



# esib / 2017

**EUROPEAN SUMMIT OF INDUSTRIAL BIOTECHNOLOGY**

GRAZ, AUSTRIA, NOVEMBER 14<sup>TH</sup> - 16<sup>TH</sup>

# European Summit of Industrial Biotechnology

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## Products & production for a better future

- a **stage** to meet and talk
- **pivot** for active exchange of news, ideas and trends
- **hotbed** for innovation
- **cradle** for fruitful co-operations
- **cornerstone** of new incentives

### The European communication platform for Industrial Biotechnology

**esib** has already established itself as one of the biggest biotech conferences in Europe and an international platform for industrial biotechnology in multiple contexts. The event not only covers science but also deals with industrial needs and hopes, economic demands, funding resources or political aspirations and still leaves space for networking and recreation. It encourages all protagonists of industrial biotechnology to think outside the box and in new comprehensive dimensions.

In 2017, the **esib** focuses on „PRODUCTS & PRODUCTION“ – What are the new promising trends in science and industry? How is the production process of biotechnological and pharmaceutical products going to change in the future? How can we as a society benefit from new, environmentally friendly innovations, and what are the expectation and challenges?

To answer these questions, the **esib** is uniting major contributors to European industrial biotechnology under one roof to learn from celebrated experts, executives and entrepreneurs, to get new inputs from politics and funding agencies and to develop profitable ideas with prospective partners. We therefore cordially invite you to discuss vital questions and encouraging topics and to be on top of new insights and trends.

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## science meets economy meets politics

to discuss

- **I** nspiring trends of industrial biotechnology
- **N** ew disruptive technologies and incremental changes
- **N** ovel outcomes and approaches
- **O** utstanding hot topics
- **V** aluable insights in economic and political developments
- **A** wesome new design ideas and products
- **T** rendsetting concepts for funding and financing
- **E** xistential developments in the context of industrial biotechnology

Be part of it – have a voice – renew industrial biotechnology – **INNOVATE**



# Organizational Committee

Gabriele **Berg**  
Verena **Beck**  
Tomislav **Cernava**  
Dietmar **Cseh**  
Wolfgang **Ernst**  
Martina **Geier**  
Toni **Glieder**  
Reingard **Grabherr**  
Alois **Jungbauer**  
Robert **Kourist**  
Olivia **Laggner**  
Christiane **Luley**  
Bernd **Nidetzky** (Chair)  
Barbara **Petschacher**  
Harald **Pichler**  
Astrid **Preisz**  
Renate **Rogi**  
Florian **Rüker**  
Tanja **Schärfl**  
Edgar **Schiebel**  
Christoph **Sensen**  
Anita **Slavica**  
Thomas **Stanzer**  
Matthias **Steiger**  
Martin **Trinker**  
Patricia **Velikogne**  
Martin **Walpot**  
Katrín **Weinhandl**  
Birgit **Wiltschi**  
Margit **Winkler**  
Christin **Zachow**



# General Information

**Conference Venue:** The European Summit of Industrial Biotechnology (ESIB) takes place in Graz/Austria. The second largest city of Austria is a fascinating, beautiful and nice place. With more than 900 years of history, visitors get in touch with ancient knights, a vibrating cultural scenery that ranges from classics to modern approaches, great tasting food and an inspiring nightlife. Additionally, with nine universities and colleges Graz is an internationally acknowledged place of science and research.

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**  
**Austria**

Public Transport to Messe Congress Graz:

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, Stadthalle, Fröhlichgasse/Messe, Münzgrabenstraße/Messe.

You can take the following tramway lines: 4, 5, 6

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## Internet – Facilities

Access to the internet will be provided:

Name: ESIB

Password: esib#graz

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**Instructions for Poster Presenters:** The poster boards will be provided in the conference venue. They are labelled with consecutive numbers. Your poster is assigned with a number, which can be found in the program. Please mount your poster at the beginning of the conference on Nov. 14th. The posters will be circulated each day by our conference staff. Please be available during the poster sessions on the day mentioned below. At this date it will be visible at the main social area. Please also be available during the poster session on Nov. 15th (18:15 – 20:15). Make sure to remove your poster at the end of the conference on Nov. 16th, 2017.

**01 Session 1 (November 14th)**

Poster with numbers 1 – 50

**02 Session 2 (November 15th)**

Poster with numbers 51 – 100

**03 Session 3 (November 16th)**

Poster with numbers 101 – 148



# General Information



**Gala Academia:** The Gala Academia takes place on November 14th, 2017 at 20:30 / Entrance from 19:45 onwards. Meet, talk, eat, drink and enjoy an evening accompanied by interesting people! High above the old city center of Graz you will have the chance for networking with visionaries and doers, with decision makers and sceptics. Be part of it!

**Venue:**

Schlossbergrestaurant  
Am Schlossberg 7  
8010 Graz

**How to get there:** At 19:45 and 19:55 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 "Schlossbergbahn" where you change to the "Schlossbergbahn", that will bring you directly to the top of the Schlossberg. Take a left and you will see the Schlossbergrestaurant in front of you. If you prefer to go by yourself please come between 19:45 – 20:10 to the "Schlossbergbahn" – the password for free transfer is "ESIB 2017", maps of Graz will be offered at the registration desk.

Alternatively take a guided walking tour through the picturesque old town of Graz. Guides will wait at 19:45 and 19:55 at the reception desk of the Messe Congress Graz.

# General Information

**Chilling Life Science:** The Chilling Life Science takes place on November 15th, 2017 at 21:00 / Entrance from 20:15 onwards. Let the day fade away in the heart of the Schlossberg – at the Dom im Berg with delicious fingerfood, cocktails and good company. Enjoy yourselves; it's time to chill!

**Venue:**

Dom im Berg  
Schlossbergsteig  
8010 Graz

**How to get there:** At 20:30 the tramway "Sonderfahrt" will wait for you just in front of the Messe Congress Graz at the stop "Stadhalle" – 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 go by yourself please come to the tramway stop "Schlossbergplatz / Murinsel", and for entering Dom im Berg see description above. Maps of Graz will be offered at the registration desk. Alternatively take a guided walking tour through the picturesque old town of Graz. Guides will wait at 20:30 at the reception desk of the Messe Congress Graz.

**Biotech Breakfast:** The Biotech Breakfast takes place on November 16th, 2017 8:30 – 10:00 at the Messe Congress Graz. Let the day begin! Breakfast is the most important meal of the day so let's get together and start the last day of our summit with a delicious, typical Styrian breakfast to delight body & soul.



# Timetable Day 1

## 14<sup>th</sup> November

### Industrial Biotechnology – The Big Trends

HOUR	ID	SESSION	SESSION TYPE
10:15 - 11:45	I	European Trends for Driving Innovation and Project/Grant Management	<i>Special Session</i>
11:00		Registration Reception & Poster Session	
12:30		Welcome Address	<i>Plenary</i>
13:00	01	Trends in Science	<i>Plenary</i>
14:30		Coffee Break & Poster Session	
15:15	02	Trends in Industry	<i>Plenary</i>
17:15		Coffee Break & Poster Session	
18:00		WORKSHOP SESSION 1	
	03	Trends in Science Communication	<i>Parallel Workshop</i>
	04	Trends in Evaluation of Science	<i>Parallel Workshop</i>
	05	Trends in IPR	<i>Parallel Workshop</i>
20:30	06	Gala Academia	<i>Social</i>



# Timetable Day 2

## 15<sup>th</sup> November

HOUR	ID	SESSION	SESSION TYPE
09:00 - 11:00		<b>WORKSHOP SESSION 2</b>	
	07	<b>Producing Current Trends in Antibody Engineering and Development</b>	<i>Parallel Workshop</i>
	08	<b>Capturing the Smell - Biotechnology to Reshape F&amp;F Production</b>	<i>Parallel Workshop</i>
	09	<b>Start Up – Start Through – Start Now! Produce your Own Company</b>	<i>Parallel Workshop</i>
11:00 - 11:15		<b>Coffee Break</b>	
11:15 - 12:00	10	<b>Science Flash</b>	<i>Plenary</i>
12:00 - 13:30		<b>Lunch Break &amp; Poster Session</b>	
13.30 - 18:00	II	<b>acib Connecting Regions - Croatia</b>	<i>Special Session</i>
13:30 - 15:30		<b>WORKSHOP SESSION 3</b>	
	11	<b>Biocatalytic Oxygenations – Towards New, Sustainable Products</b>	<i>Parallel Workshop</i>
	12	<b>Microbiome-based Products for Agriculture &amp; Industry</b>	<i>Parallel Workshop</i>
	13	<b>Discovering the Latest (Bio)pharma Production Technologies</b>	<i>Parallel Workshop</i>
15:30 - 16:00		<b>Coffee Break</b>	
16:00 - 18:00		<b>WORKSHOP SESSION 4</b>	
	14	<b>Enzyme Cascade Reactions in Industrial Biotechnology</b>	<i>Parallel Workshop</i>
	15	<b>Sustainable Production using C1 Carbon Feedstocks</b>	<i>Parallel Workshop</i>
	16	<b>Producing Trends – Interactive</b>	<i>World Café</i>
18:00 - 20:15		<b>Poster Session &amp; Reception</b>	<i>all Posters</i>
18:15 - 20:15	III	<b>Pitch Your Research (Workshop)*</b>	<i>Special Session</i>
18:15 - 20:15	17	<b>Science Meets Economy</b>	<i>Matchmaking</i>
21:00	18	<b>Chilling Life Science</b>	<i>Social</i>





# Timetable Day 3

## 16<sup>th</sup> November

### Designing Industrial Biotechnology

HOUR	ID	SESSION	SESSION TYPE
08:30 - 10:00	19	<b>Biotech Breakfast &amp; Poster Session</b>	<i>Social &amp; Poster Session</i>
10:00 - 12:00	III	<b>Pitch Your Research (Workshop)*</b>	<i>Special Session</i>
10:00 - 12:00		<b>WORKSHOP SESSION 5</b>	
	20	<b>"Made by Synthetic Biology" – A Status Quo Analysis</b>	<i>Parallel Workshop</i>
	21	<b>How Many Bioinformaticians does it Take to Make a Product?</b>	<i>Parallel Workshop</i>
	22	<b>Challenges in Design and Production of New and Emerging Vaccines</b>	<i>Parallel Workshop</i>
12:00 - 12:15		<b>Coffee Break</b>	
12:15 - 13:00	23	<b>Science Flash</b>	<i>Plenary</i>
13:00 - 14:00		<b>Lunch Break &amp; Poster Session</b>	
14:00 - 16:00	IV	<b>Scientific Storytelling (Lecture)</b>	<i>Special Session</i>
14:00 - 15:30	24	<b>Continuous Production</b>	<i>Plenary</i>
15:30 - 16:15	25	<b>Closing Lecture „Bridging Tomorrow“</b>	<i>Plenary</i>
16:15		<b>Closing Remarks</b>	

\* Limited to thirty persons.



## Sessions 01-02

### 01 Trends in Science

Modern chemistry or biotechnology? Both of them offer solutions for industrial processes, but as synthetic and chemical pathways often leave a bad feeling in the public's mind, there is a huge demand for biotechnological production routes. What might be the right way to solve the future challenges and is biotechnology the solution to everything? Who is the winner from an economic/ecologic point of view?

Meet two renowned laureates to discuss the most promising trends in science and learn about their different viewpoints.

#### Speakers

**CHAIR** **Bernd Nidetzky**, acib GmbH / Graz University of Technology

#### **Matthias Beller**

Director "Leibniz-Institut für Organische Katalyse an der Universität Rostock e.V. (IfOK)" and Professor of „Catalysis“, University of Rostock

#### **Manfred T. Reetz**

External emeritus group leader of the Mülheim Max-Planck-Institute and Hans-Meerwein-Research-Professor at Philipps-University Marburg

**November 14th, 2017 / 13:00 - 14:30 / Plenary / Saal 1**

### 02 Trends in Industry

Academia meets industry - both shape the future trends of industrial biotechnology. Experience the challenges of industrial biotechnology from the points of view of different global players in the worldwide biotech industry.

#### Speakers

**CHAIR** **Bernd Nidetzky**, acib GmbH / Graz University of Technology

#### **Joe Adams**

Scientific Leader, API Chemistry, GlaxoSmithKline plc.

#### **Torben Vedel Borchert**

Vice President and Head of Discovery, Novozymes A/S

#### **Weichang Zhou**

Chief Technology Officer & Senior Vice President, Biologics Development and Manufacturing, WuXi Biologics

**November 14th, 2017 / 15:15 - 17:15 / Plenary / Saal 1**



### 03 Trends in Science Communication

Is science engaging the public community? It is high time! Communication of excellent science is no longer restricted to high impact journals. To prevent your achievements from remaining unrecognized in a broader public make use of alternative communication channels. Blogs, newsletters, TV-interviews, scientific breakfasts, open labs, podcasts – there are no limits for creativity. Think outside the box and find out, how to address your target communities to improve both your research and your career.

#### Speakers

CHAIR **Raffael Fritz**, Red Bull Media House GmbH

#### **Juliane Fischer**

Independent Journalist, e.g. „Die Presse“ Science / Innovation

#### **Oliver Lehmann**

Head of Stakeholder Relations, Institute of Science and Technology Austria (IST) and President of the Educational and Administrative Facility Club

November 14th, 2017 / 18:00 - 19:30 / Workshop / Saal 1

### 04 Trends in Evaluation of Science

It has become popular to evaluate research performance by quantitative indicators. What does it mean to use data to govern science? Do we damage the system with tools implemented without knowledge of good practice and interpretation? Are we obsessed finding our position in global rankings with arbitrary indicators? Do we get new perspectives beyond bibliometric indicators by so called alternative metrics (Altmetrics) coming from web sources and social media? Meet experts to discuss good practice, limitations and perspectives of research evaluation in the third year after the publication of the Leiden Manifesto for research metrics in Nature.

#### Speakers

CHAIR **Edgar Schiebel**, AIT Austrian Institute of Technology GmbH

#### **Peter van den Besselaar**

Professor of Organisations Sciences, Vrije Universiteit Amsterdam

#### **Wolfgang Glänzel**

Director Centre for R&D Monitoring (ECOOM) and Professor of Quantitative Science Studies, Faculty of Economics and Business, Katholieke Universiteit Leuven

#### **Stefan Hornbostel**

Head of Research Area Research System and Science Dynamics (DZHW) & Professor at the Department of Social Sciences, HU Berlin

November 14th, 2017 / 18:00 - 19:30 / Workshop / Saal 3



## Sessions 05-06

### 05 Trends in IPR

Generating intellectual property and patents is a big issue in each researcher's life. But what does it mean and what are the consequences of filing a patent – for your institution, for your research and for you as a person? Learn about relevant definitions and institutions on European level, and get insight into experiences at patent divisions of successful companies.

#### Speakers

**CHAIR** **Astrid Preisz**, acib GmbH

**Birgitta Gassner**

European Patent Attorney, REDL Life Science Patent Attorneys

**Bernhard Koch**

Team Leader Transfer and Technology, University of Natural Resources and Life Science Vienna

**Nicolas M. Reischer**

Senior Legal Counsel, Boehringer Ingelheim RCV GmbH & Co KG

**Gerald Ruppert**

IP Manager, CAG Holding GmbH

**Berthold Rutz**

Patent Examiner Biotechnology, European Patent Office Munich

**Angela Siegling**

Handlungsbevollmächtigte, Schutzrechtsmanagement & IP Management, Austria Wirtschaftsservice Gesellschaft mbH

**November 14th, 2017 / 18:00 - 19:30 / Workshop / Saal 10**

### 06 Gala Academia

Meet, talk, eat, drink and enjoy an evening accompanied by interesting people! High above the old city center of Graz you will have the chance for networking with visionaries and doers, with decision makers and skeptics. Be part of it! (included in registration fee). See page 5 for details.

**November 14th, 2017 / 20:30 / Social / Schlossbergrestaurant**



### 07 Producing Current Trends in Antibody Engineering and Development

Antibodies are key players for the treatment of an enormous range of diseases. Think about anti-cancer antibodies, or, quite recently developed checkpoint modulating antibodies that allow a new approach for harnessing the immune system in its fight against cancer. Also infectious diseases are combated with antibodies. Join us and get to know the latest superheroes of modern medicine.

#### Speakers

**CHAIR Florian Rüker**, acib GmbH / University of Natural Resources and Life Science, Vienna

#### **Neil Brewis**

Chief Scientific Officer, F-star Biotechnology Ltd.

#### **Gloria Esposito**

Chief Executive Officer, Austrianni GmbH and CTO of Trianni Inc.

#### **Randolf Kerschbaumer**

Head Oncology Research, Shire Austria GmbH

#### **Eszter Nagy**

Co-Founder/Chief Scientific Officer and Managing Director, Arsanis Inc.

**November 15th, 2017 / 09:00 - 11:00 / Workshop / Saal 10**



### 08 Capturing the Smell – Biotechnology to Reshape Flavors & Fragrances Production

Will biotechnology be the gold standard to produce flavors and fragrances in the near future? Designer bugs that excrete grapefruit aroma and other compounds of immense economical/ecological value are no vision but reality. The market demand for natural ingredients is increasing, but what is the public perception of F&F compounds derived through biotechnology? And what are the obstacles for producers in terms of the ever-changing landscape of labeling regulations? Take the opportunity to hear the expert views first-hand.

#### Speakers

**CHAIR** **Harald Pichler**, acib GmbH / Graz University of Technology  
**Margit Winkler**, acib GmbH / Graz University of Technology

#### **Christopher Dean**

Vice President of Biotechnology and Process Engineering, Corporate R&D, Firmenich S.A.

#### **John Morrissey**

Senior Lecturer, Microbiology Department, University College Cork

#### **Boris Schilling**

Head of External Opportunities, Givaudan Schweiz AG

#### **Holger Zorn**

Professor & Director of the Institute of Food Chemistry and Food Biotechnology, Justus Liebig University Giessen; Member of the Panel on Food Contact Materials, Enzymes, Flavourings and Processing Aids (CEF) of the European Food Safety Authority (EFSA)

**November 15th, 2017 / 09:00 - 11:00 / Workshop / Saal 1**



## Session 09

### 09 Start Up – Start Through – Start Now! Produce Your Own Company

A golden key can open any door. You are planning a start-up? You are looking for financing possibilities for your ideas? Exchange experiences with successful start-up founders and benefit from their lessons learned. Meet investors and learn more about what they are looking for in a start-up company. What are their criteria to invest? Why invest in biotech in the first place?

#### Speakers

CHAIR **Johannes Sarx**, ARGE LISAVienna

**Angelika Bodenteich**

Co-Founder & Head of Development, Marinomed Biotechnologie AG

**Bernhard Koch**

Team Leader Transfer and Technology, University of Natural Resources and Life Science Vienna

**Clemens Lakner**

Associate Life Sciences, Merck Ventures, Merck KGaA

**Peter Meinhold**

Co-Founder & Chief Technology Officer, Provivi Inc.

**Alexander Murer**

Co-Founder & Chief Executive Officer, Briefcase Biotec GmbH

**Manfred Schuster**

Chief Executive Officer and Founder at RMB-Research

November 15th, 2017 / 09:00 - 11:00 / Workshop / Saal 11



# Sessions 10-11

## 10 Science Flash

You have an idea you want to place on the market? You have an outstanding new finding you want to present? Be precise and be to the point, convince a jury in a powerful speed presentation.

**Speakers** see page 30

**CHAIR** **Katrin Weinhandl**, acib GmbH

**November 15th, 2017 / 11:15 - 12:00 / Plenary / Saal 1**

## 11 Biocatalytic Oxygenations – Towards New, Sustainable Products

The precise insertion of oxygen in molecules can yield high value compounds. Let's have a look on the different enzymes in use for selective biocatalytic oxygenations. What are the perspectives for future applications? Is it already an economically viable alternative to chemical methods? How do experts cope with potential safety issues, while using oxygen or hydrogen peroxide as an oxidant? Let's find out if the biocatalytic alternative is ready for scale-up and keeps up with chemical processes.

**Speakers**

**CHAIR** **Martina Geier**, acib GmbH

**Willem J.H. van Berkel**

Professor of Molecular Enzymology, Laboratory of Biochemistry, Wageningen University

**Vincent Eijsink**

Professor, Department of Chemistry, Biotechnology, and Food Science, Norwegian University of Life Sciences

**Marco van den Berg**

Principal Scientist Applied Biochemistry and Screening, DSM Nederland B.V.

**Peter Meinhold**

Co-Founder & Chief Technology Officer, Provivi Inc.

**November 15th, 2017 / 13:30 - 15:30 / Workshop / Galerie**





### 12 Microbiome-based Products for Agriculture & Industry

Microbiomes are the hidden helpers for the health and well-being of not only humans and animals but also plants. Applications for plant protection, medicine, or agriculture are only a few examples for future perspectives. Could these possibilities of exploiting microbial (and chemical) diversity be the answer for today's challenges in agriculture? How can they efficiently cover industrial needs for future products? Be part of an interesting discussion between representatives from industry, agriculture and leading scientists in this field.

#### Speakers

**CHAIR Gabriele Berg**, acib GmbH / Graz University of Technology

#### **Christine Moissl-Eichinger**

Professor for Interactive Microbiome Research, Medical University Graz & BioTechMed

#### **Christina Donat**

Technical Director & Substitutional COO, Bio-ferm GmbH

#### **Virginia Ursin**

Director of Scientific Collaborations, Indigo Ag, Inc.

#### **M. Haïssam Jijakli**

Professor in Urban Agriculture and Plant Pathology, Director of Integrated and Urban Plant Pathology Research Laboratory, Gembloux Agro-Bio Tech, University of Liege

**November 15th, 2017 / 13:30 - 15:30 / Workshop / Saal 11**



## Session 13

### 13 Discovering the Latest (Bio)pharma Production Technologies

When companies are thinking of biotechnological and pharmaceutical products, they are always considering quality, yield, costs and revenue. The optimization of all parameters is a complex but not impossible process. But how to design a production plant? What do you need to know about FDA/GMP compliant manufacturing? What about creating pharmaceutical products?

Sharing and combining of knowledge (e.g. in the frame of the Human.technology Styria cluster) is an essential part in setting up production systems in an industrial scale. Join and get ready to design your production process!

#### Speakers

**CHAIR** **Johann Harer**, Human.technology Styria GmbH

**Markus Fido**

Chief Executive Officer, VelaLabs GmbH

**Andreas Marchler**

Chief Executive Officer, ZETA Holding GmbH

**Thomas Purkarthofer**

Head of Business Development, VTU Technology GmbH

**Ruth Staubmann**

Plant Manager, Fresenius Kabi Austria GmbH

**November 15th, 2017 / 13:30 - 15:30 / Workshop / Saal 1**



### 14 Enzyme Cascade Reactions in Industrial Biotechnology

Putting the right ingredients into one pot and getting out your target product – sounds like magic, but has a name: enzyme cascade reactions, an exciting recent development in biocatalysis. However, it is still difficult to overcome the obstacles on the way to industrial applications. Get insight into the recent developments about complex artificial metabolic pathways. What could be the methods for controlling side reactions and how to support the compatibility of catalysts? Be part and go for some new perspectives and the latest trends in this field. This session is presented by the EU-project BIOCASCADES.

#### Speakers

**CHAIR Robert Kourist**, acib GmbH / Graz University of Technology

#### **Wolf-Dieter Fessner**

Professor of Organic Chemistry, Technical University of Darmstadt

#### **Francisco Morís**

Co-founder & Managing Director, EntreChem S.L.

#### **Dörte Rother**

Junior Professor, RWTH Aachen University & Forschungszentrum Jülich GmbH

#### **Martin Schürmann**

Principal Scientist Biocatalysis, InnoSyn B.V.

November 15th, 2017 / 16:00 - 18:00 / Workshop / Saal 1



# Sessions 15-16

## 15 Sustainable Production using C1 Carbon Feedstocks

How can we satisfy our needs for sustainably produced chemicals in the future? Many bulk chemicals are produced from fossil resources and need to be replaced by renewable and sustainable feedstocks in the future. Both, new processes and new products need to be developed and a key technology to enable this transformation is biotechnology and metabolic engineering. But what are the chemical products of the future and how can those be produced?

In this session, experts from industry and academia will give insights into this broad field and tell about their perceptions and visions.

### Speakers

**CHAIR** **Matthias Steiger**, acib GmbH

#### **Trygve Brautaset**

Professor in Biotechnology, Department of Biotechnology and Food Science, Norwegian University of Science and Technology (NTNU)

#### **Jean Marie François**

Professor of Biochemistry, Microbial Physiology and BioNanotechnology at Institut National des Sciences Appliquées (INSA) and University of Toulouse

#### **Peter Dürre**

Professor of Microbiology & Director of Institute of Microbiology and Biotechnology, University of Ulm

#### **Dirk Weuster-Botz**

Full Professor at Institute of Biochemical Engineering & Director Research Center of White Biotechnology, Technical University of Munich

**November 15th, 2017 / 16:00 - 18:00 / Workshop / Saal 3**

## 16 Producing Trends – Interactive (World Café)

Bubbling with ideas? Let's talk about them! Discuss your insights and concepts. Stimulate each other during lively face-to-face discussions in small groups. Be guest in our World Café, take a seat and be part of producing future trends.

**CHAIR** **Christiane Luley**, acib GmbH

**Barbara Petschacher**, Graz University of Technology

**November 15th, 2017 / 16:00 - 18:00 / Workshop & World Cafe / Saal 12**



# Sessions 17-19

## 17 Science Meets Economy

Looking for new collaborations and partnerships? A guided Matchmaking Event organized by SFG and the Enterprise Europe Network is a unique opportunity to generate new business contacts and to develop new ideas. Select your partners and take the chance for 20-minute meetings. The meetings are arranged in advance and participation is requested in the course of the registration process.

**November 15th, 2017 / 18:15 - 20:15 / Matchmaking / Galerie**

## 18 Chilling Life Science

Let the day fade away with fingerfood, cocktails and good company. Enjoy yourselves; it's time to chill! (included in registration fee). See page 6 for details.

**November 15th, 2017 / 21:00 / Social / Dom im Berg**

## 19 Biotech Breakfast

Let the day begin! Breakfast is the most important meal of the day so let's get together and start the last day of our summit with a delicious, typical Styrian breakfast to delight body & soul. (included in registration fee)

**November 16th, 2017 / 08:30 - 10:00 / Social / Foyer**



## Session 20

### 20 “Made by Synthetic Biology” – A Status Quo Analysis

Let's shed light on the status quo of applied synthetic biology from the angle of entrepreneurs, investors, and of technology experts. Has synthetic biology finally started to deliver on their promise to bioeconomy? What are the current products and have they already entered the market? Are the production techniques fundamentally different from established biotechnological approaches? What future innovations and products can we expect and how can we as a society benefit from them? Join us in a discussion about leaving the beaten track of inflated expectations and exaggerated anxieties raised by synthetic biology

#### Speakers

CHAIR **Birgit Wiltshi**, acib GmbH

**John Cumbers**

Founder SynBioBeta LLC

**Pascal Longchamp**

Chief Business Officer, Evolva SA

**Clemens Lakner**

Associate Life Sciences, Merck Ventures, Merck KGaA

**Harald König**

Senior Scientist, Institute for Technology Assessment and Systems Analysis (ITAS), Karlsruhe Institute of Technology

**November 16th, 2017 / 10:00 - 12:00 / Workshop / Saal 1**



## 21 How Many Bioinformaticians does it Take to Make a Product?

Bioinformatics has become one of the major disciplines that supports biotechnology research and development. How much bioinformatics is involved, which role does it play? Key researchers from industry will explain how they contribute to the development of new products. The academic side will be represented by Members of the Austrian Bioinformatics Platform ATBI, showing how they support industrial product development through collaborative projects.

### Speakers

**CHAIR** **Christoph Sensen**, acib GmbH / Graz University of Technology

#### **Christian Gruber**

Senior Scientist, acib GmbH & Founder innoPhore GmbH

#### **Sepp Hochreiter**

Professor & Head of the Institute of Bioinformatics, Johannes Kepler University Linz

#### **Rene De Jong**

Senior Scientist Applied Biochemistry, DSM Biotechnology Center

#### **Thomas Rattei**

Professor for *In Silico* Genomics and Vice-Head of Department, Department of Microbiology and Ecosystem Science, Head of the Division of Computational Systems Biology, University of Vienna

#### **Bertram Weiss**

Head of Bioinformatics, Bayer AG

November 16th, 2017 / 10:00 - 12:00 / Workshop / Saal 10



## Sessions 22-23

### 22 Challenges in Design and Production of New and Emerging Vaccines

None of us can imagine modern medicine without vaccines. Vaccines or drug delivery vehicles are often based on virus like particles. Our experts highlight recent technologies for production and up-scaling for industrial demands. How long does it take from test tube to patient? Get informed about mandatory steps on the long way to market authorization.

#### Speakers

**CHAIR** **Reingard Grabherr**, acib GmbH / University of Natural Resources and Life Science, Vienna

#### **Otfried Kistner**

Senior Consultant & Independent Vaccine Expert

#### **Reinhard Kirnbauer**

Professor of Dermatology, Laboratory of Viral Oncology Division of Immunology, Allergy and Infectious Diseases (DIAID), Department of Dermatology, General Hospital AKH

#### **Matthias Müllner**

Head of CMC, Themis Bioscience GmbH

#### **Udo Reichl**

Professor of Bioprocess Engineering at University of Magdeburg,  
Director at Max-Planck-Institute for the Dynamics of Complex Technical Systems

**November 16th, 2017 / 10:00 - 12:00 / Workshop / Saal 3**

### 23 Science Flash

You have an idea you want to place on the market? You have an outstanding new finding you want to present? Be precise and be to the point, convince a jury in a powerful speed presentation.

**Speakers** see page 31

**CHAIR** **Katrin Weinhandl**, acib GmbH

**November 16th, 2017 / 12:15 - 13:00 / Plenary / Saal 1**





# Sessions 24-25

## 24 Continuous Production

Continuous production of biopharmaceuticals is a current challenge in bioprocess engineering. While this technology has already been established in the upstream field, it is still in its infancy in the downstream process. Which challenges are coming up when implementing continuous processes in industry? What are the regulatory hurdles to overcome? Get interesting insights into the views of industry, academia and regulatory authorities.

### Speakers

**CHAIR** **Alois Jungbauer**, acib GmbH / University of Natural Resources and Life Science, Vienna

**Suzanne Farid**

Professor in Bioprocess Systems Engineering, University College London

**Gorazd Hribar**

Research Scientist, Lek d. d. a Sandoz company & at National Institute of Chemistry Slovenia

**Christoph Mück**

Quality Assessor, Austrian Agency for Health and Food Safety (AGES)

**November 16th, 2017 / 14:00 - 15:30 / Plenary / Saal 1**

## 25 Closing Lecture „Bridging Tomorrow“

Gain inspiration from future perspectives on the production of recombinant pharmaceuticals and therapeutics. Get informed about latest developments concerning innovative molecular technology to enable novel approaches to the study, diagnosis and treatment of disease.

### Speaker

**CHAIR** **Bernd Nidetzky**, acib GmbH / Graz University of Technology

**Nico Callewaert**

Professor of Biochemistry & Director of Center for Medical Biotechnology (VIB-UGent), Ghent University

**November 16th, 2017 / 15:30 - 16:15 / Plenary / Saal 1**



### I European Trends for Driving Innovation and Project/Grant Management

Dealing with EU projects comes along with complex requirements to consortia: how to manage such projects, how to develop mitigation scenarios of all scopes and levels? What is efficient innovation management and how to drive innovation to bring results closer to the market? And what are the recent topics and EU policies according to the new work programme (2018-2020) and beyond? The challenge of participation in or even coordination of an H2020 project: is it really worth it – and why? Let's find out the opportunities and about future perspectives for your EU projects.

#### Speakers

**CHAIR** **Georg Schirmacher**, Clariant Produkte GmbH

#### **Yasmin Dolak-Struss**

Unit for Life Sciences, ERC and Marie Skłodowska-Curie,  
Austrian Promotion Research Agency (FFG)

#### **Kathrin Prebeck**

Senior Project Manager, Strategic Collaborations, CMAST BVBA

#### **Stephen Webb**

Chief Executive Officer & Founder, RTDS Group

**November 14th, 2017 / 10:15 - 11:45 / Special / Saal 1**



# Special Session II

## II acib Connecting Regions - Croatia

The European Union aims to strengthen the European regions. esib is the platform to discuss possibilities and develop perspectives for strong cooperations in central Europe. Industrial Biotechnology in Croatia and Austria - we take the first step, we get involved, we evolve new strategies - let's join forces and interests!

HOUR	SESSION & SPEAKER
13:30	<p><b>Welcome addresses:</b></p> <p><b>Bernd Nidetzky</b>, CSO acib GmbH, Professor and Head of Institute of Biotechnology and Biochemical Engineering, Graz University of Technology</p> <p><b>Tome Antičić</b>, PhD, State Secretary, Ministry of Science and Education of the Republic of Croatia</p> <p><b>Siegfried Nagl</b>, Mayor of Graz</p> <p><b>Horst Bischof</b>, Vice rector for Research at Graz University of Technology, Professor of Computer Graphics and Vision</p>
13:40	<p><b>Expanding and Exploring Natural Sequence Space – from Protein Engineering to Chemo-enzymatic Cascade Reactions</b></p> <p><b>Robert Kourist</b>, Professor at Institute of Molecular Biotechnology, Graz University of Technology</p>
14:00	<p><b>Production of High-value Chemicals by Simultaneous Semi-solid Substrate Saccharification and Fermentation (s5f)</b></p> <p><b>Anita Slavica</b>, Professor in Biotechnology and Bioprocess Engineering, University of Zagreb, Faculty of Food Technology and Biotechnology, Department of Biochemical Engineering</p>
14:20	<p><b>Development of New Biotechnology Tools by Engineering Yeast Cell Surface</b></p> <p><b>Vladimir Mrša</b>, Professor in Biochemistry, University of Zagreb, Faculty of Food Technology and Biotechnology, Department of Chemistry and Biochemistry</p>
14:40	<p><b>Biological Resource Management, Mycology and Soil Microbiology</b></p> <p><b>Heribert Insam</b>, Professor and Head of Microbiology, University of Innsbruck</p>
15:00	<p><b>Biofuels Production from Renewable Raw Materials</b></p> <p><b>Božidar Šantek</b>, Professor in Biotechnology and Bioprocess Engineering, University of Zagreb, Faculty of Food Technology and Biotechnology, Department of Biochemical Engineering</p>



# Special Session II

## II acib Connecting Regions - Croatia

HOUR	SESSION & SPEAKER
15:30	<b>Coffee Break</b>
16:00	<b>Austrian and Croatian Joint Venture: Development of Medical Devices for Clinical Use – from Bench to Bed</b> <b>Krešimir Pavelic</b> , Professor, M.D. Ph.D, University of Rijeka, Department of Biotechnology
16:20	<b>Scientific Centre of Excellence for Marine Bioprospecting</b> <b>Rozelindra Čož-Rakovac</b> , PhD, Senior Scientist, Ruđer Bošković Institute, Division of Materials Chemistry
16:40	<b>Latest Advances in Purification Technologies: Process Intensification, Performance Prediction and Continuous Manufacturing</b> <b>Alois Jungbauer</b> , Professor at Department of Biotechnology, University of Natural Resources and Life Sciences, Vienna
17:00	<b>CHO in Times of -omics: Systems Biology to Enhance an Established Production Platform</b> <b>Nicole Borth</b> , Professor at Department of Biotechnology, University of Natural Resources and Life Sciences, Vienna
17:20	<b>Flavor and Off Flavor in Food and Food Contact Material</b> <b>Erich Leitner</b> , Professor and Head of Analytical and Food Chemistry, Graz University of Technology

November 15th, 2017 / 13:30 - 18:00 / Special / Saal 10

SUPPORTED BY



## Special Session III-IV

### III Scientific Storytelling: Pitch Your Research to the Public and Scientific Peers

This mini-course will provide instruction on how to communicate your scientific research using the structural aspects of a story. We will cover the innovative format of a 3-minute elevator pitch. This interactive workshop will utilize the elements of narrative craft to assist participants in their efforts to effectively communicate their research. The participants will break into small groups of 5-6 and have the opportunity to implement these literary tools to communicate their scientific research. This workshop takes place on two days (same content) and each is limited to 30 people.

#### Speaker

##### **Rafael E. Luna**

Executive Director of the National Research Mentoring Network, Principal Investigator of the Administrative Core of NRMN at Boston College, and author of *The Art of Scientific Storytelling*.

**November 15th, 2017 / 18:15 - 20:15 / Special / Saal 4**

**November 16th, 2017 / 10:00 - 12:00 / Saal 4**

### IV General Scientific Storytelling Lecture and Open Discussion

Research manuscripts are written to have an impact on the scientific community and to be cited by others. However, there are thousands of research articles published in our respective fields each year. Is it possible to distinguish one's research paper by communicating science in a clear and compelling fashion?

#### Speaker

##### **Rafael E. Luna**

Executive Director of the National Research Mentoring Network, Principal Investigator of the Administrative Core of NRMN at Boston College, and author of *The Art of Scientific Storytelling*.

**November 16th, 2017 / 14:00 - 16:00 / Special / Saal 12**



# Science Flash Day 2

## 15.11.2017

ID	POSTER ID	NAME	TITLE
01	051	<b>Luley C.</b>	Glycosylation Technology
02	052	<b>Preiner J.</b>	Initiating the Classical Pathway: IgG Recruitment, Hexamerization, and C1q Binding in Real-Time
03	053	<b>Bernardo S.</b>	Egg Yolk as a Novel Source of Antibodies and their Applications
04	055	<b>Krug L.</b>	The Microbiome in Spotlight: Improving Microalgae Cultivation Processes
05	056	<b>Mairhofer J.</b>	To Grow, or not to Grow - Growth-decoupled Recombinant Protein Production in <i>Escherichia coli</i> Enables Cost-effective and Scaleable Manufacturing of Proteins
06	058	<b>Hall M.</b>	Flavin-containing Monooxygenases: from Humans to the Test Tube and Back
07	059	<b>Horner A.</b>	Quantification of Passive and Facilitated Membrane Transport Permeabilities and Other Membrane Properties
08	060	<b>Palmberger D.</b>	Process Development for a Flexible Vaccine Vector Platform based on Recombinant Life Virus
09	061	<b>Neves M.</b>	Avian Antibodies for an Advanced Treatment of Bacterial Infections
10	062	<b>Rudroff F.</b>	Catalytic Cascades – <i>en route</i> to Applied Biochemical Cell-factories
11	063	<b>Tozakidis I.</b>	Lignocellulose Degradation with Surface Displayed Enzymes on <i>Pseudomonas putida</i>
12	064	<b>Petschacher B.</b>	Acib and Kids
13	066	<b>Janke C.</b>	Development of a High Versatile Genetic Toolbox for Acetogenic Clostridia
14	067	<b>Geier M.</b>	Assembly of Multi-part DNA Constructs

# Science Flash Day 3

## 16.11.2017

ID	POSTER ID	NAME	TITLE
15	101	<b>Steiger M.</b>	An Efficient Tool for Metabolic Pathway Construction and Gene Integration for <i>Aspergillus niger</i>
16	103	<b>Philipps G.</b>	Development of an Efficient Gene Transfer and Genomic Integration System for the Syngas-fermenting Bacterium <i>Clostridium ljungdahlii</i>
17	104	<b>Obermeier M.</b>	Bioprospecting a Moss Metagenome for Novel Enzymes and Bioactive Volatiles
18	105	<b>Fessner N.</b>	Development of a Highly Efficient High-throughput Screening Method for the Discovery of Novel P450 Enzymes from Eukaryotic cDNA
19	106	<b>Pavkov-Keller T.</b>	Regioselective Para-Carboxylation of Catechols by a Prenylated Flavin Dependent Decarboxylase
20	107	<b>Arora A.</b>	Relevance of Non-conventional Native Pentose Fermenting Yeasts for Bioethanol Production from Biomass Hydrolysates
21	012	<b>Winkler C.</b>	Photobiocatalytic Nicotinamide Recycling
22	108	<b>Meyer T.</b>	Promoting Open Access Services for Industrial Implementation of Biobased Value Chains and Platforms
23	none	<b>Zavec D.</b>	An Alternative Approach to Methanol Driven Protein Production with <i>Pichia pastoris</i>
24	109	<b>Fitz E.</b>	Optimising Nature for Industry: Design of Synthetic Promoters for <i>Trichoderma reesei</i>
25	110	<b>Almeida M.</b>	Aqueous Biphasic Systems (ABS) as an Alternative Platform to Purify Hen Antibodies
26	none	<b>Savino S.</b>	Fine Understanding of Activated Sugars Biocatalysis by AXS
27	111	<b>Meyer A.</b>	Strain Development by High Throughput Screening of Large Cell Libraries in Nanoliter-Reactors
28	112	<b>Kusstatscher P.</b>	Biological Control of Post-harvest Losses in Sugar Beet

# Poster Presentations

## 01 Session 1 (November 14th)

Poster with numbers 001 – 050

## 02 Session 2 (November 15th)

Poster with numbers 051 – 100

## 03 Session 3 (November 16th)

Poster with numbers 101 – 148

**Instructions for Poster Presenters:** The poster boards will be provided in the conference venue. They are labelled with consecutive numbers. Your poster is assigned with a number, which can be found in the program. Please mount your poster at the beginning of the conference on Nov. 14th. The posters will be circulated each day by our conference staff. Please be available during the poster sessions on the day mentioned above. At that day it will be visible at the main social area. Please also be available during the poster session on Nov. 15th (18:15 – 20:15). Make sure to remove your poster at the end of the conference on Nov. 16th, 2017.



# esib / Posters Day 1

NO.	NAME	TITLE
001	Alessandro <b>Bergna</b>	Impact of Soil and Cultivar to the Tomato Plant Bacteriome: a Study Across Generations
002	Juan M. <b>Bolivar</b>	Role of Enzyme-immobilized Flow Microreactors in Bioprocesses Intensification
003	Juan M. <b>Bolivar</b>	Enzyme Immobilization for Reaction Intensification of O <sub>2</sub> -dependent Biotransformations
004	Annika <b>Borg</b>	Synthesis of Nucleotide Sugars
005	Matthias <b>Engleder</b>	Application of Hydratases for Flavour and Fragrance Synthesis
006	Judith <b>Farnberger</b>	Cobalamin-dependent Methyl Transfer as SAM-free Alternative
007	Claudia <b>Gafko</b>	Fast and Precise Integration into the <i>Escherichia coli</i> Genome
008	Petra <b>Heidinger</b>	Cell-free Circulating Nucleic Acid Sequences as Early Diagnosis Markers
009	Melissa <b>Horvat</b>	Small Molecule Aldehydes from Carboxylic Acid Bioreduction
010	Julia <b>Pitzer</b>	Steroid Biotransformations with Cytochrome P450 based Whole-cell catalysts in Biphasic Systems
011	Manuel <b>Reisinger</b>	Profiling DNA Methylation Patterns in <i>Stenotrophomonas</i> spp. Exposed to Different Cultivation Conditions
012	Sandy <b>Schmidt</b>	Photosynthesis-driven Asymmetric Reduction of C=C Double Bonds
013	Joerg <b>Schrittwieser</b>	Development of a Scalable, Multi-Enzymatic Synthesis of Dihydropindine
014	Lukas <b>Sturmberger</b>	The Meta-transcriptome of a Fern species ( <i>Pteridium</i> sp.) Reveals the Presence of Cysteine-rich, Surface Active Proteins.
015	Gábor <b>Tasnádi</b>	Gram-scale Enzymatic Synthesis of Phosphate Monoesters
016	Stefan <b>Velikogne</b>	Oxime Reduction Activity in Microbial Systems
017	Christin <b>Zachow</b>	The Exploitation of the Microbiome: Perspectives for Plant, Food and Ecosystem Health
018	Birgit <b>Grill</b>	Enzymatic Alkene Cleavage to Aldehydes and Ketones
019	Karlheinz <b>Grillitsch</b>	Characterization of Secretory Organelles from <i>Pichia pastoris</i>
020	Christian <b>Gruber</b>	Chasing Enzymatic Promiscuity by Exploring Empty Space: Identification of Enzymatic Activity by Mining Structural Databases
021	Rama Krishna <b>Gudiminchi</b>	Carbohydrate Immunomodulators - A Special Focus on Chitin and $\beta$ -glucan Polysaccharides
022	Rama Krishna <b>Gudiminchi</b>	Efficient Single-Step Biocatalytic production of L-Ascorbic Acid 2-Glucoside from Sucrose
023	Lucas <b>Hammerer</b>	Esterification and Hydrolysis of Lactones by Horse Liver Esterase
024	Christine <b>Hemmelmair</b>	A MES-MFC Coupled System for Methane Production
025	Christine <b>Hemmelmair</b>	Food for Tomorrow - Product Development and Food Analytics
026	Haifeng <b>Liu</b>	Protonase-Catalyzed Cyclization in Natural Product Synthesis
027	Nicolas <b>Marx</b>	CRISPR-based Targeted Epigenetic Editing in Chines Hamster Ovary Cells
028	Sandra <b>Moser</b>	Enhancing (+)-nootkatone Production in <i>Pichia pastoris</i> and <i>Saccharomyces cerevisiae</i> through Cytochrome P450-mediated Conversions

# esib / Posters Day 1

NO.	NAME	TITLE
029	Sabine <b>Schelch</b>	Sialylated HMO Production in Enzymatic One-pot Reactions
030	Wolfgang <b>Schnitzhofer</b>	Development of a Bioleaching Process for Metal Recovery from MSWI Ash Fractions
031	Daniel <b>Schwendenwein</b>	Cascade Reactions for Aldehyde Generation <i>in vivo</i>
032	Georg <b>Steinkellner</b>	CASoX – Analyze, Annotate and Visualize Protein Cavity Information
033	Georg <b>Steinkellner</b>	Search Enzymes 'Outside the Box' - The Catalophore™ Platform
034	Felix <b>Tobola</b>	Effect of Non-canonical Amino Acids on Protein-carbohydrate Interactions: Structure, Dynamics and Carbohydrate Affinity of a Lectin Engineered with Fluorinated Tryptophan Analogs
035	Michael <b>Tösch</b>	Employing Monooxygenases for the Oxy-functionalization of Volatile Organic Compounds
036	Agnieszka <b>Walczak</b>	Different Shades of the Application of Non-canonical Amino Acids in Biotechnology
037	Valerie <b>Schmieder</b>	Expanding the CRISPR Tool Box for Its Application in Chinese Hamster Ovary Cells
038	Susanne <b>Schweiger</b>	Pre-packed Preparative Chromatography Columns: Column-to-Column Packing Variation and Scalability
039	Lukas <b>Skopek</b>	Enzymatic Recycling of High Value Phosphor Pigment and Glucose from Rayon Fibers
040	Nadine <b>Tatto</b>	RNA-Seq Analysis Protocol Development for <i>Komagataella phaffii</i>
041	Olympia <b>Tumulva</b>	Prediction of fibroblast Growth Factor-2 Protein's Qualities in a Downstream Process: Shrinkage Regression and Variable Selection
042	Stefan <b>Weiss</b>	Chip <i>in vitro</i> Simulation System
043	Marcus <b>Weinguny</b>	Knock-down of RAD21 Leads to Productivity Enhancement in Recombinant CHO Cells
044	Simone <b>Weinberger</b>	Production of Poly(ethylene furanoate) Thin Films of Various Crystallinities and Their Enzymatic Surface Hydrolysis
045	Franziska <b>Wanka</b>	Fine-tuning Gene Expression: Pantothenic Acid Inducible Promoters in <i>Trichoderma reesei</i>
046	Theresa <b>Scharl-Hirsch</b>	Real-time Monitoring of Quality Attributes during a Chromatographic Capture Step using Statistical Models
047	Birgit <b>Kamm</b>	Statistical Experiment-based Optimisation of the Enzymatic Pretreatment of Spent Sulphite Liquors using Fungal Laccases
048	Nusa <b>Pristovsek</b>	A Combinatorial Use of Titer and Titer Normalized to Confluence as Early Reporters Allows for Selecting High-producer Chinese Hamster Ovary Cell Clones in Suspension
049	Silvia <b>Martinek</b>	Results and Insights of a Pilot Scale 2-step Fermentation of Sugar Rich Substrates to Produce Hydrogen and Methane
050	Sophie <b>Thallner</b>	Bioleaching for Removal of Chromium and Associated Metals from BOF Slag

# esib / Posters Day 2

NO.	NAME	TITLE
051	Christiane <b>Luley</b>	Glycosylation Technology
052	Johannes <b>Preiner</b>	Initiating the Classical Pathway: IgG Recruitment, Hexamerization, and C1q Binding in Real-Time
053	Sandra <b>Bernardo</b>	Egg Yolk as a Novel Source of Antibodies and their Applications
054	Sandra <b>Bernardo</b>	Aqueous Biphasic Systems Composed of Cholinium-based Ionic Liquids for the Extraction of Immunoglobulin Y, IgY, from Egg Yolk
055	Lisa <b>Krug</b>	The Microbiome in Spotlight: Improving Microalgae Cultivation Processes
056	Juergen <b>Mairhofer</b>	To Grow, or not to Grow - Growth-decoupled Recombinant Protein Production in <i>Escherichia coli</i> Enables Cost-effective and Scaleable Manufacturing of Proteins
057	Lukas <b>Feuchtenhofer</b>	Using the enGenes-X-press Platform for the Production of Value-added Products in <i>Escherichia coli</i>
058	Mélanie <b>Hall</b>	Flavin-containing Monooxygenases: from Humans to the Test Tube and Back
059	Andreas <b>Horner</b>	Quantification of Passive and Facilitated Membrane Transport Permeabilities and Other Membrane Properties
060	Dieter <b>Palmberger</b>	Process Development for a Flexible Vaccine Vector Platform based on Recombinant Life Virus
061	Márcia <b>Neves</b>	Avian Antibodies for an Advanced Treatment of Bacterial Infections
062	Florian <b>Rudroff</b>	Catalytic Cascades – <i>en route</i> to Applied Biochemical Cell-factories
063	Iasson <b>Tozakidis</b>	Lignocellulose Degradation with Surface Displayed Enzymes on <i>Pseudomonas putida</i>
064	Barbara <b>Petschacher</b>	Acib and Kids
065	Barbara <b>Petschacher</b>	CARBAFIN – Developing a Glycosylation Platform Technology to an Industrial Level
066	Christian <b>Janke</b>	Development of a High Versatile Genetic Toolbox for Acetogenic Clostridia
067	Martina <b>Geier</b>	Assembly of Multi-part DNA Constructs
068	Martina <b>Geier</b>	A Synthetic Biology Toolbox for <i>Pichia pastoris</i> : New Tools to Obtain New Products
069	Filippo <b>Fiorentini</b>	Biocatalysis for the Hydroxylation of Aliphatic Heterocyclic Compounds
070	Reinhard <b>Oeggl</b>	Atom and Step Efficient Enzymatic 2-Step Synthesis of Anethole 1,2 Diol
071	Irena <b>Maus</b>	German Network for Bioinformatics Infrastructure
072	Christopher <b>McElroy</b>	Investigating the Melleolide Biosynthesis Pathway of the Honey Mushroom <i>Armillaria gallica</i>
073	Thomas <b>Healy</b>	Scale-Up of <i>Escherichia coli</i> Fermentation from Small Scale to Pilot Scale Using Eppendorf Fermentation Systems
074	Karin <b>Männersdorfer</b>	Digital Twin – From Process Modeling To Plant Simulation
075	Diana <b>Széliyová</b>	Determination of CHO Biomass Composition
076	Damiano <b>Totaro</b>	Microfluidic Platform for Downscaling Fermentation and for Screening Engineered Strains



# esib / Posters Day 2

NO.	NAME	TITLE
77	Matejka <b>Podlogar</b>	Hydrothermal Synthesis of Rutile-type TiO <sub>2</sub> Nanocrystals
078	Jaroslav <b>Jacak</b>	Bio-applications for 3D Nanolithography in Microfluidics
079	Verena <b>Braunschmid</b>	Fusion of a Substrate-binding Domain to the Laccase AfLacc1 Increases its Ability to Polymerize Lignin
080	Bernd <b>Albrecht</b>	Enzyme Scaffolding for Metabolic Engineering Endeavors
081	Friedrich <b>Altmann</b>	Portraying the Sweet and the Dark Sides of a Protein
082	Martin <b>Altvater</b>	Towards sustainable Production of Lactic Acid
083	Diane <b>Barbay</b>	Characterization of Transcriptional Regulatory Proteins in <i>Pichia pastoris</i>
084	Samira <b>Basyouni Khamis</b>	Improving Biological Pretreatment of Cellulosic Waste for Biofuel Production by Application of Breeding with the Cellulolytic Fungus <i>Trichoderma reesei</i>
085	Martina <b>Baumann</b>	Assessment of Genomic Rearrangements in Chinese Hamster Ovary (CHO) Cell
086	Antonino <b>Biundo</b>	Synergistic Engineering Approaches to Improve the Activity of Cbotu_EstA on Polyester Hydrolysis
087	Sonakshi <b>De</b>	Role of Epigenetic Regulation in Flocculation and Pseudo-hyphal Growth of the Protein Production Host <i>Pichia pastoris</i>
088	Martina <b>Andlar</b>	Substrate Binding of a Copper-dependent Fungal Lytic Polysaccharide Monoxygenase
089	Martina <b>Banić</b>	Probiotics and Starter Cultures - Surface Proteins and Bacteriocins
090	Božidar <b>Duić</b>	An Integrated Bioprocess for Production and Recovery of Lactic Acid
091	Visnja <b>Gaurina Srcek</b>	Protein Isolates from Flaxseed Cake as Cell Culture Media Supplement
092	Ana <b>Huđek</b>	Influence of the Encapsulation Method on Biological Effect of Quercetin and L-ascorbic Acid
093	Dajana <b>Koolanović</b>	Utilization of Unusual Substrates in Lactic Acid Production by <i>Lactobacillus amylovorus</i> DSM 20531T
094	Nenad <b>Mardetko</b>	Kinetic Analysis of Genetically Modified <i>Saccharomyces cerevisiae</i> Cultivated on Wheat Straw Hydrolysates
095	Antonela <b>Polenus</b>	Power of Uncharacterized <i>Lactobacillus amylovorus</i> DSM 20531T amylase(s)
096	Ivana <b>Radojčić Redovniković</b>	Green Solvents for Green Technologies
097	Renata <b>Teparić</b>	Surface Display of Recombinant Proteins by C-terminal or N-terminal Immobilization in <i>Saccharomyces cerevisiae</i>
098	Ivan <b>Vučenić</b>	A Laboratory Scale Transglucosylation by Using Whole Cells as Biocatalysts
099	Dušica <b>Vujaklija</b>	Analysing the Switch to Oxytetracycline Production through Phosphoproteomics in <i>Streptomyces rimosus</i>
100	Vesna <b>Zechner-Krpan</b>	Possible Applications of Beta-Glucans Isolated from Spent Brewer's Yeast

# esib / Posters Day 3

NO.	NAME		TITLE
101	Matthias	<b>Steiger</b>	An Efficient Tool for Metabolic Pathway Construction and Gene Integration for <i>Aspergillus niger</i>
102	Matthias	<b>Steiger</b>	Impact of Glutathione Metabolism on Zinc Homeostasis in <i>Saccharomyces cerevisiae</i>
103	Gabriele	<b>Philipps</b>	Development of an Efficient Gene Transfer and Genomic Integration System for the Syngas-fermenting Bacterium <i>Clostridium ljungdahlii</i>
104	Melanie-Maria	<b>Obermeier</b>	Bioprospecting a Moss Metagenome for Novel Enzymes and Bioactive Volatiles
105	Nico	<b>Fessner</b>	Development of a Highly Efficient High-throughput Screening Method for the Discovery of Novel P450 Enzymes from Eukaryotic cDNA
106	Tea	<b>Pavkov-Keller</b>	Regioselective Para-Carboxylation of Catechols by a Prenylated Flavin Dependent Decarboxylase
107	Anju	<b>Arora</b>	Relevance of Non-conventional Native Pentose Fermenting Yeasts for Bioethanol Production from Biomass Hydrolysates
108	Tanja	<b>Meyer</b>	Promoting Open Access Services for Industrial Implementation of Biobased Value Chains and Platforms
109	Elisabeth	<b>Fitz</b>	Optimising Nature for Industry: Design of Synthetic Promoters for <i>Trichoderma reesei</i>
110	Mafalda	<b>Almeida</b>	Aqueous Biphasic Systems (ABS) as an Alternative Platform to Purify Hen Antibodies
111	Andreas	<b>Meyer</b>	Strain Development by High Throughput Screening of Large Cell Libraries in Nanoliter-Reactors
112	Peter	<b>Kusstatscher</b>	Biological Control of Post-harvest Losses in Sugar Beet
113	Heena	<b>Dhiman</b>	Epigenetic Regulation of Gene Expression in Response to Changing Environment in CHO Cell Batch Culture
114	Andreas Bernhard	<b>Diendorfer</b>	A Novel siRNA Aided Method for CHO Cell Line Selection
115	Peter	<b>Eisenhut</b>	A CRISPR/Cas9 based Cell Line Engineering Tool for Individual and Combinatorial Activation of Multiple Genes
116	Valeria	<b>Ellena</b>	Sexual Development in <i>Aspergillus niger</i>
117	Judith	<b>Frei</b>	Identifying Sequence Features for Higher Protein Expression in <i>Trichoderma reesei</i>
118	Sarah Noel	<b>Galleguillos</b>	Making a Long Story CHOrt: Systematic Reconstruction of a Core Metabolic Model of CHO
119	Sarah Noel	<b>Galleguillos</b>	Growing Molecular Complexity: Metabolic Reconstruction of <i>Taraxacum officinale</i>
120	Brigitte	<b>Gasser</b>	Characterizing Vacuolar Protein Sorting Pathways in the Yeast <i>Pichia pastoris</i>
121	Katrin	<b>Greimel</b>	Functionalisation of Lignocellulosic Material Using Enzymes
122	Michael	<b>Hanscho</b>	CHOmINE: A Browseable Resource for Chinese Hamster Data
123	Vaibhav	<b>Jadhav</b>	Genome Wide Secretory Protein Identification and Analysis of Host Cell Supernatant Proteome Dynamics in Chinese Hamster Ovary (CHO) Cells



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NO.	NAME	TITLE
124	Dominik <b>Jeschek</b>	Synthetic phospholipid Systems to Understand Molecular Transport Processes
125	Karl <b>Metzger</b>	Process Intensification with 3M Filters for <i>E. coli</i> based Recombinant Protein Production
126	Neža <b>Novak</b>	Evaluation of an in silico Designing Pipeline to Predict sgRNA Pairs for the CRISPR/Cpf1 Genome Editing System and its Application in CHO Cells
127	David Alejandro <b>Pena Navarro</b>	Omics-data Integration into the Genome-scale Metabolic Model of <i>Pichia pastoris</i> Enables Estimation of Protein Production Capabilities
128	Sinisa <b>Petrik</b>	Various Aspects of Improving Lactic Acid Production in <i>Saccharomyces cerevisiae</i>
129	Jacek <b>Plewka</b>	<i>In situ</i> Monitoring of Protein Adsorption Layer Thickness during Protein-A Chromatography using SAXS
130	Roland <b>Prielhofer</b>	Promoter and Process Engineering for Recombinant Protein Production in <i>Pichia pastoris</i> towards Simple, Fast and Methanol-free Cultivation Regimes and High Product Titters
131	Theresa <b>Radebner</b>	The Regulatory Network of <i>Trichoderma reesei</i> Present under Cellulase Expressing Conditions
132	Bojana <b>Radoman</b>	Characterization of O-glycans in Recombinant Proteins Produced in <i>Pichia pastoris</i>
133	Dominik Georg <b>Sauer</b>	Real-time Prediction of Potency, Purity and Concentration throughout a Chromatographic Capture Step of Basic Fibroblast Growth Factor 2
134	Nicole <b>Walch</b>	Online Monitoring of Quantity, Purity and Potency of an Antibody Capture Process
135	Bernhard <b>Schmelzer</b>	Identification of Intracellular Interaction Partners of Recombinant Proteins
136	Sara <b>Vecchiato</b>	Enzymatic Functionalization of HMLS-polyethylene Terephthalate Fabrics Improves the Adhesion to Rubber in Rubber Composites
137	Gonçalo <b>Silva</b>	Thermal and Structural Analysis of mAb-binding to Protein A in Affinity Chromatography
138-148	EU project <b>OXYTRAIN</b>	



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