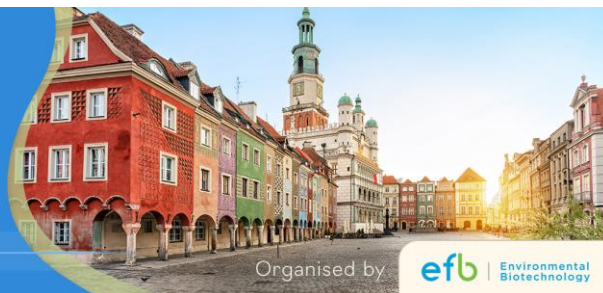


# GREEN DEAL BIOTECHNOLOGY

6-8 November 2023 Poznań Poland



## Scientific Programme

### 06.11.2023 Monday

13:00 - 14:00 *Registration*

#### Opening ceremony

14:00 - 14:10 **Welcome and opening ceremony**

14:10 – 15:00 **Opening plenary lecture: Douglas Call**, North Carolina State University, USA

#### Session 1 Exploring the boundaries of emerging technologies (part I)

15:00 – 15:35 **Keynote lecture:** Ionic liquids as a potential emerging contaminant - deeper insight into their sorption, mobility and toxicity, **Łukasz Chrzanowski**, Poznań University of Technology, Poland

15:35 – 15:50 Biogenic manganese oxides-mediator systems for the removal of sulfonamides and their environmental implications, **Adam Sochacki**, Czech University of Life Sciences P, Czech Republic

15:50 – 16:05 Heavy metals change the chemical composition of outer membrane vesicles from endophytic *Rhizobium sp.*, **Iryna Bodnaruk**, University of Silesia, Poland

16:05 – 16:35 *Coffee break*

#### Session 2 Exploring the boundaries of emerging technologies (part II)

16:35 – 17:10 **Keynote lecture: Sergio Moya**, CIC BiomaGUNE, Spain

17:10 – 17:25 Microbial fuel cell modeling using artificial intelligence, **Alaa Abbas**, University of Naples Federico II, Egypt

17:25 – 17:40 Biowaste as Biostimulants: Unlocking Sustainable Agriculture, **Nuria De Diego**, Palacky University, Czech Republic

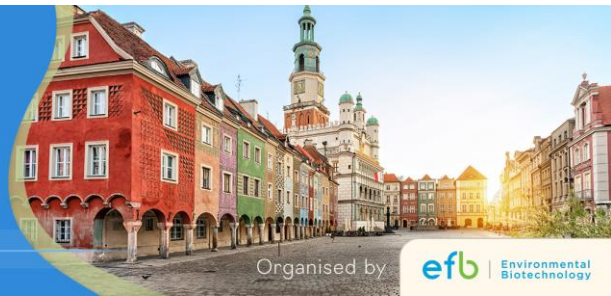
17:40 – 17:55 Efficient Methods to Accelerate Biostimulant Testing in Bio-based Value Chains, **Lukas Spichal**, Palacký University Olomouc, Czech Republic

17:55 – 18:15 Flash poster presentations

18:15 - 20:00 Poster session and social event

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**07.11.2023 Tuesday**

## Session 3 Marine biotechnology

- 9:00 – 9:35 **Keynote lecture: Ana Rotter**, National Institute of Biology, Marine Biology Station Piran, Slovenia
- 9:35 – 9:50 Enhancing viral resistance: triploid crossbreeding of rainbow trout and brook trout for sustainable salmonid aquaculture, **Radosław Kowalski**, Institute of Animal Production and Food Sciences, Poland
- 9:50 – 10:25 **Keynote lecture: Martin Pšenička**, University of South Bohemia, Czech Republic
- 10:25 – 10:40 Cyanoflan, a polymer produced by a marine cyanobacterium, can contribute to greener, **Rita Mota**, acib GmbH - Austrian Centre of Industrial Biotechnology, Austria

10:40 – 11:00 *Coffee break*

## Session 4 Recovery of resources, including rare resources and novel bio-based value chains (part I)

- 11:00 – 11:35 **Keynote lecture:** From wastewater treatment to resource recovery: cultivation of microalgae for circular protein production, **Marcella Souza**, Ghent University, Belgium
- 11:35 – 11:50 Isolation of methanotrophic mono- and mixed- cultures and production of polyhydroxyalkanoate (PHA) copolymers from methane, **Mateusz Łęzyk**, Poznan University of Technology, Poland
- 11:50 – 12:05 Volatile fatty acids and methane production during the temperature-phased anaerobic digestion for carbon recovery and enhanced methane production at the WWTP, **Małgorzata Komorowska-Kaufman**, Poznan University of Technology, Poland
- 12:05 – 12:20 Effects of low and high-temperature thermal hydrolysis pre-treatment on the performance of energy-producing sludge management, **Sergio Rossano-Becerril**, University of Groningen, the Netherlands
- 12:20 – 12:35 Resources recovery through the acidogenic fermentation of food industry by-products performed in a lab-scale sequencing batch reactor, **Angela Marchetti**, La Sapienza University of Rome, Italy

12:35 – 14:00 *Lunch*

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## Session 5 Recovery of resources, including rare resources and novel bio-based value chains (part II)

- 14:00 – 14:15 Biohydrogen and caproic acid - production in one- and two-stage continuous systems, **Dariusz Sobociński**, Adam Mickiewicz University, Poland
- 14:15 – 14:30 Bioaugmentation of open culture fermentation processes for carboxylates production, **Anna Duber**, Poznan University of Technology, Poland
- 14:30 – 14:45 The continuous production process of the applicative compounds using mixed microbial consortia, **Hanna Prusak**, Poznan University of Technology, Poland
- 14:45 – 15:00 Selection of materials with promising potential for the recovery of humic substances and co-occurring nutrients from by-products of the wastewater treatment, **Justyna Michalska**, Silesian University of Technology, Poland
- 15:00 – 15:15 Bioconversion of plastics' building blocks into bacterial cellulose towards circular economy, **Cátia Gil**, Nova school of science and technology, Portugal

15:15 – 15:45 *Coffee break*

## Session 6 Recovery of resources, including rare resources and novel bio-based value chains (part III)

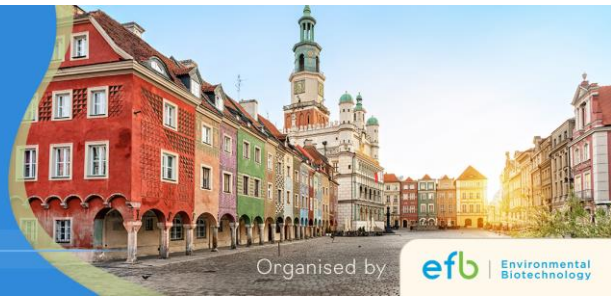
- 15:45 – 16:00 Biological methanation in a mesophilic CSTR system with *in-situ* hydrogen injection, **Grzegorz Cema**, Silesian University of Technology, Poland
- 16:00 – 16:15 Synergistic recycling and upcycling of blended textile waste via biotechnological approach, **Felice Quartinello**, University of Natural Resources and Life Sciences, Vienna, Austria
- 16:15 – 16:30 Recycling of complex waste materials using the power of microbes, **Klemens Kremser**, University of Natural Resources and Life Sciences, Vienna, Austria
- 16:30 – 16:45 From nuisance to treasure: unleashing *Procambarus clarkii*'s potential for sustainable metal recovery and valuable compound extraction, **Telma Veloso**, University of Aveiro, Portugal

## Session 7 Carbon capture

- 16:45 – 17:20 **Keynote lecture:** Carbon capture and storage – a positive contribution to net zero or just greenwashing by big oil, **Derek Saward**, United Kingdom
- 17:20 – 17:35 Engineered cyanobacteria for power industry waste valorisation, **Maurycy Daroch**, Peking University Shenzhen Graduate School, China

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17:35 – 18:00 *Coffee break*

## Session 8 European policy for the circular bioeconomy, food security and the environment

18:00 – 18:30 **Keynote lecture: Peter Wehrheim**, European Commission

18:30 – 19:00 **Panel discussion**

**Tomasz Calikowski**, European Commission –panel discussion moderator

**08.11.2023 Wednesday**

## Session 9 Healthy soil and food

9:00 – 9:35 **Keynote lecture: Katie Field**, University of Sheffield, United Kingdom

9:35 – 9:50 Is it possible to reduce cadmium accumulation in crop tissues? A case study using tomato seedlings and bacterial endophytes, **Magdalena Noszczyńska**, University of Silesia, Poland

9:50 – 10:05 Using on-farm trials in predicting soybean yield in Nigeria: the application of machine learning models, **Muhammad Kabiru**, Mohammed VI Polytechnic University, Morocco

10:05 – 10:20 Upcycling of hemp seed oil cake (*Cannabis sativa*) by applying tempeh fermentation (*Rhizopus oligosporus*), **Marianna Raczek**, Institute of Animal Reproduction and Food Research, Polish Academy of Sciences, Poland

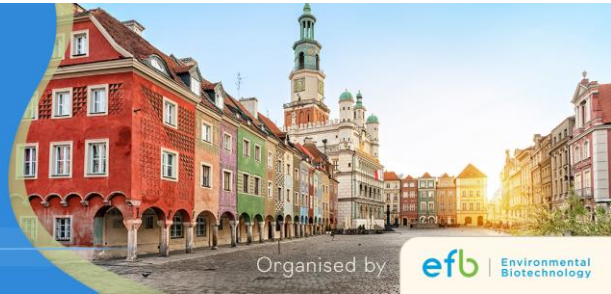
10:20 – 10:35 Drivers of soil microbial community and diversity in soybean rhizosphere in Ghana, **Alfred Balenor Buernor**, AgroBiosciences Program, College of Sustainable Agriculture and Environmental Sciences, Mohammed VI Polytechnic University, Morocco

10:35 – 10:50 Bioaugmentation with glyphosate-degrading bacterial community as a tool to increase plant resistance towards glyphosate and glyphosate based ionic liquids, **Marta Woźniak-Karczewska**, Poznan University of Technology, Poland

10:50 – 11:10 *Coffee break*

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## Session 10 Wastewater treatment

- 11:10 – 11:45 **Keynote lecture: Benjamin Horemans**, KU Leuven, Belgium
- 11:45 – 12:00 Bacterial OMV as bacteria-plant interaction linker. What do we know about it? **Małgorzata Pawlik**, University of Silesia, Poland
- 12:00 – 12:15 Evaluation of filter additives effect on the efficiency of biofilters for greywater treatment – long term results from close to real conditions, **Jaroslav Vacula**, Faculty of Environmental Sciences, Czech University of Life Sciences Prague, Czech Republic

## Closing ceremony and closing keynote lecture

- 12:15 – 12:55 **Closing plenary lecture:** Unlocking the potential of new breeding techniques for the European Green Deal, **Ivo Frébort**, Palacký University Olomouc, Czech Republic
- 12:55 – 13:10 **Closing ceremony**