ECB2026 Monday Posters

Paper Title	Flash Poster Presentation
Stream 1 - Innovations for healthy living	
IHL-103 - Identification of two novel growth-arrest genes for tunable cell cycle control and intensified monoclonal antibody production in CHO cells	
IHL-104 - Synergistic antitumor effects of butylidenephthalide and VEGFA inhibition in glioblastoma through a novel synthetic lethal mechanism	
IHL-105 - Development of novel histone methyltransferase inhibitors as potential therapeutic agents for colon cancer	
IHL-106 - Cryoprotectant screening and process driven optimization for freeze drying of the biocontrol yeast Metschnikowia pulcherrima APC 1.2	
IHL-107 - Oral immunotherapy candidates with yeast displayed hypoallergenic Art v 3 variants	
IHL-108 - Pathogen-mimicking LPS lipid nanoparticles for macrophage-mediated reprogramming of the tumor microenvironment	
IHL-109 - Design and development of an Affibody-based affinity ligand for AAV2 purification	
IHL-110 - Short endogenous CHO introns as compact regulatory elements for higher recombinant protein expression	
IHL-111 - CSQ-tag: two-in-one protein tag enabling soluble expression and calcium-dependent purification of single-chain antibody fragments	
IHL-112 - Dual-aptamer–mediated yeast vacuole-based nanocarriers for targeted pancreatic cancer therapy	
IHL-113 - Proximity-promoted site-specific antibody labeling and its application to antibody-drug conjugates	
IHL-115 - Evaluation and recovery of photolyase from Synechococcus sp. cultivated under different light conditions	
IHL-116 - Cloning, expression and initial characterization of a novel heparinase I enzyme from ornithothobacterium rhinotracheale	
IHL-117 - Engineering tumor cells with bacterial mimicry to enhance macrophage antitumor immunity	
IHL-118 - Metabolomics, transcriptomics and machine learning to develop Bacillus-based whole-cell biosensors for early mold detection and mycotoxin prediction in maize	
IHL-119 - Multivalent nanoengineered interface for enhanced capture of heterogeneous circulating tumor cells via avidity and biomimetic rolling	
IHL-120 - Digitonin-treated mitochondria-integrated lactate oxidase bioelectrode for enhanced lactate detection	
IHL-121 -Development and validation of high-affinity DNA aptamers targeting the FMDV P1 capsid protein for rapid diagnostics	
IHL-122 - Rapid one-pot isothermal miRNA detection via ligation–transcription coupled with CRISPR/Cas13a activation	
IHL-123 - Aptamer-engineered ellipsometry for tumor-proximal exosomal PD-L1 profiling in non-small cell lung cancer	
IHL-124 - SELEX-based development of specific ssDNA aptamersfor full-length parathyroid hormone detection	
IHL-125 - Development of high-affinity LCN2-targeting aptamers as a next-generation precision therapeutic for breast cancer	
IHL-126 - A sensitive, qPCR-instrument compatible variant monitoring platform for the early detection of drug-resistant mutations	
IHL-127 - Bioluminescent sentinel plants enable autonomous diagnostics of viral infections	
IHL-128 - Effect of Chenopodium formosanum water extract on energy metabolism and gut microbiota in diet-induced obese rats	
IHL-129 - Unlocking the potential of a globally significant culture collection as a technology platform for innovation	
IHL-130 - Optimizing the assembly and accumulation of SIgA in the endomembrane system of plants	
Stream 2 - Solutions for a sustainable planet	
SSP-101 - Growth and arsenic tolerance mechanisms of Petasites japonicus in neutralized sludge deposits	
SSP-102 - Biotechnological valorization of lignocellulosic agro-industrial residues for sustainable mushroom production	Symposium 6: Combatting contaminants with Bacteria and Archaea
SSP-103 - Functional characterization and catalytic diversity of LinA dehydrochlorinase variants for the optimized degradation of HCH isomers	Symposium 2: Phytoremediation, part 2
SSP-104 - Environmental biotechnology vs. emerging pollutants: can microbes eliminate steroid estrogens from wastewater?	Symposium 6: Combatting contaminants with Bacteria and Archaea
SSP-105 - Degradation of steroids and biotoxicity reduction from fermentation residue using ionizing radiation	
SSP-106 - Assessment of heavy metal tolerance in Azotobacter isolates for biostimulant applications in contaminated environments	
SSP-107 - Investigating roadside soil microbiomes: metagenomic analyses to identify taxa driving rubber degradation	
SSP-108 - Rapid biodegradation of livestock sludge using Rhodobacter sphaeroides-based microbial consortia	
SSP-109 - Proteomic analysis of low-density polyethylene biodeterioration by Cupriavidus sp. Cne1	
SSP-110 - Exploring the enzymatic toolkit for lindane biodegradation	
SSP-112 - The production of Centella asiatica's triterpenoids in planta	Symposium 2: Phytoremediation, part 2
SSP-113 - Comprehensive valorization of Cytisus striatus agroforestry biomass using moderate electric fields and pressurized liquids: a multiproduct biorefinery approach	Symposium 2: Phytoremediation, part 2
SSP-114 - Engineering environmental stress tolerance in Saccharomyces cerevisiae WLP029 to enhance the sensory quality and fermentation performance of Kölsch-style beer	
SSP-115 - High-throughput screening for synthetic biology: from gene to product	
SSP-116 - BioChromatiX: the one-stop shop for your microbial bioprocessing, formulation and stability needs	
SSP-117 - Starch–methylcellulose edible films with incorporated lactic acid bacteria for sustainable active food packaging	
SSP-118 - FungAI: optimizing fungal cultures and mycelium bio-composites production through AI monitoring	
SSP-119 - Modeling metal bioleaching from mine tailings	
Stream 3 - Manufacturing with microbes	
MM-101 - 2-keto-3-deoxy-D-xylonate and 2-oxo-4-hydroxybutyrate as natural and artificial effectors of transcription factors regulating d-xylonate operons in E. coli	Symposium 3: Transport, metabolism & systems biology, part 2
MM-103 - Identification of a Wickerhamiella sorbophila fatty alcohol oxidase and its improved variant in the ω-oxidation pathway	Symposium 3: Transport, metabolism & systems biology
MM-104 - Substrate-informed metabolic engineering of Corynebacterium glutamicum enables balanced glucose–xylose co-utilization for cardboard hydrolysate valorization	Symposium 3: Transport, metabolism & systems biology
MM-105 - Reconstructing hidden metabolic rates from sparse, noisy fermentation data	Symposium 3: Transport, metabolism & systems biology, part 2
MM-106 - Unravelling the metabolic pathways for isobutyrate production from methanol in Clostridium luticellarii	Symposium 3: Transport, metabolism & systems biology, part 2
MM-107 - A robust Acetobacterium woodii chassis for efficient bioconversion of methanol and formate	Symposium 3: Transport, metabolism & systems biology, part 2
MM-108 - Establishing an extracellular vesicle isolation workflow for RNA cargo analysis in Verticillium nonalfalfae	
MM-109 - Metabolic engineering of Corynebacterium glutamicum for the de novo biosynthesis of the potential C5 platform chemical 5-aminovaleramide	
MM-110 - Genome editing and advanced nucleic acid analytics to accelerate the design-build-test-learn cycle in microbial strain engineering	Symposium 7: Emerging tools for metabolic engineering and SynBio
MM-111 - Expanding the MoClo Ecosystem: A Modular Toolkit to Unlock the Biotechnological Potential of Pichia kudriavzevii	Symposium 7: Emerging tools for metabolic engineering and SynBio
MM-112 - Discovery and Validation of Thermostable Antibiotic Resistance Markers for Genetic Engineering of Clostridium thermocellum	Symposium 7: Emerging tools for metabolic engineering and SynBio
MM-113 - Production of phenolic malonyl glucosides by metabolic engineering in E. coli	Symposium 7: Emerging tools for metabolic engineering and SynBio
MM-114 - Identification and characterization of a medium-chain triglyceride-specific lipase via deep learning-based enzyme kinetics prediction	
MM-115 - Recombinant expression of W-containing aldehyde:ferredoxin oxidoreductase (AOR) in Escherichia coli	
MM-116 - Cell-free engineering of bacteriophage receptor-binding proteins enables host-range modulation for antimicrobial applications	
MM-117 - Engineering a beta-alanine-responsive riboswitch library to constrain model-guided gene regulatory circuit design in microbial cell factories	
MM-118 - Development of gene deletion system for Corynebacterium glutamicum ATCC 13032	
MM-119 - The efficient approach for cloning of natural product biosynthetic gene clusters	
MM-120 - Engineering a division-of-labor microbial consortium to enhance violacein biosynthesis	
MM-121 - Quantifying genetic circuit behavior: Hill equation-based modeling of transcription factor logic gates	
MM-122 - Expanding the Saccharopolyspora erythraea cloning vectors system	
MM-123 - Citrate-driven reinforcement of energy and redox metabolism for enhanced microbial bioproduction	
MM-124 - Enzymatic generation of a genome-wide sgRNA library for CRISPRi applications	
MM-125 - Development of Oxygen-Consuming Devices (OCDs) to modulate intracellular O2 levels in the unicellular cyanobacterium Synechocystis	
MM-126 - Evolutionary construction of an efficient T7 expression system in Vibrio sp. dhg for macroalgal biorefineries	
MM-127 - Enhanced biosynthesis of aromatic polyketides from Escherichia coli by high-throughput screening	
MM-128 - Expanding the reporter gene repertoire for Lactiplantibacillus plantarum	
MM-129 - IDR-fused human BMP-2 induces a morphological transition of biomolecular condensates from spherical to hollow structures	
MM-130 - Interfacial adhesion-enhanced 3D electrospun nanofibrous scaffolds for cell culture	
MM-131 - Enhancing mycelium materials through fungal-bacterial cocultures	
MM-132 - Investigating the microstructural and rheological properties of gelatin-based complex coacervates	
MM-133 - Engineering dual-crosslinking bioink for advanced extrusion bioprinting applications.	
MM-134 - Evaluation of bioactivity of purified uroporphyrin I produced from C. glutamicum	
MM-135 - Mechanistic insight into amino acid–CO_2 interactions for development of biological capture materials	
MM-136 - Development of novel bacteriophage emulsion stabilized with biosurfactants and bacterial cellulose	
Stream 4 - Feeding the planet	
FP-101 - Development of inoculation technology for leguminous plants: seeds coating with zeolite additives	Symposium 4: Developing stress resilient crops, part 2
FP-102 - Optimization of genetic transformation and regeneration methods in Cannabis sativa for efficient genome editing	
FP-103 - Identification of stable reference genes for gene expression analysis in sugar beet in response to Cercospora beticola infection	Symposium 4: Developing stress resilient crops
FP-104 - RNA-seq analysis of oat defense pathways during powdery mildew infection	Symposium 4: Developing stress resilient crops
FP-105 - Investigating Transcriptional Regulation of Secondary Metabolism in Epichloë festucae	Symposium 4: Developing stress resilient crops, part 2
FP-106 - Parental glucosinolate profiling as a strategy for breeding cabbage hybrids for improved defense and health benefits	
FP-107 - A sustainable strategy for hot pepper improvement: using bioactive compounds to overcome recalcitrance in doubled haploid production	Symposium 8: Gene editing for crop improvement
FP-108 - Development and validation of qPCR assays for horticultural crop fungal phytopathogen detection	Symposium 4: Developing stress resilient crops
FP-109 - Biological seed coatings with microalgae and cyanobacteria: effects on wheat seed germination and plant performance	
FP-110 - Amplification-free molecular beacon assay for rapid detection of Fusarium wilt in chickpea	
FP-111 - Halotolerant microbial consortium for augmenting crop growth and soil resilience under salinity stress	
FP-112 - Multi-omic integration reveals the regulatory landscape of Priestia megaterium KW16 in response to fungal pathogen secretomes	
FP-113 - Cellulose-based formulations as delivery systems for microbial inoculants in fertilizer coatings	
FP-114 - Impacts of co-fermented bamboo powder and chicken manure bokashi on crop performance and soil carbon dynamics	
FP-115 - Evaluation of Antimicrobial Properties of Leptospermum petersonii and Leptospermum polygalifolium Extract as Potential Natural Preservatives	Symposium 4: Developing stress resilient crops