

**Conference day
16.6.2021 (Wednesday)**

Hall 1

10:00		Symposium Opening		
10:30-11:20	Marek Basler	Type VI secretion system: from the discovery to the mode of action of a dynamic bacterial nanomachine	Biozentrum, University of Basel, Switzerland	plenary
11:30-12:20	Martin Pumera	Nanorobots: Machines Between Cells and Viruses	Center for the Advanced Functional Nanorobots, Czech republic	plenary
Environmental Biotechnology				
13:30-14:20	Ed Bayer	Designer cellulosomes as a broad platform for synthetic biotechnology	Weizmann Institute of Science	key
14:20-14:40	Pokorná Dana	Biological conversion of hydrogen and syngas to biomethane in anaerobic fermentation of biowastes	Department of Water Technology and Environmental Engineering, University of Chemistry and Technology	
14:40-15:00	Miłobędzka Aleksandra	Imaging and separating free DNA containing ARGs in wastewater treatment plants	Department of Water Technology and Environmental Engineering, University of Chemistry and Technology	
15:00-15:20	Marsalkova Eliska	Estrogens in wastewaters and evaluation of different types of treatment processes for estrogens removal	Institute of Botany Czech Academy of Sciences	
15:20- 15:40	Halecký Martin	Surface properties and colonization of newly developed flexible polyurethane foam biofilm carriers	University of Chemistry and Technology, Prague	
15:40-16:00	to be announced			

Hall 2

Medical and Pharmaceutical Biotechnology

13:30-14:20	Wilhelm J. Ansorge		Ecole Polytechnique Federale, ETH-Lausanne	key
14:20-14:40	Pavla Bojarová	Galectin-glycoconjugate interactions in biomedical Research	Institute of Microbiology, Czech Academy of Sciences	
14:40-15:00	Francesca Benini	Magnetic nanoconjugated glycopeptides as novel tools for fighting bacterial infections	University of Insubria, Italy	
15:00-15:20	Vera Luginbuehl	Engineering patients' immune cells with chimeric antigen receptor to treat hematological cancers	Novartis Pharma Schweiz AG	
15:20- 15:40	Jan Dohnálek	Interaction patterns of natural killer cell receptors and ligands critical for immune system and biomedical applications	Institute of Biotechnology of the Czech Academy of Sciences	
15:40-16:00	to be announced			

Hall 3

Microalgae Biotechnology

13:30-14:20	Yusuf Chisti	Emerging trends in microalgae biotechnology	Massey University	key
14:20-14:40	Felix Krujatz	Green Bioprinting - a tool for creating functional 3D-cell structures	TU Dresden/Institute of Natural Materials Technology	
14:40-15:00	Kateřina Biřov	Use of algae to recover rare earth elements from waste materials	Institute of Microbiology AS CR	
15:00-15:20	Alexei Solovchenko	Luxury phosphorus uptake: pushing to the limits	Lomonosov Moscow State University	
15:20- 15:40	Jos Cheel	New production models of valuable bio-products from microalgal biomass using countercurrent chromatography (CCC) technology	Centre Algatech, Czech Academy of Sciences	
15:40-16:00	to be announced			

17.6.2021 (Thursday)

Hall 1

9:00-9:50	Peter Dürre	Metabolic engineering of anaerobic acetogens for converting greenhouse gases into sustainable products	University of Ulm, Germany	plenary
Environmental Biotechnology				
10:30-11:15	Patakova Petra	Butanol stress response mechanisms and butanol tolerance in <i>Clostridium beijerinckii</i> NRRL B-598	University of Chemistry and Technology Prague	key
11:15-11:35	Sedlar Karel	<i>Clostridium beijerinckii</i> and diolis: high similarity of genomes versus different behavior	Brno University of Technology, Department of Biomedical Engineering	
11:35-11:55	Lopez Contreras Ana Maria	Macroalgae as feedstock for fuels and chemicals	Wageningen Food and Biobased Products	
11:55-12:15	Merroun Mohamad Larbi	Potential biotechnological applications of species of the genus <i>Stenotrophomonas</i> in Bioremediation and Nanotechnology	University of Granada	
12:15-12:35	to be announced			
13:35-14:20	Vila Maria	Challenges for bioleaching at mine sites	University of Porto - Faculty of Engineering	key
14:20-14:40	Stiborova Hana	Benefits and limitations of different agriculture soil amendments	University of Chemistry and Technology, Prague	
14:40-15:00	Uhlík Ondřej	Secondary plant metabolites and the ecology of plant-associated bacteria	University of Chemistry and Technology, Prague	
15:00-15:20	Dvořák Pavel	Engineering <i>Pseudomonas putida</i> whole-cell biocatalysts for biotechnological processing of lignocellulosic substrates	Masaryk University	
15:20- 15:40	Gajdošík Martin	Engineering the acidophilic sulfur-oxidizing bacteria for applications in biotechnology	Masaryk University	
15:40-16:00	to be announced			

Hall 2

Medical and Pharmaceutical Biotechnology			
10:30-11:15	Flavia Marinelli	Where will novel antibiotics come from in nature?	Department of Biotechnology and Life Sciences, University of Insubria
11:15-11:35	Olga Mařátková	Antimicrobial properties of biosynthesized nanoparticles	University of Chemistry and Technology, Prague
11:35-11:55	Ibtissem Djinni	Exploring the antiviral, antimicrobial and antibiofilm potentials of novel <i>Nocardioopsis dassonvillei</i> GSBS4 strain isolated from a saline Saharan soil	Faculté des Sciences de la Nature et de la Vie- Département de Microbiologie-Université de Bejaia
11:55-12:15	Lucie Bačáková	Spontaneous in situ endothelialization as an advanced approach for construction of vascular replacements	Institute of Physiology of the Czech Academy of Sciences
12:15-12:35	to be announced		
		Plant Biotechnology	
13:35-14:20	Tomáš Moravec	Plant viruses in the genome editing era	Institute of Experimental Botany, Czech Academy of Science
14:20-14:40	Martin Janda	How extracellular vesicles of bacteria interact with plants	Ludwig-Maximilians-University of Munich
14:40-15:00	Ivo Frébort	Transgenic barley expressing recombinant antimicrobial peptides	Palacký University Olomouc
15:00-15:20	Lenka Burketová	Impact of noble metal nanoparticles on plants and associated microorganisms	Institute of Experimental Botany AS CR
15:20- 15:40	Kateřina Bělonožníková	A novel insight into the effect of <i>Pythium oligandrum</i> isolates as biological control agents	Charles University
15:40-16:00	to be announced		

Hall 3

Microalgae Biotechnology

10:30-11:15	Hong-Wei Yen	The current development status of microalgae study in Taiwan	Tunghai University, Taiwan	key
11:15-11:35	Simona Lucáková	Electroflocculation - a way to minimize microalgae harvesting cost	University of Chemistry and Technology, Prague	
11:35-11:55	Olga Sayanova	Multifunctionalizing microalgae for sustainable production of industrially useful proteins and fatty acids	Rothamsted Research	
11:55-12:15	Harald Schöbel	Microorganism in the LED-spotlight: standardized illumination systems for biotechnological applications	MCI - the entrepreneurial school	
12:15-12:35	to be announced			
13:35-14:20	to be announced			key
14:20-14:40	Svetlana Vasilieva	Bio-inspired materials from microalgal cells on chitosan-based carriers for biocapture of nutrients	Lomonosov Moscow State University	
14:40-15:00	Katja Bühler	Cyanobacterial biofilms as light-driven biocatalysts – obstacles and achievements	Helmholtzcenter for Environmental Research	
15:00-15:20	Nanakow Baiden	Engineering Recombinant Antimicrobial Efficacy and Yield from Algae	Rothamsted Research	
15:20- 15:40	to be announced			
15:40-16:00	to be announced			

18.6.2021 (Friday)

Hall 1

9:00-9:50	László Forró	Infrared spectroscopic and machine learning investigation of multiple sclerosis: human case versus animal model	Ecole Polytechnique Fédérale de Lausanne, Switzerland	plenary
Medical and Pharmaceutical Biotechnology				
10:30-11:15	Radek Špíšek	Use of RLI-15, a clinical grade fusion protein with IL-15 superagonistic activity for the activation of anti-tumor immune response	Sotio, CZ	key
11:15-11:35	Zora Novakova	Engineered antibodies for prostate cancer imaging and therapy	Institute of Biotechnology of the Czech Academy of Sciences	
11:35-11:55	Maayan Gal	Integration of biophysical and computational tools for the discovery of small molecules immune modulators targeting protein-protein interactions	Tel-Aviv University	
11:55-12:15	Assia Bouhoudan	Mycotoxins of <i>Penicillium aurantiogriseum</i> as a promising source for anti-cancer therapy	Abdelmalek Essaâdi University	
12:15-12:35	Vladimír Scholtz	Non-thermal plasma for management of clinically relevant pathogens	University of Chemistry and Technology, Prague	
13:35-14:00	Michaela Rumlová	The role of small host-cell molecules to modulate HIV-1 assembly and disassembly	University of Chemistry and Technology, Prague	
14:00-14:20	Miroslav Šulc	The PIXL&PIER methodologies (photo-induced cross-linking&electron release): novel experimental tools for structural and functional biochemistry	Department of Biochemistry, Faculty of Science, Charles University	
14:20-14:40	Martin Obr	Cryo-electron tomography: structural biology in situ	IST Austria	
14:40-15:00	Blerta Laze	The epidemiological situation of measles in Tirana, Albania, from 2017 to 2019	University "Ismail Qemali" of Vlora, Faculty of Technical Sciences, Department of Biology	
15:00-15:20	Betitera Yanat	Anti-inflammatory effect of crude extract from <i>Streptomyces</i> sp SD20 strain on inflammatory bowel disease in mice	Université de Béjaia	

15:20- 15:40	Melanie Ottinger	Production of therapeutic plasmid DNA in single-use technology	Thermo Fisher Scientific	
15:40-16:00	to be announced			

Hall 2

Industrial Biotechnology

10:30-11:15	Ulf Grawunder	NBE's immune-stimulatory Antibody Drug Conjugates for cancer therapy – the old “Magic bullet” concept in new clothes	NBE-Therapeutics AG	key
11:15-11:35	Jozef Markoš	Design of hybrid system for in-situ product removal during fermentation	Slovak University of Technology in Bratislava	
11:35-11:55	Kristýna Slámová	Enzymatic toolbox for the biosynthesis of valuable chitooligosaccharides	Institute of Microbiology of the CAS, v. v. i.	
11:55-12:15	Hana Raschmanová	Understanding of the unfolded protein response (UPR) in <i>Pichia pastoris</i> may help to enhance secretion of recombinant proteins	University of Chemistry and Technology, Prague	
12:15-12:35	to be announced			
13:35-14:20	Lothar Elling	The Golgi Glycan Factory (GGF) – Enzyme Modules for Glycoconjugate Synthesis	RWTH Aachen University, Institute for Biotechnology and Helmholtz-Institute for Biomedical Engineeri	key
14:20-14:40	Tomas Koval	Substrate oxidation and electron transfer mechanisms in the active site of bilirubin oxidase	Institute of Biotechnology, CAS v.v.i.	
14:40-15:00	Stanisla Obruča	Biotechnological production of polyhydroxyalkanoates employing stress- adapted microorganisms	Faculty of Chemistry, Brno University of Technology	
15:00-15:20	to be announced			
15:20- 15:40	to be announced			
15:40-16:00	to be announced			

Hall 3

Food and Agriculture Biotechnology

10:30-11:15	Fusheng Chen	Advances in Acid Resistance Mechanisms of Acetic Acid Bacteria	Huazhong Agricultural University, China	key
11:15-11:35	Itamar Yadid	New enzymes for production of tailor made Fructo-oligosaccharides	Migal - Galilee Research Intitute	
11:35-11:55	Yanchun Shao	Metabolites and their applications of Monascus spp. and the underlying essentials of genetics	Huazhong Agricultural University, China	
11:55-12:15	Richard Koplík	Determination of silver nanoparticles and tracing their changes in food matrices using single particle ICPMS	University of Chemistry and Technology	
12:15-12:35	to be announced			
13:35-14:20	Pavel Dostálek	Biotransformation in Food Processing	University of Chemistry and Technology, Prague	key
14:20-14:40	Jana Olšovská	The use of sensomics in controlling of brewing process	VÚPS, a.s.	
14:40-15:00	Gabriella Kun-Farkas	Non-Saccharomyces yeasts in brewing	Szent Istvan University	
15:00-15:20	Daniel Koren	The importance of polyphenolic substances in brewing	Szent Istvan University	
15:20- 15:40	Edyta Kordialik-Bogacka	How does alternative raw materials used in brewing influence yeast activity	Lodz University of Technology	
15:40-16:00	to be announced			