



University College Dublin  
Ireland's Global University



# ISBP2026

International Symposium  
on Biopolymers

6<sup>th</sup> to 9<sup>th</sup> September 2026  
O'Reilly Hall, University College Dublin, Ireland

## MEETING AGENDA

# WELCOME

## INTERNATIONAL SYMPOSIUM ON BIOPOLYMERS 2026



Welcome to the International Symposium on Biopolymers (ISBP) 2026, the 20th edition of the International Symposium on Biopolymers (ISBP) to be held in Dublin, Ireland on 6-9th September 2026.

ISBP has established itself as a successful International conference dedicated to the exploration of the production, processing, application and biodegradation of biopolymers. The ISBP-2026 will showcase the latest developments along the biopolymer value chain from biomass to products. The symposium will also have a dedicated half day for delegates to hear from industry on scaling production, product development, and the marketing of biopolymers.

Since its inaugural meeting in Toronto in 1988, the symposium has been held biennially, traversing cities such as Barcelona in 1990, Göttingen in 1992, Montreal in 1994, Davos in 1996, Tokyo in 1998, Cambridge in 2000, Münster in 2002, Beijing in 2004, Minneapolis in 2006, Auckland in 2008, Stuttgart in 2010, Cairns in 2012, Santos in 2014, Madrid in 2016, Beijing in 2018, Sion, Switzerland, in 2022 and Penang, Malaysia in 2024.

The organisers of ISBP 2026, Prof Tanja Narancic and Prof Kevin O'Connor welcome you to Dublin to discover the latest research findings and market developments in biopolymers.

**THE AGENDA IS SUBJECT TO VERSION CHANGES- TIMINGS ARE PROVIDED IN GMT (Greenwich Mean Time)**

**REGISTER HERE**

<https://www.ucd.ie/sbbs/isbp2026/>

# AGENDA SUNDAY 6<sup>TH</sup> SEPTEMBER 2026

## WELCOME, OPENING CEREMONY AND PLENARY TALKS

15:00 **Registration**

16:00 **Opening Speech**

Prof Kevin O'Connor, Professor Applied Microbiology and Biotechnology,  
UCD

Prof Tanja Narancic, Assistant Professor at School of Biomolecular and  
Biomedical Science, UCD

Prof Kate Robson Brown, VPRII, Vice President of Research, Innovation &  
Impact, UCD

## Plenary Talks

16:30 **Coupling Biotechnology and Materials Science for PHA  
Circularity**

Prof M.. Auxiliadora Prieto Jiménez, Research Professor, CIB, CSIC, Madrid,  
Spain

17:15 **Catalyzed Chemical Synthesis of PHAs for Scalability,  
Productivity, Tunability, and Recyclability**

Prof Eugene Chen, Millennial Professor of Polymer Science & Sustainability,  
Colorado State University, USA

18:00 **Poster Session**

19:00 **Wine Reception**



# AGENDA MONDAY 7<sup>TH</sup> SEPTEMBER 2026 AM

## BIOPOLYMERS FROM FEEDSTOCK TO APPLICATIONS

### Novel Feedstocks

- 09:00 **Untethering and debunking sticking points for scaling up PHA production in wastewater treatment**  
Dr Alan Werker, Research Theme Leader, Wetsus,, Netherlands
- 09:40 **Bridging The Gap Between Biopolymer Science And Applications: Own Experiences**  
Prof. Manfred Zinn, Head of the Research Group Biotechnology and Sustainable Chemistry, Institute of Life Sciences , HES-SO Valais-Wallis, Switzerland.
- 10:00 **Engineering PHA from Waste Lipids: High-Cell-Density Cultivations and In-Line PAT**  
Prof Sebastian Riedel, Berliner Hochschule Für Technik (BHT), Berlin, Germany
- 10:20 **Presentation 1-** Selected from submitted abstracts
- 10:40 **Presentation 2-** Selected from submitted abstracts
- 10:55 **Presentation 3-** Selected from submitted abstracts
- 11:10 **COFFEE BREAK**

### Metabolic Engineering

- 11:30 **In Vivo Biopolymer Engineering: A New Frontier in Polysaccharide Design**  
Prof Jochen Schmid, Full Professor of Microbiology at the University of Münster, Germany,.
- 11:50 **Engineering for Biosynthesis of Diverse PHAs from Carbon Dioxide**  
Prof Takeharu Tsuge, Dr. of Agriculture, Institute of Science Tokyo, Japan
- 12:10 **Biosynthesis of artificial polyhydroxyalkanoates -- mechanisms and applications--**  
Prof Ken'ichiro Matsumoto Professor of Applied Chemistry,, Faculty of Engineering, Hokkaido University, Japan
- 12:30 **Presentation 4-** Selected from submitted abstracts
- 12:45 **Presentation 5-** Selected from submitted abstracts
- 13:00 **LUNCH**

# AGENDA MONDAY 7<sup>TH</sup> SEPTEMBER 2026 PM

## BIOPOLYMERS FROM FEEDSTOCK TO APPLICATIONS

### Downstream Processing

- 14:00 **Biological Recovery of PHA from Biomass Using Mealworms: Scale Up Challenges and Opportunities**  
Prof. Dr. K Sudesh Kumar, School of Biological Sciences, Universiti Sains Malaysia, Penang, Malaysia.
- 14:20 **Integrated Scale-Up Strategies and Downstream Processing Innovations for Sustainable PHA Biomanufacturing**  
Prof. Maciek Guzik, Head of Bioprocess Development Laboratory, Polish Academy of Sciences, Kraków, Poland
- 14:40 **Presentation 6-** Selected from submitted abstracts
- 14:55 **Presentation 7-** Selected from submitted abstracts
- 15:10 **Presentation 8-** Selected from submitted abstracts
- 15:25 **COFFEE BREAK**

### Applications of Biopolymers I

- 15:50 **Protein Meets Biopolymer: Engineering Advanced Materials**  
Prof. Bernd Rehm, Director, Centre for Cell Factories and Biopolymers, Institute for Biomedicine and Glycomics, Griffith University, Australia
- 16:10 **Natural and Sustainable Polymers of Bacterial Origin and their Biomedical Applications**  
Professor Ipsita Roy, Professor of Biomaterials, School of Chemical, Materials and Biological Engineering, Faculty of Engineering, University of Sheffield
- 16:30 **Microbial polymer hydrogels as platforms for advanced technological uses**  
Prof. Filomena Freitas, Assistant Professor, NOVA School of Science and Technology, NOVA University, Researcher, BIOENG, Research Unit on Applied Molecular Biosciences – UCIBIO, Lisbon, Portugal
- 16:45 **Presentation 9-** Selected from submitted abstracts
- 17:00 **Presentation 10-** Selected from submitted abstracts
- 17:15 **Wine Reception with Poster Session**
- 18:30 **END OF DAY**

# AGENDA TUESDAY 8<sup>TH</sup> SEPTEMBER 2026

## BIOPOLYMERS AT SCALE

### Biopolymers at Scale

- 08:30 **Scale Up of PHA Production using Halomonas**  
Prof George Guo-Qiang Chen, Professor of Microbiology  
and Biomaterials, Tsinghua University, China
- 09:10 **On the road towards industrial PHBV production  
from residual streams**  
Joao Sousa, Head of Emerging technologies, Paques  
Biomaterials, Netherlands
- 09:30 **PLA Synthesis, Application & Recycling**  
Kees Joziassse, Total Energies Corbion
- 09:50 **Starch based Biopolymers from Development to  
Market to post consumer**  
NOVAMONT
- 10:10 **Scaling-up the TORWASH system for chemical  
recycling of bio-degradable plastic**  
Jan Pels, Senior Scientist in Biomass Utilization | co-  
founder of TORWASH | waste-to-fuel | plastics recycling,  
TORWASH, Delft University of Technology, Amsterdam,  
Netherlands.
- 10:30 **COFFEE**
- 11:00 **Polymers to Market**  
To Be Announced

### Conference Outing

- 12:45 **PACKED LUNCH**
- 13:15 **Bus departs to Newgrange/Fourknocks**
- 14:15 **Arrival at Newgrange/Fourknocks**
- 16:00 **Departure from Newgrange to UCD**
- 17:30 **Arrival at UCD**
- 19:00 **Symposium Dinner and**
- Ceili**  
Courtesy of Twist of Irish
- Awards-**  
Lifetime Award  
Bernard Witholt  
Biotechnology Award



# AGENDA WEDNESDAY 9<sup>TH</sup> SEPTEMBER 2026

## APPLICATIONS & IMPACT FOR BIOPOLYMERS

### Applications of Polymers II

- 09:00 **High Functionality and Marine Biodegradation of Biodegradable Polyesters and Polysaccharide Derivatives**  
Prof Tadahisa Iwata, The University of Tokyo, Japan
- 09:30 **Byproducts and Waste Materials used for Biopolymer Composites**  
Professor in Polymer Chemistry at the Danish Polymer Centre (DPC), Department of Chemical and Biochemical Engineering, Technical University of Denmark (DTU).
- 10:10 **Circular Design with Microbial Biopolymers: Turning Plastic Waste into Adhesives and Environmental Additives**  
Prof. Jasmina Nikodinovic-Runic, Principal Research Fellow , Group for Eco-Biotechnology & Drug Development,, Institute of Molecular Genetics and Genetic Engineering,, University of Belgrade, Serbia
- 10:30 **Presentation 11-** Selected from submitted abstracts
- 10:45 **Presentation 12-** Selected from submitted abstract
- 11:00 **COFFEE**

### Social and Environmental

- 11:30 **Impact of Plastic Pollution- microplastics**  
Prof Junli Xu,, Associate Professor at the School of Biosystems and Food Engineering, BIORBIC, UCD
- 12:00 **From Lab to Life Cycle Assessment: Assessing Future Sustainability of Novel Biopolymers**  
Anders Daamgard, Associate Professor, Technical University of Denmark
- 12:30 **Biodegradation and non biodegradation-**  
Dieter Jendrosek, Professor of Microbiology and Biochemistry at the University of Stuttgart, Germany
- 13:00 **Prizes and Announcement of Next ISBP 2028**
- 13:30 **MEETING CLOSE**





# CONFERENCE DIRECTORS

## INTERNATIONAL SYMPOSIUM ON BIOPOLYMERS 2026

### Prof. Kevin O'Connor



*Full Professor Applied Microbiology and Biotechnology, Director of BiOrbic Research Ireland bioeconomy research centre, University College Dublin, Ireland*

Prof O'Connor's research interests are biopolymers, biodegradable polymers, plastics recycling, sustainable production and consumption, integrated biorefining, and biobased products. Professor O Connor has published over 120 international peer review articles and made of over 200 contributions at national and international conferences. Professor O Connor is chairperson of the Irish Bioeconomy foundation, a not for profit, promoting the development and deployment of the bioeconomy in Ireland including pilot and demonstration scale biotechnology and biomanufacturing facilities at Lisheen Co. Tipperary. He is chairperson of the scientific committee for the European public private partnership Circular Biobased Europe Joint Undertaking (CBE JU) which focuses on the scale up of biobased technologies to accelerate their market uptake.

### Prof. Tanja Narancic



*Assistant Professor in Microbiology and Biochemistry, School of Biomolecular and Biomedical Science, BiOrbic, University College Dublin, Ireland*

Tanja Narancic is an Assistant Professor in Microbiology and Biochemistry in University College Dublin. Her research focus is on the understanding of the fundamentals of cellular processes, including polyhydroxyalkanoate (PHA) metabolism, and development of microbial catalysts for the production of bio based molecules. Her recent work includes demonstrating the link of carbon catabolite repression and PHA metabolism, and utilising this link to tailor the properties of PHA, and design of a *Pseudomonas*-based biocatalyst for the production of 2,5-furandicarboxylic acid, and additive and monomer for bio based plastics. She has published 47 peer reviewed original scientific articles, reviews and book chapters. Tanja is an Associate Editor for Microbial Biotechnology.



# SPEAKERS

## INTERNATIONAL SYMPOSIUM ON BIOPOLYMERS 2026



**Prof. M. Auxiliadora Prieto Jiménez**

*Research Professor, Polymer Biotechnology Group, Centro de Investigaciones Biológicas Margarita Salas (CIB), Consejo Superior De Investigaciones Científicas, Madrid, Spain*

Prof Auxi Prieto received her PhD in Pharmacy in the year 1995 from the Complutense University of Madrid in Spain. Currently, she is Research Professor at the Spanish National Research Council (CSIC). At the Biological Research Center Margarita Salas (CIB-CSIC), she is Head of the Polymer Biotechnology Group, which aims to explore and harness the bacterial ability to produce and biodegrade bio-based polymers. Using tools of microbial biotechnology that combine synthetic biology with materials science, her work focuses on sustainable sourcing and production of bacterial polymers, the eco-design of bioplastics with tailor-made properties to meet target applications and solutions for their end-of-life.



**Prof. Eugene Chen**

*University Distinguished Professor, John K. Stille Endowed Chair in Chemistry, Millennial Professor of Polymer Science & Sustainability, Colorado State University, USA*

Eugene Chen received his undergraduate education in China and Ph.D. degree from The University of Massachusetts – Amherst, United States. After a postdoctoral stint at Northwestern University, he joined The Dow Chemical Company, where he was promoted from to Project Leader. After two and a half years at Dow he moved to Colorado State University, where he currently is a University Distinguished Professor, the John K. Stille Endowed Chair Professor in Chemistry, and the Millennial Professor of Polymer Science and Sustainability. His research is centered on polymer science, sustainable chemistry, and molecular catalysis.

# SPEAKERS

## INTERNATIONAL SYMPOSIUM ON BIOPOLYMERS 2026



**Dr Alan Werker**

*Research Theme Leader, Wetsus, European Centre of Excellence for Sustainable Water Technology,, Leeuwarden, The Netherlands.*

Dr Weker is a materials scientist from Canada who became an environmental engineer (PhD University of British Columbia, 1998), and who found himself happily entrenched in Sweden over the past 25 years in academic and industrial R&D on PHA production, recovery and processing, all with organic waste as the renewable starting resource. Research efforts have centered on fundamentals of the polymers and bioprocesses, as well as the practical upscaling challenges for wastewater process engineering in combination with PHA as a renewable resource - its supply, value and quality control. Currently, I remain a professional engineer from Canada, an entrepreneur with Promiko AB (Sweden), a research theme leader with Wetsus (The Netherlands), and an Adjunct Professor with the School of Chemical Engineering, the University of Queensland (Australia).



**Prof. Manfred Zinn**

*Head of the research group Biotechnology and Sustainable Chemistry, Institute of Life Sciences , HES-SO Valais-Wallis, Sion, Switzerland.*

Prof. Manfred Zinn specializes in designing bioprocesses for prokaryotes and microbial eukaryotes under heterotrophic and autotrophic conditions and implementing diverse cultivation techniques (batch, fed-batch, multi-stage chemostat, and auxostats). In his lab, he is up-scaling bioprocesses from parallel microbioreactor to pilot scale (300 L) using state-of-the-art in process controlling (PAT analytics) that has been developed in his group to assess the performance of cells and bioprocesses. A key activity is the tailor-made biosynthesis of PHA in bacteria for sustainable industrial and medical applications. Prof. Zinn has published more than 105 publications in peer reviewed journals and proceedings. Since January 2018 he is chief field editor of the journal Frontiers Bioprocess and Industrial Biotechnology and since January 2025 he is chairing the EFB Division Biobased Materials.

# SPEAKERS

## INTERNATIONAL SYMPOSIUM ON BIOPOLYMERS 2026



### **Prof. Dr.-Ing. Sebastian Riedel**

*Full Professor of Bioprocess Engineering at the Berliner Hochschule für Technik, Berlin, Germany*

Prof. Dr.-Ing. Sebastian Riedel is Full Professor of Bioprocess Engineering at the Berliner Hochschule für Technik (since 2023). He began PHA research at MIT in Prof. Anthony J. Sinskey's lab (2009–2012), arriving for his diploma thesis and continuing as a visiting PhD student; he earned his PhD in Bioprocess Engineering from TU Berlin in 2016 and established a research group there (2017–2023) that he continues to supervise. His work focuses on high-cell-density cultivations of *Cupriavidus necator* on waste lipids, real-time process analytics (e.g., photon density wave spectroscopy), and solvent-lean recovery/downstream processing, enabling data-driven, composition-controlled PHA for scalable, sustainable materials applications.



### **Prof. Dr.-Ing. Jochen Schmid**

*Full Professor of Microbiology at the University of Münster, Germany,*

Prof. Dr.-Ing. Jochen Schmid serves as the Managing Director of the Institute of Molecular Microbiology and Biotechnology, which also includes the university's biotechnological pilot plant. His research centers on the development of sustainable biotechnological production processes, with particular emphasis on microbial polysaccharides and the application of synthetic biology to tailor their chemical structures and functional properties. His group combines molecular microbiology, metabolic engineering, and bioprocess development to create innovative solutions for bio-based materials and industrial biotechnology. He has authored more than 75 peer-reviewed publications and book chapters and has delivered numerous presentations at national and international scientific conferences. Beyond his academic activities, Prof. Schmid is the founder of CASCAT GmbH, a spin-off company dedicated to developing technologies for producing bio-based chemicals from carbohydrates using enzymatic cascade reactions.

# SPEAKERS

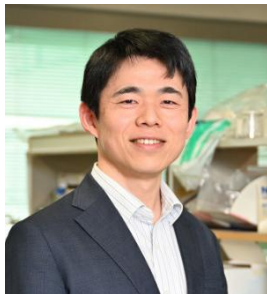
## INTERNATIONAL SYMPOSIUM ON BIOPOLYMERS 2026



### **Prof. Takeharu Tsuge**

*Dr. of Agriculture,, Dept. of Materials Science and Engineering, Institute of Science Tokyo (formerly Tokyo Institute of Technology) , Tokyo, Japan.*

Prof. Takeharu Tsuge, Ph.D., is a Professor in the Department of Materials Science and Engineering, Institute of Science Tokyo, Japan. He received his Doctoral Degree of Agriculture (Applied Microbiology) from Kyushu University, Japan, in 2000. He joined the Polymer Chemistry Laboratory at RIKEN as a Special Postdoctoral Researcher (2000–2002) and at Tokyo Institute of Technology as an Assistant Professor (2002–2005). He was promoted to an Associate Professor in 2009 and Professor in 2024. From October 2024, the Tokyo Institute of Technology was reorganized as the Institute of Science Tokyo. He received the Encouragement Award (Terui Award) from the Society for Biotechnology, Japan (2008) and the SPSJ Asahi Kasei Award from the Society of Polymer Science, Japan (2015). His current research interests include microbial polyester synthesis and bio-based polymeric materials.



### **Prof. Ken'ichiro Matsumoto**

*Professor of Applied Chemistry,, Faculty of Engineering, Hokkaido University, Japan*

Prof. Matsumoto received his Ph.D. in Engineering from the Department of Chemistry and Biotechnology at the University of Tokyo in 2002. He subsequently joined the RIKEN Institute as a postdoctoral researcher in Prof. Doi's laboratory, where he advanced his expertise in biochemical engineering. In 2005, he was appointed Assistant Professor at the Faculty of Industrial Science and Technology at Tokyo University of Science. He later moved to Hokkaido University in 2006 as Assistant Professor in the Division of Applied Chemistry, working in Prof. Taguchi's laboratory. In 2018, he was promoted to Professor and became Principal Investigator, leading research at the intersection of chemistry, biotechnology, and engineered biological systems. His career reflects a sustained commitment to scientific innovation and excellence across several of Japan's leading research institutions.

# SPEAKERS

## INTERNATIONAL SYMPOSIUM ON BIOPOLYMERS 2026



**Prof. Dr. K Sudesh Kumar**

*Professor, School of Biological Sciences, Universiti Sains Malaysia, Penang, Malaysia*

Prof. Sudesh has studied various aspects of PHA for more than 30 years. He has developed efficient bacterial strains to produce various types of PHAs from renewable resources in Malaysia. In addition, he has pioneered the biological recovery of PHA using mealworms which is being scaled up and tested by industries.



**Prof. Maciej Guzik, DSc, PhD**

*Head of Bioprocess Development Laboratory, Jerzy Haber Institute of Catalysis and Surface Chemistry, Polish Academy of Sciences, Kraków, Poland*

Prof Guzik earned his MSc in Environmental Protection from Jagiellonian University in 2008, then completed a PhD in Industrial Microbiology at University College Dublin in 2012, focusing on high-cell-density fermentation, PHA processing, and bacterial genetic engineering. His thesis explored converting post-consumer polyethylene into biodegradable PHA. He later worked at UCD spin-out Bioplastech, leading fermentation strategies and small molecules workflows. In 2015, he joined the Jerzy Haber Institute in Kraków. He earned his habilitation in Chemistry in 2021 and became a Professor of Biotechnology in 2025. His research centers on microbial bioprocess development, biopolymers and the circular bioeconomy.

# SPEAKERS

## INTERNATIONAL SYMPOSIUM ON BIOPOLYMERS 2026



### **Prof. Bernard Rehm**

*Professor and the Director, Centre for Cell Factories and Biopolymers, Griffith Institute for Biomedicine and Glycomics, Griffith University (Australia)*

Professor Bernd Rehm is the Director of the Centre for Cell Factories and Biopolymers. He is author and co-author of over 250 scientific publications, which have been cited over 24,000 times (h-index of 73). Professor Rehm is also an inventor or co-inventor on 59 patent applications, 26 of which are granted patents. He led research resulting in formation of two start-up companies and six commercial licenses. He is cofounder of one start-up company.



### **Prof. Ipsita Roy**

*Professor of Biomaterials, School of Chemical, Materials and Biological Engineering, Faculty of Engineering, University of Sheffield, UK*

Professor Ipsita Roy is an expert in microbial biotechnology, natural biobased materials, and their biomedical and environmental applications. Professor Roy was awarded the prestigious Inlaks Scholarship to study for her Ph.D. at the University of Cambridge, UK. At Cambridge, she was awarded scholarships including the Churchill College Scholarship and the Cambridge University Philosophical Society Fellowship Award. Her postdoctoral work was at the University of Minnesota, USA. She has published over 100 papers in high 'Impact Factor' journals such as Biomaterials, ACS Applied Materials Interfaces, with an H index of 53. She is a fellow of the Royal Society of Biology and the Institute of Materials, Minerals and Mining (IOM3). Her group is focussed on the production of novel natural and sustainable polymers such as Polyhydroxyalkanoates, Bacterial cellulose,  $\alpha$ -Polyglutamic acid, Alginate and their biomedical and environmental applications. She is an editor of Scientific Reports and Biomedical Materials. Her total grant portfolio is more than 14 million pounds. She has many patents, and she has spin out company called PHAsT Ltd., focused on the production of medical grade PHAs for biomedical applications.

# SPEAKERS

## INTERNATIONAL SYMPOSIUM ON BIOPOLYMERS 2026



### **Prof. Filomena Freitas**

*Prof. Filomena Freitas, Assistant Professor, NOVA School of Science and Technology, NOVA University, Researcher, BIOENG, Research Unit on Applied Molecular Biosciences – UCIBIO, Lisbon, Portugal*

Prof. Filomena Freitas is an Assistant Professor at the NOVA School of Science and Technology, NOVA University Lisbon (NOVA FCT) and a Researcher at the Biochemical Engineering Group – BIOENG, of the Research Unit on Applied Molecular Biosciences - UCIBIO (<https://www.ucibio.pt/>), FCT NOVA. With a PhD in Biological Engineering, over the past 20 years her research interests were on biotechnological processes and value-added microbial products, with focus on polymeric structures (hydrogels, emulsions, micro- and nanoparticles, scaffolds) based on biopolymers (polysaccharides, polyhydroxyalkanoates), as well as their functional characterization.



# SPEAKERS

## INTERNATIONAL SYMPOSIUM ON BIOPOLYMERS 2026



**Prof George Guo-Qiang Chen**

*Professor of Microbiology and Biomaterials, Tsinghua University, China*

Prof George Guo-Qiang CHEN has been focusing his research on microbial materials polyhydroxyalkanoates (PHA) metabolic engineering, synthetic biology and PHA biomaterial application since 1986. After joining Tsinghua University in 1994, he has developed the Next Generation Industrial Biotechnology (NGIB) based on *Halomonas* spp., has published over 400 international peer reviewed papers with over 48,000 citations (H-Index 111) as reported in Google Scholar. With over 70 issued patents and 50 pending patents, Prof. Chen's technologies have been provided to several companies that succeeded in mass production of microbial polyhydroxyalkanoates (PHA), other chemicals including enzymes and protein products. He has received many awards for his contributions to the microbial manufacturing fields. Beginning from 2015, he becomes the Funding Director of the Center for Synthetic and Systems Biology in Tsinghua University.



**Dr. João Sousa**

*Head of Emerging technologies, Paques Biomaterials, Netherlands*

João Sousa came to the Netherlands in 2012 to acquire his PhD degree in Microbiology via Wageningen University and Wetsus. Soon after, he started working at Paques, a global leader in anaerobic wastewater and biogas treatment. There he became Head of Emerging Technologies, focusing on producing higher value products from various waste streams. In 2021, Paques Biomaterials was carved out from Paques to focus on implementing PHA production from residual streams. João joined from day 1 as Technology Development Lead, managing the R&D on PHA accumulation by bacteria, PHA extraction and application development.

# SPEAKERS

## INTERNATIONAL SYMPOSIUM ON BIOPOLYMERS 2026



### **Prof. Jan Pels**

*Senior Scientist in Biomass Utilization / co-founder of TORWASH / waste-to-fuel / plastics recycling, TORWASH, Delft University of Technology, Amsterdam, North Holland, Netherlands.*

Prof. Jan Pels is CTO of TORWASH, a company that is developing the hydrothermal technologies for recycling and inventor of 11 patents. He has received a PhD in chemical engineering at the Delft University of Technology in 1995. From 1998-2022, Jan has been researcher at the Energy Research Centre of the Netherlands (ECN, now part of TNO) and developed hydrothermal techniques to turn waste biomass into fuels and other useful products. In 2020, together with two colleagues, he has founded TORWASH as a spin-off for commercialization of the inventions he has made at ECN/TNO.

# SPEAKERS

## INTERNATIONAL SYMPOSIUM ON BIOPOLYMERS 2026



**Prof. Tadahisa Iwata,**

*Special Advisor to the President, Science of Polymeric Materials, Graduate School of Agricultural and Life Sciences, The University of Tokyo, Japan*

Dr. Tadahisa Iwata obtained his PhD degree in 1994 from Department of Wood Science & Technology, Faculty of Agriculture, Kyoto University. He was a French Government Scholarship foreign student studied at CERMAV-CRNS (Grenoble, France) in 1992-93. After serving a researcher at RIKEN Institute for 10 years, he became Associate Professor in the University of Tokyo, where he was promoted to Professor in 2012. His major research interests are in development and structure analyses of high-performance biodegradable biomass polymers and control of their biodegradation rate. He received Commendation for Science and Technology by the Minister of Education, Culture, Sports, Science and Technology (2020).



**Prof. Anders Daugaard**

*Professor in Polymer Chemistry at the Danish Polymer Centre (DPC), Department of Chemical and Biochemical Engineering, Technical University of Denmark (DTU), Denmark*

Anders Egede Daugaard received his Ph.D. from DTU in 2009 and is currently Professor in Polymer Chemistry at the Danish Polymer Centre (DPC), Department of Chemical and Biochemical Engineering, Technical University of Denmark (DTU). His research focus is on the preparation of functional (bio-based) polymer materials. Recently, this has led to a range of new bio-based polymers for sustainable use of plastics, improved recycling of end-of-life plastics, and preparation of biopolymer-based composites employing waste as a resource for new materials.

# SPEAKERS

## INTERNATIONAL SYMPOSIUM ON BIOPOLYMERS 2026



### **Prof. Jasmina Nikodinovic-Runic**

*Full Research Professor, Principal Research Fellow, Group for Eco-Biotechnology & Drug Development,, Institute of Molecular Genetics and Genetic Engineering,, University of Belgrade, Serbia*

Jasmina Nikodinovic-Runic is a full research professor and the head of the Eco-Biotechnology and Drug Development Group at the Institute of Molecular Genetics and Genetic Engineering, University of Belgrade. Her work focuses on bacterial molecular genetics, directed enzyme evolution, and the isolation and characterization of novel biocatalysts. She also develops biotechnological strategies for converting petrochemical plastic monomers into biopolymers (PHA and bacterial nanocellulose) and for optimizing industrial bioprocesses. Her research interests span microbial biotechnology, biocatalysis, bacterial bioactive secondary metabolites, and the development of novel biomaterials. Her group is particularly active in eco-friendly molecular biotechnology and in the design and optimization of bioactive molecules. Professor Nikodinovic-Runic has co-authored more than 200 scientific articles, contributed four book chapters, and holds five patents in the field of biotechnology.



### **Prof. Junli Xu**

*Associate Professor, School of Biosystems and Food Engineering at University College Dublin,, Ireland*

Dr. Junli Xu is an Associate Professor in the School of Biosystems and Food Engineering at University College Dublin, where she leads a dynamic research group comprising seven PhD candidates, one postdoctoral researcher, and one research assistant. She has secured prestigious competitive funding totaling approximately €3.8 million as PI, including an ERC Starting Grant and the SFI-IRC Pathway Programme. Dr. Xu's multidisciplinary research integrates spectral imaging and advanced data analytics, such as machine learning and deep learning, to tackle complex challenges across the fields of food science, environmental monitoring, geology, and human health.

# SPEAKERS

## INTERNATIONAL SYMPOSIUM ON BIOPOLYMERS 2026



**Prof. Anders Damgaard**

*Associate Professor, Technical University of Denmark (DTU), Denmark*

Prof. Anders Damgaard is an Associate Professor at the Technical University of Denmark (DTU) with over 20 years of experience in environmental assessment tools and modeling. He specializes in life cycle assessment (LCA) of resource and waste management systems and is the lead developer of DTU's LCA models EASEWASTE and EASETECH. Anders has extensive experience conducting LCA studies on both individual technologies and entire resource management systems. His research focuses on material circularity—examining not only quantities but also quality—and recently on modeling product lifetimes as part of holistic sustainability assessments. Beyond bioplastics, his work spans textiles, conventional plastics, and other household products, driving insights into sustainable material systems.



**Prof. Dieter Jendrossek**

*Professor of Microbiology and Biochemistry at the University of Stuttgart, Germany*

Dieter Jendrossek is a Professor of Microbiology and Biochemistry at the University of Stuttgart, Germany. For decades, his research has focused on the diversity of bacterial PHA depolymerases and on the physiology of PHB granule formation in *Ralstonia eutropha* H16. In recent years, his team has expanded its work to other biopolymer-cleaving enzymes, such as haem-dependent rubber oxygenases (RoxA, RoxB, Lcp) and polyphosphate kinases (PPKs). Dieter Jendrossek takes a critical view of the emerging research field of allegedly hydrocarbon-polymer (PE, PS) and PVC biodegradation.

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