



DECHEMA



## PRAXISforum

04 – 05 Feb 2015

DECHEMA-House, Frankfurt/Main, Germany



# Enzymes for Industrial Applications

The flagship event for industry delegates and solution providers.

PRAXISforum partner:

Hessen

Biotech

sponsored by:

**VTU**  
technology

libragen

## From experts for experts

Enzymes are considered to be little miracle substances for innovation, process advantages and cost reductions. Whether in the food industry, pharmaceutical industry, textiles, detergents, biorefineries, fine and specialty chemicals, paper and cosmetics, the application areas in which enzymes can be used sensibly and profitably are diverse and nowhere near exhausted.

The first DECHEMA PRAXISforum “Enzymes for Industrial Applications” brings together industry professionals, solution providers and key customers in the field of enzyme technology from all over the world. It is your chance to attend and get informed about the latest developments and new products, services and process and production technologies.

## PRAXISforum key topics:

- New industrial enzymes - where is the future?
- Best practice examples and lessons learned: successful enzyme applications
- Engineering enzymes: customized solutions for innovative processes
- Lead-time-reduction: efficient scale up from lab to production
- Technologies in enzyme production: equipment, engineering solutions and platform technologies
- Intelligent enzymes for innovative processes

## PRAXISforum highlights:

- Find innovations in accordance with your practical needs
- Meet existing and prospective customers and suppliers
- Network with like-minded industry professionals
- Learn about new trends, projects, processes and practices
- Exhibition floor featuring practical and trade based presentations
- Relaxed networking dinner at the end of first PRAXISforum day

*Dr. Björn Mathes*  
*Head of PRAXISforums,*  
*DECHEMA e.V.*



### Are you an industry or SME delegate?

Visit the PRAXISforum and discuss your problems, ideas and solutions with experts on enzymes!

### Are you a “Solution Provider”?

Be part of the exhibition. This is a great way to personally get in touch with your target group and to understand a customer’s needs from their perspective. The number of exhibitors is strictly limited!

**We look forward to welcoming you in Frankfurt/Main!**

## Wednesday, 4 February 2015

| Time  | Topic  | Speaker   |
|-------|--|---|
| 9:30  | <b>Registration, Opening of exhibition</b>   |   |
| 11:00 | <b>Opening and welcome address</b>   | A. Förster / Head of Research Management and Conferences<br>DECHEMA e.V., Germany         |
| 11:10 | <b>Welcome address</b>   | R. Waldschmidt / CEO<br>Hessen Trade & Invest, Germany                                    |
| 11:15 | <b>Impulse</b><br><b>Enzymes for a Brighter Living</b> <ul style="list-style-type: none"> <li>• Overview of industry segments applying enzymes</li> <li>• Examples of enzyme developments at DSM</li> <li>• What's next in Science and Innovation</li> </ul>   | O. May / Corporate Scientist<br>DSM Biotech Center, The Netherlands                       |
| 11:55 | <b>Impulse</b><br><b>Biocatalysis - Key Technology in Sustainable Synthesis of Chemicals</b> <ul style="list-style-type: none"> <li>• Reaction engineering needs to complement molecular engineering</li> <li>• Consider thermodynamics besides kinetics when optimizing biotransformations</li> <li>• Evaluate hybride processes integrating down stream processing</li> <li>• Present and future perspectives in technical biocatalysis</li> </ul> | A. Liese / Head of the Institute of Technical Biocatalysis<br>TU Hamburg-Harburg, Germany |
| 12:35 | <b>Lunch and networking at exhibition floor</b>  |   |

### Best Practices examples and lessons learned: successful enzyme applications I

| Time  | Topic  | Speaker   |
|-------|--|---|
| 14:00 | <b>New enzymes for technical applications</b> <ul style="list-style-type: none"> <li>• From enzyme molecule to market: example fungal proteases</li> <li>• Market criteria for new enzyme products in food, feed and technical applications</li> </ul>   | K.-H. Maurer / Director of Business Development<br>AB Enzymes, Germany    |
| 14:30 | <b>Biocatalytic solutions for ACIs production</b> <ul style="list-style-type: none"> <li>• Technological platform developed at Libragen,</li> <li>• Its use to setup biocatalytic processes for transfer to Induchem and</li> <li>• Manufacturing of Active Cosmetic Ingredients (ACIs)</li> </ul> | D. Wahler / Business Development Manager Biocatalysis<br>Libragen, France |

## Wednesday, 4 February 2015

| Time  | Topic   | Speaker   |
|-------|---|---|
| 15:00 | <b>Applications of biocatalysis in drug discovery</b> <ul style="list-style-type: none"> <li>• Synthesis of chiral building blocks with isolated enzymes</li> <li>• Expanding the enzyme toolbox for metabolite synthesis</li> <li>• Biocatalysis for natural products</li> </ul> | S. Lütz / Head of Bioreactions<br>Novartis Pharma AG, Switzerland |
| 15:30 | <b>Interactive networking and discussion @ „topic tables“, Exhibition Walkthrough</b>   |   |

### From enzyme discovery to new materials

| Time  | Topic   | Speaker   |
|-------|---|---|
| 16:30 | <b>From Enzyme Discovery to Application - Unique Enzyme Products from the Plethora of Candidates</b> <ul style="list-style-type: none"> <li>• Enzyme discovery</li> <li>• Functional and molecular enzyme diversity</li> </ul>  | W. Aehle / Corporate Development Enzymes<br>B.R.A.I.N., Germany |
| 17:00 | <b>A Novel Mass Transfer Concept to Facilitate Enzyme-Catalyzed Reactions - In Process Scale</b> <ul style="list-style-type: none"> <li>• Development of a novel reactor concept using a rotating flow cell</li> <li>• SpinChem®: a concept for mass transfer enhancement in reactions involving solid phase reagents</li> <li>• Use of the stirring element itself to establish a forced flow through a heterogeneous reactant or catalyst bed (located inside the stirrer body)</li> <li>• It's time for process scale</li> </ul> | E. Byström / CEO<br>Nordic ChemQuest, Sweden                    |
| 17:30 | <b>Materials Modification by using Enzymes - Potential and Challenges</b> <ul style="list-style-type: none"> <li>• Strategies for combining materials sciences with enzyme technology</li> <li>• Site directed enzyme immobilization</li> <li>• Innovative polymer functionalization via enzymes</li> <li>• Industrial relevance of biohybrid materials</li> </ul>  | M. Richter / Group Leader Biocatalysis<br>Empa, Switzerland     |
| 18:00 | <b>Interactive networking and discussion @ „topic tables“, Exhibition Walkthrough</b>   |   |
| 20:00 | <b>Networking Dinner</b>  | Location: DEPOT 1899, Textorstr. 33, Frankfurt/M.               |
| 23:00 | <b>End of first PRAXISforum day</b>   |   |

## Thursday, 5 February 2015

8:30 Re-Opening exhibition

### Best Practice Examples and lessons learned: successful enzyme applications II

| Time  | Topic   | Speaker   |
|-------|---|---|
| 9:00  | <b>Recent Applications of Enzyme and Metabolic Engineering for Chemical Synthesis</b> <ul style="list-style-type: none"> <li>• More and more enzymes are available for a wide range of biotransformations,</li> <li>• The focus is increasingly being shifted to protein evolution and metabolic engineering</li> <li>• Recent applications of enzyme and metabolic engineering for synthesis of pharmaceutical and fine chemicals</li> </ul> | X. Xie / Director of R&D<br>EnzymeWorks, PR China   |
| 09:30 | <b>Laccases in the Flavour and Fragrance Industry</b> <ul style="list-style-type: none"> <li>• Biosynthetic pathways to terpenoids: target molecules in the F&amp;F industry</li> <li>• White biotechnology applied to Fragrance research</li> <li>• Oxidation of terpene molecules with laccases: recent achievements at Givaudan</li> </ul>   | E. Eichhorn / Head of Laboratory for Biocatalysis and Biotransformations<br>Givaudan, Switzerland   |
| 10:00 | <b>Proceedings in feed enzymes at BASF</b> <ul style="list-style-type: none"> <li>• Benefits of feed enzymes in animal nutrition and animal welfare</li> <li>• Formulation and application of feed enzymes</li> <li>• New product development</li> </ul>  | M. Matuschek / Head of Global Development and Technical Marketing Animal Nutrition<br>BASF, Germany |
| 10:30 | <b>Interactive networking and discussion @ „topic tables“, Exhibition Walkthrough</b>   |   |

### Enzyme production: engineering solutions and platform technologies

| Time  | Topic   | Speaker   |
|-------|---|---|
| 11:30 | <b>Development and production of industrial enzymes</b> <ul style="list-style-type: none"> <li>• Enzyme development platform at c-LEcta</li> <li>• 1<sup>st</sup> and 2<sup>nd</sup> generation enzyme collections</li> <li>• Examples of enzyme developments and applications at c-LEcta</li> <li>• Enzyme production timelines that match industrial needs</li> </ul> | A. Vogel / Head of R&D Enzyme Development<br>c-LEcta, Germany |

## Thursday, 5 February 2015

| Time  | Topic  | Speaker  |
|-------|--|--|
| 12:00 | <b>Multifaceted and versatile toolkit for high-productivity protein production</b> <ul style="list-style-type: none"> <li>• AOX<sub>1</sub> promoter library for MeOH-induced and MeOH-free expression</li> <li>• Tunable, optimum protein expression</li> <li>• Helper factors coexpression</li> <li>• High throughput cultivation and screening facilitating lean development timelines</li> </ul> | T. Purkarthofer / Head of Business Development<br>VTU Technology, Austria                              |
| 12:30 | <b>Scale-up of processes from lab to industrial dimension</b> <ul style="list-style-type: none"> <li>• Engineering phase gate model</li> <li>• Design criteria and basis of design</li> <li>• Scale-up requirements</li> <li>• Examples for scale-up in industrial biotechnology</li> </ul>  | J. Hunfeld / Head of Business Development & Sales - Biotechnology Plants<br>Linde Engineering, Germany |
| 13:00 | <b>Lunch at exhibition floor, interactive networking and discussion @ „topic tables“</b>   |  |

### Intelligent enzymes for innovative processes

| Time  | Topic  | Speaker                                |
|-------|--|--|
| 14:00 | <b>Enzymatic modification of natural and synthetic polymers</b> <ul style="list-style-type: none"> <li>• Enzyme platform at evocatal</li> <li>• The evocatal process from enzyme identification to large scale production</li> <li>• Enzymatic synthesis and modification of carbohydrate polymers</li> <li>• Biofinishing of various PET-films and fibers</li> </ul>  | T. Eggert / CEO<br>Evocatal, Germany   |
| 14:30 | <b>Scale up of biocatalytical processes...</b> <ul style="list-style-type: none"> <li>• ...at the example of the Pig Liver Esterase-Catalyzed Desymmetrization of meso-1,2-Diesters</li> <li>• Advantages of recombinant enzymes for industrial processes</li> <li>• Enzymicals biocatalytic toolbox of different enzyme classes</li> <li>• Process investigations for the desymmetrization of meso-1,2-Diester</li> </ul> | U. Menyes / CEO<br>Enzymicals, Germany |

Thursday, 5 February 2015

| Time  | Topic   | Speaker   |
|-------|---|---|
| 15:00 | <p><b>Closing Keynote</b><br/> <b>Rapid Evolution of Enzymes for Pharmaceutical Applications</b></p> <ul style="list-style-type: none"> <li>• Development of integrated computational, library generation and screening tools for rapid enzyme evolution</li> <li>• Development of new enzyme platforms</li> <li>• Case studies from conception to commercialization</li> </ul> | J. Lalonde / Senior Vice President Research & Development<br>Codexis, USA |
| 15:40 | <p><b>Interactive networking and discussion @ „topic tables“, Exhibition Walkthrough, informal drinks</b></p>   |   |
| 16:45 | <p><b>End of PRAXISforum</b></p>  |   |



## VTU's yield enhancing *Pichia pastoris* protein production platform – broadest toolbox and most versatile technology platform

### Features:

- Unrivaled productivities > 20 g/L of secreted protein
- Manifold expression/production strategies
- MeOH-induced- and MeOH-free- processes
- FDA approved host



## The Speakers



### Wolfgang Aehle

Corporate Development, B.R.A.I.N./D

- Corporate Development Enzymes at BRAIN AG Zwingenberg
- 1995 – 2008 R&D Protein Engineering at Genencor (later a Danisco division), Leiden (NL)
- 1991 – 1995 R&D Protein Engineering at Gist-Brocades (now DSM), Delft (NL)
- Editor of Enzymes in Industry and (Co-)Author of more than 20 publications in protein engineering of industrial enzymes
- (Co)-Inventor on more than 200 patent applications and granted patents (30 independent families) in the field of industrial enzymes



### Emil Byström

CEO, Nordic ChemQuest/SWE

*“The benefit of using immobilized enzymes in lab scale is now possible to apply in process scale!”*

- 2012: CEO of Nordic ChemQuest AB
- 2010: Product Development SpinChem®, Nordic ChemQuest AB
- 2010: PhD at Umeå University: Porous polymeric materials for chromatography: Synthesis, functionalization and characterization

### Thorsten Eggert

CEO, Evocatal/D

*“The key to sustainable and resource-efficient products is to combine traditional industry and biotechnology”*



- PD Dr. Thorsten Eggert is the co-founder and managing partner of Evocatal GmbH, located in Monheim am Rhein, Germany. This biotechnology company, founded in 2006, is a provider of enzymes and fine chemicals for industrial use in the chemical and pharmaceutical industries, as well as the food and animal feed sectors.
- Thorsten Eggert studied biology at the Ruhr University Bochum from 1993 to 1998 and received its PhD from the Institute for Biology of Microorganisms in 2001. Subsequently, he established the directed evolution research group at the Institute for Molecular Enzyme Technology at the Research Center Jülich, which he headed until accomplishing his Habilitation in molecular microbiology at the Heinrich Heine University Düsseldorf in 2007. Dr. Eggert is a member of the board of the biotechnology and bio-economy cluster CLIB2021 and CleantechNRW, as well as an advisor to the DECHEMA biotransformation expert committee.





## The Speakers

### Eric Eichhorn

Head of Laboratory for Biocatalysis and Biotransformations, Givaudan/CH

*"Biocatalysis needs both new and improved enzymes in order to be competitive and useable as a complementary tool to chemistry in chemical synthesis. Versatility, availability and process robustness of enzymes are key criteria. Focus needs to be made on enzymes classes that are not yet applicable at large scale because of being more challenging than those already applied. Access to ready-to-use and stable enzymes of all classes for synthetic purposes is required. Competitiveness in price is critical to allow application of enzymes e.g. in the F&F industry where cost targets are very different from cost targets in the Pharmaceutical industry."*

- Since 2008 at Givaudan Schweiz AG (Dübendorf, CH), Fragrance Research, heading the Laboratory for Biocatalysis and Biotransformations (Senior Research Scientist)
- Project leader at Lonza (Visp, CH): biocatalysis (2006-2008)
- Postdoctoral studies at ETH: Inst. of Microbiology (Prof. T. Leisinger), Inst. of Molecular Biology and Biophysics (Prof. T. Richmond), Inst. of Biotechnology (Prof. B. Witholt): in the fields of microbial metabolism, protein crystallography and biotechnology (2000-2005)
- PhD studies at ETH Zurich, Institute of Microbiology, Prof. T. Leisinger: Sulfur assimilation in *E. coli* (1996-2000)
- Bioengineer's degree, Ecole Supérieure de Biotechnologie de Strasbourg (Upper Rhine Universities (EUCOR), 1995) with diploma thesis in biocatalysis at Lonza AG (Visp, CH)

---

### Johannes Hunfeld

Head of Business Development & Sales Biotechnology Plants, Linde Engineering/D

*"Industrial biotech requires scale-up. Pilot and demo plants are essential for a successful transfer of technology to industrial scale."*

Johannes Hunfeld is heading Business Development & Sales of Linde's Biotechnology Plants Division. He has been with Linde Engineering since 1997, holding positions in Linde contracts and project management including Commercial Project Manager of a world-scale polypropylene project in Russia.





## The Speakers



### Jim Lalonde

Senior Vice President Research & Development, Codexis/USA

*“Biocatalysis has advanced dramatically over the last couple of years. Advances in computational methods, next-gen sequencing and automation have converged to decrease R&D times by an order of magnitude, enabling creation of enzymes for novel chemistries and targets.”*

- Development of integrated computational, library generation and screening tools for rapid enzyme evolution
- Development of new enzyme platforms
- Case studies from conception to commercialization

### Andreas Liese

Head of the Institute of Technical Biocatalysis, TU Hamburg-Harburg/D

*“Interdisciplinary R&D is the key to enable industrial applications of biocatalysis.”*

Prof. Dr. Andreas Liese studied chemistry at the Friedrich-Wilhelms-University of Bonn, Germany and carried out his doctoral research at the Research Center Jülich, Germany, in close collaboration with DSM Research, Netherlands, receiving his PhD degree in 1998 from the Friedrich-Wilhelms-University of Bonn. From 1998 to 2003 Liese was assistant professor at the University of Bonn and at the same time head of the Enzyme Group within the Institute of Biotechnology II (Prof. Dr. C. Wandrey), Research Center Jülich. During a sabbatical in 2000 at Pfizer Global Research & Development, San Diego, USA, he there initiated a R&D group on biocatalysis. From 2003 to 2004 he worked as associate professor at the University of Münster, soon receiving a full professorship for Technical Biocatalysis 2004 at the Hamburg University of Technology (TUHH) as the director of the Institute of Technical Biocatalysis, which he continues to expand. In 2003 Liese received the Award of Up-and-Coming Teacher in Higher Education in the field of biotechnology (DECHEMA, Germany). He is elected member of the steering committee “Biotechnology” of the DECHEMA since 2005 and elected member of the steering committee of the German Society of Chemical Engineering and Biotechnology (DECHEMA) itself since 2014. From 2009 to 2013 he was elected member of the steering committee of the “German Catalysis Society, GeCatS”. His three books („Industrial Biotransformations“, „Biological Principles Applied to Technical Asymmetric Catalysis“ and “Biocatalysis for the Pharmaceutical Industry”) of which he is author deal with processes of white biotechnology.





## The Speakers

### Stephan Lütz

Head of Bioreactions, Novartis Pharma AG/CH

*“Enzymes haven become first choice for certain syntheses, e.g. of chiral alcohols or amines, and there are many other opportunities still out there.”*

- 2013: Habilitation (venia docendi) in biochemistry, Biozentrum, University of Basel
- 2009: Group Leader and Manager for Bioreactions, Novartis Pharma AG, Basel
- 2004: Ph.D. in chemistry, Institute of Biotechnology, Forschungszentrum Jülich
- 2000: diploma in chemistry / technical chemistry, University of Bonn

---

### Markus Matuschek

Director Global Development and Technical Marketing Animal Nutrition, BASF/D

*“In animal nutrition the feed enzymes already and will continue to significantly contribute to further significant improvements of feed efficiency (feed conversion and weight gain) and increasingly to animal welfare. By that they will contribute strongly to a sustainable and balanced growth of animal protein production.”*

- Director Global Development & Technical Marketing Animal Nutrition, BASF SE, Germany
- Innovation Manager Nutrition Ingredients, BASF SE, Germany
- R&D Scientist Fine Chemicals Research, BASF AG, Germany
- R&D Scientist Département des Biotechnologies, Institut Pasteur, France





## The Speakers



### Karl-Heinz Maurer

Director of Business Development, AB Enzymes/D

*“The major challenges for Enzymes in new industrial applications are:*

- (1) Building the right partnership, since enzyme development and formulation are closely linked to application,*
- (2) Keeping an eye on economic requirements from the very beginnings,*
- (3) Considering Health & Safety and sustainability aspects and IP from the start,*
- (4) Being aware that due to fermentation and down-stream processes and formulation enzyme molecules are not an enzyme product.”*

- Since 2011 Business Development Director at AB Enzymes GmbH (Darmstadt) responsible for global business development and regulatory affairs
- 1986 to 2010 different positions at Henkel in Düsseldorf (including affiliated companies like COGNIS Biotechnology), with a focus on corporate research until 2008. Final position was a corporate director Biotechnology within the Global R&D of the business unit Laundry and Home Care
- 1985 to 1986 University of Wisconsin in Madison (WI, USA): molecular biology of Streptomyces and biosynthesis of antibiotics
- Biochemistry at the University of Tübingen, Diploma 1981, Dr. rer nat 1984

---

### Oliver May

Corporate Scientist, DSM Biotech Center/NL

*“Enzyme cost is not the issue, it is development speed and our limited understanding!”*



Oliver May received his PhD from University of Stuttgart where he studied structure function and evolutionary relationship of cyclic amidases. Between 1998 and 2000 he was postdoc at California Institute of Technology (US) where he designed enzymes for amino acid production processes. He joined Degussa (now Evonik Industries) in 2000 developing and implementing various biotransformation processes for fine chemicals, personal care and flavor applications.

Between 2004 and 2006 he headed Degussa’s Service Center Biocatalysis and thereafter joined DSM as Competence Manager and later Corporate Scientist for Biocatalysis. In 2011 he joined the DSM Innovation Center and was responsible as R&D Director for the EBA Bio-based Products & Services for a broad biofuels and platform chemicals R&D portfolio which is now commercialized in Joint Ventures such as PO-ET-DSM Advanced Biofuels and Reverdia as well as other customers. At the beginning of this year he moved to the DSM Biotech Center in Delft.



## The Speakers

### Ulf Menyes

CEO, Enzymicals/D

*“An open discussion of scientists from the field of biocatalysis, users in organic synthesis and technologists from the plant engineering is essential to overcome language barriers and technical challenges. Economic and simultaneously sustainable synthesis processes will be mixed chemical and biocatalytic processes over a period of the next 20 years and more.”*

- CEO Enzymicals AG since 2011
- Managing Director Syntrex GbR 2003-2010
- Managing Director Synaptec GbR/GmbH 1995-2003
- PhD, University of Greifswald, „HF catalyzed Friedel-Crafts-Reaction using surfactants e.g. for the production of high octane fuels“, 1994
- Research assistant at the University of Greifswald, analytical chemistry, 1992-1998
- Research Doctorate at the University of Greifswald, organic and technical chemistry, 1989-1992
- Studies at the University of Greifswald, Chemist (diploma), 1984-1989




---

### Thomas Purkathofer

Head of Business Development, VTU Technology/AUT

*“The development of an efficient industrial enzyme is very challenging and many different parameters have to be addressed properly. Among these the ever increasing challenges associated with production costs play a pivotal role.”*

Thomas Purkathofer is Head of Business Development at VTU Technology GmbH, a biotech company providing *Pichia pastoris* protein expression services. Thomas joined VTU in 2006 and engaged the start-up of the company's new Protein Technologies Unit. He is responsible for the commercialization of VTU's proprietary *Pichia pastoris* protein expression platform and global customer relations and is a member of VTU's technology development team. Thomas received his Ph.D. in chemistry from Graz University of Technology being part of and managing several international industrial biotechnology R&D projects and is co-author of several peer-reviewed publications. In 2011, he was appointed authorized representative of VTU Technology.





## The Speakers



### Michael Richter

Group Leader Biocatalysis, Empa/D

*“New and emerging approaches in materials sciences by using enzymes need a subtle evaluation of the feasibility, the potential benefits and the reasonable transfer of enzyme technology to these fields. Combining the classical engineering design approach of materials sciences with the discovery based approach of enzyme technology is promising but still challenging.”*

Michael Richter studied chemistry at the Universities of Mainz and Freiburg i. Br., where he obtained his diploma in 2000. In 2005 he obtained his doctoral degree from the University of Leipzig studying the chemical modification of aldo-/keto-reductases. Afterwards he returned as a Postdoc to the University of Freiburg i. Br., where he worked at the Institute of Pharmaceutical Sciences on thiamin diphosphate-dependent enzymes, alcohol dehydrogenases and oxidative phenol coupling in fungi. 2009 he joined Empa St. Gallen and is currently head of the Biocatalysis group within the Laboratory for Bioactive Materials. His personal interest is applied enzyme technology, the investigation of new enzymes inferred from biosynthetic pathways for diverse applications such as the modification of biopolymers or synthesis of building blocks.

---

### Andreas Vogel

Head of R&D Enzyme Development, c-LEcta/D

*“Not quantity but quality of enzyme collections make plug-and-play applications possible.”*



Andreas Vogel has experience in the field of biocatalysis and enzyme engineering for more than 10 years. He is currently “Head of R&D Enzyme Development” at c-LEcta. He is originally trained in chemistry (University Münster, Germany) and focused on biochemistry after he had realized how accurate and fast catalysis can be with enzymes. After he obtained his PhD degree in Biochemistry/Chemistry from the University of Münster he moved to a postdoctoral work to the EMBL outstation in Hamburg in 2000, where he focused on structure-function relationships of enzymes. In 2003 he started his second postdoctoral research in Max-Planck-Institute for Coal Research with Prof. M. T. Reetz, where he was involved in development of methods for enzyme optimization (CASTing, B-Fit), biocatalysis, high-throughput screening and stereoselective biotransformations. In 2006 he started to work in the c-LEcta company, first as a Scientist and since 2007 as Head of Biocatalysis & Enzyme Engineering.



## The Speakers

### Denis Wahler

Business Development Manager Biocatalysis, Libragen/F

*“Major challenge: how to find the best enzyme within the shortest timeframe?”*

Dr. Denis Wahler has joined Libragen, a contract research organization specializing in biocatalytic and metagenomic innovation programs, as the new Biocatalytic Business Development Manager, on September 24, 2014. Dr. Wahler (42) has many years of applied research and contract services experience in the fields of White Biotechnology and Green Chemistry. Prior to signing with Libragen, a member of the Induchem companies, he served as the Head of the Synthesis Department at Seppic Int'l., a division of Air Liquide Group. Prior to that role, he spent more than ten years at Proteus/PCAS Biosolution as Research Project Leader, Head of R&D and Scientific Manager. At Libragen he is in charge to further develop the biocatalysis services business unit and expand collaborations with national and international accounts.



### Xinkai Xie

Director of R&D, EnzymeWorks/CHN

*“Protein and metabolic engineering are becoming more and more important and fundamental tools in applying to the production of low to medium value chemicals. The key is to tightly regulate protein expression and fine tune enzyme properties for maximum output.”*

Xinkai Xie got his Ph.D. degree from Dr. Yi Tang's group at UCLA and did postdoc work at Jay Keasling's lab at UC Berkeley. During his Ph.D. study, he developed a biotransformation process for simvastatin synthesis which was licensed to Codexis and Teva, and won the presidential green chemistry challenge award. Xinkai Xie joined Codexis after postdoc in 2011 and then joined EnzymeWorks at the end of 2013, where he is currently Director of R&D.





## The Moderator



### **Günther Illert**

Strategy Coach, [www.g-illert.de](http://www.g-illert.de) / D

*“As a Facilitator my focus is to let the experts talk. To help participants articulate their questions. To leverage existing know how. To enable learning, helping people to grow beyond their current limits. Thus, acting as a catalyst for change. Isn’t that what Enzymes do as well?”*

Günther Illert is a Strategy Coach who helps executives solve some of their most complex and burning issues. He has more than 25 years of experience in strategy consulting, working predominantly in Life Sciences. Innovation, customer focus, business model design and performance improvement are his main areas of interest.

As an independent advisor, he brings an outside perspective. Over the 100+ Transformation Projects he has conducted, he realized that in most cases the important knowledge for sustainable change does not come from an external consultant. Using the expertise that resides inside an organization, he often uses large group workshops with 20 - 80 individuals to solve complex problems. He then embeds himself into the client team as a coach to steer the transformation.

Working as an independent Strategy Coach since 2011 ([www.g-illert.de](http://www.g-illert.de)). Previous roles included:

- B-LUE Management Consulting GmbH, Managing Director
- Capgemini Consulting, Vice President, Head of Life Sciences
- Jacobs Suchard, Brand Manager, Marketing Research Manager



## Topic tables

At the topic tables you can discuss specific questions, developments, challenges and their solutions with our speakers. In every break you can find the experts from the prior session at an indicated topic table within the exhibition area. Are you just getting started with industrial enzymes? You want to discuss your question in a smaller group? You don't agree with the statement given by the speaker? - Make your way to our topic tables!

### Topic table hours:

4 Feb 2015: 15:30 – 16:30 and 18:00 – 18:45  
 5 Feb 2015: 10:30 – 11:30, 13:00 – 14:00 and 15:40 – 16:30

## Exhibition

The exhibition is an integral part of the PRAXISforum. It is a platform for the latest product and technology innovations and manufacturing processes. As a visitor, you are invited to take a really close look at every exhibit.

Please find more information about our exhibitors within their company profiles on the next pages.

The following companies are looking forward to your visit and will inform you about the latest trends and decisive advantages of their products and services to you and your customers.

### List of exhibitors:



## Participating companies

(as of 27 Jan 2015)

- AB Enzymes GmbH
- Allnex Austria GmbH
- Almac Group
- Aravis S.A.
- Autodisplay Biotech GmbH
- B.R.A.I.N. AG
- BASF PCN GmbH
- BASF SE
- Bayer Technology Services GmbH
- BIA Separations GesmbH
- Bilfinger Industrietechnik Salzburg GmbH
- Bio Base Europe Pilot Plant
- Biocatalysts Ltd.
- Biomillenia SAS
- Biopract GmbH
- bitop AG
- BYK-Chemie GmbH
- CASCAT GmbH
- Charles University Prague
- Clariant Produkte GmbH
- c-LEcta GmbH
- Codexis Inc.
- cpbi-bioscientific GmbH & Co.KG
- Crespel & Deiters GmbH & Co. KG
- DECHEMA-Forschungsinstitut
- DiaCoating GmbH
- DSM Nutritional Products AG
- DSM Biotech Center
- DWI - Leibniz-Institut für Interaktive Materialien e.V.
- Empa - Swiss Federal Laboratories for Materials Sciences and Technology
- EnzymeWorks Inc.
- Enzymicals AG
- EOC Belgium
- Eppendorf AG
- Euticals GmbH
- Evocatal GmbH
- Evonik Industries AG
- Fh-Zentrum CBP
- Firmenich SA
- Givaudan Netherlands B.V.
- Givaudan Schweiz AG
- Heinrich Frings GmbH & Co. KG
- Henkel AG & Co. KGaA
- Heraeus Precious Metals GmbH & Co. KG
- Hessen Trade&Invest GmbH
- Infracore GmbH & Co. Höchst KG
- Jena Bioscience GmbH
- JenaBios GmbH
- Johnson Matthey GmbH
- Libragen SA
- Linde Engineering Dresden GmbH
- Lonza AG
- M+W Process Industries GmbH
- Nestlé Product Technology Center Lebensmittelforschung GmbH
- Nestlé Research Center
- Nordic ChemQuest AB
- Novartis Pharma AG
- Novasep Process SAS
- Novozymes A/S
- PerkinElmer Life and Analytical Sciences (D) GmbH
- Pfeifer & Langen GmbH & Co. KG
- Plastic Omnium Auto Inergy
- Procter & Gamble Ltd.
- PS Biotech
- RWTH Aachen
- Sandoz Industrial Products GmbH
- Sanofi Aventis Deutschland GmbH
- SeSaM Biotech GmbH
- Slovak University of Technology
- SternEnzym GmbH & Co. KG
- Swissastral Biotech SA
- ThyssenKrupp Industrial Solutions AG
- TOPLAB GmbH
- TOTAL New Energies
- TU Hamburg-Harburg
- Unilever
- VBU – Association of German Biotechnology Companies
- VITO NV
- Vogelbusch Biocommodities GmbH
- VTU Technology GmbH
- W42 GmbH
- Wacker Chemie AG
- Wiley-VCH Verlag

## Special thanks to our partners!

PRAXISforum partner:

Hessen

Biotech

Sponsors:



Media partners:



## Registration

| Tickets                         | Members <sup>1</sup> | Regular        |
|---------------------------------|----------------------|----------------|
| Full ticket 2-days <sup>2</sup> | <b>415 EUR</b>       | <b>430 EUR</b> |

All prices are quoted excl. 19% VAT

Please register online via our PRAXISforum website: [www.dechema.de/praxisforum](http://www.dechema.de/praxisforum).

<sup>1</sup>) DECHEMA personal members

<sup>2</sup>) Registration fees incl. full entrance to all presentations and exhibition, food and beverages (incl. networking dinner on 4th February 2015)

## Venue

DECHEMA-House  
Theodor-Heuss-Allee 25  
D-60486 Frankfurt/Main  
Germany

### Directions to DECHEMA

Please find a detailed description at [www.dechema.de/location](http://www.dechema.de/location).

DECHEMA is located in a so called "Umweltzone" in the city of Frankfurt. If you intend to reach us by car, you need the corresponding green sticker on your car. More information available in German language at [www.umweltzone.frankfurt.de](http://www.umweltzone.frankfurt.de).

Parking capacities at DECHEMA are very limited. Please use public parking lots along Theodor-Heuss-Allee: Congress-Center-Messe (CMF) or at the fair tower (Messeeturm).

## Accommodation

We reserved a contingent of rooms at the following hotels. Please book yourself using the keyword "DECHEMA". Room prices can differ slightly.

### Mercure Hotel

Voltastr. 29  
D-60486 Frankfurt am Main  
Phone: +49 69 7926 2709  
E-Mail: [h1204-RE5@accor.com](mailto:h1204-RE5@accor.com)  
Single room incl. breakfast € 97,32

### QGREENHOTEL BY MELIÁ Frankfurt

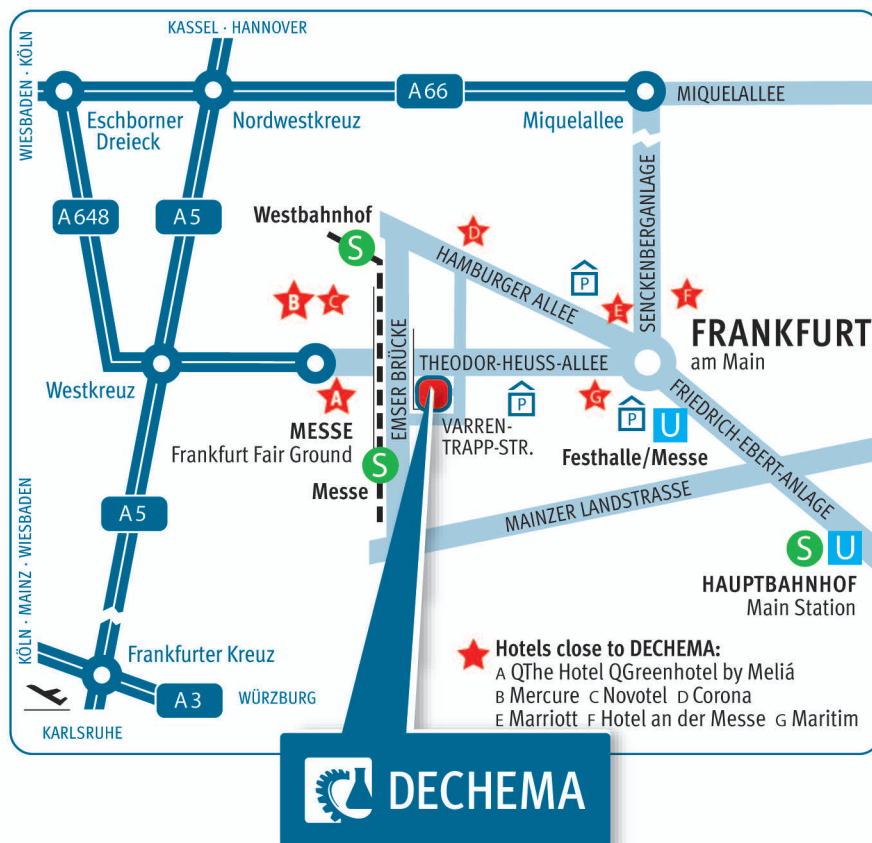
Katharinenkreisel (Opelrondell)  
D-60486 Frankfurt am Main  
Phone: +49 69 707 30 500  
Fax: +49 69 707 30 333  
E-Mail: [reservierung.qgreen.frankfurt@melia.com](mailto:reservierung.qgreen.frankfurt@melia.com)  
Single room incl. breakfast € 88,00

### Any questions?

**Dr. Björn Mathes**  
Head of PRAXISforums

DECHEMA e. V.  
Theodor-Heuss-Allee 25  
60486 Frankfurt am Main  
Tel: +49 (0)69 7564-365  
Fax: +49 (0) 69 7564-117  
E-Mail: [mathes@dechema.de](mailto:mathes@dechema.de)

## How to get to DECHEMA



### By public transport

From Frankfurt Airport

- approx. 20 min. by taxi
- S-Bahn: S 8, S 9 (line 8 or 9) to the main station (Hauptbahnhof), change to S 3, S 4, S 5 or S-6 (platform 104, underground) to the station Messe, exit Theodor-Heuss-Allee / Festhalle

From the main railway station (Hauptbahnhof)

- approx. 20 min. walk
- approx. 10 min. by taxi
- S-Bahn: S 3, S 4, S 5 or S 6 (platform 104, underground) to the station Messe, Exit Theodor-Heuss-Allee / Festhalle
- Underground: line U 4 (line 4) direction Bockenheimer Warte to the station Messe, Exit Festhalle and 10 min. walk
- tram/streetcar line 16 or 17 to the stop Varrentrappstraße and 10 min. walk

### By car

Via Autobahn/Westkreuz to Frankfurt Stadtmitte, turn right at first traffic light after the railway bridge

From the city centre in direction Messe (exhibition grounds), on the Theodor-Heuss-Allee first left-hand turn-off lane before the railway bridge

Entrance Varrentrappstraße

**The area of DECHEMA is part of the low emission zone (Umweltzone) in Frankfurt. Only vehicles displaying an appropriate badge on their windscreen will be allowed to enter the low emission zone.**

**Information: [www.umweltzone.frankfurt.de](http://www.umweltzone.frankfurt.de)**



**DECHEMA**



**Next DECHEMA PRAXISforum:**

Additive Manufacturing/3D-Printing  
in Apparatus and Plant Engineering, 29 - 30 Sep 2015

For more information, please visit [www.dechema.de/praxisforum](http://www.dechema.de/praxisforum)

**Other oncoming DECHEMA events:**

- 27. Irseer Naturstofftage, 25 - 27 Feb 2015
- 48. Jahrestreffen Deutscher Katalytiker, 11 - 13 Mar 2015
- Workshop Continuous Bioprocessing, 27 Apr 2015
- Scale-up and scale-down of bioprocesses, 11 - 13 May 2015
- ACHEMA 2015, 15 - 19 Jun 2015
- 2<sup>nd</sup> European Conference on Natural Products, 06 - 09 Sep 2015
- Bioflavour 2015, 09 - 11 Sep 2015

For more information, please visit [events.dechema.de](http://events.dechema.de)

**Any questions?**

**DECHEMA e. V.**  
Dr. Björn Mathes  
Theodor-Heuss-Allee 25  
60486 Frankfurt/Main, Germany  
Phone: +49 69 7564-365  
Fax: +49 69 7564-117  
Email: [mathes@dechema.de](mailto:mathes@dechema.de)  
[www.dechema.de](http://www.dechema.de)