

**Designer Biology: From proteins and cells to scaffolds &
materials in Europe**

Programme and Abstract Book

A joint conference organised by
The European Federation of Biotechnology - Bioengineering and
Bioprocessing Section
&
The European Federation of Biotechnology – Biobased Materials
Section

Hosted by
[Barbara]
Virtual Zoom Symposium
8th – 10th September

efb | european
federation of
biotechnology

efb | Bioengineering
& Bioprocessing

efb | Biobased
Materials

Conference organisers

Conference Chairs

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Abstract titles

Talks

Talk	Presenter	Title
K1.	Alon Bar	Principles of the circuits that set human weight
O1.	Teresa Osset	Control of environmental context to fine-tune genetic performance
O2.	Mateo Sanchez	Directed evolution improves the catalytic efficiency of TEV protease
O3.	Bing Zhao	Optogenetic Control of Myocardin-Related Transcription Factor A Subcellular Localization and Transcriptional Activity Steers Membrane Blebbing and Invasive Cancer Cell Motility
O4.	Mehmet Ali Oeztuerk	A web server for <i>in silico</i> D-peptide ligand identification
K2.	Pamela Silver	Designing Biology for Detection and Control
O5.	Vitor Pinheiro	Directed evolution of compatible plasmid origins of replication
O6.	Eszter Csibra	Beyond fluorescein: Use of fluorescent protein calibrants for direct and absolute quantification of protein production for synthetic biology applications
O7.	Daniel Peters	Engineering a Protein Biomaterial: 2D and 3D cell culture applications of Caf1
K3.	Manfred Zinn	Biodesigning Polyhydroxyalkanoates
O8.	Klemens Kremser	Bio-based solution for the recovery of valuable metals from waste
O9.	Margarida Dias	Protopeptide the basic unit of Reflectins: solvent modulation to promote different peptide self-assembly and materials properties
O10.	Filipa Gonçalves	Release of Fragrances from Cotton Functionalized in Response to Perspiration
K4.	Per Olof Syren	
O11.	Eugénia Nogueira	Liposomes encapsulating methotrexate: a powerful tool for rheumatoid arthritis therapy
O12.	Oskar Stauer	Bottom-up assembly of synthetic SARS-CoV-2 virions reveals fatty acid-coupled adaptive immunogenicity in COVID-19
O13.	Cecília Roque	Gelatin ionogels and hybrid gels for artificial olfaction
K5.	Claudia Vickers	
O14.	Sílvia Pérez-Rafael	Nanoparticle/polymer self-assembled hydrogels as multifunctional, injectable and self-healing platform for chronic wound treatment
O15.	Joshua McCluskey	A DNA Origami Nanomould to Guide Filamentous Protein Assembly
O16.	Felice quartinello	Environmental genomic analysis and identification of polyesters degrading activities from rumen microbial communities
O17.	Nga T. Lam	Scaffolding functional molecules in proximity to enhance bioactivity
O18.	Jürgen Andreaus	Advances in bioscouring of knitted cotton fabrics with pectate lyase
O19.	Aleksandra Ivanova	Ultrasound-assisted nanostructured coating of silicone with AgAu NPs and Gelatin- Dopamine for Prevention of Bacterial Infections
O20.	Priyanka Dhakane	Living therapeutic materials for sustained drug release
K6.	Naomi Nakayama	

Posters

Poster	Presenter	Title
Session 1		
P1.	Cicely Warne	New Bio-based Solvents for Enzymatic Polycondensations
P2.	Ana Tinoco	Protein-based formulations for hair cosmetics
P3.	Kristina Ivanova	Antibody-enabled antimicrobial nanocapsules for selective elimination of <i>Staphylococcus aureus</i>
P4.	Giovanni Scarinci	Establishing a mixed natural-synthetic cell system to recreate cross feeding
P5.	Julio Bastos Arrieta	Bacteriabots as motile "stealth" biological carriers: characterization and perspectives
P6.	Sebastian Mayr	Enzymatic mediation of hydrophobic properties onto lignosulfonates
P7.	Renate Weiss	Design of biobased and bioactive fertilizer coatings
P8.	Iana Lychko	Optimized production and characterization of stimuli-responsive marine proteins
P9.	Afsheen Aman	Hybridization of Superparamagnetic nanoparticles with a Hydrophilic Biopolymer: An Effective Nano Matrix for Covalent Crosslinking of Dextranase with Enhanced Recycling Efficiency
P10.	Bernhard Ungerer	The potential (pitfalls) for applying regenerated cellulose filaments in structural composite materials
Session 2		
P11.	Elena Rosini	Tailored biocatalysts for the sustainable production of <i>cis,cis</i> -muconic acid
P12.	Gregory Ellis	Exploiting <i>Vibrio natriegens</i> for Engineered Small Molecule Production
P13.	Eray Ulaş Bozkurt	
P14.	Antonino Biundo	Lactic acid production through microbial fermentation of biomass waste
P15.	Verena Braunschmid	<i>PL</i> – an enzyme designed by nature to degrade petroleum-derived contaminants
P16.	Luca Gargiulo	Cardoon biomass exploitation for bioplastics design
P17.	Jasmine Bird	Structural Determination of Crystalline Inclusion Protein Scaffolds
P18.	Martin Nagl	The role of endoglucanases in pulp refining
P19.	Anand Singh	An <i>in vivo</i> synthetic toolbox to study gene regulation
P20.	Mirko Schmitz	patchwork: A user-friendly pH sensitivity analysis web server for protein sequences and structures