

esib / 2026

EUROPEAN SUMMIT OF INDUSTRIAL BIOTECHNOLOGY

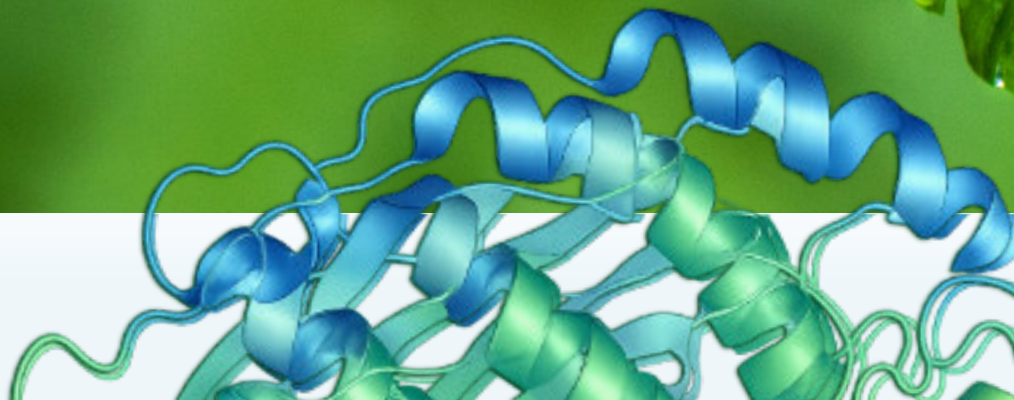
10-12 NOVEMBER, GRAZ, AUSTRIA

esib

EUROPEAN SUMMIT OF
INDUSTRIAL BIOTECHNOLOGY

10-12 November 2026
Graz, Austria

TOGETHER WITH MaPEB INTERNATIONAL CONFERENCE ON METABOLIC & PROTEIN ENGINEERING FOR BIOSYNTHESIS
12-13 NOVEMBER 2026



RETHINK

INDUSTRIAL BIOTECHNOLOGY

08 Exhibitors & Sponsors
13 Organizing Committee
14 Venue
16 Information for Presenters
17 Information for Exhibitors
18 Exhibitors & EU Projects
22 esib & MaPEB Timetables & Session Description
74 esib Poster Session
84 MaPEB Poster Session
86 Science Flash Talks



BE PART OF IT. HAVE A VOICE.
RETHINK INDUSTRIAL BIOTECHNOLOGY.

INNOVATE

esib is one of the largest biotech conferences in Europe and an international platform for industrial biotechnology in multiple contexts.

- **A stage to meet and talk**
- **A hotbed for innovation**
- **A cradle for fruitful cooperation**
- **A pivot for active exchange of novel ideas & trends**

esib not only covers science but also deals with industrial needs, economic demands, funding resources, or political aspirations – and still leaves room for networking and recreation. esib encourages all protagonists of industrial biotechnology to think outside the box and in new comprehensive dimensions.



esib Exhibitors

PLATINUM EXHIBITOR

bartelt LABOR-KOMPLETTAUSSTATTER Chemikalien · Geräte · Service · Software

Bioprodict protein predictions

RIEGER Industrievertretungen GmbH

GOLD EXHIBITOR

Kuhner shaker

ZETA

3LUE SENS Smart Bioprocess Solutions

SILVER EXHIBITOR

AMINOVERSE ALL ABOUT ENZYMES

ArcticZymes Technologies

BIOTECH AUSTRIA

BECKMAN COULTER Life Sciences

BRUKER Optics

ESSI .tech

ingenza

Knick

MIKROMONDO

novasign

ORGANO TECHNIE SOURCE OF LIFE

sbi SCIENTIFIC BIOPROCESSING

SinoBiological

TUX

VectorBuilder

esib Sponsors

SILVER SPONSOR

ELSEVIER

LACTOSAN

SANDOZ

VALIDOGEN

OTHER SPONSORSHIP

human technology styria

ADDITIONAL SUPPORTERS

BDO

LACTAN

SFG

Steiermärkische SPARKASSE

COOPERATION PARTNERS

SUPPORTED BY

The European Summit of Industrial Biotechnology is organized by acib GmbH, a COMET centre in Austria. acib is financed by the federal government – specifically the Federal Ministry of Innovation, Mobility and Infrastructure (BMIMI) and the Federal Ministry of Economy, Energy and Tourism (BMWET) – and the federal states of Styria (via the Styrian Business Promotion Agency, SFG), Vienna, Lower Austria and Tyrol.





Organizing Committee

CHAIR

Bernd Nidetzky

LEAD ORGANIZER

Katrin Weinhandl & Tanja Schärfl

ORGANIZING TEAM & SESSION CHAIRS

Patricia Aguilar
Katalin Barta-Weissert
Gabriele Berg
Dietmar Cseh
Astrid Dürauer
Amin El-Heliebi
Katharina Ebner
Anita Emmerstorfer-Augustin
Anton Glieder
Grisa Grauf
Christian Gruber
Petra Heidinger
Alois Jungbauer
Wolfgang Kroutil
Nico Lingg
Roland Ludwig
Ariane Mora
Barbara Petschacher
Lukas Rieder
Florian Rudroff
Katharina Schwaiger
Sebastian Schwaminger
Emma Somerville
Gerald Striedner
Martin Trinker
Birgit Wassermann
Viktoria Zanghellini

Venue

For the 6th time the European Summit of Industrial Biotechnology (esib) is going to take place in Graz. Austria's second largest city is a fascinating, beautiful place with a Mediterranean vibe combined with Austrian coziness.
The conference takes place at the Messe Congress Graz, which is centrally located within walking distance from the picturesque old town.

Messe Congress Graz
Messeplatz 1
8010 Graz

Please note that the last day of MaPEB (13th November 2026) will be held at Hotel Weitzer:

Hotel Weitzer
Grieskai 12-14
8020 Graz

PUBLIC TRANSPORT

You can conveniently reach the conference venue by public transport (tramway). The following stops are in close walking distance to the Messe Congress Graz:

- **Jakominigürtel / Messe** (Tram lines 4, 5)
- **Stadthalle, Fröhlichgasse** (Tram lines 4)
- **Münzgrabenstraße / Messe** (Tram lines 6)

WIFI INTERNET ACCESS AT MESSE GRAZ

Name: **esib**
Password: **esib2026_MaPEB**



Information for Presenters

PLENARY & SESSION SPEAKERS

Please arrive at your respective session room about 15 minutes before the session begins. Our technical team will assist you with setting up the equipment.

FLASH TALK SPEAKERS

Please arrive at room 1 about 15 minutes before the session begins. Make sure that your presentation was provided to the team until 9:00 of your day of presentation.

POSTER PRESENTERS

The poster boards will be available in the conference venue. They will be labelled with consecutive numbers. Check out your poster number in this program book.
Please mount your poster at the beginning of the conference on 10th November. Please be available at your poster during the dedicated poster sessions, which require your presence as follows:

Even poster number: 11th November, 12:30 – 13:30
Odd poster number: 12th November, 9:00 – 10:00
Optional: 11th November, 18:15 – 19:45

The conference ends on 12th November and we kindly ask you to remove your posters at 18:00 at the latest.
MaPEB posters can be **set up** at Hotel Weitzer either on the evening of 12th November, before the conference dinner, or on the morning of 13th November. Posters should be removed after the conference.

Information for Exhibitors

EXHIBITION TIMES

10th November: 10:00 – 18:00
11th November: 8:00 – 19:30
12th November: 8:30 – 17:00

You can enter the venue on 10th November at 7:30. Our team will assist you to find your exhibition space and to find all equipment for your set-up.
Please make sure to clean up and remove everything by 18:00 on 12th November.



Exhibitors & EU Projects

EXHIBITORS

P1 Rieger Industrievertretungen GmbH
P2 Bartelt GmbH
P3 Bio-Prodict B.V.

G1 Zeta GmbH
G2 BlueSens gas sensor GmbH
G3 Adolf Kuhner AG

H1 Human.technology Styria GmbH (HTS) Corner

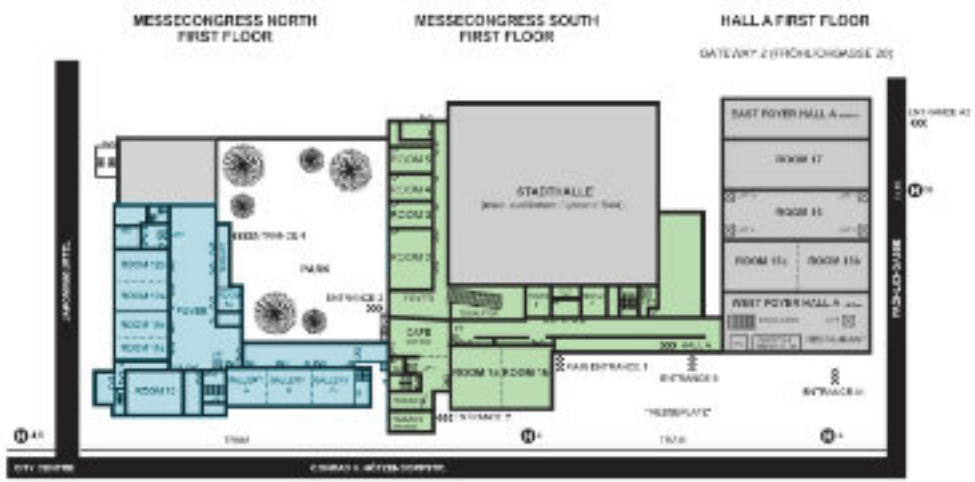
S1 Beckman Coulter GmbH
S2 SBI Scientific Bioprocessing Inc. / aquila biolabs GmbH
S3 Sino Biological Europe GmbH
S4 ArcticZymes Technologies ASA
S5 Essi tech d.o.o.
S6 Amphasys AG
S7 Novasign GmbH
S8 Bruker Optics GmbH & Co. KG
S9 Organotechnie SAS
S10 Knick GmbH
S11 Aminoverse B.V.
S12 T&J Bioengineering (Shanghai) Co. Ltd.
S13 Ingenza Ltd.
S14 VectorBuilder GmbH

Other MikroMondo & Deutsche Handelskammer

EU PROJECTS

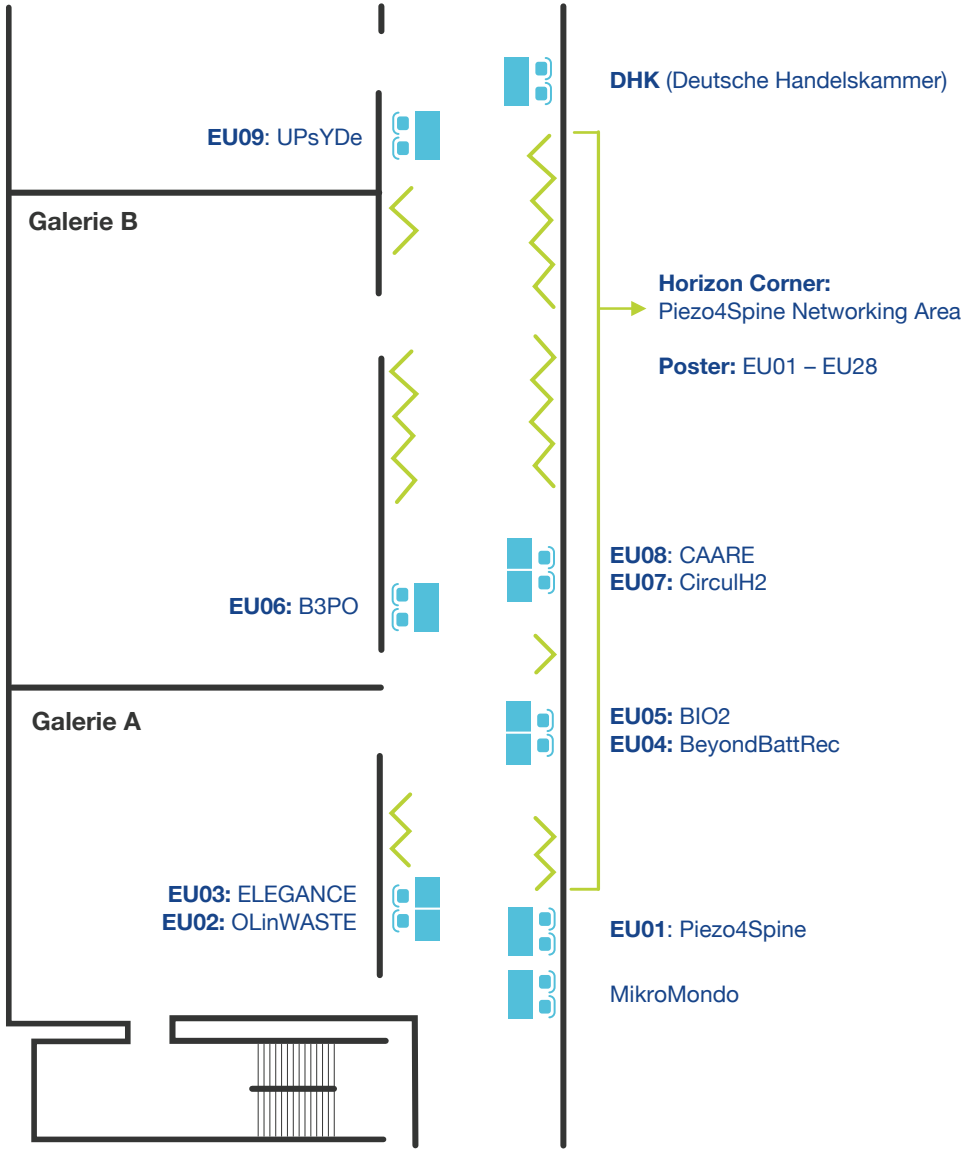
EU01 Piezo4Spine
EU02 OLinWASTE
EU03 ELEGANCE
EU04 BeyondBattRec
EU05 BIO2
EU06 B3PO
EU07 CircuIH2
EU08 CAARE
EU09 UPsYDe

CONFERENCE FACILITIES

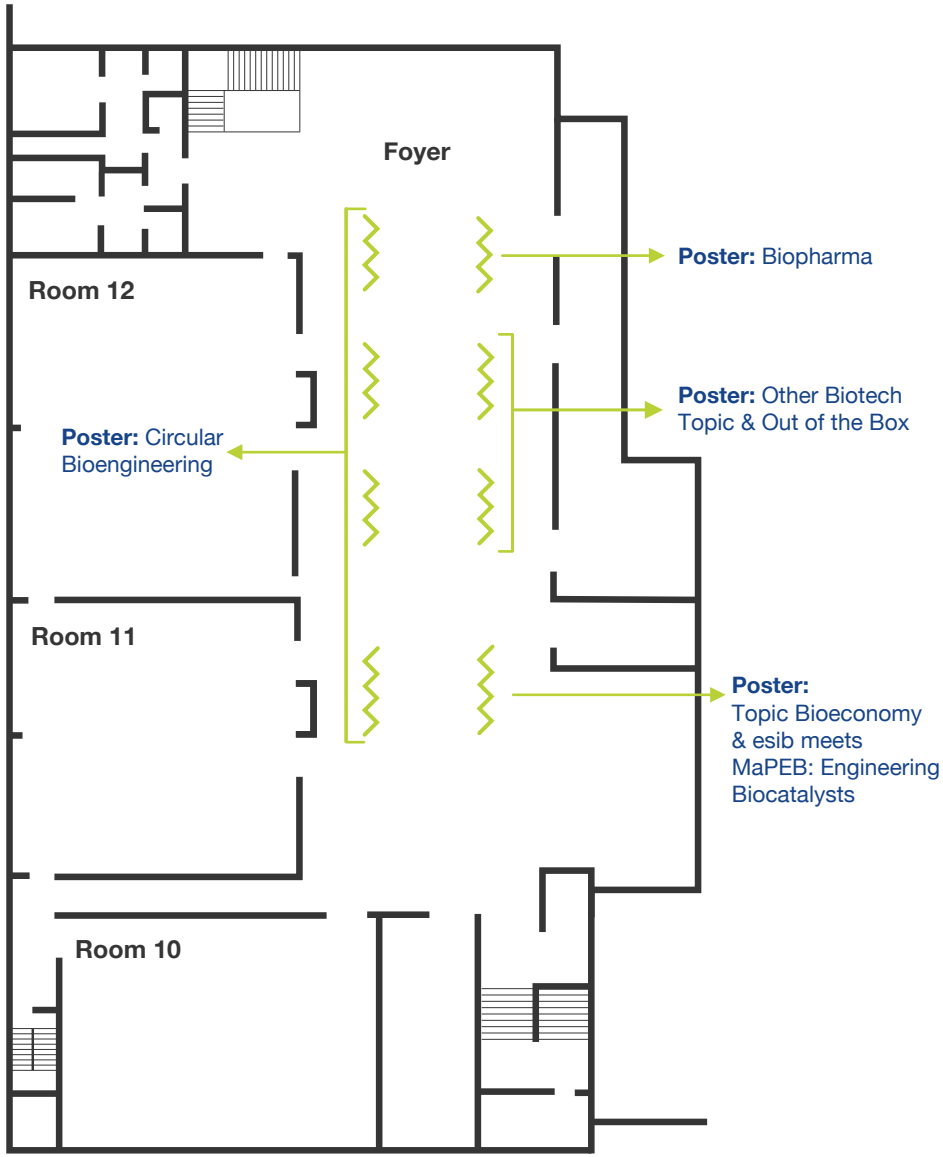




Poster Exhibition
1st Floor



Poster Exhibition
1st Floor



Timetable Day 1
Tuesday, 10th November

HOUR	SESSION	
8:30 – 12:00	**Satellite Event • Site visit to ZETA GmbH:** Meeting point: 8:00 at esib registration desk, bus shuttle provided	
8:45 – 12:15	**Satellite Workshop • Genetic Engineering – Part 2:** Graz University of Technology, Petersgasse 14, *Part 1: 9th November 12:00 - 20:30, at bisy GmbH, Meeting Point 12:00 Lobby Plaza Inn Graz Messe*	
12:00 – 13:30	**Registration Reception & Welcome Lunch (powered by Lactosan)**	
13:30 – 15:15	Trends in Circular Bioeconomy	Room 1
15:15 – 16:00	**Coffee Break & Poster Session (powered by Sandoz)**	
16:00 – 18:00	Trends in AI and Biopharmaceutical Production	Room 1
18:30 – 20:00	**Networking & Welcome Drink**	





Get Together

TUESDAY, 10TH NOVEMBER 2026
18:30 – 20:00

Messe Congress Graz
Messeplatz 1
8010 Graz

Die Formel der Vielfalt.



Bartelt GmbH
Neufeldweg 42, 8010 Graz
T.: +43 316 475328, E.: office@bartelt.at
www.bartelt.at

bartelt
IHR LABORAUSSTATTER
Chemikalien · Geräte · Service · Software





Timetable Day 2
Wednesday, November 11

HOUR	SESSION	
9:00 – 11:00	From physiology to performance: current perspectives and future trends in yeast-driven bioprocesses	Room 3
	Manufacturing of vaccines, gene therapies & advanced therapy medicinal products	Room 10
	Scale me up, Europe! An overview about plants and production facilities for biotechnological products	Room 1
	Engineering the loop: bio-based pathways to circularity	Room 12
11:00 – 11:30	**Coffee Break (powered by Elsevier)**	
11:30 – 12:15	Science Flash	Room 1
12:15 - 13:30	**Lunch Break, Networking & Poster Session**	
13:30 – 15:30	Trends in microbiome biotechnology for human and environmental health	Room 3
	AI in life sciences: unlocking the next wave of biological discovery and design	Room 1
	Creating robust bioprocesses through advanced process analytical technology and automation	Room 10
	Biotech innovations made in Austria: Turning bioprocess innovation into industrial reality (powered by HTS Cluster)	Room 12
	World Café: Technology transfer after EU projects: from results to real world impact	Room 11
15:30 – 16:00	**Coffee Break (powered by Validogen)**	
16:00 – 18:00	Integrated approaches in circular and sustainable chemistry	Room 12
	Scalable bioprocesses through advanced computational tools	Room 1
	Advanced liquid biopsy	Room 3
	CAARE – A doctoral network for bionano-particles in vaccine delivery and gene therapy	Room 10

HOUR	SESSION	
16:00 – 18:00	Satellite Event: Zukunft am Teller – World Café	Room 11
18:00 – 18:15	**Coffee Break (powered by MikroMondo)**	
18:15 – 19:45	Matchmaking Event, Poster Session & Piezo4Spine Networking Event	
21:00 – 0:00	**Chilling Life Science at Dom im Berg**	





Wednesday, 11th November 2026
21:00, doors open at 20:00
Dom im Berg, Schlossbergplatz

Let the day fade away in the heart of Schlossberg - at the “Dom im Berg” - with delicious finger food, drinks and good company.

Enjoy yourselves, it’s time to chill!

HOW TO GET THERE

At **20:15** the tramway **Sonderfahrt** will wait for you just in front of the Messe Congress Graz at the stop **Stadthalle**. Therefore please be on time. It will bring you to the stop **Schlossbergplatz / Murinsel.**

Walk via the Schlossbergplatz in the direction Schlossberg and take the entrance on the right into the Schlossberg, from there it is approx. 3-4 minutes walk uphill to the Dom im Berg. Alternatively take the left entrance, here a lift will bring you to the Dom im Berg.

If you prefer to explore the city centre on foot rather than take the tram, **join our Walk & Talk** and enjoy a relaxed stroll with fellow participants. Meet at the MCG Registration Desk at 20:00 and walk to the venue together. The route is approximately 2.5 km and takes around 30-35 minutes.

RIEGER
Industrievertretungen GmbH

Ihr Partner für innovative Laborgeräte und Industriemaschinen

Inklusive:
- Erfahrung
- Beratung
- Technischer Service

Rustenschacher Allee 10, 1020 Wien
www.rieger-iv.at

hanil



Ultrazentrifugen High-Speed Zentrifugen
Großvolumige Zentrifugen
Premiumqualität
Überlegene Sicherheit
Höchster Komfort
Umfangreiches Rotoren- und Zubehörprogramm

BAKER RUSKINN



Anaerobe und Aerobe Workstations
Kultivieren unter in-vivo Bedingungen – Ahmen Sie alle Parameter präzise nach.

CRYSTE



Laborzentrifugen, gekühlt und ungekühlt
Multifunktionszentrifugen
Microzentrifugen
Tischgeräte und Standgeräte
Kompakt, vielseitig und funktionell
Große Auswahl an Rotoren, Buckets und Adaptern für eine Vielzahl von Laboranwendungen

> **Wir stehen seit über 30 Jahren für hochwertige, State-of-the-Art Labor- und Industriegeräte.**
> In Verbindung mit einer umfangreichen Beratung und technischem Service bieten wir unseren Kunden einen hervorragenden Mehrwert an!

Stirling ULTRACOLD

ENERGY STAR



Tiefkühler -100°C
OHNE Kompressoren = OHNE Kompromisse
Wartungsfrei
5,8 kWh/Tag bei -80°C
280W Abwärme

CHRIST



Gefriertrocknung mit System
Laboranlagen
- Starter Paket

Pilot- und Produktionsanlagen
Wireless Shelf Technologie
Lösungsmittelbeständiges Spezialsystem

CLEANAIR by BAKER



Arbeitswerkbänke für biologische Sicherheit und laminare Strömungslösungen.
Serie Biovanguard
Höchster Schutz für Bediener, Produkt und Umwelt
Verschiedene Größen, umfangreiche Optionen



CRYSTAL

Kompakte Schüttelinkubatoren
mit Temperatur-, Schüttel-, CO2-Konzentrations- und Feuchtigkeitskontrollen. 26 mm oder 50 mm Schüttelhub,
3 mm Schüttelhub für Mikrotiterplatten High Speed
verschiedene Größen / Volumen (Liter): 190 / 250 / 302 / 401 / 450



Custom BioGenic Systems

Isothermal Cryogenic Freezer
Isothermal Cryogenic Freezer -190°C
Mit innovativer patentierter LN2 Mantel-Technologie
völlig trockene Probenlagerung ohne Kontakt zu LN2
verschiedene Größen

Wir stehen Ihnen jederzeit zur Verfügung! **Telefon:** +43 (1) 728 00 52 **E-Mail:** office@rieger-iv.at

www.rieger-iv.at

Timetable Day 3
Thursday, November 12

HOUR	SESSION	
8:30 – 10:00	**Biotech Breakfast & Poster Session (powered by Rieger)**	
10:00 – 12:00	Intensified and continuous biomanufacturing	Room 1
	OLinWASTE explores EU bioeconomy innovation: Integrated approaches to waste valorization and sustainable biorefineries	Room 3
	Recent trends of computational tools in biocatalysis	Room 10
12:00 – 12:15	**Coffee Break (powered by Sandoz)**	
12:15 – 13:00	Science Flash	Room 1
13:00 – 14:00	**Lunch Break, Networking & Poster Session (powered by Bio-Prodict)**	
14:00 – 20:30	**Satellite workshop • Hands-on small scale Pichia fermentation – Part 1** Venue at bisy GmbH - Meeting point for the shuttle: Lobby Hotel Plaza Inn Graz Messe. *Part 2: 13th November, 8:45 - 13:00 at TU Graz, Petersgasse 14*	
14:00 – 16:00	esib Closing "Bridging Tomorrow" & MaPEB Opening	Room 1
16:00 – 16:30	**Coffee Break**	
16:00 - 17:00	Closed meeting: CGA - acib General Assembly Meeting for all invited COMET partners	
16:30 – 18:30	China-Europe Cooperation: Challenges and opportunities	Room 1
19:00	**MaPEB Conference Dinner**	Hotel Weitzer

Biotech Breakfast

POWERED BY RIEGER

THURSDAY, 12TH NOVEMBER 2026
8:30 – 10:00

Messe Congress Graz
Messeplatz 1
8010 Graz



Let the day begin! Let's get together and start the day after a lively night with a delicious Styrian breakfast to delight body and soul. Let's welcome the day when we say "**Goodbye" to esib and "Hello" to MaPEB!**

Kuhner shaker

OPTIMIZE YOUR LAB
UPGRADE YOUR SHAKER

Unleash the potential of your shaking process with precise online monitoring.

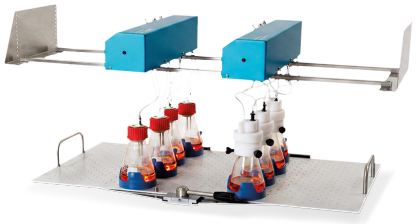
AI ready



Kuhner TOM

Maximize bioprocess knowledge. Minimize uncertainty.

- Robust, highly accurate and versatile
- Online off-gas tool for shake flasks
- OTR, CTR & RQ
- VCD and glucose consumption



Scan to learn more!

Kuhner microTOM

Ready. Steady. Screen.

- Real-time monitoring
- Fast, data-driven decisions
- Identification of optimal strain or media
- For microbial and cell culture uses



Scan to learn more!

Adolf Kühner AG • office.de@kuhner.com • +49 2407 5548822 • www.kuhner.com

ZETA

“Progress starts with a decision

THE FACTORY OF THE FUTURE IS BUILT BY PEOPLE

It‘s built by organizations willing to rethink how information flows. How decisions are made. How teams collaborate. How knowledge is shared.

That future does not start with a platform or a digital twin. It starts much earlier. With culture. With mindset.

Because every breakthrough has one thing in common.

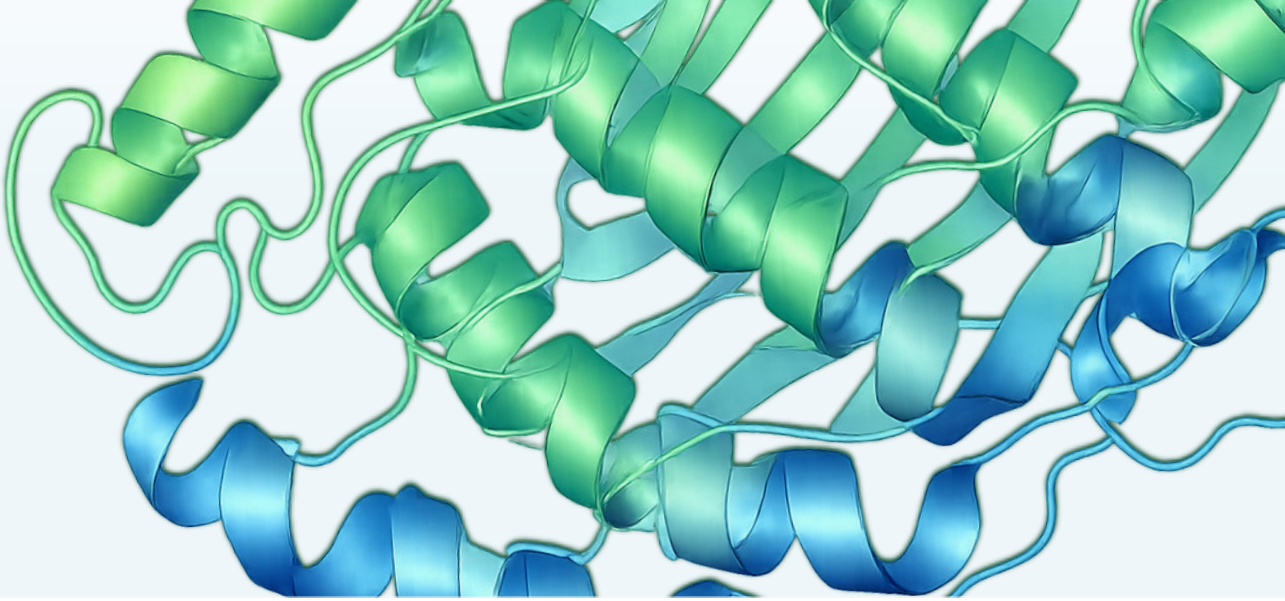
It began with a decision.

LEARN MORE!
www.zeta.com

TOGETHER WITH

MaPEB

INTERNATIONAL CONFERENCE ON METABOLIC & PROTEIN ENGINEERING FOR BIOSYNTHESIS



ABOUT MAPEB

12th – 13th November 2026, Graz, Austria

MaPEB – the International Conference on Metabolic and Protein Engineering for Biosynthesis – sets the stage for the cutting-edge intersections of metabolic and protein engineering, with a specific focus on the engineering and *de novo* design of complex biological systems. Our program explores how biosynthetic pathways and metabolic networks can be engineered to solve current challenges.

Organization / Scientific Committee:
Robert Kourist • *Graz University of Technology*
Daniel Kracher • *Graz University of Technology*
Gustav Oberdorfer • *Graz University of Technology*
Martin Grininger • *Goethe University Frankfurt*
Yongjin Zhou • *Dalian Institute of Chemical Physics, CAS*

Timetable Day 4
Friday, November 13
Hotel Weitzer

HOUR	SESSION
9:00 – 11:00	Towards circular biocatalysis
11:00 – 11:30	Coffee Break
11:30 – 13:00	Protein engineering for selective biocatalysis - Part I
13:00 – 14:15	Lunch Break, Networking & Poster Session
14:15 – 15:15	Protein engineering for selective biocatalysis - Part II
15:15 – 15:45	Coffee Break
15:45 – 17:30	Metabolic and cell engineering for sustainable bioproduction

All your ENZYME needs -developed and delivered.

Strain Engineers
- Novel Pathways
- Maximized Yields
- No Side Products

For your next generation microbial factory

Chemists
- Liter-scale Process
- New Syn Routes
- Off-the-shelf biocatalysts

For your scalable, economic process

Product Developers
- g to kg supply
- Application tests
- Fit-for-purpose enzymes

For your market-defining product

Our Research, Your IP.

AMINOVERSE

Amphasys

WORLD PREMIERE AT OUR BOOTH

Your bioreactor runs at 3 a.m. Who is measuring?

We are bringing fully automated, at-line single-cell analysis to the bioreactor: data around the clock. Come and see what that opens up.

Talk to us at esib 2026

10–12 November 2026 · Messecongress Graz

amphasys.com/esib-2026

Book a meeting





THE PROGRAM

OF THE ESIB BIOTECH WEEK

Monday, 9th November

12:00 – 20:30 • Satellite Workshop
Genetic Engineering – Part 1

Rapid access to a suitable production strain is a key determinant of success in recombinant protein production (RPP) using *Pichia pastoris* (reclassified as *Komagataella phaffii*). This course provides a comprehensive introduction to host strain engineering, that combines a solid theoretical foundation with extensive hands-on training in modern molecular biotechnology techniques.

Participants will gain an overview of the genetic toolbox available for Pichia, covering established and emerging strategies for host strain development and recombinant protein production. The course addresses the principles of rational strain engineering, expression cassette design, genome editing, and experimental workflows required to generate highly productive recombinant strains. Practical laboratory sessions complement the lectures by providing direct experience with state-of-the-art methodologies and experimental procedures routinely applied in Pichia engineering.

A particular emphasis is placed on advanced genome engineering technologies, with dedicated sessions covering the application of different CRISPR–Cas systems for precise and efficient genetic modification. Participants will learn both the underlying concepts and their practical implementation in Pichia strain engineering workflows.

SPEAKERS:
Dorina Sebe (Graz University of Technology)
Katharina Ebner (bisy GmbH)
Anton Glieder (bisy GmbH)
David Keßler (Graz University of Technology)

LOCATION:
bisy GmbH
Registration: 12:00 Hotel Plaza Inn Graz Messe, Lobby
Bus shuttle provided - departure at 12:30
Including networking & dinner

Tuesday, 10th November

8:30 – 12:00 • Site visit to ZETA GmbH
Technology Evolves. Do We?
Why the future is shaped by people, not technology.

SPEAKER:
Martin Mayer (ZETA GmbH)

LOCATION:
Meeting point at 8:00 at registration desk Messe Graz
(bus shuttle provided – departure at 8:30)

8:45 – 12:15 • Satellite Workshop
Genetic Engineering – Part 2

SPEAKERS:
Dorina Sebe (Graz University of Technology)
Katharina Ebner (bisy GmbH)
Anton Glieder (bisy GmbH)
David Keßler (Graz University of Technology)

LOCATION:
Petersgasse 14, Graz University of Technology

Tuesday, 10th November

13:30 – 15:15
Trends in Circular Bioeconomy

Step into a future where waste becomes opportunity and renewable resources power the next wave of innovation. This plenary session explores how the circular bioeconomy is reshaping industries by transforming side-streams into valuable inputs. Let's discuss how cutting-edge biotechnology provides the tools to unlock this potential, enabling smarter, cleaner, and more resilient production systems. Join us and get inspired by the breakthroughs that are turning sustainability into a driver of growth.

SPEAKERS:
Jens Nielsen (Chalmers University, BioInnovation Institute Foundation)
Sarah Hickingbottom (FutureBridge)
Michael Köpke (LanzaTech Global, Inc.)

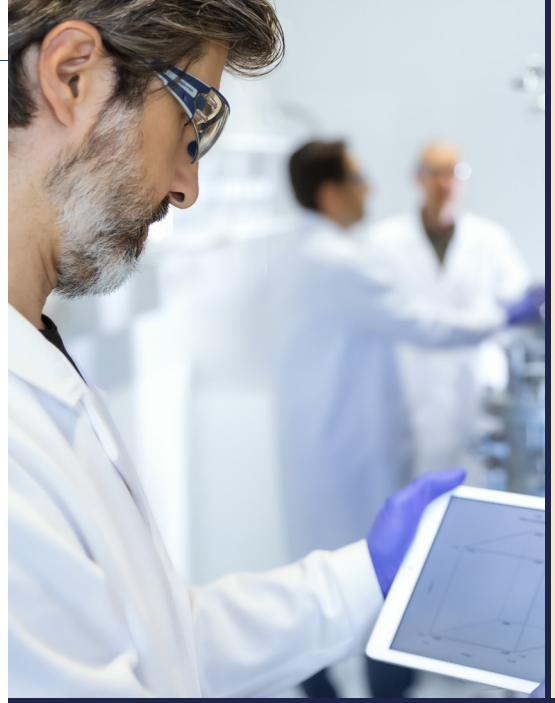
CHAIR:
Bernd Nidetzky (acib, Graz University of Technology)

16:00 – 18:00
Trends in AI and Biopharmaceutical Production

The biopharmaceutical landscape is being reshaped by intelligent technologies that accelerate discovery and transform how we design, monitor, and optimize complex processes. Let's dive into the rapidly evolving role of AI in drug development - from smarter target identification to predictive analytics that shorten development cycles - or digital twins for bioprocessing. How are these breakthroughs redefining, what is possible in modern bioproduction? Come in and open the door to faster, more resilient, and more innovative processes and therapies.

SPEAKERS:
Richard Braatz (Massachusetts Institute of Technology)
Patricia Wildberger (Takeda)
Alois Jungbauer (acib GmbH/BOKU University)
Michelangelo Canzoneri (Merck KGaA)

CHAIR:
Bernd Nidetzky (acib, Graz University of Technology)



VALIDOGEN

15+ YEARS OF EXPERIENCE
Advanced Pichia protein production strain and process development

UNLOCK PICHIA® TOOLBOX
Broad and versatile *Pichia pastoris* protein expression platform

CUSTOMER-ORIENTED SERVICES
Customized project setup suitable for every industry

PICHIA PASTORIS PROTEIN EXPRESSION EXCELLENCE
WITH MANUFACTURABILITY IN MIND



LACTOSAN

Biotech
Process development and production of enzymes

Microbial Additives
Process development and production of microorganisms

Pharma
Production of lactic acid bacteria under GMP/cGMP standard

Industriestraße West 5
A-8605 Kapfenberg
+43 (0)38 62/326 02-0
info@lactosan.at

www.lactosan.at

Simplifying Bioprocess

Improve yield, decrease process times and reduce costs

Enzymatic solutions built to clear the chromatin that conventional analytics miss

- Nucleases that stay active across the full range of process-relevant salt conditions
- GMP-ready enzymes to support your bionanoparticle manufacturing at scale

To find out more, visit our stand at ESIB 26

ArcticZymes Technologies

Transform your microbiological workflows with our systems for:
- **Automated Adaptive Laboratory Evolution (ALE)**
- **Real-Time Online OD Monitoring in shaking incubators**

Visit booth to discover our solutions and get an exclusive preview of **2 new systems launching in 2027!**



ESSI .tech

Advancing biotechnology.

Wednesday, 11th November

9:00 – 11:00
Engineering the Loop: Bio-based Pathways to Circularity

The Cluster of Excellence “Circular Bioengineering” invites to explore the future of circular biotech approaches by bringing together the cutting edge of industrial biotechnology and systemic resource management. Let’s discuss how we can move beyond the 'linear' trap and engineer systems that are truly closed-loop. We will explore the intersection of high-tech bioproduction and socio-ecological resource management. As part of the COE Circular Bioengineering initiative, we shift our focus from theoretical sustainability to the practical engineering challenges of a circular bioeconomy.

SPEAKERS:
Andreas Opelt (Saubermacher AG)
Karin Fleck (Vienna Textile Lab)
Karlheinz Erb (BOKU University)

CHAIR:
Florian Rudroff (Technical University of Vienna) & Roland Ludwig (BOKU University)

9:00 – 11:00
From Physiology to Performance: Current Perspectives and Future Trends in Yeast-driven Bioprocesses

Yeast sits at the heart of brewing, beverage innovation, and modern biopharma – and unlocking its full potential is reshaping how we design reliable, scalable processes. Let’s dive into emerging strategies that ensure consistent yeast performance across diverse applications. We want to highlight fresh approaches to understand and quantify yeast physiology.

Be part and get an inspiring look at how advanced analytical tools and new biological insights are driving more predictable, robust, and scalable bioprocessing. Join us to explore the breakthroughs that are elevating yeast from a workhorse to a precision-engineered partner in next-generation production.

SPEAKERS:
Matthias Heinemann (University of Groningen)
Anna-Lena Heins (Hamburg University of Technology)
Eduardo Liza-Diaz (Fermentis by Lesaffre)

CHAIR:
Sebastian Schwaminger & Marco Eigenfeld (Medical University of Graz)

Wednesday, 11th November

9:00 – 11:00
Manufacturing of vaccines, gene therapies & advanced therapy medicinal products

Vaccines, viral-based gene therapy products and other bionanoparticles, including virus-like particles and extracellular vesicles, pose unique challenges in bioprocessing due to their structural complexity, sensitivity to process conditions, and stringent regulatory requirements. Efficient upstream and downstream processing strategies are essential to ensure product quality, safety, and scalability while meeting growing clinical and commercial demand. We discuss recent advances in the production, purification, formulation, and quality control of vaccines, gene therapies and other bionanoparticles, when addressing both established platforms and emerging modalities. Expect a spotlight on innovative technologies that enable robust, scalable, and flexible manufacturing solutions.

SPEAKERS:
Fernando De Mathia (SEM CIVIC Network, BOKU University)
Astrid Dürauer (BOKU University)
Viktoria Mayer (acib GmbH)
Sheldon Mink (Regeneron Pharmaceuticals, Inc.)
Christian Mayer (AGES/BASG – Federal Office for Safety in Health Care)

CHAIR:
Patricia Aguilar & Nico Lingg (acib GmbH/BOKU University)

9:00 – 11:00
Scale me up, Europe! An Overview About Plants and Production Facilities for Biotechnological Products

Translating biotechnological innovations from lab scale to industrial application requires access to suitable infrastructure beyond the research laboratory. Across Europe, pilot and demonstration facilities play a crucial role in bridging this gap by enabling process development, validation, and scale-up under realistic production conditions.
What are the most relevant and/or specific production plants for biotechnological products in Europe? We shed light on the key players, the different application fields and stages of technology development. Selected facilities will present their technical capabilities, access models, and typical use cases.
Let's discuss common challenges, existing gaps and potential synergies and opportunities for collaboration within the European pilot-plant landscape.

SPEAKERS:
Beatrice Mongili (Biosphere S.r.l.)
Pieter De Brabander (Biobase Europe Pilot Plant)
Marcus Schicklberger (University of Minnesota)
Martin Kavšček (ACIES Bio d.o.o.)

CHAIR:
Anton Glieder (bisy GmbH)

Wednesday, 11th November

11:30 – 12:15
esib Science Flash

Discover fresh ideas and exciting research in industrial biotechnology – 2.5 minutes at a time. In these fast-paced presentations, speakers share the essentials of their work, sparking discussion and new connections across the esib community.

CHAIR:
Katharina Schwaiger (acib GmbH)

SPEAKERS:
See pages 86 + 87



PROCESS ANALYTICAL TECHNOLOGY
SEE YOUR BIOPROCESS. IN REAL TIME.

Turn process data into process insight.

Bruker instruments provides continuous, real-time insight into your bioprocess — helping you understand, monitor, and control critical process parameters as they change.

- **Monitor in real time**
- **Measure directly in-line**
- **Detect process changes early**
- **Optimize process control**
- **Scale from development to production**

Learn more:

Contact:
office.at@bruker.com

Innovation with Integrity

Wednesday, 11th November

13:30 – 15:30
AI in Life Sciences: Unlocking the Next Wave of Biological Discovery and Design

Artificial intelligence (AI) is transforming life sciences by enabling analysis of vast biological datasets, from DNA sequences to protein structures, uncovering patterns that are difficult to detect through traditional methods. These advancements are driving breakthroughs in areas such as personalized medicine, drug discovery, and enzyme engineering. How can AI models accelerate functional prediction and design across biological scales? How to face challenges such as incomplete or non-accessible data sets? Developing generalizable AI models that robustly navigate complex and diverse living systems remains an open problem. Here, we want to explore the current status and future directions of AI in life sciences. Let's highlight real-world examples of AI advancing biological understanding and engineering.

CHAIR:
Anita Emmerstorfer-Augustin (acib GmbH)

SPEAKERS:
Debora Marks (Harvard Medical School)
Markus Jeschek (EPFL)
Ali Scott (Cradle bio)
Esther Heid (Technical University of Vienna)

13:30 – 15:30
Biotech Innovations Made in Austria: Turning Bioprocess Innovation into Industrial Reality

Five Austrian innovators tackle one of the biggest hurdles in industrial biotech: making lab processes perform reliably, reproducibly, and economically at scale. VALIDOGEN shares "robust or bust" strategies for *Pichia pastoris* strain and process development, combining genetic engineering, modular expression solutions, and data-guided optimization for predictable large-scale protein production. Flecks Process Technology GmbH presents B.R.O.M.®, a scale-up approach that decouples process control and infrastructure from the vessel, ensuring consistent conditions from 30 to 20,000 L while reducing cost and time-to-market. BRAVE Analytics shows how single-particle Raman analytics moves from optofluidic physics into industrial bioprocesses for deeper insight and better control. Lanbiotic addresses translating microbiome-driven innovations into scalable, market-ready applications. GAMED demonstrates how contextualized process data turns complex automation signals into actionable information for operators, engineers, and production teams.

CHAIR:
Pablo Zardoya (Human.technology Styria GmbH)

SPEAKERS:
Aid Atlić (VALIDOGEN GmbH)
Vinzent Fleck (Flecks Process Technology GmbH)
Christian Hill (BRAVE Analytics GmbH)
Katrin Susanna Wallner (Lanbiotic GmbH)
Roland Wetzl (GAMED Gesellschaft für Angewandte Mathematik und EDV m.b.H.)

Wednesday, 11th November

13:30 – 15:30
Creating Robust Bioprocesses through Advanced Process Analytical Technology and Automation

The increasing complexity of pharmaceutical products requires ever more sophisticated bioprocesses. To ensure sufficient robustness and reliability, advanced automation is required. Process control can be achieved utilizing a variety of different algorithms, but all require timely real-time data. This data can be provided by physical sensors or come from a soft sensor that uses computational tools to interpret complex signals from complex biological samples. The session will showcase how process analytical tools and advanced process control can achieve robust bioprocesses.

CHAIR:
Astrid Dürauer (BOKU University)

SPEAKERS:
Mark Duerkop (Novasign GmbH)
Jürgen Hubbuch (Karlsruhe Institute of Technology)
Naveen Jesubalan (Indian Institute of Technology Delhi)
Wolfgang Sommeregger (QUBICON AG)

13:30 – 15:30
Trends in Microbiome Biotechnology for Human and Environmental Health

Microbiomes have long been recognized as powerful drivers of both environmental and human health - and we are now entering a moment where this understanding can finally be put into action. Breakthroughs in multi-omics, machine learning, functional profiling, and microbiome engineering are transforming insight into real-world solutions, from next-generation diagnostics to targeted interventions and microbiome-based products.
This session brings together leading voices from human and environmental research as well as industry to showcase how these advances are accelerating practical applications. Join us to explore the technologies and ideas that are turning microbiome science into impactful innovation.

CHAIR:
Birgit Wassermann & Gabriele Berg (Graz University of Technology)

SPEAKERS:
Mark Hanemaaijer (Winclove Probiotics B.V.)
Birgit Mitter (Ensemo GmbH)
Michael Schloter (Technical University of Munich)
Georg Seifert (Charité Competence Center for Traditional and Integrative Medicine)

Wednesday, 11th November

13:30 – 15:30 • Interactive World Café

Technology Transfer after EU Projects – From Results to Real World Impact

Many EU-funded projects deliver excellent scientific and technological results – yet the path from project outcomes to real world application remains challenging. This interactive World Café session invites researchers, industry representatives and funding bodies to openly discuss bottlenecks, success factors and unmet needs in technology transfer at the end of EU projects.
Participants will exchange experiences on scale up, regulation, market readiness and post project support, and jointly reflect on how future Horizon Europe calls could better enable impact driven innovation. The session will be complemented by a contribution from the Austrian Research Promotion Agency (FFG), providing insights into upcoming developments and priorities within Horizon Europe.

CHAIR:
Barbara Petschacher (acib GmbH)

ORGANO TECHNIE
SOURCE OF LIFE

Plant Peptones
Animal peptones
Yeast & Malt Extracts

120 YEARS EXPERIENCE

Need a new peptone or culture media optimization ?

Our dedicated **R&D team offers fast and innovative solutions** for your projects.

+33 1 49 92 87 52
sales@organotechnie.com
www.organotechnie.com



SANDOZ



Wir versorgen Österreich.

Auch mit unserer lokalen Produktion!

So sichern leistbare Generika, Biosimilars und Antibiotika jährlich 10 Millionen Behandlungen für Österreichs Patient*innen.

Gemeinsam Gesundheit stärken!

MEHR ZU GENERIKA ERFAHREN.

AT2504285539, September 2026

Fast-track Your Synthetic Biology Research with the **BioLector XT Microbioreactor**

By the end of the century, the world's population is expected to reach 10 billion. Synthetic biology will play an integral role in supporting this population growth.

We're here to help you streamline your synthetic biology workflow by automating key steps in strain development, strain and growth optimization, and process development.



Learn more at **beckman.com/microbioreactor/biolector-xt**

BECKMAN COULTER Life Sciences

For research use only. Not for use in diagnostic procedures.
© 2024 Beckman Coulter, Inc. All rights reserved. Beckman Coulter, the stylized logo and the Beckman Coulter product and service marks mentioned herein are trademarks or registered trademarks of Beckman Coulter, Inc. in the United States and other countries. All other trademarks are the property of their respective owners.

For Beckman Coulter's worldwide office locations and phone numbers, please visit Contact Us at beckman.com
2024-GBL-EN-106514-v1

danaher

Wednesday, 11th November

16:00 – 18:00
Advanced liquid biopsy: From molecular insights to clinical implementation

Cell-free DNA (cfDNA) has become a cornerstone of liquid biopsy, providing new opportunities for non-invasive diagnostics, disease monitoring, and personalized medicine. As technologies advance, the ability to decode circulating nucleic acids with precision is increasing – but so are the challenges of ensuring reliability, sensitivity, and standardized workflows.
We will examine the latest breakthroughs in cfDNA analysis, from cutting-edge molecular methods to robust pre-analytical practices that protect sample integrity. We aim to discuss the translation of these technologies into real-world diagnostic applications and explore the critical roles of workflow harmonization, quality assurance, and reproducibility.
Furthermore, we focus on the diverse diagnostic approaches enabled by advanced sensing, semiconductor and digital analysis technologies. Bringing together molecular insights with industrial and clinical perspectives, this session highlights how liquid biopsy technologies are transforming cancer diagnostics and expanding into broader disease areas, ultimately redefining the future of personalized healthcare.

SPEAKERS:
Marcus Hennecke (Infineon Technologies Austria AG)
Tina Moser (Medical University of Graz)
Uwe Ölmüller (PreAnalytiX GmbH)

CHAIR:
Petra Heidinger (acib GmbH)

Wednesday, 11th November

16:00 – 18:00
CAARE – A Doctoral Network for Bionanoparticles in Vaccine Delivery and Gene Therapy

The CAARE project (Characterization and Recovery of Bionanoparticles for Vaccine Delivery and Gene Therapy), launched in October 2024, is an EU-funded doctoral network, under the Marie Skłodowska-Curie Actions programme. This innovative project brings together leading academic and industry partners to train the next generation of researchers in the rapidly evolving fields of vaccines and gene therapy manufacturing. The CAARE team shares its interdisciplinary approach which integrates advanced analytical techniques, innovative process control and monitoring and next-generation purification strategies for bionanoparticles.

SPEAKERS:
Soledad López Félix (Icosagen Cell Factory OÜ)
Giulia Polazzo (Karlsruhe Institute of Technology)
Markus Mozgovicz (acib GmbH)
Enerel Ariunbold (iBET – Instituto de Biologia Experimental e Tecnológica)
Sitong Xu (Friedrich-Alexander-Universität Erlangen-Nürnberg)
Irene Fernandez-Cuesta (University of Hamburg)

CHAIR:
Alois Jungbauer & Patricia Aguilar (acib GmbH/BOKU University)

16:00 – 18:00
Integrated Approaches in Circular and Sustainable Chemistry

The field of chemistry is at a turning point, pivoting away from fossil-based value chains and a linear take-make-use-dispose model towards circular processes based on sustainable carbonaceous resources, namely biomass, carbon dioxide as well as plastic waste. Making this transition with the necessary speed will require close collaboration between fundamental scientific research, engineering, and industrial partners. This session will highlight cutting-edge research that enables circular approaches in the chemicals and materials sector, with a particular focus on bio-based feedstocks and plastic waste.

SPEAKERS:
Florent Allais (URD ABI – AgroParisTech)
Pieter Bruijnincx (Utrecht University)
Jeremy Luterbacher (EPFL - École polytechnique fédérale de Lausanne)

CHAIR:
Katalin Barta-Weissert (University of Graz)

Wednesday, 11th November

16:00 – 18:00
Scalable bioprocesses through advanced computational tools

Scale effects in bioprocesses can be challenging to predict accurately. These effects can cause significant issues during scale-up or scale-down of processes, lengthening development timelines or introducing uncertainty during manufacturing. Advanced computational tools such as computational fluid dynamics, population balance modelling, and data-driven modelling approaches can provide valuable insights into hydrodynamics, mass transfer, and biological responses across scales. By integrating these tools with experimental data, scalable and robust bioprocesses can be designed more efficiently. This session highlights how modern computational approaches support rational process development and de-risk bioprocess scale transitions.

SPEAKERS:
Finja Probst (acib GmbH)
Christian Witz (SimVantage GmbH)
Thomas Maischberger (ZETA GmbH)

CHAIR:
Gerald Striedner (BOKU University)

16:00 – 18:00 • Satellite Event
Interactive World Café (German!)
Zukunft am Teller: Biotechnologie & Alternativproteine für Österreich 2036

Aktuelle Ergebnisse aus der Forschung deuten darauf hin, dass das Ernährungssystem des globalen Nordens an seine Grenzen stößt und Innovationen in der Nahrungsmittelorganisation und -distribution dringend erforderlich sind. Einige ExpertInnen argumentieren z.B., dass die derzeitige Produktion tierischer Proteine drastisch reduziert werden muss. Palmöl zerstört Wälder und wertvolle Lebensräume und weist – ähnlich wie Kakaobohnen – eine schlechte Klimabilanz sowie Probleme im Hinblick auf faire Lieferketten auf.
Neue Ansätze wie zellkultiviertes Fleisch und Fisch, Käse, Milch oder Muttermilch aus Präzisionsfermentation sowie biotechnologische Alternativen zu Palmöl oder Kaffeebohnen versprechen eine nachhaltigere, menschen- und tierfreundlichere Produktion. Dennoch sind Forschungsergebnisse, Potenziale und Herausforderungen bislang wenig bekannt und werden trotzdem in der Öffentlichkeit kontrovers diskutiert. Wie kann man konstruktiv mit der Notwendigkeit einer Transformation umgehen?

SPEAKERS:
Anton Glieder (bisy GmbH)
Arianna Ferrari (AIT Austrian Institute of Technology GmbH)
Leonore Lendl-Lewisch (BOKU University)

Wednesday, 11th November

18:15 – 19:45
Piezo4Spine Networking Event

Sponsored by Piezo4Spine, the Horizon Corner brings together nine EU-funded research projects working on technologies ranging from spinal cord injury repair and vaccine development to sustainable bioprocesses, circular materials and battery recycling. The corner serves as an information point throughout esib, offering insights into the projects, their research results and potential applications. With Piezo4Spine approaching the end of its funded phase, the networking event puts a special focus on exploring exploitation pathways, industrial partnerships and opportunities to bring research closer to application. Industrial partners, investors and other stakeholders are invited to exchange ideas with project representatives, explore synergies and discuss potential collaborations. Drop in between your matchmaking meetings to discover the projects and explore what comes next.

18:15 – 19:45
Interactive: Science meets Economy
Powered by SFG & Enterprise Europe Network

Are you looking for new collaborative partnerhips? A guided matchmaking event organised by SFG and the Enterprise Europe Network is a unique opportunity to generate new busi ness contacts and to develop new ideas. Select interesting prospective partners and pre-book 15 minute meetings with them in advance of the event.

UNDERSTAND MORE & MAKE BETTER DECISIONS

BLUE SENS Smart Bioprocess Solutions



Bioprocesses generate valuable data every day. The question is: Are you already making use of it?

If you recognize early on what's happening in the process, you can react faster and make better decisions.

- Real-time insights
- Early process control
- Greater confidence in decision-making

BlueSens your partner for SMART BIOPROCESS SOLUTIONS

www.bluesens.com

Thursday, 12th November

10:00 – 12:00
Intensified and continuous biomanufacturing

As global demand for biologics accelerates, the biopharmaceutical industry is entering a phase where smarter, more efficient production is essential. Continuous processing is emerging as a powerful answer - offering dramatic gains in productivity and resource efficiency compared to traditional batch approaches.
Let's talk about how continuous bioprocessing is being implemented, from fully integrated systems to hybrid setups that selectively adopt continuous unit operations. Each strategy brings its own balance of complexity, flexibility, and performance. Join us to discover how these evolving production models are reshaping biomanufacturing and paving the way for more scalable, cost-effective biologics.

SPEAKERS:
Dorota Antos (Rzeszow University of Technology)
Guilherme Costa (acib GmbH)
Lisa Fohler (BOKU University)
Rebecca Hochstein (Thermo Fisher Scientific Inc.)
Cristina Peixoto (iBET – Instituto de Biologia Experimental e Tecnológica)
Maria del Carme Pons Royo (Massachusetts Institute of Technology)

CHAIR:
Nico Lingg & Alois Jungbauer (acib GmbH / BOKU University)

10:00 – 12:00
OLinWASTE explores EU Bioeconomy Innovation: Integrated Approaches to Waste Valorisation and Sustainable Biorefineries

This session – chaired by the Horizon Europe OLinWASTE project – highlights how Horizon Europe projects contribute to the transition towards a circular, low-emission bioeconomy. It brings together research and innovation actions spanning forestry and agricultural waste valorisation, zero-waste biorefinery concepts, and the replacement of harmful substances with bioactive compounds derived from waste streams especially for crop-protection. Beyond presenting technological approaches, the session opens a discussion on what enables successful Horizon Europe project applications and on the key challenges of translating results from collaborative HE projects into real world impact.

SPEAKERS:
Vincenzo Lionetti (Sapienza Università di Roma)
Felice Quartinello (acib GmbH)
Vera Novy-Nielsen (Borregaard AS)
Marc Borrega (VTT Technical Research Centre of Finland Ltd)

CHAIR:
Barbara Petschacher (acib GmbH)

Thursday, 12th November

10:00 – 12:00
Recent trends of computational tools in biocatalysis

Machine learning and artificial intelligence, de novo enzyme design, molecular dynamics, and quantum-mechanical approaches are transforming research on enzyme catalysis. While data-driven methods leverage ever-growing databases, physics-based approaches are based on fundamental principles governing catalytic activity. Do these strategies compete, or are they complementary? This session will explore whether one approach can outperform the others, or whether progress in enzyme catalysis ultimately depends on integrating them all.

SPEAKERS:
Jiří Damborský (Masaryk University)
Valerio Ferrario (BASF SE)
Fahmi Himo (Stockholm University)
Philipp Schnee (Merck KGaA)
Peter Stockinger (F. Hoffmann-La Roche AG)

CHAIR:
Wolfgang Kroutil (University of Graz)

12:15 – 13:00
esib Science Flash

Discover fresh ideas and exciting research in industrial biotechnology – 2.5 minutes at a time. In these fast-paced presentations, speakers share the essentials of their work, sparking discussion and new connections across the esib community.

CHAIR:
Katharina Schwaiger (acib GmbH)

SPEAKERS:
See pages 88 & 89

Thursday, 12th November

14:00 – 20:30 • Satellite Workshop
Hands-on small scale Pichia fermentation – Part 1

In recombinant protein production (RPP), scaling up a bioprocess is a critical step that often determines the feasibility of an industrial application at an early stage. This compact one-day course (lunch-to-lunch) on precision fermentation focuses on recombinant protein production with *Pichia pastoris* (reclassified as *Komagataella phaffii)*.
The program combines theoretical background with practical training and places particular emphasis on advanced methanol-free expression systems. Participants will work with the state-of-the-art DASbox system from Eppendorf, which enables the parallel cultivation of multiple microbial cultures in fully controlled fermenters. This setup allows precise regulation and optimization of fermentation parameters, thereby improving process efficiency and reproducibility.
Course content includes an introduction to Pichia bioprocess-design options, the calculation of feed strategies, and the design of process-control schemes. Participants will also gain practical insight into bioreactor operation through demonstrations covering vessel assembly, sensor handling, sampling and harvest. Finally, the course will address bioprocess data evaluation, including online and offline process data, as well as key factors affecting product quality and quantity.

SPEAKERS:
Xavier Garcia-Ortega (Universitat Autònoma de Barcelona)
Tobias Baumgartner (bisy GmbH)
Miguel Angel Nieto-Taype (bisy GmbH)
David Keßler (Graz University of Technology)
Jonathan Sturm (BlueSens gas sensor GmbH)
Representative of Eppendorf Austria GmbH

LOCATION:
bisy GmbH

Thursday, 12th November

14:00 – 16:00
esib Closing "Bridging Tomorrow" & MaPEB Opening

Join in and have a look at the upcoming trends in biotechnology for the next decades. Christiane Bardroff (FUJIFILM Life Science Biotechnologies) and Martin Fussenegger (ETH Zurich) will share their perspectives on how cutting-edge biomanufacturing and synthetic biology are reshaping the future of biotechnology - from advanced biologics and next-generation production platforms to programmable cellular systems and designer gene circuits that redefine what is possible in therapy and industry. Together, they will explore emerging technologies, strategic industrial trends, and bold visions for how biotechnology can drive a more sustainable, resilient bioeconomy.
Seamlessly following this dialogue, Tianwei Tan will open MaPEB 2026 with a look into AI-empowered biomanufacturing, presenting how integrated digital metabolic platforms and automated intelligent laboratories dramatically accelerate strain engineering and process development, and how such closed-loop “digital cell factories” can enable efficient, green production of high-value chemicals at scale.

ESIB SPEAKERS:
Christiane Bardroff (FUJIFILM Life Science Biotechnologies)
Martin Fussenegger (ETH Zurich)

CHAIR:
Bernd Nidetzky (acib GmbH / Graz University of Technology)

MaPEB SPEAKER:
Tianwei Tan (Beijing University of Chemical Technology)

CHAIR:
Robert Kourist (Graz University of Technology)

Thursday, 12th November

16:30 – 18:30
China-Europe Cooperation - Challenges & Opportunities

The challenges for our planet cannot be solved by one country alone. Scientists across the world need to join their efforts and address together developments like the dramatic increase of plastic pollution and the reduction of carbon dioxide emissions. Successful cooperation, however, needs to take into account political approaches and economic situations in different parts of the world. How can we create successful scientific exchange and cooperation in a world where economic and knowledge barriers are gaining importance? The session will present successful examples of how emerging challenges are approached in cooperative projects between Chinese and European scientists.

SPEAKERS:
Lars M. Blank (RWTH Aachen)
Martin Grininger (Goethe University Frankfurt)
Zhi Li (National University of Singapore)
Luo Liu (Beijing University of Chemical Technology)
Yongqin Lv (Beijing University of Chemical Technology)

CHAIR:
Robert Kourist (Graz University of Technology)

Bio-prodict
protein predictions

Evidence-Led Engineering™

Design decisions backed by evidence from your entire protein family and your data.

THE REDISCOVERY TAX™

Enzyme programs keep paying for what the field already knows.

3DM aligns 18 years of curated family evidence to your protein, so each round starts informed.

VISIT US

Stand P3

Messe Congress Graz · 10–12 Nov
Hotel Weitzer (MaPEB) · 13 Nov

bio-prodict.com/esib

MaPEB 2026 · TALK

What protein families know that screening doesn't.



Dr. Henk-Jan Joosten
Founder, Bio-Prodict

Friday 13 Nov · 14:55
Protein Engineering for selective biocatalysis, Part II · Hotel Weitzer

ALSO FROM BIO-PRODICT

The Rediscovery Tax™:
paying again for what the field already knows.

Hear us at lunch · Thursday 12 Nov
Stand P3, Messe Congress Graz

Bio-prodict
protein predictions

bio-prodict.com/esib



Picture: Hotel Weitzer

Join the MaPEB Conference Dinner with your valid MaPEB ticket:

THURSDAY, 12TH NOVEMBER
19:00 – 22:00

Hotel Weitzer
Restaurant “Engelreich”
Grieskai 12-14
8020 Graz

Getting there: From MCG take tram 4 towards Reininghaus to Südtiroler Platz / Kunsthaus, then walk south along the river to Hotel Weitzer.

Friday, 13th November

8:45 – 13:00 • Satellite Workshop
Hands-on small scale Pichia fermentation – Part 2

In recombinant protein production (RPP), scaling up a bioprocess is a critical step that often determines the feasibility of an industrial application at an early stage. This compact one-day course (lunch-to-lunch) on precision fermentation focuses on recombinant protein production with *Pichia pastoris* (reclassified as *Komagataella phaffii*).
The program combines theoretical background with practical training and places particular emphasis on advanced methanol-free expression systems. Participants will work with the state-of-the-art DASbox system from Eppendorf, which enables the parallel cultivation of multiple microbial cultures in fully controlled fermenters. This setup allows precise regulation and optimization of fermentation parameters, thereby improving process efficiency and reproducibility.
Course content includes an introduction to Pichia bioprocess-design options, the calculation of feed strategies, and the design of process-control schemes. Participants will also gain practical insight into bioreactor operation through demonstrations covering vessel assembly, sensor handling, sampling and harvest. Finally, the course will address bioprocess data evaluation, including online and offline process data, as well as key factors affecting product quality and quantity.

SPEAKERS:
Anton Glieder (bisy GmbH)
Xavier Garcia-Ortega (Universitat Autònoma de Barcelona)
Miguel Angel Nieto-Taype (bisy GmbH)
Jonathan Sturm (BlueSens gas sensor GmbH)
Representative of Eppendorf Austria GmbH

LOCATION:
Graz University of Technology, Institute of Molecular Biotechnology

Friday, 13th November

9:00 – 11:00
Towards Circular Biocatalysis

As environmental challenges like persistent plastic and chemical pollution escalate, industrial chemistry is entering a phase where sustainable, closed-loop solutions are absolutely essential. Circular biocatalysis is emerging as a powerful answer. This session discusses enzyme-based technologies that serve as drivers for a sustainable bioeconomy by enabling both the environmentally compatible degradation of complex molecules and the efficient synthesis of chemicals from renewable resources.

KEYNOTE LECTURE:
Roland Ludwig (BOKU University/Circular Bioengineering)

SPEAKER:
Margit Winkler (ZHAW Zurich University of Applied Sciences)
Daniel Kracher (Graz University of Technology)
Juan M. Bolivar (Complutense University of Madrid)

CHAIR:
Martin Grininger (Goethe University Frankfurt)

11:30 – 13:00
Protein Engineering for Selective Biocatalysis – Part I

As the demand for complex pharmaceuticals and sustainable manufacturing accelerates, the chemical industry is entering a phase where highly selective, tailored catalysts are required. This session explores how advanced biocatalytic design, including machine learning, computational modeling, and sophisticated screening are used to engineer stable, highly active enzymes. The program covers a diverse range of strategies – from decoding evolutionary pathways to engineer stereoselectivity, to utilizing modular protein assembly for synthesizing complex therapeutic compounds. Join us to discover how these academic advances, coupled with high-throughput AI platforms from industry, are reshaping protein engineering and accelerating the path to customized industrial biocatalysis.

KEYNOTE LECTURE:
Uwe Bornscheuer (University of Greifswald)

SPEAKERS:
David Schönauer (Aminoverse B.V.)
Jin-Byung Park (Ewha Womans University)

CHAIR:
Gustav Oberdorfer (Graz University of Technology)

Friday, 13th November

14:15 – 15:15
Protein Engineering for Selective Biocatalysis – Part II

SPEAKERS:
Simon Hunsicker (Goethe University Frankfurt)
Jasmin Zuson (acib GmbH, Graz University of Technology)
Henk-Jan Joosten (Bio-Prodict B.V.)

CHAIR:
Gustav Oberdorfer (Graz University of Technology)

15:45 – 17:30
Metabolic and Cell Engineering for Sustainable Bioproduction

As the demand for bio-based products increases, the efficient optimization of both biocatalysts and microbial hosts is absolutely essential. This session explores how innovative tools can be employed to overcome traditional development bottlenecks in metabolic engineering. The program highlights advanced computational strategies that simultaneously optimize multiple enzyme properties in a single step, alongside newly developed genetic workflows designed for highly efficient and stable strain engineering. Join us to discover how these next-generation methodologies are accelerating the creation of robust, scalable biological systems for modern biomanufacturing.

KEYNOTE LECTURE:
Birgitta Ebert (The University of Queensland)

SPEAKERS:
Regina Kratzer (Graz University of Technology)
Carlos Acevedo-Rocha (Technical University of Denmark)
Katherine Brechun (Gen-H Genetic Engineering Heidelberg GmbH)

CHAIR:
Daniel Kracher (Graz University of Technology)

Infors HT Multifors 3 Benchtop Bioreactor

Maximise process control.

The new Multifors 3 from INFORS HT sets new standards in bioprocess development. Combining intelligent process control, flexible vessel configurations and seamless integration with the eve® bioprocess software, it enables reproducible results and efficient technology transfer. The ideal solution for modern laboratories and demanding bioprocess applications.

THE NEXT GENERATION

- Comprehensive process control, including controller settings and hardware configuration
- Control of up to six bioreactors via a single touchscreen
- Seamless integration with eve® bioprocess software
- Simplified process transfer and comprehensive documentation



PROVEN PERFORMANCE

- Flexible vessel sizes with working volumes from 100 ml to 10 l
- Compatibility with glass and single-use vessels
- Integrated pumps, gas mixing and perfusion control
- High sensor density for comprehensive process monitoring
- Broad compatibility with analogue and digital sensors
- Open interfaces via OPC UA and REST APIs
- Supports cell culture, perfusion and microbial fermentation
- Support for FAT/SAT qualification and GMP-oriented applications
- Management of up to 99 parallel batches across multiple systems with eve®

GREATER CONTROL. IMPROVED REPRODUCIBILITY.

The Multifors 3 transfers more than just setpoints – it enables the transfer of the entire process strategy, including controller presets, PID parameters, hardware configurations and sensor data. Combined with eve®, processes can be standardised, compared and reliably reproduced. This reduces manual configuration effort, minimises potential sources of error and simplifies technology transfer between workflows.

INFORS HT
We bring life to your laboratory

bartelt
YOUR LABORATORY SUPPLIER
Chemicals · Devices · Service · Software

Ing. Alexander Gunacker, MBA
E: alexander.gunacker@bartelt.at
T: +43 316 47 53 28 155

human. technology. styria.

PIONEERING BIOTECH'S FUTURE:

Styrian Companies at the Forefront of Innovation

STAND H1

BRAVE Analytics' OF2i® technology enables label-free, single-particle sizing and Raman chemical identification in native process liquids — turning continuous nanoparticle analytics into industrial biotech reality.

B.R.O.M.® centralizes sensing, dosing, aeration, control and off-gas analysis in a sterile bypass platform, creating comparable process conditions across multiple tanks and scales.

For over 40 years, **GAMED** has developed software for efficient, lean production. More than 200 companies worldwide rely on our tailored solutions and long-term partnerships to drive digitalization and performance.

Lanbiotic is pioneering biotechnological skincare with innovative solutions based on live probiotic cultures that support and strengthen the skin's natural microbiome and protective barrier.

myBIOS enables methanol-free recombinant protein production with Pichia pastoris through its proprietary myPichia® platform, offering a safer, more sustainable and cost-efficient solution for in-house protein manufacturing.

VALIDOGEN is a leading Pichia contract research and development organization (CRO) offering recombinant protein production, strain and process development using its exclusive UNLOCK PICHIA® expression technology.

Knick

Liquid Analysis Solutions for Laboratories and Production



Audit Trail
21 CFR Part 11



From Portable to Fully Automatic

Knick-international.com/pharma

BIOTECH AUSTRIA
THE AUSTRIAN BIOTECH ASSOCIATION

BIOTECHAUSTRIA.ORG

LOCATION
Improving framework conditions for biotech companies in Austria

EXPERTISE
Attracting talent, expertise and qualified employees

FINANCIAL RESOURCES
Investment to foster innovation

EXCHANGE
Strengthening expertise through networking

PUBLIC RELATIONS
Strengthen communication for the industry

COOPERATION
Promoting cooperation and internationalization

Poster Session
Table of abstracts

	TITLE	AUTHOR
EU Project: OLinWASTE		
EU-01	OLinWASTE – Smart Sustainable Biorefining of Olive Mill Waste into Biocompounds for Plant and Soil Health, Bioplastics, and Bioenergy	**Barbara Petschacher**
EU Project: ELEGANCE		
EU-02	Process Intensification of Cytochrome P450 Reactions in Batch and Continuous Reactors	**Chengsi Li**
EU Project: BeyondBattRec		
EU-03	Sulfuric Acid Production by Different *Acidithiobacillus thiooxidans* Strains	**Silja Välimets**
EU Project: B3PO		
EU-04	Biobased Polyester Coating Resins Based on Tulipalin A, Alkyl-ε-Caprolactones and Lignin	**Darlin Bregu**
EU-05	3D Printing of Biobased Polymers for Skin Culture	**Sara Brojanigo**
EU-06	B3PO: Process Development for Tuned Lignin Extraction and Fractionation from Lignocellulosic Biomass Residues	**Jon Nyner Gavan**
EU-07	B3PO: Reaction Engineering for the Controlled Enzyme-Assisted Modification of Solid-Suspended Lignin	**Laura Glavinić**
EU-08	Fractionation of *Pinus radiata* for Glucose Production Combining Sequential Steps of IL Treatment, Autohydrolysis and Saccharification: Experimental Process and Techno-Economic Assessment	**Victoria Rigual Hernández**
EU-09	From Biomass to High-Performance Polymers: Sustainable Ring-Opening Polymerization for the Next Generation of Renewable Materials	**Julia Kapałka**
EU-10	B3PO: Reaction Engineering for the Controlled Enzyme-Assisted Grafting of Biopolymers with Lignin-Derived Phenolics	**Sara Petrović**

Poster Session
Table of abstracts

	TITLE	AUTHOR
EU Project: CirculH2		
EU-11	H2 Driven Biocatalysis Enabled by *Cupriavidus necator* for the Sustainable Synthesis of Aldehydes & Alcohols	**Marianna Karava**
EU Project: CAARE		
EU-12	CAARE – Characterization and Recovery of Bionanoparticles for Vaccine Delivery and Gene Therapy	**Katharina Schwaiger**
EU-13	Streamlining AAV8 Purification with Integrated Cyclic Capture-Polishing	**Enerel Ariunbold**
EU-14	Is Ultracentrifugation Scalable? Continuous-Flow Ultracentrifugation and Sucrose Gradients for Particle Separation	**Guilherme Costa**
EU-15	Resistive Pulse Sensing Microfluidic Chip for Single-Particle Biosensing	**Abrar Jawad Haque**
EU-16	Multidimensional Reverse Phase-Liquid Chromatography Platform for Viral Protein Specific Post Translational Modification Analysis in Adeno Associated Virus	**Carley Hinrichs**
EU-17	DNA and Beyond: What AAV Lysis Reveals About Chromatin-Associated Impurities	**Carolina Jahn**
EU-18	HIV Gag Virus-Like Particles Engineered with Microbial Adhesins/Invasins for Receptor-Specific Uptake	**Soledad López Félix**
EU-19	Beyond the Capsid: Assessing Genome Integrity and DNA Modifications in AAVs by IP-HPLC	**Adrián Margüello Molina**
EU-20	Toward an Integrated One-Step Purification Platform for Virus-Like Particles Using Functionalized Non-Woven Fibers	**Markus Mozgovicz**
EU-21	Monitoring Adeno-Associated Virus-Like Particles by UV-Derived Scattering During High-Throughput Screenings	**Giulia Polazzo**
EU-22	A CFD-Based Strategy for Optimizing Bionanoparticle Purification Using polyHIPE Monolithic Columns	**Finja Probst**

Poster Session
Table of abstracts

	TITLE	AUTHOR
EU-23	Chinese Hamster Ovary Cell Platform for Production of Virus Like Particles (VLP) Pseudotyped with Complex Membrane Proteins	**Pietro Voltan**
EU-24	Process-Related Disassembly Dynamics Study of AAV Virus-Like Particles	**Loulotte Waling**
EU-25	An Integrated Tool for Buoyant Density Characterization of Bionanoparticles by Density-Gradient Equilibrium Analytical Ultracentrifugation	**Sitong Xu**
EU-26	Single-Particle Fluorescence Detection of Empty and Loaded AAV Capsids in Nanofluidic Channels	**Juvaria Zafar**
EU Project: BMRex		
EU-27	Reactor Engineering of Multi-Enzyme Biocatalytic Systems for PET Depolymerization in Water Treatment	**Juan M. Bolivar**
EU Project: PharmEco		
EU-28	Engineering the Regioselectivity of CYP152A1 (P450Bsβ) Variants for α- and β-Hydroxylation of Fatty Acids (C10)	**Nikolaus Stadlmann**
Cluster of Excellence Circular Bioengineering		
CB-01	Seeing Flux in Action: Instationary ^{13}C-MFA for Single Carbon (C1) Metabolism and Beyond	**Özge Ata**
CB-02	Bioconversion of the C1 Substrate Methanol to Succinic Acid with Engineered *Komagataella phaffii*	**Simone Bachleitner**
CB-03	Exploring Factors Influencing Autotrophic Growth of *Cupriavidus necator*	**Sandra Bindlechner**
CB-04	Tubular Photobioreactor for Scalable Photo- and Mixotrophic Cultivations	**Tanja Caspary**
CB-05	Investigating Cyanate Assimilation in Yeast	**Magdalena Delač**
CB-06	Renewable Carbon Sourcing and Cross-Sectoral Utilization Strategies for Achieving Climate Neutrality in Europe	**Isabelle Grabner**
CB-07	Green Composites from Foam-Templated Bacterial Cellulose and Walnut Shell Particulates	**Florian Gregor**

Poster Session
Table of abstracts

	TITLE	AUTHOR
CB-08	Unravelling the LPMO Reaction Mechanism Using QM MM Simulations	**Dominik Hörtnagel**
CB-09	Determinants of Coenzyme Specificity in Ene-Reductases from *Herbaspirillum seropedicae*	**Daniel Kracher**
CB-10	Potential of Lignocellulosic Hydrolysates as Substrate for Microalgal Cultivation	**Ricarda Kriechbaum**
CB-11	Coenzyme Regeneration in Sustainable Bioelectrocatalytic Processes	**Sophia Mihalyi**
CB-12	Characterization of Bacterial Laccase PIL for Hydrocarbon Oxidation	**Maren Rickert**
CB-13	Climate Change Mitigation Potentials of Increasing Material Uses of Wood in Austria	**Nicolas Roux**
CB-14	Directing Cello-Oligosaccharide Assembly Towards Functional Cellulose Microbeads	**Jana Schaubeder**
CB-15	Engineering Yeast-Derived Virus-Like Liposomal Particles as Modular Biocatalytic Compartments	**Maryam Solaimani**
CB-16	Physical Structuring of Nanocellulose: Tailoring Anisotropy via Electric Fields	**Florentina Stadlbauer**
CB-17	Valorisation of Bio-Derived Aldehydes via Enzymatic Lactone Formation	**Lukas Steinreiber**
CB-18	Towards Scalable Recombinant Protein Production in *Vibrio natriegens*	**Ruben Stopper**
CB-19	Understanding the Mechanistic Details of Ethylene Glycol Assisted Hardwood Acidolysis Using Lignin Model Compounds	**Simeon Tietmeyer**
CB-20	Lignin Explorer: Data-Driven Discovery of Spectral Features in HSQC NMR Datasets	**Matthias Uiberacker**
CB-21	Unraveling Diol Assisted Fractionation: Optimization of Products from Ethylene Glycol Acidolysis	**Aranza Vital**
CB-22	Development of a Standardized Weathering and Non-Targeted Analysis Workflow for Assessing the Environmental Fate of Novel Bio-Based Materials	**Guy Wolf**

Poster Session
Table of abstracts

	TITLE	AUTHOR
CB-23	From Trash to Treasure: Sustainable Production of High-Value Chemicals in Fast-Growing Cyanobacteria	**Daniele Ciabatti**
CB-24	Repurposing Enzyme Activities for Polymer Degradation	**Marco Fabiani**
CB-25	Molecular Modeling of Lignin	**Edgar Galicia-Andres**
CB-26	Gas Chromatography-Mass Spectrometry Based Isotopologue Ratio Analysis in Metabolomics Using Parallel Quasi-Simultaneous EI & CI-TOFMS with a Novel Flexible CI Source	**Adrian Geordi Gonzalez Garcia**
CB-27	Linking Enzyme Activity to Enzyme Discovery: Functional Proteomics for Discovery of Novel Biocatalysts	**Matthias Hadrbolec**
CB-28	Exploiting the Catalytic Promiscuity of Old Yellow Enzymes to Access Chiral Lactones Sustainably	**Mélanie Hall**
CB-29	Exploring and Engineering Enzymes for Polystyrene Depolymerization	**Niklas Hillbrand**
CB-30	Computational and Experimental Insights into the Catalytic Mechanism of Promiscuous Enzymatic Isomerization: A Case Study of Old Yellow Enzyme OYE2	**Andrea Hlousek-Kasun**
CB-31	Transforming Textile Waste into Materials Using Fungi	**Mitchell Jones**
CB-32	Reclaiming Carbon Fibres: Renewable Thermosetting Polyester Matrices for Recyclable Composites	**Konstantinos Kanellopoulos**
CB-33	Towards Industrially Robust Peroxygenases: Functional and Structural Characterization of Unspecific Peroxygenases	**Meenakshi Pathmini Vinod Kumar**
CB-34	Cellular Cocktails: Artificially Creating Improved Oxidative Protein Folding	**Jana Lukacova**
CB-35	Peptide-Mediated Immobilization of Oxidoreductases on Electrodes for Enhanced Bioelectrocatalysis	**Anna Magnone**
CB-36	Cyanobacteria - The Biocatalytic Platform of the Future	**Theodor Marsoner**

Poster Session
Table of abstracts

	TITLE	AUTHOR
CB-37	Towards a Plant on a Bench - Development of a Membrane Separation Unit	**Anna Mayrhofer**
CB-38	Upcycling Waste Aromatic Polymers as Adsorbents for Atmospheric Water Harvesting	**Anastasiia Naryshkina**
CB-39	Nanocellulose Hypercrosslinked Polymer Hybrid Membranes for Wastewater Remediation	**Cédric Normand**
CB-40	Examining Non-Heme Iron Oxygenases Through the Lens of Unnatural Enzyme Engineering	**Odyssefs Pantelakis**
CB-41	Lipid Quantification in Low-Input Samples Using Nanoflow LC-HRMS and Shotgun-Lipidomics	**Markus Paunger**
CB-42	Investigating Novel Reactivity of Laccases for Biocatalytic Oxidation Reactions	**Marko Rath**
CB-43	Utilizing α-KG Dependent Enzymes for the Regioselective C–H Functionalization of Fatty Acids	**Sara Salehi**
CB-44	Hops to Sheets: Transforming Biogas Residue into Paper	**Jana Schöffmann**
CB-45	Showcasing Quantitative Metallomics: Applications in Single-Cell Analysis	**Jannik Witte**
CB-46	Enzymatic Modification of Wood Surface for Structural Colour Coatings	**Bharathan Govindarajan**
esib Meets MaPEB: Engineering Biocatalysts		
MP-01	*E. coli* Conji-pir - One Strain for All: Plasmid Cloning and Conjugation	**Katherine Brechun**
MP-02	From Biocatalyst to Process: Intensified Continuous Racemization with Immobilized NSAAR	**Johannes Eder**
MP-03	High-Throughput Growth-Coupled Screening Platform for Directed Evolution of Amino Acid Biocatalysts Toward Non-Canonical Amino Acids	**Muhammad Israr**
MP-04	Hydrophobic Pocket Engineering for Increase of the Promiscuous Racemising Activity of Highly Stabilized Ancestral Decarboxylases	**Christine Kaiserer**
MP-05	Discovery and Biochemical Characterization of Soluble Aldehyde Dehydrogenase from the AlkH Family	**Jungsoo Park**

Poster Session
Table of abstracts

	TITLE	AUTHOR
MP-06	Machine-Learning Based Redesign of Alcohol Dehydrogenases for Increased Operational Stability	**Ana Udzenija**
MP-07	Expanding the Biocatalytic Toolkit for Sustainable Synthesis and Biomedical Innovation	**Margit Winkler**
Topic: Bioeconomy		
BE-01	Building the Supply Chain for Cultivated Meat: Food-Grade Growth Factors, Cyclodextrins, and Media Innovation	**Carsten Bornhövd**
BE-02	Direct Biosynthesis of PHBV from Propionic Acid by *Halomonas boliviensis*	**Tom Distler**
BE-03	From L-Threonine to Substituted Pyrroles via Whole-Cell Biocatalysis	**Valentina Jurkaš**
BE-04	From Marine Enzymes to Pollutant Degradation: Functional Characterisation of Novel Dehaloperoxidases	**Tina Lanzmaier**
BE-05	CyanoCare - Novel Algae Ingredients for Natural Cosmetics	**Rita Mota**
BE-06	Artificially Produced Humic Substances from Organic Wastes Improve Soil Health and Plant Vigor	**Matthias Schweitzer**
BE-07	Methanol-to-PHB via Synthetic Methylotrophy: A Platform for Circular Bioeconomy	**Ruishuang Sun**
BE-08	Fermentative Production of Vitamin D in Yeast	**Nicola Trevisan**
Topic: Biopharma		
BP-01	Impact of Sample Preparation: Hidden Chromatin-Associated DNA Leads to Data Misinterpretation in Bionanoparticle Production	**Irfan Erdem**
BP-02	Dual-Fluorescent Reporters Quantify ncAA Incorporation and Enable High-Throughput aaRS Library Screening in *E. coli*	**Felix Faschingeder**
BP-03	Particulate Impurity Profile of VLP Production in Insect Cells: Impact of Cell Viability at Harvest	**Jorge Fonseca**
BP-04	Beyond Single Descriptors: Evaluating Oil–Water Emulsion Probes and CFD-Based Hydrodynamic Stress Mapping in Bioprocessing	**Valentin Gailberger**

Poster Session
Table of abstracts

	TITLE	AUTHOR
BP-05	Harnessing Promoters and Terminators from Diverse Yeast Species to Expand the Synthetic Biology Toolkit of *Komagataella phaffii*	**Marina Jecmenica**
BP-06	From Plant to Bioreactor: A Robust Workflow for Establishing High-Performance Plant Cell Cultures	**Lukas Leibetseder**
BP-07	Chromatin Removal by Fibrous Chromatographic Media Enables Large-Scale EV Production with Improved Immunological Safety	**Tomas Mesurado**
BP-08	Characterization of a Humanized Antibody Binding to the Caspase-6 Region of the Huntingtin Protein	**Veronica Natale**
BP-09	Towards the Industrial Production of Peptides Containing Non-Canonical Amino Acids	**Matthias Pertiller**
BP-10	Bio-Based Routes for Tulipalin A (TlpA) and Its Structural Homologues Synthesis	**Joshua P. Pocaan**
BP-11	Unspecific Peroxygenases as Catalysts for the Oxidation of Primary Alcohols to Carboxylic Acids	**Jonas Spang**
Topic: Other Biotech Topic & Out of the Box		
OT-01	Sustainable Point-of-Care (PoC) Biosensing Device for Rapid Urine Biomarker Quantification	**Sharmaine Reintar**
OT-02	Synthetic Protein Production in Methylotrophic Yeast	**Andreas Berner**
OT-03	A Modular *E. coli*-Based Production Platform for Virus Like Particles: Addressing Expression, Purification, and Assembly Bottlenecks to Enable Targeted and Customizable VLPs	**Annika Borg**
OT-04	Turning Histamine into a Signal: Histamine-Degrading Enzymes for Biosensor Applications	**Hannah Breuer**
OT-05	Per-Scar Geometry and Spatial Arrangement of Bud Scars in Brewing Yeasts	**Komal Dhull**
OT-06	Mechanism-Aware Modelling of the *Komagataella phaffii* Secretion Pathway	**Martin Floor**
OT-07	Microbial Leaching for Recovery of Phosphates from Sewage Sludge Ash	**Patrick Gerl**

Poster Session
Table of abstracts

	TITLE	AUTHOR
OT-08	NFC-Enabled Single-Chip Platform for Miniaturized Electrochemical Biosensors	**Elisabeth Hengge**
OT-09	Engineering and Screening HMFO Variants for Efficient FDCA Production	**Mirthe Hoekzema**
OT-10	Development of a *Pichia pastoris* Platform for Sustainable Flavonoid Production for Animal Nutrition	**Victor Mendes Honorato**
OT-11	BRENDA: Empowering Industrial Biotechnology Through Comprehensive Enzyme Data Resources	**Lisa Jeske**
OT-12	*In Vitro* Characterization of Membrane Bound Monooxygenases	**Iram Kafait**
OT-13	Engineering of Enzyme for Coupling Reactions of Lignin	**Gabriele Montrasio**
OT-14	Meat4Future	**Juan Carlos Munoz**
OT-15	Enzymatic and Microbial Valorization of Polyester Waste into Sustainable Plasticizers	**Florent Pruvost**
OT-16	Enzyme Engineering of a Highly Productive and Specific α1,2-Fucosyltransferase for Efficient 2'-Fucosyllactose Biosynthesis	**Carina Sommer**
OT-17	Racemization-Free, One-Step L-Prolinamide Synthesis in Organic Media Using a Biocatalyst	**Aneta Swarovska**
OT-18	Effect of Water-Miscible Organic Cosolvents on Ene-Reductases Stability	**Nathalia Vargas Valverde**
OT-19	Approaches for Early Diagnosis Based on Liquid Biopsy Markers	**Daniel Schwendenwein**



sbi SCIENTIFIC BIOPROCESSING

Bioreactor Capabilities with Shake Flask Simplicity.

Our **DOTS Platform** turns shake flasks into bioreactor-like cultivation systems:

- **Real-time Process Monitoring:** biomass, dissolved oxygen and fluorescence
- **Automated Feeding and Control:** fed-batch and parameter-based feeding
- Bringing classical bioreactor experiments to **shake-flask scale, cost and simplicity.**
- All on **your shaker**, with **your shake flasks** and for **your bioprocess.**

DISCOVER THE DOTS PLATFORM

AT OUR BOOTH AT ESIB 2026

Digitally Simplified Bioprocessing

SB SinoBiological

Accelerating Discovery & Advancing Therapeutics

19 Years of Excellence in Reagents & CRO Services

Vital Statistics

77,000+
Off-the-Shelf Reagents

100,000+
Protein Projects Delivered

10,000+
Antibodies/Month

10,000+
Organizations Served

Overview

A Global Leader in Recombinant Technology

A Trusted Reagent Provider

ProPure™ endotoxin-free proteins, ProVir® viral antigens, cytokines, target proteins, etc.

A Leading Global CRO

- North American production
- Cell-free expression
- Mammalian expression
- Antibody development

Featured

Integrated High-Throughput Antibody Services

High-Throughput Expression
+
Developability Assessment
↓
AI-Ready Data Outputs

Accelerate drug discovery & power AI models

Global Locations: China USA Canada Europe Japan South Korea

www.sinobiological.com

MaPEB Poster Session
Table of Abstracts

	TITLE	AUTHOR
MaPEB Session: Protein Engineering for Selective Biocatalysis		
PE-01	From Biocatalyst to Process: Intensified Continuous Racemization with Immobilized NSAAR	**Johannes Eder**
PE-02	Mutational Landscapes of Enzymatic Solvent Preference	**Xenia Georgiadou**
PE-03	High-Throughput Growth-Coupled Screening Platform for Directed Evolution of Amino Acid Biocatalysts Toward Non-Canonical Amino Acids	**Muhammad Israr**
PE-04	Hydrophobic Pocket Engineering for Increase of the Promiscuous Racemising Activity of Highly Stabilized Ancestral Decarboxylases	**Christine Kaiserer**
PE-05	Tailoring De Novo Protein Scaffolds for Challenging Reaction Environments	**Sigrid Kaltenbrunner**
PE-06	Mechanism-Inspired Engineering of AMDase for the Asymmetric Synthesis of α-Chiral Carboxylic Acids	**Lisa-Marie Krammer**
PE-07	Examining Non-Heme Iron Oxygenases Through the Lens of Unnatural Enzyme Engineering	**Odyssefs Pantelakis**
PE-08	Machine-Learning Based Redesign of Alcohol Dehydrogenases for Increased Operational Stability	**Ana Udzenija**
PE-09	Computational Design of Enantiocomplementary Enzymes	**Andreas Zechner**
MaPEB Session: Metabolic Engineering and Bioproduction		
ME-01	Engineering the *Saccharomyces cerevisiae* Fatty Acid Synthase for Very Long Chain Fatty Acid Production	**Robert Bassus**
ME-02	Expanding the Biosynthetic Potential of a Fatty Acid Synthase Malonyl-Acetyl Transferase (MAT) Domain	**Svenja Berlage**
ME-03	*E. coli* Conji-pir - One Strain for All: Plasmid Cloning and Conjugation	**Katherine Brechun**
ME-04	Switching Metazoan Fatty Acid Synthase Between Reducing and Nonreducing Elongation Mode via Programming of the Ketoreductase Domain	**André Herber**

MaPEB Poster Session
Table of Abstracts

	TITLE	AUTHOR
ME-05	Engineering Substrate Loading in trans in Modular Polyketide Synthase	**Simon Hunsicker**
ME-06	Hijacking Fatty Acid Synthase – A New Targeting Strategy in Cancer Therapy	**Kim Laura Ochs**
ME-07	Exploitation of the Substrate Promiscuous Malonyl-/Acetyl-Transferase Domain from Fatty Acid Synthase for Precise Polyketide Synthase Engineering	**Carolin Parthun**
ME-08	Design and Characterization of a Bimodular System Based on Mammalian FAS	**Sofia Raskina**
MaPEB Session: Towards Circular Biocatalysis		
CC-01	*In Vitro* Reconstitution of the Cyanobacterial Electron Transport Using the Biocatalytic Reduction Mediated by the Ene-Reductase YqjM	**Luigi Camerlenghi**
CC-02	H2 Driven Biocatalysis Enabled by *Cupriavidus necator* for the Sustainable Synthesis of Aldehydes & Alcohols	**Marianna Karava**
CC-03	Discovery and Biochemical Characterization of Soluble Aldehyde Dehydrogenase from the AlkH Family	**Jungsoo Park**
CC-04	Expanding the Biocatalytic Toolkit for Sustainable Synthesis and Biomedical Innovation	**Margit Winkler**

Science Flash Talks
November 11th

	TITLE	AUTHOR
SF1-01	Amoxicillin Synthesis by a Two-Step Chemoenzymatic Process Combining an Ion Exchanger with Penicillin G Acylase	**Francesco Mascia**
SF1-02	One Bacterium, Two Enzymes: Distinct Ulvan Lyases from *Pseudoalteromonas agarivorans* for Valorizing *Ulva* Biomass into Bioactive Derivatives	**Navindu Dinara Gajanayaka**
SF1-03	From Brute-Force DoE to Information-Optimal Experiments: A Physics-Informed CHO Scale-Up Case Study	**Nikolai Mushnikov**
SF1-04	Turning Histamine into a Signal: Histamine-Degrading Enzymes for Biosensor Applications	**Hannah Breuer**
SF1-05	NFC-Enabled Single-Chip Platform for Miniaturized Electrochemical Biosensors	**Elisabeth Hengge**
SF1-06	Precision Fermentation and Pilot-Scale Production of Recombinant Caseins for Sustainable Dairy Proteins	**Ana Torrejón-Cabello**
SF1-07	"Big Data" Biocatalysis: Broad and Systematic Performance Profiling Enables the Prediction of IRED Activity and Selectivity in Reductive Amination	**Joerg Schrittwieser**
SF1-08	Engineering Halophilic *Vibrio natriegens* for Pigment Production	**Anna Erian**
SF1-09	Beyond Methanol: Development of a High-Performance Methanol-Free Inducible Expression System in *Pichia pastoris*	**Lukas Schönleitner**
SF1-10	Process Development and Optimization of Autotrophic Fermentations for Biopolymer Production	**Maximilian Hoffmann**
SF1-11	evedesign: Open Framework for Multi-Property Iterative AI Protein Design	**Thomas Hopf**
SF1-12	Lactic Acid from CO_2 Using the Synthetic Autotroph *Komagataella phaffii*	**Michael Baumschabl**
SF1-13	From Biocatalyst to Process: Intensified Continuous Racemization with Immobilized NSAAR	**Johannes Eder**
SF1-14	Engineering Yeast-Derived Virus-Like Particles for Membrane Protein Studies and Compartmentalized Biocatalysis	**Felix Fronek**

Science Flash Talks
November 11th

	TITLE	AUTHOR
SF1-15	Beyond the Capsid: Assessing Genome Integrity and DNA Modifications in AAVs by IP-HPLC	**Adrián Margüello Molina**
SF1-16	Circular Production of Polyhydroxyalkanoates Using *Cupriavidus necator*	**Michael Egermeier**
SF1-17	Nitration of Renewable Aromatics from Lignin with Metal-Dependent Oxidative Enzymes	**Mosè Simone Galluzzo**

Journal of Biotechnology

The Journal of Biotechnology (J. Biotech.) offers publication for both full-length articles and short communications on a wide range of biotechnology-related topics.

Main scope of the journal

- Bioprocess engineering
- System biology, synthetic microbiology
- Metabolic engineering, microbial physiology
- Biorefinery, biomass engineering
- Biochemical enzyme/protein engineering
- Metabolic engineering
- Microbial expression systems
- Biocatalyst engineering
- Insect cell-based models
- Multienzyme cascade reactions
- Plant-based biotechnology



2025 CiteScore™ 7.2
Powered by Scopus®

2025 Journal Impact Factor 4.0
Journal Citation Reports® (Clarivate Analytics, 2026)

Editors



Chief Editor
Prof. Christoph W. Sensen
Hungarian Centre of Excellence for Molecular Medicine, Hungary



Technical Editor
Dr. Sensen Maria
Szeged, Hungary

Scan the QR code for further details about the journal and information on how to submit.

If you have questions about submitting, please contact Georgina Jiang (Senior Publisher) at: Georgina.Jiang@elsevier.com

ELSEVIER

Advancing human progress together

Science Flash Talks
November 12th

	TITLE	AUTHOR
SF2-01	Integrated Phenotypic, Genomic and Metabolomic Bioprospecting of Microbial Strains with Probiotic Potential	**Teresa Lull Bueno**
SF2-02	Cyanoflan as a Sustainable Cosmetic Ingredient: From Bioactivity to Formulation Development	**Daniela Wucsits**
SF2-03	Hybrax: Bioprocess Hybrid Models Made Easy	**Julian Libiseller-Egger**
SF2-04	Process Optimization for Organic Acid Production: Balancing Microbial Performance with In Situ Product Removal (ISPR)	**Yen-Ning Chang**
SF2-05	Zero-Shot Multi-Objective Enzyme Engineering	**Carlos Acevedo-Rocha**
SF2-06	DNA and Beyond: What AAV Lysis Reveals About Chromatin-Associated Impurities	**Carolina Jahn**
SF2-07	Biorefineries as Social Networks: A Mixed-Methods Approach to Explore the Austrian Biorefinery Landscape	**Antonia Knapp**
SF2-08	Regenerative Intensive Orchards (RIO) Integrating Soil, Water and Plant Monitoring for Climate-Resilient Apple Production	**Tobias Pointner**
SF2-09	Enzymatic Upcycling of Fish Processing Side-Streams: A Circular Bioeconomy Route to Bioactive Protein Hydrolysates from Red Sea Bream (*Pagrus major*) Heads Waste	**Minthari Sakethanika Bandara**
SF2-10	Engineering Flavin Photosensitizers for Light Driven Plastic Degradation	**Kinza Rumat**
SF2-11	Unlocking Olive Pomace Valorization Through Acidogenic Fermentation: Towards an Integrated Biorefinery for Bioplastic Production	**Viviana Paulon**
SF2-12	Construction and Phenotypic Assessment of Mutant Strains to Enhance Lactaldehyde Tolerance in *Escherichia coli*	**Meesha Katyal**
SF2-13	From Light to Chemicals: Photosynthetic Whole-Cell Biocatalysts for Sustainable Redox Manufacturing	**Lenny Yap**

Science Flash Talks
November 12th

	TITLE	AUTHOR
SF2-14	Evolving the Synthetic Acetyl-CoA (SACA) Pathway: A *Komagataella phaffii* Platform for Efficient Methanol-to-Acetyl-CoA Conversion	**Florian Pruckner**
SF2-15	Microbial Production of PHA from Alkoxylated C5 Glycosides: A Holistic Biorefinery Approach to Ethyl-Substituted Sugars	**Salvador Bertran Llorens**
SF2-16	Biocatalytic Amidation of Malonates in Organic Solvent	**Magdalena Abramiuk**

The Protein CRDMO
for Fast, Smart, Bioprocess Development
ingenza
ADVANCED BY NATURE®
Proprietary microbial & mammalian hosts for strain engineering
USP & DSP development
Precision-driven analytical services
We engineer bacterial, yeast & mammalian cell-lines to produce any protein using our proprietary platform:
inGenius®
Our expertise in strain engineering allows us to design and optimise biosynthetic pathways for maximum product yield.
Dual-Engineered Solutions Delivered at Speed
For more information, please get in touch or visit our website.
Come see us at
esib
EUROPEAN SUMMIT OF INDUSTRIAL BIOTECHNOLOGY
info@ingenza.com +44 (0)1968 708620 www.ingenza.com

MikroMondo

Association for the Advancement of Science and Arts

WHERE SCIENCE MEETS ART

Discover the invisible. Imagine the possible.

MikroMondo brings people together through exhibitions, workshops, talks, and creative encounters inspired by the microscopic world.

EXPLORE • CREATE • CONNECT

---

novasign
Process modeling

DIGITAL TWINS FOR INDUSTRIAL BIOPROCESSES

Fewer experiments, improved process knowledge, more informed decisions.

Make more of your fermentation and downstream data with **Novasign Studio**. Understand what drives **product quantity and quality** and explore process improvements in silico, before running costly experiments.

UP TO **70%** **fewer experiments**

UP TO **5x** **higher productivity**

SAVE UP TO **€1M** **in cost of goods**

Novasign Studio

One platform from experimental planning to process control: automated data preprocessing, hybrid models, Digital Twin simulation and full audit trail.

Why work with us? 60% of the world's top 25 pharma companies are already engaged with us, and clients worldwide seamlessly integrate Novasign already today in their process optimization. Your data belongs to you and you own your trained models.

novasign.at
johannes.pilz@novasign.at
Vienna, Austria

VectorBuilder
Where Better Science Begins

Design

Use the **Vector Design Studio** or **VectorBee** to create and order experiment-ready vectors.

Deliver

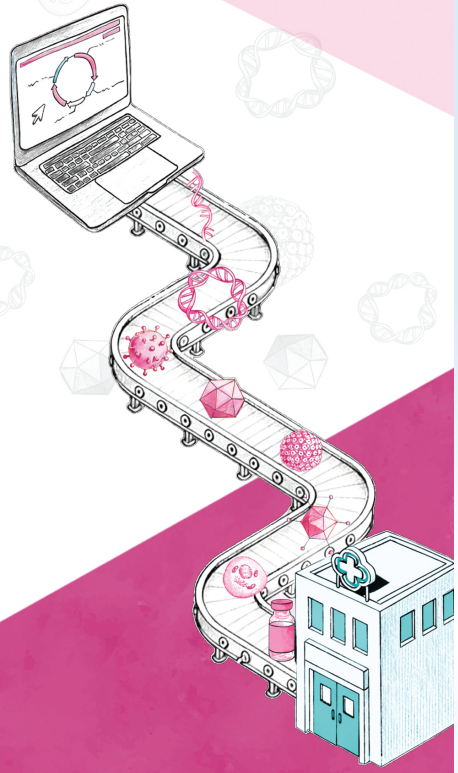
Easily add downstream **plasmid** preparation, **virus** packaging, and **RNA** transcription.

Discover

Take your research further with **library** design and screening, **stable cell line** engineering, and more.

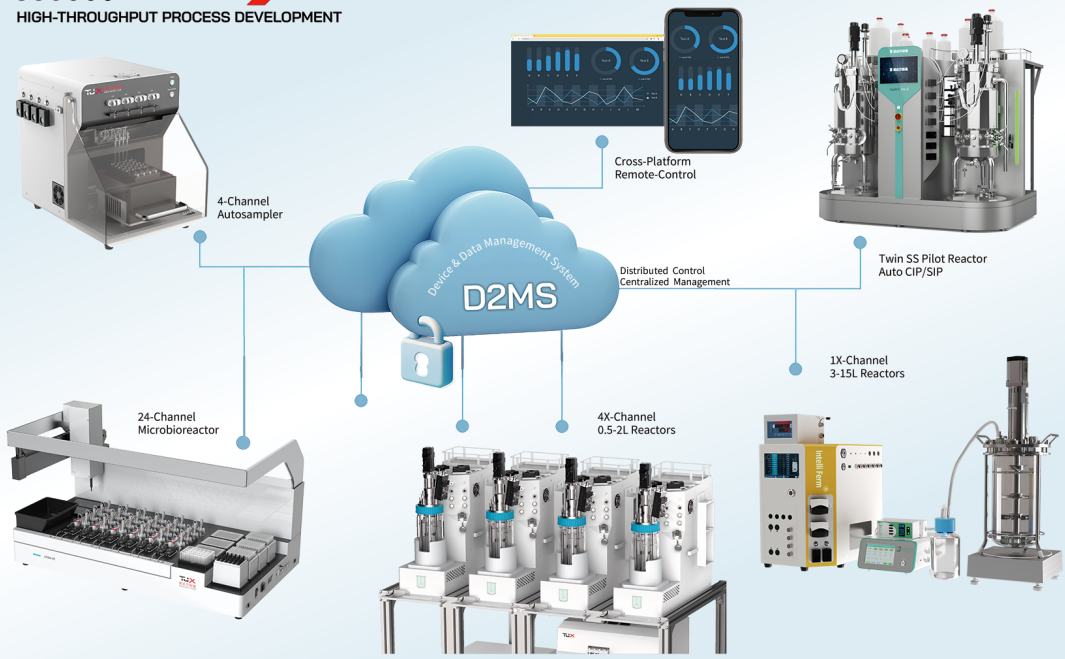
Develop

Seamlessly transition to the clinic with **CliniVec**™ consultation,advanced **IP technologies**, and **GMP manufacturing**.



SCAN HERE
to visit our website

TUX
HIGH-THROUGHPUT PROCESS DEVELOPMENT



Notes

Notes





www.esib.at