12TH EUROPEAN SYMPOSIUM ON BIOPOLYMERS

LISBON, PORTUGAL

WEDNESDAY | 1ST OF OCTOBER 2025

08:00-09:00	Conference Registration
09:00-09:45	**Section #1 Biopolymers production** Plenary Lecture #1 - Shunsuke Sato *KANEKA Biodegradable polymer Green Planet ® From CO_2 as a carbon source*
09:45-10:15	Keynote #1 - Mark van Loosdrecht *Production of Biopolymers from wastewater opportunities and bottlenecks*
10:15-10:30	T1.1 - Lucie Schneider, Polyhydroxyalkanoates with controlled monomer composition and distribution for the development of medical devices
10:30-10:45	T1.2 - João Carvalho, Isolation and screening for purple phototrophic bacteria with increased polyhydroxyalkanoates productivity
10:45-11:00	T1.3 - Stanislav Obruča, Some Like It Hot: Exploring Thermophiles for PHA Biosynthesis
11:00-11:30	**Coffee Break & Poster Session**
11:30-12:00	Keynote #2 - Jochen Schmid *Biopolymer production: harnessing the structural diversity of microbial exopolysaccharides for various applications*
12:00-12:15	T1.4 - Carlota Ucha Muñoz, Preservation and reactivation of a stored mixed microbial culture for PHA production
12:15-12:30	T1.5 - Ebru Toksoy Öner, Exopolysaccharides of Polyestremophiles: Adaptation to multiple extremes
12:30-12:45	T1.6 - Lara Santolin, *Ralstonia eutropha*'s PhaR – A transcriptional factor with ambivalent role
12:45-13:00	T1.7 - Karel Sedlar, Genes and Genomes coding PHA Synthases
13:00-13:15	Flash presentations
13:15-14:15	**Lunch & Poster Session**
14:15-15:00	**Section #2 Advanced Tools on Biopolymers** Plenary Lecture #2 - Moritz von Stosch *How biopolymer design, development and production can benefit from machine-learning*
15:00-15:30	Keynote #3 - Manfred Zinn *Advanced Tools on Biopolymers*
15:30-15:45	T2.1 -José Pinto, Deep hybrid modelling and control of microbiome evolution
15:45-16:00	T2.2 - Kaisa Peltonen, Towards modelling aided accelerated PHA material design
16:00-16:15	T2.3 - Lionel Nguemna Tayou, NOVEL continuous multi-reactors approach for Polyhydroxyalkanoates production with mixed microbial cultures
16:15-16:45	**Coffee Break & Poster Session**
16:45-17:00	T2.4 - Pauline Gravermann, Engineering of *Pseudomonas fluorescens* SBW25 towards efficient production of tailored alginates
17:00-17:15	T2.5 - Nina Scheler, Upcycling Depolymerised Plastic Fractions: Novel Bioprocesses for Biopolymer Production using *Pseudomonas putida*
17:15-17:30	T2.6 - Eva Gonzalez-Flo, High-Throughput screening of cyanobacterial PHB production using fluorescence-based detection
17:30-17:45	T2.7 - Luca Bernabò, Poly-β-hydroxybutyrate Production from Bread Waste via Sequential Dark Fermentation and Photofermentation
17:45-18:00	Flash presentations
18:00-19:00	Welcome drink

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THURSDAY | 2ND OF OCTOBER 2025

09:00-09:45	**Section #3 Process and Functionalization** Plenary Lecture #3 - Tim Börner *Assessing Biotechnological Pathways for Biopolymer Production, Application, and Recycling*
09:45-10:15	Keynote #4 - Auxiliadora Prieto *Engineering Bioinspired Functional Materials from Natural Biopolymers*
10:15-10:30	T3.1 - Liang-Shin Wang, Quality Control of Poly(3-hydroxybutyrate-co-3-hydroxyvalerate) Properties by Engineering Copolymer Blends
10:30-10:45	T3.2 - Natalia Hernández Herreros, Harnessing the Predatory Power of *Bdellovibrio bacteriovorus* HD100 for High-Efficiency PHA Recovery: Insights from Microbial Community Dynamics
10:45-11:00	T3.3 - Isabel Thiele, Approaches for Efficient and Eco-Friendly PHA Recovery
11:00-11:30	**Coffee Break & Poster Session**
11:30-12:00	Keynote #5 - Dieter Jendrossek *Enzymatic Biodegradation of Rubber and Fossil Hydrocarbon Polymers*
12:00-12:15	T3.4 - Maria Batista, Films based on supercritical carbon dioxide treated polyhydroxyalkanoates-rich microbial biomass
12:15-12:30	T3.5 - Eva de Carvalho, Design of crosslinked networks with tunable hydrophilicity based on PHA
12:30-12:45	T3.6 - Ana Carolina Lemos de Morais, Evaluation of Mechanical Properties and Biodegradation Behaviour of Polyhydroxyalkanoate (PHA) Based Blends
12:45-13:00	T3.7 - Marina Rodríguez Carreiro, Adaptation of *Pseudomonas putida* KT2440 to 6-acetylthiohexanoic acid (6-ATH) and its implications in PHA metabolism
13:00-13:15	Flash presentations
13:15-14:15	**Lunch**
14:15-15:00	**Section #4 Biomedical and Technical aplications** Plenary Lecture #4- Miguel Gama *Bacterial Cellulose: State of the Art*
15:00-15:30	Keynote #6 - Ipsita Roy *Natural Sustainable Polymers of Bacterial Origin and Their Biomedical Applications*
15:30-15:45	T4.1 - Arooj Fatima, Transforming bacterial cellulose into microparticles for biomedical applications
15:45-16:00	T4.2 - Petr Sedlacek, Biofertilizers Reinvented: When Plant Growth-Promoting Bacteria Build Their Own Fertilizer Capsule
16:00-16:15	T4.3 - Diana Araújo, Dissolving microneedle arrays technology for efficient and painless drug delivery
16:15-16:45	**Coffee Break & Poster Session**
16:45-17:15	Keynote #7 - Jasmina Nikodinovic-Runic *'Shaping Up' Bacterial Biopolymers for Biomedical and Food Applications*
17:15-17:30	T4.4 - Maria Eduarda Ribeiro, Polyhydroxyalkanoate: tailoring electrospun membrane for skin repair
17:30-17:45	T4.5 - Yuemei Lin, Enrichment and application of bacterial sialic acids containing polymers from the extracellular polymeric substances of "*Candidatus accumulibacter*"
17:45-18:00	T4.6 - Virginia Rivero Buceta, Tailoring double-shelled hollow microparticles from polyester-modified bacterial cellulose for efficient microbial encapsulation and release
18:00-18:15	T4.7 - Didem Aycan, Chitosan/Carboxymethyl Cellulose Aerogels for Controlled Release Applications in Inflammatory Bowel Disease Treatment
18:15-18:30	Flash presentations
19:00-21:00	Dinner at Páteo Velho

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FRIDAY | 3RD OF OCTOBER 2025

09:00-09:45	**Section #5 Circularity, Market & Impact** Plenary Lecture #5 - Kevin O´Connor *Bio-based biodegradable plastics in a circular economy*
09:45-10:15	Keynote #8 - Marianna Villano *From Biowaste to Bioplastics: A Roadmap of Challenges, Constraints, and Opportunities*
10:15-10:30	T5.1 - Leticia Labriola, Bioplastics from the Field: Valorizing Agricultural By-Products through Sugars365
10:30-10:45	T5.2 - Silvio Matassa, Single-Cell Protein Bioplastic Films from Recovered Nitrogen and Carbon: A Circular Approach with High Anaerobic Biodegradability
10:45-11:00	T5.3 - Dominik Wielend, From Breakdown to Biocycle: Modeling PHB depolymerization for circular use by introducing novel probability function
11:00-11:30	**Coffee Break & Poster Session**
11:30-12:00	Keynote #9 - Alan Werker *Mixed microbial culture poly (3-hydroxybutyrate-co-3hydroxyvalerate) from municipal wastewater – defining quality, dispelling myths, and dancing with the elephant in the room*
12:00-12:15	T5.4 - Ana Rita Gomes, Biobased vs. conventional microplastics: the impact on gilthead seabream (Sparus aurata) brain health and behaviour
12:15-12:30	T5.5 - Enric Garcia Muchart, Characterization of exopolysaccharide-based biostimulants obtained from agri-food by-products to enhance plant tolerance to salinity
12:30-12:45	T5.6 - Gert Hofstede, Fit-for-Purpose PHBV Production from Lignocellulosic Biomass: Coupling an Artificial Rumen and Sequencing Batch Reactor
12:45-13:00	T5.7 - Sebastian Riedel, Enabling a Circular Bioeconomy: Process Innovations for PHA Bioplastics
13:00-14:15	**Lunch**
	Section #6 Biopolymers degradation and recycling
14:15-14:45	Keynote #10 - Kumar Sudesh *Degradation of Bioplastics by Mealworms*
14:45-15:00	T6.1 - José Daniel Santos-García, Extracellular Mcl-PHA Depolymerases in *Pseudomonas*: Enzymatic Drivers of Bioplastic Degradation
15:00-15:15	T6.2 - Ludovic Dulac, Monitoring microplastic generation from PHA degradation in soils using fluorescence-based detection methods
15:15-15:30	T6.3 - Daisuke Kasai, Identification and functional characterization of enzymes involved in poly(cis-1,4-isoprene) degradation in *Rhodococcus*
15:30-15:45	T6.4 - Laura Eugenio Martinez, Cracking bioplastics: reprogramming PHA depolymerases for a greener future
15:45-16:00	T6.5 - Rodrigo Andler, Improving degradation yields of poly(cis-1,4-isoprene) rubber: A study of the enzymatic kinetics of Latex clearing protein
16:00-16:45	**Best oral and Best Poster presentation Prizes** **Closure Session**