



DECHEMA



PRAXISforum

06 – 07 Feb 2018

Frankfurt/Main, Germany



Enzymes for Industrial Applications

The flagship event for industry delegates and solution providers

PRAXISforum Partner:



#PfEnzymes

PRAXISforum Sponsor:



From experts for experts

Enzymes are considered to be little miracle substances for innovation, process advantages and cost reductions. Ok, it's not magic but "hard science" – nonetheless, the performance of enzymes in some applications is really breathtaking, especially compared to "conventional" chemical synthesis routes. Whether in the food industry, pharmaceutical industry, textiles, detergents, bio refineries, 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.

As research and development advance and ever more processes make it into industrial applications, some trends

emerge that might lead the way for the development of the industry.

The DECHEMA PRAXISforum "Enzymes for Industrial Applications" brings together top-class industry professionals, solution providers and key customers from over 65 companies in the field of industrial enzymes from all over the world. In this PRAXISforum they have the opportunity to exchange and network with colleagues from other companies and branches, with potential cooperation partners, and get informed about the latest trends, innovations and practices. At the same time participants can present their needs and future requirements in direct exchange with suppliers of technologies, services and products.

What the PRAXISforum is about

- **By industry, for industry** – the PRAXISforum reveals market opportunities and promotes the development of new enzymes, production processes and application areas.
- **Networking platform** – the PRAXISforum brings together international market leaders and high profile end-users and experts from all relevant industries.
- **High-level speakers** – best practices presentations and lessons learned from speakers at decision-maker level. Technological background is as much presented as end-user relevant information.
- **Relevance to applications** – the PRAXISforum provides visitors an overview on innovations for their highly specific requirements of everyday practice.

Dr. Björn Mathes
Head of Conferences
DECHEMA e.V.



Topics of our next PRAXISforums

- Big Data Analytics in Process Industry, 24 - 25 Apr 2018
- Brandschutz in der chemischen Industrie, 29- 30 Aug 2018

Tuesday, 06 Feb 2018

Time	Topic	Speaker
9:30	Registration, Opening of Exhibition	
11:00	Opening	K. Rübberdt / Head of Biotechnology DECHEMA e.V. / Germany
11:05	Welcome Address	C. Ott / Head of Technology & Innovation Hessen Trade & Invest GmbH / Germany
11:15	<i>Impulse</i> FIS approach to industrial biocatalysis <ul style="list-style-type: none"> • FIS and FIS R&D brief general presentation • Why biocatalysis in industry • FIS research model for biocatalysis implementation • Examples with different enzymes 	R. Motterle / Head Biotechnology Development F.I.S. - Fabbrica Italiana Sintetici S.p.A. / Italy
11:55	How to make very good enzymes even better – improving cheese coagulants by enzyme engineering <ul style="list-style-type: none"> • The challenge of developing superior enzymes for complex industrial applications • Multiple parameter optimization of camel chymosin by DoE-based library design • Combination of various enzyme engineering strategies 	C. Jäckel / Senior Research Scientist in Enzyme Innovation Chr. Hansen / Denmark
12:25	Lunch and networking at the exhibition floor, Interactive discussions @ „topic tables“	

Time	Topic	Speaker
14:00	<i>Impulse</i> Enzymatic Processes for Industrial Applications The merit of the enzymes utilized in the reactions which enzymes do better than the chemical reactions will be introduced: <ul style="list-style-type: none"> • Hydration and dehydration reactions (nitrile hydratase and aldoxime hydratase) • Regioselective reaction (acid phosphatase) • Dynamic kinetic resolution (hydrolysis of nitrile) • Deracemization of racemic amines (amine oxidase) • Stereoselective lyase reaction (hydroxynitrile lyase) 	Y. Asano / Head of Enzyme Chemistry Laboratory Toyama Prefectural University, Biotechnology Research Center / Japan

Tuesday, 06 Feb 2018

Time	Topic	Speaker
14:45	Enzymes in the Flavor and Fragrance Industry <ul style="list-style-type: none"> • Diverse, exciting application areas for enzymes in F&F • Different enzyme-based catalyst and reaction formats • Plug-in solutions for multi-step synthetic schemes (hybrid routes) • Engineering options help to address performance and cost issues • Partnering offers unique opportunities 	F. Brühlmann / Group leader Biotechnology Department Firmenich / Switzerland
15:15	Microbial transglutaminase enabling highly site-specific labeling of proteins <ul style="list-style-type: none"> • Identification and characterization of a microbial transglutaminase from the spore-forming bacterium <i>Kutzneria albida</i> • From a promiscuous to a specific enzyme – How digitally controlled high-density peptide arrays may predict the best substrates • Versatile enzyme enabling bio-orthogonal production of active diagnostic and pharmaceutical ingredients on the industrial scale 	W. Steffen / Project Leader Enzyme and Protein Technologies Roche Diagnostics / Germany
15:45	Coffe break and networking at the exhibition floor, Interactive discussions @ „topic tables“	

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Tuesday, 06 Feb 2018

Time	Topic	Speaker
17:00	In silico enzyme design: the need for speed <ul style="list-style-type: none"> • The importance of speeding up enzyme discovery & development • Why we use computer simulations to design industrial enzymes • Case studies from Zymvol Biomodeling 	M. F. Lucas / Co-founder & CEO Zymvol Biomodelling / Spain
17:30	Navigating Functional Enzyme Sequence Space: A Holistic Bioinformatics Perspective <ul style="list-style-type: none"> • Enzyme archetypes: Clustering sequence space by functional hotspot positions • Mutational hotspots: An accelerated molecular dynamics approach • Enzyme Optimization: Combinatorial library design by virtual prototyping 	S. Benson / Co-founder & CEO Candidum / Germany
18:00	Secure supply for commercial Enzymes – The Relevance of a reliable and experienced biotechnological manufacturer (CMO) for a plethora of markets <ul style="list-style-type: none"> • White biotechnology is Corden BioChem's business, your biotech hub in the heart of Europe • Corden BioChem is an industrial manufacturing partner supplying into food, feed as well as pharma and fine chemical market • Experienced team for industrialization and scale-up • Compliance to work with different authorities 	J. Ohl / Senior Business Development Manager Corden BioChem / Germany
18:30	Networking at the exhibition floor, Interactive discussions @ „topic tables“	
19:00	Networking Dinner	Location: Life-Style Bar @ Maritim Hotel , Theodor-Heuss-Allee 3, 60486 Frankfurt/Main (5 min walk from venue)
23:00	End of first PRAXISforum day	

Wednesday, 07 Feb 2018

Time	Topic	Speaker
09:00	Re-Opening exhibition	
09:30	A few studies about lipases <ul style="list-style-type: none"> • Strategy to optimize new biocatalysts • Enzyme toolbox • Case studies 	A. Robic / Scientific Manager Protéus / France
10:00	Best practices in the biocatalytic production of hydroxy-functionalised chemicals: From lab to pilot to production using hydratases and monooxygenases <ul style="list-style-type: none"> • Integration of biocatalysis into chemical production processes • Strategies to produce hydroxy-functionalised molecules biocatalytically • Enzyme and Reaction engineering to optimize biocatalytic processes • Scale-up of hydratase and monooxygenase reaction 	M. Schürmann / Principal Scientist Biocatalysis InnoSyn / The Netherlands
10:30	Südzucker activities with industrial enzymes <ul style="list-style-type: none"> • General overview about the application of enzymes in the whole • Südzucker group (Inulin, Starch, Isomalt, Ethanol) • Focus will be enzymes in ethanol production • Details about the application of alpha-amylases, glucoamylases, proteases, viscosity reducing enzymes, trehalases and phytases 	M. Klingeberg / Senior Manager Microbiology Südzucker / Germany
11:00	Coffe break and networking at the exhibition floor, Interactive discussions @ „topic tables“	

Wednesday, 07 Feb 2018

Time	Topic	Speaker
12:15	Biocatalysis: We create chemistry - with a little help from enzymes! <ul style="list-style-type: none"> Enzymes are incredibly powerful catalysts – opening new opportunities for the chemical industry First applications aimed at chiral intermediates for pharma The scope of enzyme catalysis can be extended to high volume petrochemicals 	K. Baldenius / Head of Biocatalysis Research BASF / Germany
12:45	From Discovery to Product – Development of an Enzymatic Solution for Chronic Wound Treatment <ul style="list-style-type: none"> Identification and characterization of a fibrin degrading protease from the larvae of <i>Lucilia sericata</i> Development of a scalable microbial production process for the new enzyme Aurase Development of a formulation that enables application of the enzyme product after long storage under unfavourable conditions in order to effectively treat potentially millions of patients worldwide that suffer from painful chronic wounds 	A. Pelzer / Platform Coordinator Tailor-made Biocatalysts BRAIN / Germany
13:15	Viral contaminations: a common problem for microbial enzyme production <ul style="list-style-type: none"> Phages – overview Phages as contaminants in enzyme production and fermentation processes Detection methods Corrective actions Outlook 	A. Dreusch / CEO MicroMol / Germany
14:00	Lunch and networking at the exhibition floor, Interactive discussions @ „topic tables“	
15:15	End of PRAXISforum	

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:

06 Feb 2018: 12:25 – 14:00, 15:45 – 17:00 and 18:30 – 19:00

07 Feb 2018: 11:00 – 12:15 and 14:00 – 15:15

Networking Dinner

At the evening of the first PRAXISforum day we continue the discussions about trends, developments, new technologies and products in the field of industrial enzymes within a relaxed and informal networking dinner.

To set a new stimulus for interesting discussions and networking and to fresh up your minds we will change the location and move to the Life-Style bar at the Maritim hotel, close to one of Frankfurt's famous landmark buildings, the MesseTurm. It's a perfect place for relaxed networking.



See you at...

Bar Life-Style @ Maritim Hotel

Theodor-Heuss-Allee 3

60486 Frankfurt/Main

Germany

(max. 5 min walking distance from DECHEMA)





The Speakers



Yasuhisa Asano

Head of Enzyme Chemistry Laboratory,
Toyama Prefectural University, Biotechnology Research Center / Japan

“Active enzymes: Actively expressed enzymes in heterologous hosts are always necessary. Enzyme activity: Activity measurement is important in enzyme discovery. Enzyme molecule: Enzymes are improved by looking at protein structure in molecular level.”

- 1982 Ph.D. Kyoto University
- 1984 Research chemist at Sagami Chemical Research Center, Japan
- 1990 Associate Professor, and Professor (1995)
of Toyama Prefectural University Japan
- 2011 “The Medal with Purple Ribbon”
- 2013 “Enzyme Engineering Award”
- 2014 “Biocat Award”

Kai Baldenius

Head of Biocatalysis Research, BASF / Germany



“We haven’t fully appreciated the potency of enzyme catalysis, let’s move out of the chiral niche and target chemical production more broadly”

Kai Baldenius is a chemist by formation. After receiving a PhD from Hamburg University, he spent a post-doc research year at The Scripps Research Institute before he joined BASF in 1993. In BASF Kai started his career in the central research doing process development work for vitamins and other fine chemicals. He took over responsibilities in production, marketing and sales, before he returned to research. Since 2009, Kai heads the BASF biocatalysis research group.



The Speakers

Sven Benson

Co-founder & CEO, Candidum / Germany

“One of the major bottlenecks to making biocatalysts economically viable is to find the right solutions for specific catalytic challenges within the vast diversity of enzyme blueprints. candidum sets out to drive innovation by making this process simple, budgetable, at competitive costs and with minimal risks.”

Sven Benson studied biotechnology at the University of Stuttgart, where he was awarded his PhD from the SimTech Cluster of Excellence with focus on molecular enzyme modeling. He stayed on as a research fellow to finish his work on parts of candidum’s core bioinformatics technologies. He co-founded candidum where he currently acts as CEO.



Fredi Brühlmann

Group leader Biotechnology Department, Firmenich / Switzerland

“Enzymes offer highly versatile chemistries under benign conditions enabling diverse applications. While an increasing range of engineering options helps addressing performance and cost issues among others, it is important that the regulatory environment and the public remain open to science and technology.”

- Since 1999: Group and project leader at Firmenich’s Biotechnology Department. Main activities on the technical side have mainly related to scouting of biosynthetic and chemo-enzymatic routes, exploration and development of biocatalytic systems prior to scale up, and protein engineering; often in collaboration with external partners
- 1995-1999: Postdoctoral research at the College of Engineering, and at the Department of Plant Pathology, UC Riverside
- 1991-1994: Ph.D. work at the Institute of Biotechnology, ETH-Zürich
- Studies of Natural Sciences at the ETH-Zürich, and of Chemistry at the University of Applied Sciences, Zürich





The Speakers



Andrea Dreusch
CEO, MicroMol / Germany

“Phages are much more than a redoubtable contamination. If you deal with a good risk management they might be friends. There are much more possibilities to talk about bacteriophages than only to excrete them”

Mrs. Dreusch studied Biology with focus in Microbiology to get a Dipl. Biol. and continued working in the field of Molecular Biology (PhD). In 1996 she founded the MicroMol Laboratory together with her husband and worked as Co-CEO developing her company in the main biotechnological fields. Well-known as an interface laboratory covering microbiology, molecular biology, cell biology and immunology MicroMol established the interesting core-competence of Bacteriophage works.

After a short stopover working as Director of BAV-Academy, Mrs. Dreusch returned to MicroMol when her husband suddenly died in 2017 to accept responsibility for MicroMol again.

She integrated the laboratory into the Tentamus group, which offers a global network of highly specialized laboratories, all of which are equipped to ensure the quality and safety of the tested goods.

Christian Jäckel
Senior Research Scientist in Enzyme Innovation, Chr. Hansen / Denmark



“Quality over quantity: Smart library design strategies and screens close to application are key to successful discovery of superior industrial enzymes”

Christian Jäckel studied Biochemistry at University of Leipzig and received his PhD in Bioorganic Chemistry from Free University of Berlin in 2006 for studies about properties of non-natural amino acids in polypeptides. After a PostDoc with Donald Hilvert at ETH Zürich focusing on strategies and methodologies for protein design, he moved to Denmark in 2011 to start a career in biotech industry. Following three years as protein engineer in Novozymes, Christian took a position as scientist and project leader with Chr. Hansen in 2014, where he is developing enzyme products for dairy applications.



The Speakers

Michael Klingeberg

Senior Manager Microbiology, Südzucker / Germany

“Challenges: Continuous improvement process in large scale application, is it possible to measure yield increases of 1 %?”

- Studies of biology including diploma thesis at the universities of Cologne and Munich
- PhD thesis about thermophilic bacteria and thermostable enzymes at the Technical University
- Hamburg Harburg 1993 – 1997: Employee at Novo Nordisk (today Novozymes) in Kopenhagen, DK
- 1997 – today: Leader of the group Microbiology at Südzucker



Maria Fátima Lucas

Co-founder & CEO, Zymvol Biomodeling / Spain

“In silico industrial enzyme design is changing the way we work. You can now look into your enzyme and accurately predict improvements”

Since May 2017: Co-founder and CEO of Zymvol Biomodeling SL

2014-16: Senior Research Scientist at Anaxomics SL

2013-16: Senior Research Scientist at Barcelona Supercomputing Center

2008-13: Postdoctoral Researcher at Barcelona Supercomputing Center

2007-08: Postdoctoral Researcher at University of Calabria

2003-07: PhD in Computational Chemistry at University of Oporto





The Speakers



Riccardo Motterle

Head Biotechnology Development, F.I.S. - Fabbrica Italiana Sintetici S.p.A. / Italy

“Enzymes availability and possibility to improve them using Evolution makes a nonsense avoiding to evaluate biocatalysis in new synthesis design”

Riccardo Motterle is Head Biotechnology Development at F.I.S. Fabbrica Italiana Sintetici (Vicenza). He received his Laurea in Chemistry in 1995 at the University of Padova and joined F.I.S. in 1996. During the first ten years his research activity, as shown by some publications and patents, dealt with scouting, developing and scaling-up syntheses of API using ‘standard’ organic chemistry. From 2006 on he had the opportunity to investigate the potential of biocatalysis in API production starting a new field in FIS. His current studies focus on the re-design of API and intermediated synthesis to allow an extensive use of the biocatalysis. He is also involved in all the issues related to the use and stabilization of enzymes in industrial implementation. These works, developed in collaboration with University of Padova where dr. Motterle is responsible for a PhD and a PostDoc on Industrial Biotechnology, are object of some publications and patents and were presented at several scientific conferences.

Jörg Ohl

Senior Business Development Manager, Corden BioChem / Germany

“Contract Manufacturing becomes more and more important in biotechnology. For strategical as well as tactical outsourcing, a reliable and experienced partner delivering on-time and in the right quality is a must”



- 7+ years experience in manufacturing operations, FDA and GMP compliance, bulk manufacturing and production management
- Career Started 2010 at Sandoz as Plant Assistant, then increased responsibility with Lab Head, Plant Manager for Downstream and Purification of Enzymes
- 2014: Plant Manager for Fermentation and Downstream of Enzymes
- 2016: Business Development: Building up the BD from scratch for Corden Bio-Chem after Change Process of the site from a monopurpose manufacturing site toward a biotech hub contract manufacturing organization



The Speakers

Alexander Pelzer

Platform Coordinator Tailor-made Biocatalysts, BRAIN / Germany

“Enzyme product development is a multidisciplinary task that requires the combination of excellence in diverse fields like enzyme discovery and identification, microbial enzyme production and formulation of the enzyme in an application compatible formula with long storage stability.”

Dr. Alexander Pelzer studied biology at Heinrich-Heine-Universität Düsseldorf. During his doctoral studies at the Institute of Molecular Enzyme Technology at Jülich Research Centre, he worked on the production of various enzymes derived from pseudomonads, as well as on their biochemical and physiological characterisation. Pelzer has been working at BRAIN as a research scientist and project manager in the Unit Enzyme Technologies since 2014. In 2017 Pelzer became leader of the technology platform Tailor-made Biocatalysts dealing with application directed enzyme identification and optimization.



Audrey Robic

Scientific Manager, Protéus / France

“To increase the chances of success in finding the best biocatalyst and process conditions for your applications, it is important to access panels of biocatalysts ready for screening and a streamlined methodology to assess rate-limiting process parameters”

Audrey has a dual training in pharmacy and biochemistry. She is a Scientific Manager at Protéus. She manages R&D teams and projects. These projects concern biocatalyst screenings, biocatalyst optimizations from lab to industrial scale for pharmaceuticals and cosmetic ingredients. Before joining Protéus, Audrey has held several project manager positions in the biotechnology units of feed and food companies.





The Speakers



Martin Schürmann

Principal Scientist Biocatalysis, InnoSyn /The Netherlands

“To compete with conventional chemistry we have to improve and speed up enzyme and reaction engineering to bring more biocatalysis processes from academic proof-of-principle to industrial application”

- Since May 2017 Principal Scientist Biocatalysis at InnoSyn BV (Geleen, The Netherlands)
- 2016-2017 Principal Scientist Biocatalysis at DSM Ahead R&D (Geleen, The Netherlands)
- 2004-2015 various R&D positions at DSM Research (Geleen, The Netherlands)
- 2002-2003 Marie-Curie Industrial Host Fellowship (Post-Doc) at DSM Research (Geleen, The Netherlands)
- 1998-2001 PhD thesis at Institute of Biotechnology, Research Center Jülich (Germany)
- 1992-1998 Biology studies at Ruhr-Universität Bochum (Germany)

Wojtek Steffen

Project Leader Enzyme and Protein Technologies,
Roche Diagnostics GmbH / Germany

“Conventional chemical strategies for protein conjugation are often lacking in site-specificity, linkage stability and reaction conditions. This effected the development of biocatalysts that confer regioselectivity for site-specific modification. Microbial Transglutaminases have long been known as promiscuously ‘protein-glueing’ enzymes in food technology, but are now emerging as highly specific, versatile and inexpensive tools for a broad range of industrial applications.”

Since 2016: Project and Development Lead for Roche’s industrial business platform CustomBiotech, offering fully customized solutions for industrial enzymes and test kits, as well as biotechnological raw materials and reagents for customers in Pharma, Academia and Diagnostics.



2013 - 2015: Postdoctoral research in Enzyme Structure/Function at the ‘Inter-fakultäres Institut für Mikrobiologie und Infektionsmedizin’, University of Tübingen, and at the Department of Enzyme and Protein Technologies, Roche Diagnostics GmbH

2009 - 2012: Dr. rer. nat. on the structure and biochemistry of respiratory enzyme complexes at the Institute of Microbiology, University of Hohenheim, Stuttgart

2002 - 2008: Studies of Chemistry and Biochemistry at the University of Zürich, Master of Science in Biochemistry

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 in 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:

Booth #Bo8:



Booth #B12:



Booth #Bo7:



Booth #Bo3:



Booth #Bo6:



Booth #Bo4:



Booth #Bo1:



Booth #Bo9:



Booth #Bo2:



Booth #Bo5:



Booth #B10:



Booth #B11:



Booth #B13:



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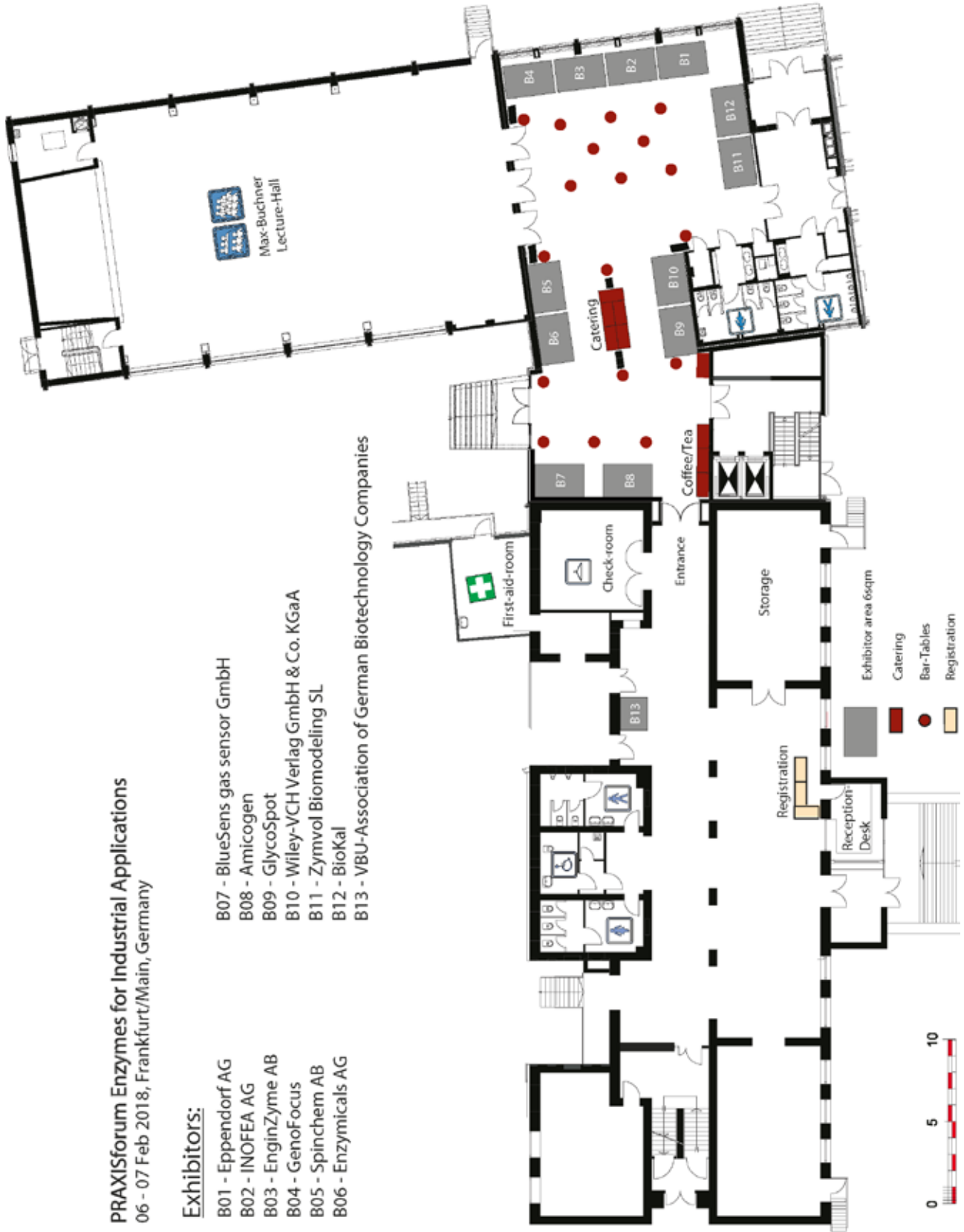
Exhibition floor

PRAXISforum Enzymes for Industrial Applications
 06 - 07 Feb 2018, Frankfurt/Main, Germany

Exhibitors:

- B01 - Eppendorf AG
- B02 - INOFEA AG
- B03 - EnginZyme AB
- B04 - GenoFocus
- B05 - Spinchem AB
- B06 - Enzymicals AG

- B07 - BlueSens gas sensor GmbH
- B08 - Amicogen
- B09 - GlycoSpot
- B10 - Wiley-VCH Verlag GmbH & Co. KGaA
- B11 - Zymvol Biomodeling SL
- B12 - BioKal
- B13 - VBU-Association of German Biotechnology Companies

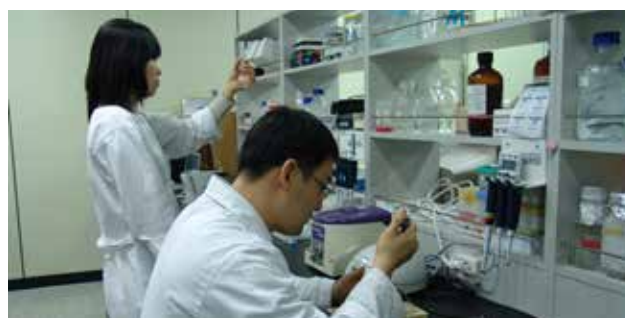


Amicogen, Inc.



Specialty Enzymes

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Our products list:

Pharmaceutical Enzyme (Biocatalyst)

- Cephalosporin C acylase
- Amoxicillin acylase
- Cephalexin acylase
- Cefaclor acylase
- Cefadroxil acylase
- Cefazolin acylase
- Cephalosporin C acylase and esterase
- Cephalosporin C or 7-ACA esterase
- Penicillin G acylase

Food Enzyme

- Chitinase
- Chitosanase

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- Affinity Chromatography (AC)
- Activated Resin

Contact

Yong Chul Shin
Chief Executive Officer

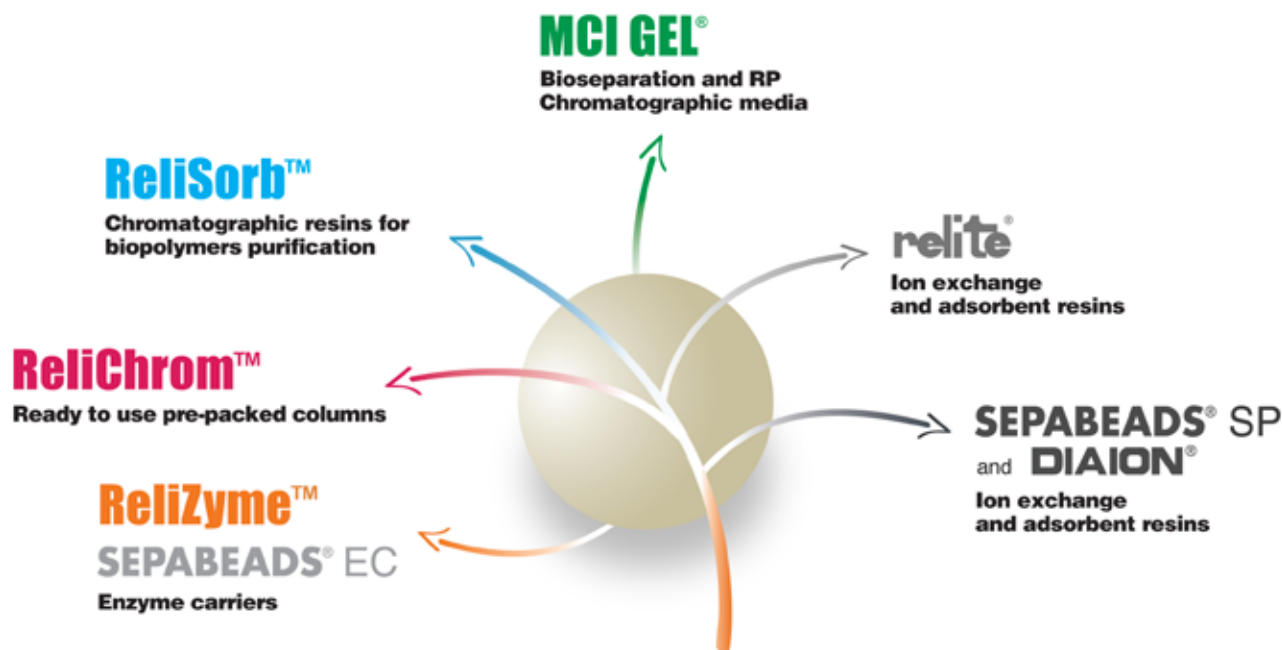


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Chromatography & Purification Solutions

Biokal represents Resindion s.r.l. / A subsidiary of Mitsubishi Chemical Corporation, Bio-Works Ltd. and Eurodia Industrie SA. We are offering solutions for preparative and industrial scale chromatography, purification processes and biocatalysis applications. Our products cover a range of ReliZyme™ enzyme carriers for immobilized enzyme applications, ReliSorb™ industrial chromatography media, Diaion™ ion-exchange and adsorbent resins and, WorkBeads™ agarose based chromatography media. Our services include technical and scientific application support starting from lab-bench up to industrial realization. Being located in the Netherlands we serve the Benelux countries, Germany and Denmark with our products and services.



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Arie Kant
Chief Executive Officer



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Our customers from enzyme production and development use the off-gas analysis for process optimization and scale-up tasks. Recently launched BlueVary maintenance free off-gas sensor allows adaption to changing requirements while avoiding downtimes.

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Contact

Dr. Holger Müller
Chief Executive Officer



EnginZyme AB



Making biocatalysis your first choice

In spite of the many benefits of biocatalysis, the potential still far exceeds the current exploitation. At EnginZyme, a Swedish biocatalysis company founded in 2014, we're on a mission to change this. The main obstacle for biocatalysis to go mainstream remains the cost of use; in many cases enzymes simply cannot compete with traditional chemical alternatives.

To solve this problem, we have developed EziG, a general enzyme immobilization carrier specifically

designed for biocatalysis. Any His-tagged enzyme can be bound to an EziG-carrier in a non-destructive, fast and selective way, enabling enzyme reuse without loss of activity. The material functions in both aqueous and organic solvents, and is perfectly suited for both batch and flow chemistry applications.

Armed with this new tool, we look forward to doing our part in helping the industry transition to a more sustainable way of operating.



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Contact

Robin Chatterjee
Chief Business Development Officer



Enzymicals AG



Enzymes | Chemicals | Solutions

The focus of Enzymicals is to provide integrated solutions for biocatalytic applications. Dedicated to design, develop and implement cost-effective, sustainable and scalable chemo-biocatalytic routes, Enzymicals offers a recognized expertise in the application of enzymatic processes for the synthesis of complex chemicals.

- The independent enterprise provides state of the art SOLUTIONS in development, optimization and scale-up of robust chemo-enzymatic processes for the production of fine & specialty chemicals.
- The company manufactures a range of CHEMICALS as chiral building blocks, intermediates and specialty chemicals as well offer custom synthesis on request.
- Enzymicals offers a broad selection of recombinant ENZYMES suitable for research, development, production and diagnostics as well as a tailor-made protein expression and optimization service.

Enzymicals service covers the whole value chain towards a tailor-made process for a special application: enzyme identification, expression, characterization, improvement and application in an efficient production process. Together with our network partners, we expand our service to cGMP production and bulk scale supply.



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Projekt Manager Sales and Marketing



Eppendorf AG



Eppendorf for Bioprocess – Solutions that grow with you

By exploiting the strong synergies in bioreactor technology and polymer manufacturing, Eppendorf has emerged as a global player and valuable resource to its customers in the bioprocess marketplace.

With a comprehensive offering of single-use and traditional products for the growth of mammalian, microbial, insect, plant and algae cells, and working volumes of 60 mL – 1,200 L, the Eppendorf bioprocess portfolio can satisfy the demands of process development through production.

From the parallel mini bioreactor system for early stage bioprocess development, the benchtop and parallel bioreactor systems for the laboratory scale to the sterilize-in-place solutions for production: Eppendorf offers users from industry and research extensive bioprocess solutions from a single source and meets the highest quality demands.

Seamlessly progress from R&D to large scale production – all from one source: Eppendorf.

The bioprocess product lines include

- The compact mini bioreactor system DASbox®, available with single-use and glass vessels
- Parallel benchtop bioreactor systems for accelerated process development
- Autoclavable benchtop glass bioreactors and fermentors
- Sterilize-in-Place (SIP) solutions in pilot and production scale
- Scalable single-use solutions from 65 mL to 40 L working volume
- Comprehensive data & information management and advanced software solutions supporting QbD-driven process development and DoE



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GenoFocus – Designer’s Enzyme



Enzyme development, Expression System, Enzyme Production, Immobilization

GenoFocus is a platform technology company developing enzyme solutions for specialty food, eco-friendly processes, biopharmaceuticals, cosmeceuticals and agriculture. We develop enzymes through molecular evolution using smart library generation and microbial display-based high throughput screening. With fungal and bacterial secretion systems, we custom produce the evolved enzymes in large scale fermentation and downstream processes.

Lipase Enzymes (Premade IMMO Library)

- TLL, CalB, CalA, CRL, RML, PCL, ANL

Enzyme Products Portfolio

- Food Enzymes: Lactases, Proteases, Lipases, PLD, Chitosanase
- Enzymes for textile, HPPO, semiconductor: Catalase, Cellulase, GOX
- Chemo-enzymatic synthesis of API, Lipases for chiral resolution, Oxidoreductases: P450s
- Biopharmaceutical Enzymes: Nattokinase, Pronases, Superoxide Dismutase
- Oral Plaque decomposition enzymes: Dextranase, Mutanase
- Bio-cosmetics: Bio-Retinol, Ceramide, ALA
- Eco-friendly decontaminants for chemical agents: OPAA, OPH, HADH, Lysin (Anti-anthrax)

High-titer Expression System

- Scale-up Ready Expression System, High-throughput Parallel Expression
- Strain for Expression: Bacillus, Aspergillus

Enzyme Production Facilities

- 1st site (Daejeon, Korea): 20 MT x 2 Fermenters, Down-stream process, FSSC 22000, Kosher, Halal
- 2nd site (Sejong, Korea): 30 MT x 3, 50 MT x 1 Fermenters, Down-stream process, Kosher, Halal, GMP API Production



Daejeon Factory



Sejong Factory



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Juhyeong Song
Marketing Manager



GlycoSpot



The New Enzyme Screening Standard

GlycoSpot supplies efficient enzyme screening kits for industries such as enzyme discovery, food and feed, detergent and bioenergy. Our ready-to-use standard kits (with more than 30 pure and complex substrates to choose from) will provide you with conclusive information about the present enzyme activity in less than 30 minutes hands-on-time.

GlycoSpot technology represents a valuable high-throughput solution for assessing enzyme concentration, activity and efficiency of enzymes or enzyme mixtures.

Potential applications include:

- Batch-to-batch variation
- Assessment of enzyme expression
- Quality tracking
- Enzyme activity optimization with regard to different conditions such as pH, temperature, buffer components



GlycoSpot's customized biomass substrates, produced from raw biological material, add an additional unique dimension to information gathered about a specific enzyme's activity and can be used to screen complex biomass in its original format.

Our focus is on your needs for enzyme screening solution. Please do not hesitate to contact us, we customize assay designs and substrates, and we make substrates out of almost anything!

3 steps – 30 minutes – that's it!



GlycoSpot

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INOFEA AG



Empowering Enzymes

INOFEA is a Swiss biotech company founded in 2014 in Basel as a spin-off from the School of Life Sciences, University of Applied Sciences and Arts, Northwestern Switzerland (FHNW).

At INOFEA, we empower enzymes. Together with our team of scientists led by Dr Patrick Shahgaldian, CSO of INOFEA, and with the help of our investors, we have developed enzen©, a patented platform technology capable to fit enzymes to in vivo and process conditions. We immobilize the enzymes of interest onto safe silica particles and we further grow a custom-designed protection layer. This provides the enzyme with remarkable performance.

We've created INOFEA from the desire to meet a critical need related to enzyme lack of stability and robustness: the possibility to provide enzymes with resistance to in vivo and process conditions, so that they could be fully deployed in the health industry.

Unlike other existing technologies, our innovative nanotechnology platform is capable of shielding sensitive enzymes and has positively demonstrated substantial benefits to customers in a number of biopharma-related applications.

INOFEA is constantly investing in R&D for its proprietary technology, as well as diversifying its line of business with value-added products and services, from formulating new commercially available enzymes, to improving our client's processes by embedding enzen© to non-proprietary applications.



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SpinChem

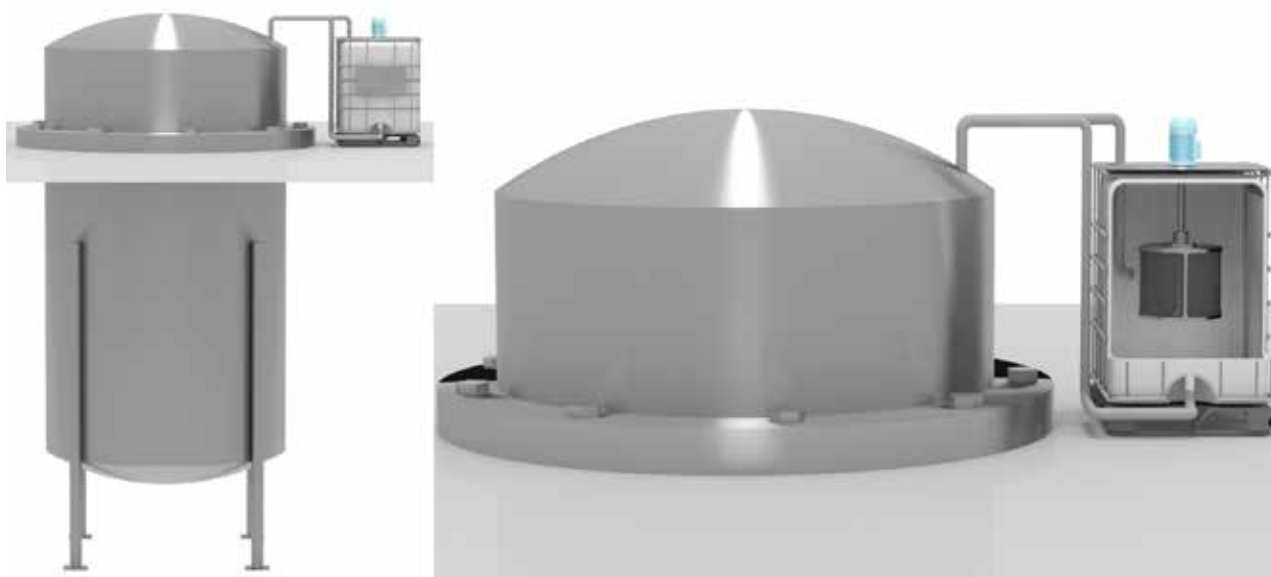


The generic design of the SpinChem® RBR allows for seamless scalability, whereby the technology can be utilized with liquid volumes from 10 mL up to several thousand cubic meters. Where required, customer specific features can be incorporated and SpinChem® can offer help with process development, all the way from bench-top screening to full-scale production.

SpinChem® AB is a technology company working at the boundaries of physics, chemistry and biotechnology whose products have applications in biotransformation, downstream processing, cleantech and food & ingredients.

Through the development of the rotating bed reactor (RBR), SpinChem® is able to provide dramatic improvements in the mass transfer characteristics of heterogeneous reactions involving a solid and a liquid phase.

The SpinChem® RBR is a revolutionary concept that moves solutions through a packed bed of solid phase material in a manner that maximizes contact between the liquids and the solid phase particles, while still preserving the integrity and structure of the materials. SpinChem® AB is a privately held company based in Umeå, Sweden whose clients include several of the largest companies working with fine chemicals, pharmaceuticals (biotransformation) and industrial wastewater clean-up (cleantech).



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Dr. Emil Byström
 Chief Executive Office



VBU

VBU Association of German
Biotechnology Companies

Association of German Biotechnology Companies

The Association of German Biotechnology Companies (Vereinigung Deutscher Biotechnologie-Unternehmen, VBU) is a group of companies and institutions involved in biotechnology and related sectors. Founded in 1996, VBU was the first organization for biotechnology companies in Germany and is integrated in the

Biotechnology Section of DECHEMA.

Our members come from the fields of biotechnology, pharmaceutical technology, bioinformatics, diagnostics, medical devices and laboratory technology. VBU is a platform for cooperation, communication and information.



What we do

VBU is a catalyst for the transfer of research results into competitive products and services. It represents a cross-sectoral network, assisting its members in seeking and finding cooperation partners in all areas of the life sciences both on a national and an international scale.

What we offer

- Webinar series
- Scientific committees for interdisciplinary cooperation and discrete exchange of information
- Joint stands at national and international events
- Partnering events
- Contacts to graduates, postgraduates and students
- Quaterly newsletter
- Business network for women managers in the life sciences (more than 200 members)

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Wiley-VCH

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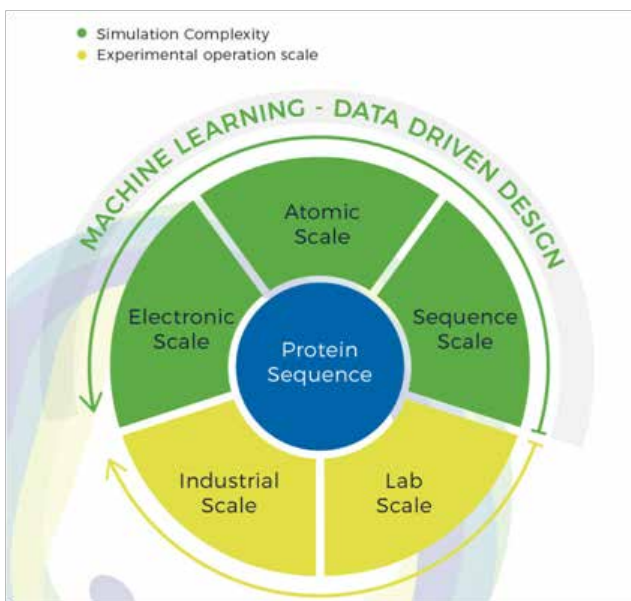
ZYMVOL BIOMODELING is a start-up company that uses computer simulations to accelerate the discovery and design of new industrial enzymes.

ZYMVOL has developed algorithms that can replace thousands of experiments with fast, accurate and cost-effective computer simulations. These allow you to center design efforts in the part of the enzyme that really matters which significantly reduces time, resources and money in each new biocatalysts development.

Our computational pipeline named ZYMEVOLVER combines full protein dynamics, explicit water representation and quantum mechanics. Our data-driven simulations account for realistic modeling (at low computational cost) making our in silico predictions far superior to all existing alternatives in the market. We will design your new enzyme in less than one month.

Advantages of working with ZYMVOL:

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- Rescue dead-end projects
- Retain full IP of your enzymes
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- Big Data Analytics in Process Industry, 24 - 25 Apr 2018
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Do you have any questions?

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