell membranes using modified emulsion phase transfer technique
1-36	Esra	Baydar	Light-Responsive Coacervates to Regulate Biomolecule Localization and Reactivity
1-37	Elwin	Jongman	Emergent properties of a synthetic arginine deiminase pathway
1-38	Anna/Jakub	Maresova	Engineering of E.coli essential metabolic pathways to reduced amino acid repertoire
1-39	Mart	Venekamp	Identifying scramblases to improve phospholipid synthesis
1-40	Marina	De La Fuente García	Modelling growth-associated and non-growth-associated metabolism through flux balance analysis (FBA) and chemical master equations (CME)
1-41	Aisha	Levina	High-Throughput Microfluidic System for Quantification of Cellular Membrane Reservoirs
1-42	Fatema Zahra	Rashid	Employing molecular beacons to assess in vitro transcription with single-molecule resolution
1-43	Lázara Julieth	Bravo	Image-based sorting of synthetic cells
1-44	Tim	Karrasch	RNA origami transmembrane pores inside synthetic cells
1-45	Katharina	Weber	The "Synthetic Cell" as an Interdisciplinary Boundary Object in Bottom-Up Synthetic Biology
1-46	Philipp	Rieche	The universal bacterial phospholipid synthesizing enzymes PlsY and PlsC utilize both stereo-forms of the glycerol-phosphate lipid backbone