11th ESBP

European Symposium on Biopolymers

Conference Program

www.ESBP2023.com

Dear Participants,

Welcome to the 11th European Symposium on Biopolymers, ESBP2023!

The ESBP symposium series, inaugurated in the year 2000 in Münster, has been a beacon of knowledge and collaboration in the field of biopolymers. It's been quite a journey since the last gathering in Straubing in 2019. The global pandemic disrupted our regular biennial rhythm, but today, we stand united in the vibrant city of Brno, Czech Republic.

ESBP2023 finds its roots in the Faculty of Chemistry at Brno University of Technology and is proudly co-organised with the Brno Observatory and Planetarium. This unique collaboration provides the perfect setting for a medium-sized conference like ESBP.

At ESBP2023, we aim to facilitate connections between academics and industry experts who share a deep interest in the production, characterization, processing, and application of bio-based polymers and materials. With over 80 oral presentations and more than 40 posters, we bring you the latest breakthroughs and trends in biopolymer research. Moreover, this conference will be your canvas for sparking discussions, sharing innovative ideas, and forging new connections with experts, not just from Europe but across continents.

As you delve into the scientific program, don't forget to savour the social events we've planned. On Wednesday evening, join us for an unforgettable conference dinner at the Mendel Museum. Additionally, our terrace party on Thursday, complete with a poster session, Czech beer tasting, and a movie projection, promises a night to remember.

In another exciting development, we are thrilled to announce that New Biotechnology will be publishing a special issue dedicated to ESBP2023.

Our heartfelt gratitude goes out to our sponsors, whose unwavering support has been instrumental in ensuring the success of this conference: Wyatt Technology, Merck, Contipro, Anamet, Biotech, Delong Instruments, Hartmann, Methrom, MDPI Polymers, and Photon Systems Instruments.

In closing, we wish you an inspiring and fruitful time here in Brno. May ESBP2023 not only enrich your understanding of biopolymers but also gift you with unforgettable experiences and enduring connections.

Best wishes,

Stanislav Obruča

On behalf of the ESBP2023 Organizing Committee

Brno University of Technology

Brno University of Technology (BUT) is a public university with a history dating back to 1899. A significant part of the activities of the BUT consists of research and development, which is carried out mainly at the research centres. The university has managed to build five research centres of its own, thanks mainly to grant support, and is also involved in two centres of excellence together with other universities and scientific institutions.

BRNO UNIVERSITY OF TECHNOLOGY

FACULTY OF CHEMISTRY

Faculty of Chemistry

The Faculty of Chemistry of Brno University of Technology (FCH BUT), which continues its activities in the long tradition of chemical university education in Brno, which began with the establishment of the chemical department of the Czech Technical University in November 1911 and was interrupted in 1951 by the transformation of the Brno Technical University into a Military Technical Academy. It is therefore one of the oldest Czech chemical faculties. FCH BUT places great emphasis on excellent basic research as well as on cooperation with industrial partners to ensure the transfer of the results of professional and scientific activities into practice and at the same time to keep an overview of current needs and trends in industry-related manufacturing companies. The professional scope of FCH align particularly with the areas of food chemistry and biotechnology, materials chemistry, physical and consumer chemistry and environmental chemistry and technology.

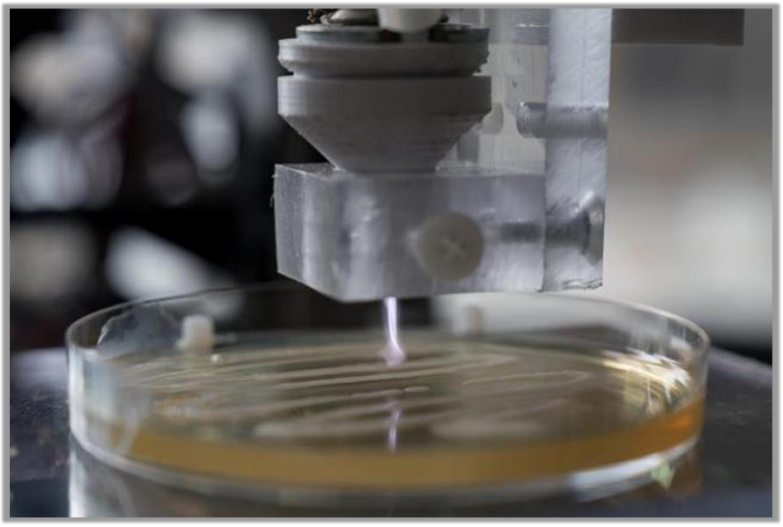
Materials Research Centre

MATERIALS RESEARCH CENTRE

Another key part of the faculty is the Materials Research Centre, which was built in 2010-2013 with the support of european funding as a centre of excellence focused mainly on high-tech applied research in two research directions: inorganic materials, and advanced organic materials and biomaterials. The main objective of the centre is to strengthen the cooperation between university research and the application sphere in the form of contract research and joint research projects, thus accelerating the transfer of knowledge and technology into practice.

Institutes at Faculty of Chemistry

- Institute of Material Science and Engineering
- Institute of Physical and Applied Chemistry
- Institute of Chemistry and Technology of Environmental Protection
- Institute of Food Chemistry and Biotechnology



Research Groups at Materials Research Centre

- Laboratory of Inorganic Materials
- Laboratory of Organic Electronics and Photonics
- Advanced Materials Synthesis Laboratory
- Laboratory of Biocolloids
- Laboratory of Bioplastics
- Laboratory of Metals and Corrosion
- Laboratory of Analytical and Environmental Chemistry
- Laboratory of Biotechnology and Biomaterials
- Laboratory of Photochemistry and Plasmochemistry

Brno – City of Science and Technology

Brno is a city in the South Moravian Region of the Czech Republic. Located at the confluence of the Svitava and Svratka rivers, Brno has about 380,000 inhabitants, making it the second-largest city in the Czech Republic after the capital, Prague.

One of the unique features of Brno is its good accessibility since it is positioned 2 h of driving from 4 capital cities – Prague, Vienna, Bratislava and Budapest. The second reason which makes Brno a very suitable city to host 11th ESBP is the fact that Brno has evolved into an important university city with numerous scientific institutions and research centers and a very strong scientific background and infrastructure. Furthermore, numerous industrial and technological companies active in the field of research and development are located in Brno as well. Actually, Brno resonates with science and technology!

Further, Brno has a rich history, a beautiful historical center, hundreds of historical sights and other places which are worth seeing and visiting. Brno is also famous due to its young spirit and numerous excellent restaurants, bars, and pubs.

Venue info

Brno Observatory and Planetarium is not only an exciting place that you should definitely visit if you are interested in the universe, but it is also an ideal and unique venue for the organization of medium size conferences and symposia such as 11th ESBP. This fascinating place can provide us with all we need and even more. We will use the digital planetarium as the main conference hall, but also other meeting rooms for parallel sessions or workshops are available. Further, the lobby will serve as a place for poster sessions, coffee breaks, and also relaxing or even working area. Brno Observatory and Planetarium is located on the hill and it also grants the visitors fascinating views of Brno City and its surroundings.

Brno Observatory and Planetarium

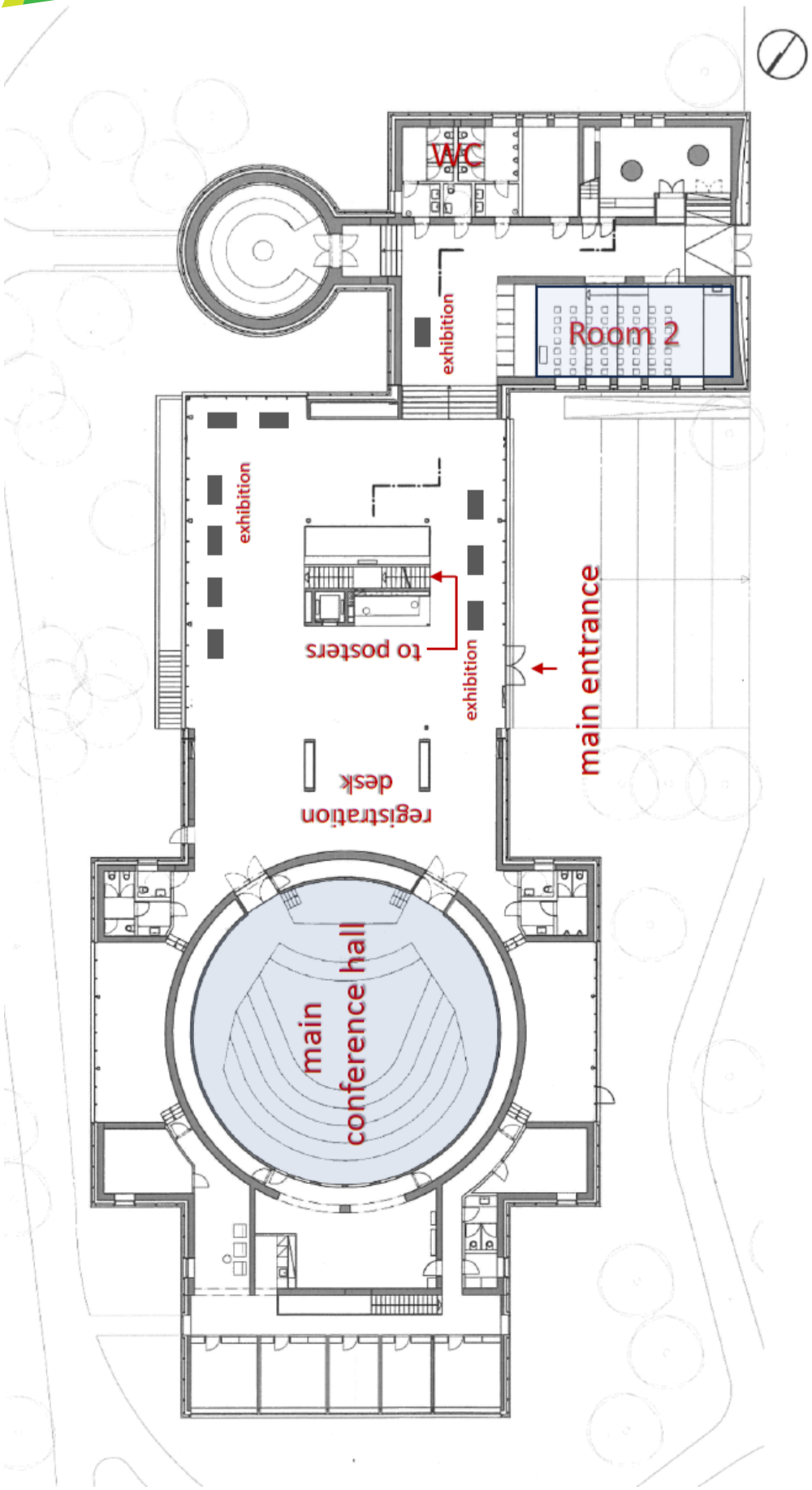
How to get to Venue

Adress: Kraví hora 2, 616 00 Brno
GPS: 49.2041603N, 16.5838769E

Directions from the City Center (Tram Stop Česká) to the Conference Venue at Náměstí Míru: Take tram number 4 from the city center, starting at tram stop Česká. Ride the tram until you reach the final stop, Náměstí Míru. As you exit the tram, you'll find the conference venue situated on the hill to your right.

Follow the directional markers to easily reach the venue.

VENUE SITE MAP



Social events & Accompanying program

Wednesday, 13th September, 7 – 10 p.m.



Conference dinner at Augustinian Abbey in old Brno
(address: Mendlovo náměstí 157/1)

The complex of buildings contains the Mendel Museum as well and you can also find in the adjacent garden the Mendel greenhouse, where the founder of the modern science of genetics Gregor Johann Mendel performed his experiments with green peas and established the laws of Mendelian inheritance.

Activities during the evening:

- Guided sightseeing tours to Mendel Refectory and Augustinian Library (approx. 30 min)
- Wine tasting (Kňourek winery)
- Traditional moravian dinner with cimbal music

Please, book the time slot for the excursion at the registration desk!



Thursday, 14th September, 6 – 10 p.m.

Poster session and dinner at Brno Observatory and Planetarium

Activities during the evening:

- Poster session (start at 6 p.m.), best poster presentation will be awarded by the Scientific committee
- Czech beer tasting (local monastery brewery Vorkloster) & Czech-style dinner at the terrace
- Projection of the *Pink Floyd's The Dark Side of the Moon* on the screen in the Digitarium (Main conference hall, start at 8:30 p.m.)

Please, put up your poster on Wednesday and remove it by noon on Friday!

Friday, 15th September, after the conference closing (1 p.m.)

Voluntary accompanying program for conference participants

Activities offered:

- Guided tour in Brno (booking at the registration desk)
- Lab tour in Faculty of Chemistry, BUT (booking at the registration desk)
- Lab tour in Delong Instruments (booking at the Delong Instruments exhibition desk)

Please, note the limited capacity of the tours, make your booking as soon as possible!

List of Sponsors & Partners

MERCK

WYATT TECHNOLOGY

CONTIPRO

HARTMANN

ANAMET
ANALYTICAL & MEASURING & TESTING

Metrohm

bioTech innovative

PHOTON SYSTEMS INSTRUMENTS

delong instruments®

polymers
an Open Access Journal by MDPI

GO!PHA
Global Organization for PHA

efb Biobased Materials

Wednesday, 13th September

7:30 – 8:45	*Registration*			
8:45 – 9:00	Main conference hall	Conference opening chairperson: Stanislav Obruča		
9:00 – 9:45	Main conference hall	**Plenary lecture 1: Kumar Sudesh** chairperson: Stanislav Obruča		
9:45 – 10:00	*Coffee break*			
10:00 – 12:20	Main conference hall	**Session 1: Production of Polyhydroxyalkanoates I** chairperson: Martin Koller		
12:20 – 13:10	*Lunch*			
13:10 – 15:20	Main conference hall	**Session 2: Production of Polyhydroxyalkanoates II** chairperson: Auxi Prieto	Room 2	**Session 3: Processing and Characterization of Biopolymers** chairperson: Ivan Chodák
15:20 – 15:50	*Coffee break*			
15:50 – 17:55	Main conference hall	**Session 4: Production of Synthetic Biology for Biopolymers Engineering and Production** chairperson: Kevin O'Connor	Room 2	**Session 5: Production of Polyhydroxyalkanoates III** chairperson: Alan Werker
17:55 – 19:00	*transfer to Mendel Museum*			
19:00 – 22:00	*Welcome drink and conference diner in Mendel Museum*			

Thursday, 14th September

8:00 – 9:00	*Registration*			
9:00 – 9:45	Main conference hall	**Plenary lecture 2: Bernd Rehm** chairperson: Stanislav Obruča		
9:45 – 10:00	*Coffee break*			
10:00 – 11:50	Main conference hall	**Session 6: Biopolymers for Medicine and Tissue Engineering** chairperson: Lucy Vojtová		
11:50 – 13:00	*Lunch*			
13:00 – 14:50	Main conference hall	**Session 7: Biopolymers in High-Value and Technical Applications** chairperson: Manfred Zinn	Room 2	**Session 8: Production of Polyhydroxyalkanoates IV** chairperson: Maria Reis
14:50 – 15:30	*Coffee break*			
15:30 – 17:20	Main conference hall	**Session 9: Biodegradation, Ecology, Biology and Environmental Impact of Biopolymers** chairperson: Marek Koutný	Room 2	**Session 10: Chemical Routes towards Biopolymers** chairperson: Petr Sedláček
17:20 –18:00	*Coffee break*			
18:00 – 20:30	*Poster section & Czech beer tasting* (*dinner included*) Planetarium and Observatory hall and terrace			
20:30 – 21:30	*Projection of the movie* (*main conference hall*)			

Friday, 15th September

7:30 – 9:00	*Registration*	
9:00 – 9:45	Main conference hall	**Plenary lecture 3: Bjørn Christensen** chairperson: Jochen Schmid
9:45 – 10:00	*Coffee break*	
10:00 – 11:35	Main conference hall	**Session 1: Production of Polysaccharides** chairperson: Ebru Toksoy Öner
11:35 – 12:15	*Conference closing, Student conference award*	
12:15	*Take-away lunch*	
13:00	*Voluntary program for conference participants*	

Wednesday, 13th September

7:30 – 8:45	*Registration*		
8:45 – 9:00	*Conference opening*		
Plenary lecture 1 (Main conference hall)			
9:00 – 9:45	PL1:	Kumar Sudesh	Production of PHA from Vegetable and Animal Oils
9:45 – 10:00	*Coffee break*		
Session 1 (Main conference hall) Production of Polyhydroxyalkanoates I			
	Invited lecture		
10:00 – 10:20	IL1:	Manfred Zinn	Circularity of Polyhydroxyalkanoates
	Regular lectures		
10:20 – 10:35	L1:	Marina Basaglia	Biotechnological Production of Polyhydroxyalkanoates from Agri-food Residues: Sustainable Approaches
10:35 – 10:50	L2:	Janneke Krooneman	Conversion of a Xylose-rich Stream from Biomass-biorefining into Polyhydroxyalkanoate (PHA) by *Schlegelella thermodepolymerans*
10:50 – 11:05	L3:	Thomas Rodrigues	PHA Production from Lignocellulosic Enzymatic Hydrolysate for Textile Applications
11:05 – 11:20	L4:	Dimitrios Ladakis	Sustainability Evaluation of Poly(3-hydroxybutyrate) Bioprocess Development Based on Brewer's Spent Grain Utilization
11:20 – 11:35	L5:	Leticia Labriola	From Non-food Agricultural By-products to Sustainable Feedstocks for Biopolymers Production
11:35 – 11:50	L6:	Mariana Matos	Polyhydroxyalkanoates Production from Fruit Waste at Pilot Scale: Impact of Sludge Retention Time and Organic Loading Rate on the Dynamics of Culture Growth and Polymer Storage
11:50 – 12:05	L7:	Monica Carvalheira	Polyhydroxyalkanoates Production from Tomato Waste
12:05 – 12:20	L8:	Chris Vermeer	A Scale-up Story: PHBV from Lab-scale to Full-scale and from the Upstream Down to Product Development
12:20 – 13:10	*Lunch*		

	Session 2 (Main conference hall) Production of Polyhydroxyalkanoates II			Session 3 (Room 2) Processing and Characterization of Biopolymers		
	Invited lectures					
13:10 – 13:30	IL2:	Martin Koller	An Update on the Current Status of Industrial PHA Production	IL4:	Jaromír Bačovský	Benefits of Low Voltage Transmission Electron Microscopy in Biopolymer Research
13:30 – 13:50	IL3:	Alan Werker	Generalized Approach for Optimal Polyhydroxy-alkanoate Extraction Conditions from Dried Biomass Using Non-Chlorinated Solvents	IL5:	Štěpán Podzimek	Characterization of Molecular Structure of Biopolymers with Separation Techniques and Advanced Detectors
	Regular lectures					
13:50 – 14:05	L9:	Stanislav Obruča	Hot or Cold? Light or Dark? - Expremophiles – New Superheroes of Microbial Biotechnology	L15:	Loic Hilliou	Miniscale Extruder Prototypes with Sampling Ports and Rheo-optical Dies for the In-line Monitoring of Biopolymers Melt Processing
14:05 – 14:20	L10:	Gabriel Brouchon	For a Sustainable and European Value Chain of PHA-based Materials for High Volume Consumer Products (NENU2PHAR Project)	L16:	Fadzliana Ahmad	Techno-economic Analysis of 3D printing Filament for Thermo-responsive Materials: A Numerical Analysis
14:20 – 14:35	L11:	Manuel Santiago Godoy	Transition to Anaerobiosis Enhances Poly(3-hydroxybutyrate-*co*-3-hydroxyvalerate) Synthesis in Purple Bacteria	L17:	Filip Mravec	Fluorescence Correlation Spectroscopy in Biopolymer Research
14:35 – 14:50	L12:	Marta Catalão	Prospecting Natural Habitats for High-yielding Polyhydroxyalkanoates Producing Microbial Consortia	L18:	Asiyah Esmail	Characterization of Bacterial Cellulose Produced by *Komagataeibacter xylinus* Strains Grown in Styrene/glucose Mixtures

Session 2 (Main conference hall) Production of Polyhydroxyalkanoates II				Session 3 (Room 2) Processing and Characterization of Biopolymers		
14:50 – 15:05	L13:	Maxmilian Lackner	Scalable PHB Production Using Waste Streams and Gas Fermentation	L19:	Isabel Thiele	PHA Extraction Monitoring by Low-field NMR
15:05 – 15:20	L14:	Pianpian Wu	Separation Solutions for Scaled-Up PHA Bioplastics Production Needs	L20:	Kateřina Mrázová	Cyanobacterial Cells Imaged Using Uranyl-less Low Voltage Electron Microscopy
15:20 – 15:50	*Coffee break*					
Session 4 (Main conference hall) Synthetic Biology for Biopolymers Engineering and Production				**Session 5 (Room 2) Production of Polyhydroxyalkanoates III**		
	Invited lectures					
15:50 – 16:10	IL6:	Auxiliadora Prieto	Designing Biopolymers with Advanced Functional Properties			
	Regular lectures					
16:10 – 16:25	L21:	Lara Santolin	Elucidating Gene Regulation of Polyhydroxyalkanoate Production in *Ralstonia eutropha*: Identification of Transcriptional Regulators from Phasin and Depolymerase Genes	L28:	Yizhou Xing	Enhanced Polyhydroxyalkanoate (PHA) Production by Enrichment of PHA-Storing Microorganisms during the Accumulation Process
16:25 – 16:40	L22:	Marina Rodríguez Carreiro	A Systems Biology Approach for Enhancing the Synthesis of Functionalized Polymers in *Pseudomonas putida*	L29:	Radwa Moanis	Tracking Polyhydroxyalkanoate Synthesis in Thermophiles
16:40 – 16:55	L23:	Santiago Roque de Miguel Sanz	Transcriptomic Analysis Sheds Light on Enhanced PHBV Production in a *Rhodospirillum rubrum* Mutant with Unpaired Pigmentation Synthesis	L30:	Saskia Waldburger	Waste Animal Streams as Complex Sole Carbon and Nitrogen Sources for Polyhydroxyalkanoate Production: Influence of Extraction Temperatures

	Session 4 (Main conference hall) Synthetic Biology for Biopolymers Engineering and Production			Session 5 (Room 2) Production of Polyhydroxyalkanoates III		
16:55 – 17:10	L24:	Anastasiia Ieremenko	Developing a Genetic Manipulation Toolkit for *Caldimonas thermodepolymerans*	L31:	Beatriz Altamira Algarra	Exploring the Potential of Cyanobacterial Microbiomes for Sustainable Bioproducts
17:10 – 17:25	L25:	Markéta Nykrýnová	Transcriptome Analysis of *Rhodospirillum rubrum* – Wild Type and Mutant Strains	L32:	Xenie Kouřilová	Thermophilic PHA Producer *sui generis* – *Caldimonas thermodepolymerans*
17:25 – 17:40	L26:	Moritz Gansbiller	Stream-lining the Development of a Production-optimized *Xanthomonas campestris* Chassis-organism	L33:	Hugo Fleuriot-Blitman	Investigating the Relationship Between Respiratory Chain Activity and the Electron Sink Mechanism of Poly(3-hydroxybutyrate) (PHB) Accumulation in *Rhodospirillum rubrum*
17:40 – 17:55	L27:	Pavel Dvořák	PUSH-based Strategy to Increase Glycolytic Flux in *Pseudomonas putida* from co-Utilized Cellulosic Sugars to Biopolymer Precursors	L34:	Nuria Otero Logilde	Pilot Scale Volatile Fatty Acids and Polyhydro-xyalkanoate Production from Cheese Whey: Process Characteristics and Microbial Community Analysis
17:55 – 19:00	*transfer to Mendel Museum*					
19:00 – 22:00	*Welcome drink and conference dinner in Mendel Museum*					

Thursday, 14th September

8:00 – 9:00	*Registration*		
Plenary lecture 2 (Main conference hall)			
9:00 – 9:45	PL2:	Bernd Rehm	Bioengineering of Advanced Protein-polymer Materials
9:45 – 10:00	*Coffee break*		
Session 6 (Main conference hall) **Biopolymers for Medicine and Tissue Engineering**			
	Invited lecture		
10:00 – 10:20	IL7:	Ebru Toksoy Öner	Levan-type Fructans as Functional Biopolymers in Biomedical Field
	Regular lectures		
10:20 – 10:35	L35:	Alessandro Pellis	Enzymatic Catalysis: A Powerful Tool for the Synthesis of Functional Oligomers and Biobased Additives
10:35 – 10:50	L36:	Dafna Knani	Simulation of GAG-analogue Biomimetics for Intervertebral Disc Repair
10:50 – 11:05	L37:	Maria Eduarda Ribeiro	Porous Scaffold of PHBHV, Nanohydroxyapatite and Fullerene: Easy FDM Processing and Potential Application in Bone Tissue Engineering
11:05 – 11:20	L38:	João Pereira	Development of Porous Scaffolds Based on Polyhydroxyalkanoates (PHA) and FucoPol
11:20 – 11:35	L39:	Diana Araújo	Novel Hydrogel Membranes Based on the Bacterial Polysaccharide FucoPol: Design, Characterization, and Biological Properties
11:35 – 11:50	L40:	Bruno Guerreiro	Cryoprotective FucoPol: Studies on Crystal Size Reduction, Shape Modulation, Enhanced Ice Nucleation Control & Antifreeze Protein-like Behavior
11:50 – 13:00	*Lunch*		

	Session 7 (Main conference hall) Biopolymers in High-Value and Technical Applications			Session 8 (Room 2) Production of Polyhydroxyalkanoates IV		
	Invited lectures					
13:00 – 13:20	IL8:	Ivan Chodák	Modification of Thermo-Plastic Starch to Achieve a Broad Range of Properties in Mixtures with Biopolymers			
	Regular lectures					
13:20 – 13:35	L41:	Petr Sedláček	Self-entrapment of Plant Growth Promoting Rhizobacteria by Gelation of Their Exopolysaccharides – towards the Next-generation Bioinoculants	L47:	Olga Psaki	Poly(3-hydroxybutyrate) Production from Fruit Wastes and Property Evaluation
13:35 – 13:50	L42:	Cai Li Song	Sustainable Carbon Fiber from Lignin Precursor: Formulation, Processing, and Potential Applications	L48:	Ana Rodrigues	Novel Method for the Extraction of Poly-hydroxyalkanoates from a Mixed Microbial Culture Fed with Paper-mill Wastewater
13:50 – 14:05	L43:	Rita Mota	Cyanoflan: A Marine Cyanobacterial Polymer as a Natural Skin Care Ingredient	L49:	Florian Miserez	PHB Production through a Two-stage Cultivation Fed with Syngas
14:05 – 14:20	L44:	Lisa Sougrati	From Lignins to Renewable Aromatic Vitrimers	L50:	Matteo Grana	Valorization of Salted Cheese Whey into Polyhydroxyalkanoates by Halotolerant Mixed Microbial Cultures
14:20 – 14:35	L45:	Jiří Smilek	Revealing the Relationship between Structure, Mechanical, and Transport properties of Biopolymer Gels as a Route towards Novel Engineered Materials	L51:	Claudia Vona	Novel Continuous-Feeding Process for Polyhydroxyalkanoates Production with Mixed Microbial Cultures

	Session 7 (Main conference hall) Biopolymers in High-Value and Technical Applications				**Session 8 (Room 2) Production of Polyhydroxyalkanoates IV**		
14:35 – 14:50	L46:	Michal Kalina	Hybrid Gellan Hydrogel Networks – Smart Materials with Tunable Viscoelastic and Transport Properties		L52:	Loïc Pletacher	Extraction of a Medium-chain Length Polyhydroxyalkanoate Using Green Solvents
14:50 – 15:30	*Coffee break*						
	Session 9 (Main conference hall) Biodegradation, Ecology, Biology and Environmental Impact of Biopolymers				**Session 10 (Room 2) Chemical Routes towards Biopolymers**		
	Invited lectures						
15:30 – 15:50	IL9:	Dieter Jendrossek	Biodegradation of (Bio)Polymers				
	Regular lectures						
15:50 – 16:05	L53:	José Daniel Jiménez Santos-García	Delving into the Genomic Basis of *Pseudomonas* sp. GK13, a Prototype Strain for Extracellular PHA Degradation		L59:	Jose David Zuluaga	Synthesis of Phenolic Resins from Willow Biomass Extractives
16:05 – 16:20	L54:	David Strik	Microbial Recycling of Biodegradable Plastics into Carboxylic Acid Platform Chemicals		L60:	Chiara Siracusa	Enzyme Based Hydrolysis for Specific Recovery of Novel Poly(lactic acid)-poly(1,5-pentanediol 2,5-furanoate) Blends Building Blocks
16:20 – 16:35	L55:	Maria Nicolau Batista	Microbial Conversion of PET Waste into Polyhydroxyalkanoates (PHA)		L61:	Athira Narayanan	Green Synthesis of Flexible Ethyl Cellulose Films Using Sunflower Oil as a Natural Plasticizer
16:35 – 16:50	L56:	Cristiana Torres	High Value Compounds by a *Rhodococcus* sp. Strain Using Synthetic Plastic Wastes as Feedstock		L62:	Arne Gröngröft	Selecting Relevant Biopolymers for Modeling of the Future Polymer Production in Germany, Belgium, and Netherlands

	Session 9 (Main conference hall) Biodegradation, Ecology, Biology and Environmental Impact of Biopolymers			Session 10 (Room 2) Chemical Routes towards Biopolymers		
16:50 – 17:05	L57:	Caroline Zeidler	Sharing with Your Partners: The Bacterial Symbionts of the Gutless Worm *Olavius algarvensis* May Need Their Host to Degrade PHA	L63:	Cicely Warne	Greener Enzymatic Synthesis of Bio-Based Polyesters in Xylose-derived Solvents
17:05 – 17:20	L58:	Rossella Labarile	Polydopamine as Conductive Coating for Enhanced Electron Transfer of *Rhodobacter sphaeroides*	L64:	Nur Amalina Samsudin	Tunable Biobased Polyol Esters for Sustainable Future
17:20 –18:00	*Coffee break*					
18:00 – 20:30	*Poster section & Czech beer tasting* (*dinner included*) Planetarium and Observatory hall and terrace					
20:30 – 21:30	*Projection of the movie* (*main conference hall*)					

Friday, 15th September

8:00 – 9:00	*Registration*		
Plenary lecture 3 (Main conference hall)			
9:00 – 9:45	PL3:	Bjørn Christensen	Block Polysaccharides
9:45 – 10:00	*Coffee break*		
Session 11 (Main conference hall) **Production of Polysaccharides**			
	Invited lecture		
10:00 – 10:20	IL10:	Jochen Schmid	Engineering Strategies of Microbial Exopolysaccharide Producers towards Novel Product Properties and Increased Product Titers
	Regular lectures		
10:20 – 10:35	L65:	Julia Schilling	Exploring the Potential of Acetan-like EPS Derived from *Kozakia baliensis*: Rheological Characterization in Personal Care Surfactant Systems and Galactomannan Blends
10:35 – 10:50	L66:	Boris Zimmermann	Biopolymer Analyses by Vibrational Spectroscopies with Applications in Microbial Biotechnology
10:50 – 11:05	L67:	Paulina Sandberg Birgersson	Diving Deep into Norwegian Kelp: Sequential Extraction and Characterization of Versatile Polysaccharides
11:05 – 11:20	L68:	Dana Byrtusová	The Induced Production of Extracellular Polysaccharides by *Rhodotorula* Yeast Using Sustainable Feedstock
11:20 – 11:35	L69:	Mirva Sarafidou	Biorefinery Development of Lignocellulosic Biomass for Bacterial Cellulose Production and Biobased Packaging Formulation
11:35 – 12:15	*Conference closing, Student conference award*		
12:15	*Take-away lunch*		
13:00	*Voluntary program for conference participants: Guided tour in Brno, visit of the laboratories of Faculty of Chemistry, Brno University of Technology, lab tour in Delong Instruments.*		

List of posters

P1:	Viola Caminiti	Valorization of Wine Lees to Polyhydroxyalkanoates
P2:	Loic Hilliou	Testing Biomass Mastication for Assisting the Downstreaming of Polyhydroxyalkanoates Produced from Mixed Microbial Cultures
P3:	Shivani Gaurangkumar Adhvaryu	PHA Synthesis Genetics and Genomics in *Halomonadaceae* Family
P4:	Mohamed Ashraf Mostafa	Impact of Stress and Nutritional Conditions on Growth and PHA Synthesis in the Thermophilic Bacteria *Caldimonas thermodepolymerans*
P5:	Pavel Pleva	Production of Polyhydroxyalkanoates in Bacterial Isolates from Food
P6:	Zuzana Šedrlová	Usage of Cyanobacteria for Carbon Capture and Polyhydroxyalkanoate Production
P7:	Vendula Hrabalová	Production of Polyhydroxyalkanoates from Wheat Bran Hydrolysates Using Halophilic Bacteria
P8:	Iva Pernicová	Using Of "Hot" Genus *Aneurinibacillus* To Produce Unique Polyhydroxyalkanoate Copolymers
P9:	Jana Musilová	*Schlegelella* or *Caldimonas*, Uncovering Genomic Features of Species *aquatica* and *thermodepolymerans*
P10:	Eun Yeol Lee	Production and Characterization of Poly(3-hydroxybutyrate-*co*-3-hydroxyvalerate) Using Methane and Valerate by Methanotrophs, *Methylocystis* sp. MJC1
P11:	Mariana Matos	Valorization of Microalgae Side Streams for Sustainable Polyhydroxyalkanoates Production
P12:	Vittoria Vecchiato	Unexplored Extremophile Bacterium, *Pseudohalocynthiibacter aestuariivivens*, as a Sustainable Bioplastic Producer
P13:	Katarína Šlosárová	Exploring the Polyhydroxyalkanoates Production in Psychrophilic/Psychrotolerant Bacteria
P14:	Kateřina Jurečková	Differential Expression Analysis of RNA-Seq Data for Identification of Housekeeping Genes in *Rhodospirillum rubrum* DSM 467
P15:	Marco Lederer	PHB Production by Continuous Fermentation – Approach towards Constant Product Quality?
P16:	Felix Berthold	Valorization of Varying Industrial Waste Streams for PHB Production by Continuous Fermentation

P17:	Viktorie-Alexandra Pacasová	PHA Metabolism and Stress Response in Bacterium *Rhodospirillum rubrum*
P18:	Pia Lanvers	Development of *Paenibacillus polymyxa* Strains for Recombinant Dextran Production by Genetic Engineering
P19:	Inés Pérez	Enhancing PHB Production in Cyanobacteria: Modeling the Optimal Light Regime for Growth
P20:	Ota Samek	Raman Spectroscopy Analysis of Polyhydroxyalkanoates Produced by Microorganisms
P21:	Martin Kizovský	Raman Spectroscopy and Raman Tweezers for Detection of Biopolymers and Pigments in Prokaryotic Cells
P22:	Monika Wikarská	Protein Hydrolysates from Hempseed Waste as Actives in Hair Cosmetics
P23:	Véronique Amstutz	Microbial Synthetic Consortia for PHB Production on Molasse
P24:	Veronika Melčová	Degradation of FDM 3D Printed Scaffolds in Simulated Body Fluid
P25:	Stanislav Kukla	Polymer Science & Innovations @ Merck
P26:	Eva Slaninová	Using Atomic Force Microscopy to Determine Morphological and Physicochemical Properties of Living Bacteria and Native Cellular Components
P27:	Asiyah Esmail	Valorizing Food Waste through Bacterial Cellulose Production from Waste Apple Pulp and Stale Bread
P28:	Štěpán Podzimek	Light Scattering for Structural Studies of Biopolymers
P29:	Cristiana Torres	Bioconversion of Plastics' Building Blocks into Bacterial Cellulose for Circular Economic
P30:	Jitka Krouská	Stress Adaptation of PHA Producing Microorganisms Studied by Microcalorimetry
P31:	Sandra Iglesias Moreira	PHB in Cyanobacteria: Analyzing Production through Images Processing and FTIR Techniques
P32:	Bruno Guerreiro	Fucose Plays a Critical Role in Enhancing the Cryoprotective Potential of Polysaccharides

P33:	Maria Veiga	Preparation and Characterization of a PHBV Nanoparticles Obtained from Whey for Drug Release
P34:	Hana Studenovská	Implantation of Retinal Pigment Epithelium Cells via Ultrathin Nanofibrous Carrier
P35:	Nicole Černeková	PHA-Based Particles Prepared by Nanoprecipitation as Drug Carrier
P36:	Lucia Dzurická	Functionalized Combined Nanostructures as Potential Wound Dressings
P37:	Agáta Bendová	Monitoring of the Biological Effects of Prepared Biopolymer-Based Wound Dressings
P38:	Štěpán Krobot	3D Printed Scaffolds Based on Poly(3-hydroxybutyrate) and Its Blends for Use in Medical Applications and Tissue Engineering
P39:	Kristýna Skuhrovcová	Hyaluronic Acid: Nature's Versatile Biopolymer for Regenerative Medicine and Skin Care
P40:	Lucy Vojtová	Aminopolysaccharide-Based Personalized Bone Implants Prepared by Direct Low-Temperature 3D Printing
P41:	Ebru Toksoy Öner	Fructan Biopolymers in Functional Biotics Production
P42:	Anna Ylinen	Synthetic Biology and Physics-Based Modelling for Creating New PHAs
P43:	João Pissarra	Impact of the Absence of RfbC and FucS on the Extracellular Polysaccharides of *Synechocystis* sp. PCC 6803
P44:	Jung-Won Youn	Production of Poly(3-hydroxybutyrate) with Recombinant *Corynebacterium glutamicum*
P45:	Emma Kamionka	Tailored Production of Various Biopolymers by Engineered Strains of *Yarowia lipolytica*
P46:	Marek Koutný	Plastics in the Soil and the Changes in the Microbial Communities
P47:	Pyung Cheon Lee	Investigation of Biodegradability of Polymers in Lab-Scale Respirometers
P48:	Diana Černayová	The Use of Biopolymers for Development of New Type of Bacterial Bioinoculants

11th

ESBP

European Symposium
on Biopolymers