

plenary speakers

EE	Tue, 13:10	Donald Hilvert <i>Laboratory of Organic Chemistry, ETH Zürich, Zurich, Switzerland</i>	Hilvert D Building Better Enzymes
EE	Tue, 16:10	Moshe Goldsmith <i>Department of Biological Chemistry, Weizmann Institute of Science, Rehovot, Israel</i>	Goldsmith M, Tawfik DS Engineering Potent Organophosphates Detoxifying Enzymes
EE	Wed, 9:00	Florian Hollfelder <i>Department of Biochemistry, University of Cambridge, Cambridge, UK</i>	Miton C, van Loo B, Colin PY, Kintses B, Fischlechner M, Schaerli Y, Zinchenko A, Bayer C, Jonas S, Hyvonen M, Hollfelder F Multiple Catalytic Promiscuity in the Alkaline Phosphatase Superfamily: Rules and Tools
EE	Wed, 11:10	Wolf-Dieter Fessner <i>Technische Universität Darmstadt, Institut für Organische Chemie und Biochemie, Darmstadt, Germany</i>	Fessner WD Engineering Promiscuous Enzymes for Organic Synthesis
EA	Wed, 11:45	Kristala L. J. Prather <i>Department of Chemical Engineering, Massachusetts Institute of Technology, Cambridge, USA</i>	Prather KLJ In vivo biocatalysis: probing enzyme range in context
EA	Wed, 13:20	Yasuhisa Asano <i>Biotechnology Research Center and Department of Biotechnology; JST, ERATO Toyama Prefectural University, Toyama, JAPAN</i>	Asano Y Novel enzymes for organics synthesis and diagnostics uses
EA	Thu, 9:10	Nicholas Turner <i>School of Chemistry, The University of Manchester, UK</i>	Turner NJ Design and Evolution of New Biocatalysts for Organic Synthesis
EA	Thu, 13:20	John M. Woodley <i>Department of Chemical and Biochemical Engineering, Technical University of Denmark (DTU), Lyngby, Denmark</i>	Woodley JM Tools for process analysis of new biocatalytic processes
EM	Thu, 14:55	Cláudio M. Soares <i>ITQB - Instituto de Tecnologia Química e Biológica António Xavier, Universidade Nova de Lisboa, Oeiras, Portugal</i>	Damas JM, Bento I, Silva CS, Chen Z, Brissos V, Martins LO, Lindley PF, Baptista AM, Soares CM Molecular Mechanisms in laccases: insights from structural and simulation studies
EE	Thu, 16:30	Loredano Pollegioni <i>Department of Biotechnology and Life Sciences, University of Insubria, Varese, Italy</i>	Pollegioni L, Conti G, Molla G, Rosini E Protein engineering of an industrial biocatalyst: evolution of a cephalosporin C acylase

EM	Fri, 9:00	Daniel Herschlag <i>Department of Biochemistry, Stanford University, Stanford, USA</i>	Herschlag D How Enzymes Work
EA	Fri, 11:10	Jürgen Eck <i>BRAIN Aktiengesellschaft, Zwingenberg, Germany</i>	Eck J Catalysing Bioeconomy
EA	Fri, 11:45	Y-H Percival Zhang <i>Biological Systems Engineering Department, Virginia Tech, Blacksburg, USA</i>	Zhang PYH , You C, Zhu Z, Rollin J The Fourth Wave of Biocatalysis: in vitro Biosystems for Biomanufacturing
EE	Fri, 13:20	Bettina Siebers <i>Molecular Enzyme Technology and Biochemistry (MEB), Biofilm Centre, University of Duisburg-Essen, Essen, Germany</i>	Siebers B, Esser D, Kouril T, Kallnik V, Bräsen B Archaea X-treme: From basic research to exploitation
Satellite NOVOSIDES Symposium			
EE	Wed, 15:55	Tom Desmet <i>Centre for Industrial Biotechnology and Biocatalysis, Ghent University, Ghent, Belgium</i>	Desmet T, De Winter K, Verhaeghe T, Soetaert W Improving the glycosylation potential of sucrose phosphorylase through enzyme and process engineering
EE	Wed, 16:25	Evelien te Poele <i>Microbial Physiology, Groningen Biomolecular Sciences and Biotechnology Institute (GBB), University of Groningen, The Netherlands</i>	te Poele EM, Gerwig GJ, Kamerling JP, Dijkhuizen L Glucosylation of stevia using glucansucrase enzymes of <i>Lactobacillus reuteri</i>
EE	Wed, 16:55	Vladimir Křen <i>Laboratory of Biotransformation, Institute of Microbiology AS CR, Prague, Czech Republic</i>	Křen V, Šimčíková D, Kotik M, Weignerová L α-L-Rhamnosyl-β-D-glucosidase (rutinosidase) from <i>A. niger</i>: Characterization and synthetic potential of a novel diglycosidase
EA	Wed, 17:25	Alexander Schiller <i>Institute for Inorganic and Analytical Chemistry Friedrich Schiller University, Jena, Germany</i>	Schiller A Boronic acid probes for enzyme assays and molecular computing
EA	Wed, 17:55	Emile Redant <i>Bio Base Europe Pilot Plant, Ghent, Belgium</i>	Redant E, Nair R, Derycke T, Waegeman H, Vanlerberghe B, Soetaert W Demonstrating the feasibility and economic potential of enzymatic glycosylation at the Bio Base Europe Pilot Plant

oral presentations

EE-01	Tue, 14:50	Tom van den Bergh <i>Bio-Product, Nijmegen, The Netherlands</i>	van den Bergh T, Joosten HJ Massive protein superfamily data integration applied to smart library design
EE-02	Tue, 16:45	Sabrina Reich <i>Institute of Technical Biochemistry, University of Stuttgart, Germany</i>	Reich S, Nestl BM, Hauer B Rational Loop Design of Old Yellow Enzymes
EE-03	Tue, 17:05	Fernando López-Gallego <i>CIC Biomagune, San Sebastian, Spain</i> <i>IKERBASQUE, Basque foundation for Science, Bilbao, Spain</i>	López-Gallego F, Guisán JM, Gorostiza P, Barrufet A Enzyme engineering by site-directed chemical modification in solid-phase
EE-04	Tue, 17:25	Mara Bönitz-Dulat <i>Biotechnology Development, Roche Diagnostics GmbH, Penzberg, Germany</i>	Bönitz-Dulat M, Kratzsch P Tailoring Enzymes for stable artificial Cofactors
EE-05	Tue, 17:45	Patrice Soumillion <i>Institute of Life Sciences, Université catholique de Louvain, Louvain-la-Neuve, Belgium</i>	Trabelsi H, Urbach C, Soumillion P Neutralization of an Enzyme Promotes Its Neofunctionalization.
EM-01	Tue, 18:05	Christopher Bayer <i>Department of Biochemistry, University of Cambridge, Cambridge, UK</i>	Bayer CD, Fischer G, van Loo B, Mohamed M, Hyvonen M, Hollfelder F Breaking residue interactions in the active site of promiscuous arylsulfatases – specificity turned off by a single mutation
EE-06	Wed, 9:35	Kristýna Slámová <i>Laboratory of Biotransformation, Institute of Microbiology AS CR, Prague, Czech Republic</i>	Slámová K, Krejzová J, Kulik N, Křen V The first transglycosidase derived from a GH20 β-N-acetylhexosaminidase
EE-07	Wed, 9:45	Régis Fauré <i>LISBP, INSA Toulouse, Toulouse, France</i>	Bissaro B, Durand J, Biarnés X, Monsan P, Planas A, Fauré R, O'Donohue MJ Towards non-Leloir transarabinofuranosidases using a molecular evolution strategy applied to a GH51
EE-08	Wed, 10:05	Andreas Vogel <i>c-LEcta GmbH, Leipzig, Germany</i>	Vogel A Optimizing enzymes for preparative synthetic performance

ED-01	Wed, 13:55	Heba Al Khamici <i>Medical and Molecular Biosciences, University of Technology, Sydney, Australia</i>	Al Khamici H, Brown LJ, Hossain KR, Hudson AL, Sinclair-Burton AA, Phui Mun Ng J, Daniel EL, Hare JE, Cornell BA, Curmi PMG, Davey MW, Valenzuela SM Members of the Chloride Intracellular Ion Channel Protein Family Demonstrate Glutaredoxin-Like Enzymatic Activity
ED-02	Wed, 14:15	Katarzyna Ciesielska <i>The Laboratory for Protein Biochemistry and Biomolecular Engineering, Gent University, Gent, Belgium</i>	Ciesielska K, Van Bogaert I, Roelants S, Soetaert W, Devreese B Discovery of lactone esterase in the exoproteome of <i>Starmarella bombicola</i>
ED-03	Wed, 14:35	Rosario Medici <i>Biocatalysis Group, Department of Biotechnology, Delft University of Technology, Delft, The Netherlands</i>	Médecin R, Domínguez de María P, Otten LG, Arends IWCE, Straathof AJJ Serine decarboxylases: new enzymes for the bio-based production of ethanolamine
EM-02	Wed, 14:55	Jennifer Littlechild <i>Henry Wellcome Building for Biocatalysis, College of Life and Environmental Studies, University of Exeter, Exeter, UK</i>	Littlechild J, James P, Isupov M A novel Archaeal 'Split Transketolase' Enzyme: reconstitution, structural and evolutionary perspectives
EE-09	Fri, 13:55	Koen Beerens <i>Loschmidt Laboratories, Department of Experimental Biology and Research Centre for Toxic Compounds in the Environment (RECETOX), Masaryk University, Brno, Czech Republic</i>	Beerens K, Bednar D, Sebestova E, Chaloupkova R, Prokop Z, Brezovsky J, Damborsky J FireProt: Computational design of thermostable multiple-point mutants by energy- and evolution-based approach
EE-10	Fri, 14:15	Charles Tellier <i>Laboratory of Functionality and Engineering of Proteins, UMR-CNRS n°6286, University of Nantes, Nantes, France</i>	Teze D, Daligault F, Tran V, Sanejouand YH, Dion M, Tellier C Engineering transglycosidases for oligosaccharide synthesis
EA-01	Fri, 14:35	Martin Elstner <i>Institute for Inorganic and Analytical Chemistry Friedrich Schiller University, Jena, Germany</i>	Elstner M, Schiller A On the way to a sugar computer – algorithm driven approach for chemical logic gate integration
SysBiocat COST-Action CM1303			
COST-01	Thu, 9:45	Alexander Gutmann <i>Institute of Biotechnology and Biochemical Engineering, Graz University of Technology, Graz, Austria</i>	Gutmann A, Bungaruang L, Krump C, Nidetzky B Flavonoid glucosylation by glycosyltransferase-catalyzed cascade reactions

COST-02	Thu, 10:05	John Ward <i>Advanced Centre for Biochemical Engineering, Department of Biochemical Engineering, UCL, London, UK</i>	Ward JM , Lichman BR, Gershater MC, Lamming ED, Pesnot T, Hailes HC Synthetic plant norcoclaurine synthase – a Pictet-Spenglerase for the synthesis of diverse benzylisoquinoline alkaloids
COST-03	Thu, 11:20	Kateřina Purchartová <i>Laboratory of Biotransformation, Institute of Microbiology AS CR, Prague, Czech Republic</i>	Purchartová K, Marhol P, Křen V Comparison of aryl sulfotransferases - metabolic studies of flavonoids and flavonolignans
COST-04	Thu, 11:40	Piotr Kiełbasiński <i>Centre of Molecular and Macromolecular Studies, Polish Academy of Sciences, Department of Heteroorganic Chemistry, Łódź, Poland</i>	Kiełbasiński P, Kwiatkowska M, Madalińska L Hydrolytic enzyme-based syntheses of enantiopure heteroatom derivatives as precursors to chiral catalysts
COST-05	Thu, 12:00	Ivana Drienovská <i>Stratingh Institute for Chemistry, University of Groningen, Groningen, The Netherlands</i>	Drienovská I, Roelfes G Novel artificial metalloenzymes by in vivo incorporation of metal-binding unnatural amino acids
COST-06	Thu, 13:55	Winnie Dejonghe <i>Separation & Conversion Technology (SCT), Flemish Institute for Technological Research (VITO nv), Mol, Belgium</i>	Satyawali Y, Ehimen E, Diez De La Torre V, Maesen M, Vandezande P, Dejonghe W Process intensification in ω-transaminase based reaction
COST-07	Thu, 14:15	Madalina Sandulescu-Tudorache <i>Department of Organic Chemistry, Biochemistry and Catalysis, University of Bucharest, Bucharest, Romania</i>	Tudorache M, Ghemes G, Gheorghe A, Coman S, Parvulescu V Enzyme application in the glycerol biorefinery - biocatalytic conversion of glycerol into value-added products
COST-08	Thu, 14:35	László Poppe <i>Department of Organic Chemistry and Technology, Budapest University of Technology and Economics, Budapest, Hungary</i>	Poppe L, Paizs C, Vértessy BG, Kovács K, Diána W, Varga A, Vári H, Bánóczy G, Bell E, Kókai E, Boros Z MIO-enzymes – Novel enzymes, immobilization methods and applications
COST-09	Thu, 17:05	Marielle Lemaire <i>Clermont Université, Université Blaise Pascal, ICCF, Clermont-Ferrand, France</i>	Lemaire M, de Berardinis V, Guérard-Hélaine C, Salanoubat M Mining genomes for innovative biocatalysts: new aldolases for the chemist's toolbox
COST-10	Thu, 17:25	Francesca Paradisi <i>UCD School of Chemistry and Chemical Biology, University College Dublin, Dublin, Ireland</i>	Cerioli L, Planchestainer M, Cassidy J, Rosini E, D'arrigo P, Tessaro D, Paradisi F A novel ω-transaminase from the moderate halophile bacterium <i>Halomonas elongata</i>

COST-11	Thu, 17:45	Francisco Plou <i>CSIC Institute of Catalysis, Madrid, Spain</i>	Fernández-Arrojo L, Gimeno-Pérez M, Santos-Moriano P, Relaño-López S, Piedrabuena-Estrada D, Ramírez-Escudero M, Sanz-Aparicio J, Fernández-Lobato M, Plou FJ Novel β-fructofuranosidases from non-conventional yeasts for the synthesis of novel fructosylated derivatives
COST-12	Fri, 9:35	Benjamin Lichman <i>Advanced Centre for Biochemical Engineering, Department of Biochemical Engineering, UCL, London, UK</i>	Lichman BR, Gershater MC, Lamming ED, Pesnot T, Hailes HC, Ward JM Novel Catalytic Mechanism and Kinetics of the Benzylisoquinoline Alkaloid Enzyme Norcoclaurine Synthase
COST-13	Fri, 9:55	Linda Otten <i>Biocatalysis group, Delft University of Technology, Delft, The Netherlands</i>	Otten LG, Hiseni A, Arends IWCE Structural characterization of carotenoid 1,2-hydratases
COST-14	Fri, 10:15	Ayelet Fishman <i>Department Biotechnology and Food Engineering, Technion, Haifa, Israel</i>	Goldfeder M, Kanteev M, Isaschar-Ovdat S, Adir N, Fishman A Catching tyrosinase in the act with crystal structures of bound substrate and product
poster talks			
PT-01	Tue, 13:45	David Niquille (EE-33) <i>Laboratory of Organic Chemistry, ETH Zürich, Zurich, Switzerland</i>	Niquille D, Kries H, Hilvert D A Subdomain Swap Strategy for NRPS Reengineering
PT-02	Tue, 13:54	Ilse Van de Voorde (EA-23) <i>KU Leuven, Faculty of Engineering Technology, Department of Microbial and Molecular Systems (M²S), Cluster of Bioengineering Technology (CBET), Campus Gent (KAHO Sint-Lieven), Laboratory of Enzyme, Fermentation and Brewing Technology, Gent, Belgium</i>	Van de Voorde I, Syryn E, Van Holsbeeck M, Aerts G Enzymatic production of the alternative sweetener D-tagatose
PT-03	Tue, 14:03	Sarah Prexler (EM-08) <i>Westphalian Wilhelm's University, Institute of Plant Biology and Biotechnology, Münster, Germany</i>	Prexler SM, Singh R, Moerschbacher BM, Dirks-Hofmeister ME The amino acid residue at position H_{B2+1} of dandelion polyphenol oxidase acts as "selector" for substrate specificity
PT-04	Tue, 14:12	Stephan Kolkenbrock (ED-11) <i>evocatal GmbH, Monheim am Rhein, Germany</i>	Kolkenbrock S, Leggewie C, Eggert T Discovery of novel enzymes by functional and sequenced metagenomes from extreme habitats

PT-05	Tue, 14:21	Adele Williamson (ED-19) <i>UiT The Arctic University of Norway, Tromsø, Norway</i>	Williamson A, Schroder Leiros HK, Rothweiler U, Smalås A Discovery of Cold-active Enzymes from the Marine Arctic Environment
PT-06	Tue, 14:30	Lisa Blaschke (ED-06) <i>University of Stuttgart, Institute for Interfacial Process Engineering and Plasma Technology IGVP, Stuttgart, Germany</i>	Blaschke L, Hirth T, Rupp S, Bryniok D, Zibek S New enzymes for a methanol-based green chemistry
PT-07	Tue, 14:39	Dominik Rais (ED-13) <i>University of Stuttgart, Institute for Interfacial Process Engineering and Plasma Technology IGVP, Stuttgart, Germany</i>	Rais D, Rupp S, Hirth T, Zibek S Identification of new bacterial lignin-modifying enzymes

poster presentations

Enzyme Engineering

EE-11	Antonio B. Ballesteros <i>Department of Biocatalysis, Institute of Catalysis, CSIC, 28049 Madrid, Spain</i>	Gonzalez-Perez D, Molina-Espeja P, Garcia-Ruiz E, Mate DM, Viña X, Martín J, Gomez BJ, Vicente IA, Mateljck I, Ballesteros AO, Alcalde M Directed evolution of the ligninolytic consortium
EE-12	Silke Bastian <i>Institute of Technical Biochemistry, Universitaet Stuttgart, Stuttgart, Germany</i>	Bastian SA, Hammer SC, Marjanovic A, Nestl BM, Hauer B Spacial reshaping of a squalene-hopene cyclase for cyclization of small, non-natural terpenoid substrates
EE-13	Samir Bejar <i>Laboratoire de Métabolites et de Biomolécules, Centre de Biotechnologie de Sfax, Université de Sfax, Sfax, Tunisia</i>	Ben Mabrouk S, Ayadi DZ, Ben Hlima H, Bejar S Thermostability improvement of maltogenic amylase MAUS149 by Error Prone PCR and site directed mutagenesis
EE-14	Bariş Binay <i>Istanbul AREL University, Molecular Biology and Genetics, Istanbul, Turkey</i>	Binay B, Turner NJ, Karaguler NG Development of novel biocatalysts for industrial applications
EE-15	Olivier Box <i>Institute of Life Sciences, Université catholique de Louvain, Louvain-la-Neuve Belgium</i>	Box O, Hols P, Soumillion P Directed evolution of a dimeric enzyme expressed from a chromosomal gene

EE-16	Adrian Bunzel <i>Laboratory of Organic Chemistry, ETH Zürich, Zürich, Switzerland</i>	Bunzel A, Hilvert D Deciphering a highly efficient de novo biocatalyst
EE-17	Jelle Bultema <i>Microbial Physiology, Groningen Biomolecular Sciences and Biotechnology Institute (GBB), University of Groningen, Groningen, The Netherlands</i>	Bultema JB, Kuipers BJH, Dijkhuizen L Biochemical characterization of mutants in the active site residues of the β-galactosidase enzyme of <i>Bacillus circulans</i> ATCC 31382
EE-18	Roberta Bussamara <i>Laboratório de Biotecnologia, Universidade Estadual do Rio Grande do Sul (UERGS), Novo Hamburgo, Brazil</i>	Bussamara R, Eberhardt D, Feil AF, Migowski P, Wender H, Moraes DP, Machado G, Papaléo RM, Teixeira SR, Dupont J Sputtering deposition of magnetic Ni nanoparticles directly onto an enzyme surface: a novel method to obtain a magnetic biocatalyst
EE-19	Barbara Daneels <i>Centre for Industrial Biotechnology and Biocatalysis, Ghent, Belgium</i>	Danneels B, Tanghe M, Joosten HJ, Desmet T Exploring the Specificity of Lytic Polysaccharide Monoxygenases
EE-20	Clément Dince <i>Department of Organic Chemistry, ETH Zürich, Zürich, Switzerland</i>	Dince C, Hilvert D Directed Evolution of <i>Pseudomonas fluorescens</i> Benzaldehyde Lyase for Improved Thiamin Pyrophosphate Analogs Binding
EE-21	Nadia El Bakkali Taheri <i>Institute of life sciences, Louvain-la-Neuve, Belgium</i>	El Bakkali Taheri N, Soumillion P Two innovative ways to study β-lactamase evolution
EE-22	Stephane Emond <i>Department of Biochemistry, University of Cambridge, Cambridge United Kingdom</i>	Emond S, Tokuriki N, Hollfelder F Are insertions and deletions key players in enzyme evolution?
EE-23	Jorick Franceus <i>Centre for Industrial Biotechnology and Biocatalysis, Ghent University, Ghent, Belgium</i>	Franceus J, Diricks M, Verhaeghe T, Desmet T Resurrecting the ancestor of sucrose and sucrose 6'-phosphate phosphorylases
EE-24	Joachim Gilles <i>Institute of Life Science, UCL, Louvain-La-Neuve, Belgium</i>	Joachim G, Soumillion P A tandem duplication in the Omega-loop of class A beta-lactamase : a key event in the emergence of catalytic activity?
EE-25	Laurence Hecquet <i>Institut of Chemistry of Clermont-Ferrand, CNRS/University Clermont-Ferrand, Aubière, France</i>	Abdoul-Zabar J, Charmantray F, Hélaine V, de Bérardinis V, Fessner WD, Hecquet L Asymmetric synthesis of polyols by C-C bond formation catalyzed by Transketolase from <i>Geobacillus stearothermophilus</i>

EE-26	Raphaelle Hours <i>Department of Biochemistry, Cambridge University, Cambridge, UK</i>	Hours R, Pushpanath A, Siirola E, Schell U, Hollfelder F Development of microfluidic droplet screening approaches for the directed evolution of amino-acid dehydrogenases
EE-27	Bassem Jaouadi <i>Laboratory of Microorganisms and Biomolecules, Centre of Biotechnology of Sfax (CBS), University of Sfax, Sfax, Tunisia</i>	Jaouadi B, Jaouadi NZ, Rekik H, Ben Hlima H, Ben Aicha HS, Hila CG, Toumi A, Aghajari N, Bejar S The bioengineering and industrial applications of SAPB enzymes in enzymatic depilation of animal hide
EE-28	Jurate Kamarauskaite <i>Laboratory of Organic Chemistry, ETH Zürich, Zürich, Switzerland</i>	Kamarauskaite J, Kast P Lack of conserved active site residues in a naturally sluggish chorismate mutase does not preclude efficient catalysis
EE-29	Jana Krejzová <i>Laboratory of Biotransformation, Institute of Microbiology, Academy of Sciences of the Czech Republic, Prague, Czech Republic</i>	Krejzová J, Slámová K, Marhol P, Křen V Facile expression of human β-N-acetylhexosaminidases and their functional mutants in <i>Pichia pastoris</i>
EE-30	Nikola Lončar <i>Department of Biochemistry, Groningen Biomolecular Sciences and Biotechnology Institute, University of Groningen, Groningen, The Netherlands Faculty of Chemistry, University of Belgrade, Belgrade, Serbia</i>	Lončar N, Fraaije MW Not so monofunctional – the thermostable <i>Thermobifida fusca</i> catalase also displays peroxidase activity
EE-31	Xiangfeng Meng <i>1Microbial Physiology, Groningen Biomolecular Sciences and Biotechnology Institute (GBB), University of Groningen, The Netherlands.</i>	Meng X, Dobruchowska JM, Pijning T, López CA, Kamerling JP, Dijkhuizen L Residue L940 Has a Crucial Role in the Specificity of the Glucansucrase GTF180 of <i>Lactobacillus reuteri</i> 180
EE-32	Maria Mushtaq <i>Department of Applied Medical Science, Northern Border University, Ar Ar, Kingdom of Saudi Arabia</i>	Mushtaq M, Al-Ruwaili AJ BioProcessing Of Rice Straw for the Production and Purification of Exoglucanase from <i>Aspergillus Sydowii</i>
EE-33	David Niquille (PT-01) <i>Laboratory of Organic Chemistry, ETH Zürich, Zürich, Switzerland</i>	Niquille D, Kries H, Hilvert D A Subdomain Swap Strategy for NRPS Reengineering
EE-34	Sabrina Schläger <i>Institute of Pharmacy, Martin Luther University, Halle, Germany</i>	Schläger S, Fischer J, Brandt W, Dräger B Structure-function analyses of a short-chain dehydrogenase/reductase for coenzyme specificity and reduction of bicyclic diketones
EE-35	Sabine Studer <i>Laboratory of Organic Chemistry, ETH Zürich, Zürich, Switzerland</i>	Studer S, Guffy SL, Kuhlman B, Hilvert D Characterization and evolution of a small designed metalloesterase

EE-36	Kim Trollope <i>Department of Microbiology, Stellenbosch University, Stellenbosch, South Africa</i>	Trollope KM, Görgens JF, Volschenk H Directed evolution of loop regions in a fungal β fructofuranosidase for improved fructooligosaccharide production.
EE-37	Julia Wessel <i>Institute of Life Science UCL, Louvain-la-Neuve, Belgium</i>	Wessel J, Mankowska S, Hollfelder F, Soumillion P Directed evolution in droplets: towards the acellular birth of a beta-lactamase
Enzyme Discovery		
ED-04	S. M. Abdul-Awal <i>Department of Plant Sciences, University of Cambridge, Cambridge, UK</i>	Abdul-Awal SM, Smith A, Webb AAR Identification of ADP-ribosyl cyclase in Arabidopsis thaliana
ED-05	Koen Beerens <i>Loschmidt Laboratories, Department of Experimental Biology and Research Centre for Toxic Compounds in the Environment (RECETOX), Masaryk University, Brno, Czech Republic</i>	Beerens K, Soetaert W, Desmet T Characterization and mutational analysis of the UDP-hexose 4-epimerase from Marinithermus hydrothermalis
ED-06	Lisa Blaschke (PT-06) <i>University of Stuttgart, Institute for Interfacial Process Engineering and Plasma Technology IGVP, Stuttgart, Germany</i>	Blaschke L, Hirth T, Rupp S, Bryniok D, Zibek S New enzymes for a methanol-based green chemistry
ED-07	Eva Böhmová <i>Laboratory of Biotransformation, Institute of Microbiology, Academy of Sciences of the Czech Republic, Prague, Czech Republic</i>	Böhmová E, Kotík M, Kulik N, Martínková L Heterologous production of fungal tyrosinase from Polyporus arcularius
ED-08	Pierre-Yves Colin <i>Department of Biochemistry, University of Cambridge, Cambridge, UK</i>	Colin PY, Kintsjes B, Gielen F, Miton C, Janssen DB, Hollfelder F New promiscuous phosphotriesterases from microfluidic droplets metagenomics
ED-09	Andrew Ellis <i>Biocatalysts Ltd, Cefn Coed, Parc Nantgarw, Cardiff, UK</i>	Ellis A Fast Development and Manufacture of Novel Industrial Enzymes
ED-10	Leila Jabalameli <i>Department of Biology, Faculty of Basic sciences, Science and research branch, Islamic Azad University, Tehran, Iran</i>	Jabalameli L, Hosseinkhani S, Razavi MR, Akhavan Sepahi A Cloning and expression of bacterial luciferase from a new luminous bacteria isolated from sea of Oman
ED-11	Stephan Kolkenbrock (PT-04) <i>evocatal GmbH, Monheim am Rhein, Germany</i>	Kolkenbrock S, Leggewie C, Eggert T Discovery of novel enzymes by functional and sequenced metagenomes from extreme habitats

ED-12	Daniela Monti <i>Instituto di Chimica del Riconoscimento Molecolare - CNR, Milano, Italy</i>	Monti D, Ferrandi EE, Annovazzi C, Sayer C, Isupov M, Marchesi C, Iacobone G, Peng X, Bonch-Osmolovskaya E, Wohlgemuth R, Littlechild J Identification of novel epoxide hydrolases in metagenomes from hot terrestrial environments
ED-13	André Nordhues <i>Institute of Plant Biology and Biotechnology, Westphalian Wilhelm's University Münster, Münster, Germany</i>	Nordhues A, Singh R, Hembach L, Moerschbacher BM Heterologous co-expression of tandem-acting chitin/chitosan synthesizing/modifying enzymes to produce defined chitosans
ED-14	Dominik Rais (PT-07) <i>University of Stuttgart, Institute for Interfacial Process Engineering and Plasma Technology IGVP, Stuttgart, Germany</i>	Rais D, Rupp S, Hirth T, Zibek S Identification of new bacterial lignin-modifying enzymes
ED-15	Florian Tenschert <i>Institute of Plant Biology and Biotechnology, Westphalian Wilhelm's University Münster, Münster, Germany</i>	Tenschert F, Wagenknecht M, Moerschbacher BM Search for novel xanthan-modifying enzymes
ED-16	Niël Van Wyk <i>Division of Molecular Biology and Human Genetics, Department of Biomedical Sciences, Faculty of Medicine and Health Sciences, Stellenbosch University, Tygerberg, South Africa</i>	Anderson DE, Theys MG, Meyer LM, van Wyk N, van Helden PD, Warren RM, Sampson SL Assigning putative functions to unknown essential genes in Mycobacterium tuberculosis
ED-17	Niël Van Wyk <i>Division of Molecular Biology and Human Genetics, Department of Biomedical Sciences, Faculty of Medicine and Health Sciences, Stellenbosch University, Tygerberg, South Africa</i>	van Wyk N, Trollope KM, Wingfield BD, Volschenk H Identification and characterization of a β-fructofuranosidase from Ceratocystis moniliformis
ED-18	Alicja Barbara Veselá <i>Laboratory of Biotransformation, Academy of Sciences of the Czech Republic, Prague, Czech Republic</i>	Martínková L, Veselá AB, Rinágelová A, Rucká L, Kaplan O, Pátek M Exploitation of nitrilase and cyanide hydratase sequence potential of filamentous fungi
ED-19	Adele Williamson (PT-05) <i>UiT The Arctic University of Norway, Tromsø, Norway</i>	Williamson A, Schroder Leiros HK, Rothweiler U, Smalås A Discovery of Cold-active Enzymes from the Marine Arctic Environment
ED-20	Dimitra Zarafeta <i>Laboratory of Biotechnology, Department of Synthesis and Development of Industrial Processes, School of Chemical Engineering, National Technical University of Athens, Athens, Greece</i>	Zarafeta D, Ladoukakis E, Kissas D, Gudbergsdottir SR, Gavrilov S, Chatziioannou A, Bonch-Osmolovskaya EA, Peng X, Skretas G, Kolisis FN Discovery of novel thermostable hydrolases of industrial interest by metagenomic screening

Enzyme Mechanisms

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| EM-03 | Ralph Coppi
<i>Institute of Pharmacy, Martin-Luther University Halle-Wittenberg, Halle, Germany</i> | Coppi R, Westermann B, Dräger B
Synthesized cosubstrate analogues for the inhibition of spermidine synthases of the polyamine metabolism |
| EM-04 | Mareike Dirks-Hofmeister
<i>Centre for Industrial Biotechnology and Biocatalysis, Ghent University, Ghent, Belgium</i> | Dirks-Hofmeister ME, Pletinckx D, Desmet T
Determining kinetic parameters for sucrose phosphorylase transglycosylation on (poly)phenolic acceptors using quantitative TLC |
| EM-05 | Sandra Hinz
<i>Dyadic Nederland BV, Wageningen, The Netherlands</i> | Leonov L, Bahrim G, Schols H, Koutaniemi S, Tenkanen M, Visser J, Hinz S
Esterases of Myceliophthora thermophila C1 help in the degradation and modification of lignocellulosic material |
| EM-06 | Christine Leufken
<i>Institute of Plant Biology and Biotechnology, Westphalian Wilhelm's-University of Münster, Münster, Germany</i> | Leufken CM, Dirks-Hofmeister ME, Moerschbacher BM
Potential in planta activators of polyphenol oxidases (PPOs): fatty acids released by phospholipase A activate dandelion PPO |
| EM-07 | Mireille Moutiez
<i>Service d'Ingénierie Moléculaire des Protéines, iBiTec-S, Commissariat à l'Energie Atomique et aux Energies Alternatives (CEA), Gif-sur-Yvette, France</i> | Moutiez M, Schmitt E, Seguin J, Thai E, Favry E, Belin P, Mechulam Y, Gondry M
Unraveling the mechanism of nonribosomal peptide synthesis by cyclodipeptide synthases |
| EM-08 | Sarah Prexler (PT-03)
<i>Westphalian Wilhelm's University, Institute of Plant Biology and Biotechnology, Münster, Germany</i> | Prexler SM, Singh R, Moerschbacher BM, Dirks-Hofmeister ME
The amino acid residue at position H_{B2+1} of dandelion polyphenol oxidase acts as "selector" for substrate specificity |
| EM-09 | An Vandemeulebroucke
<i>Laboratory of Organic Chemistry, ETH Zürich, Zürich, Switzerland</i> | Vandemeulebroucke A, Hilvert D
Elucidation of the P450cam cytochrome reaction mechanism using selenium as a mechanistic probe |

Enzyme Application

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| EA-02 | Dilek Alagöz
<i>University of Cukurova , Vocational School of Imamoglu, Adana, Turkey</i> | Alagöz D, Yildirim D, Tükel SS
Purification and characterization of Prunus domestica HNL |
| EA-03 | Jörg Axthelm
<i>Institute of Inorganic and Analytical Chemistry FSU Jena, Germany</i> | Axthelm J, Elstner M, Schiller A
Fluorinated boronic acid-appended pyridinium salts for sugar recognition in water via ¹⁹F NMR spectroscopy |

EA-04	Veselin Bivolarski <i>Department Biochemistry and Microbiology, P. Hilendarski University of Plovdiv, Plovdiv, Bulgaria</i>	Vasileva T, Bivolarski V, Salim A, Bozov P, Iliev I Inhibitory effect of substances isolated from Bulgarian herbs on glycosyltransferases from <i>Leuconostoc mesenteroides</i> strains
EA-05	Avinesh Byreddy <i>Centre for Chemistry and Biotechnology, School of Life and Environmental Sciences, Deakin University, Geelong, Australia</i>	Byreddy A, Puri M, Barrow C Application of phospholipase for selective concentration of omega-3 fatty acids from fish oil
EA-06	Josefa María Clemente-Jiménez <i>Department of Chemical and Physics, University of Almería, Almería, Spain</i>	Rodríguez-Alonso MJ, Las Heras Vázquez FJ, Rodríguez-Vico F, Clemente-Jiménez JM Immobilized enzymatic systems for α-L-amino acids production
EA-07	Laura Amina Dahili <i>Doctoral School of Molecular- and Nanotechnologies, Research Institute of Chemical and Process Engineering, University of Pannonia, Veszprém, Hungary</i>	Dahili LA, Feczko T Immobilization of horseradish peroxidase enzyme on nano spray dried particles
EA-08	Karel De Winter <i>Centre for Industrial Biotechnology and Biocatalysis, Faculty of Biosciences Engineering, Ghent University, Ghent, Belgium</i>	De Winter K, Soetaert W, Desmet T Disaccharide phosphorylases for the efficient synthesis of glycosides
EA-09	Winnie Dejonghe <i>Separation & Conversion Technology (SCT), Flemish Institute for Technological Research (VITO nv), Mol, Belgium</i>	Jochems P, Van Roy S, Cauwenberghs L, Doyen W, Satyawali Y, Dejonghe W Galacto-oligosaccharide production in a mixed matrix membrane reactor
EA-10	Tim Devlamynck <i>Groningen Biomolecular Sciences and Biotechnology Institute, University of Groningen, Groningen, The Netherlands</i>	Devlamynck T, te Poele E, Soetaert W, Dijkhuizen L Glycosylating phenolic compounds with glucansucrases: reaction engineering and product characterization
EA-11	Griet Dewitte <i>Centre for Industrial Biotechnology and Biocatalysis, Faculty of Biosciences Engineering, Ghent University, Ghent, Belgium</i>	Dewitte G, Diricks M, Walmagh M, Desmet T Turning sucrose synthase into a biocatalyst for the production of nucleotide sugars
EA-12	Paula Diez <i>Department of Analytical Chemistry, Faculty of Chemistry, Complutense University of Madrid, Madrid, Spain</i>	Díez P, Villalonga R, Sánchez A, Martínez P, Martínez-Mañez R, Pingarrón JM Neoglycoenzyme-gated mesoporous silica nanoparticles as stimuli-responsive systems for controlled delivery
EA-13	Régis Fauré <i>LISBP, INSA Toulouse, Toulouse, France</i>	Durand J, Watterlot L, Bonzom C, Borsenberger V, Bozonnet S, Fauré R, O'Donohue MJ Enzymatic synthesis of cellobiose lipids by engineering of a type II endo-glycoceramidase

EA-14	Lucia Gardossi <i>Dipartimento di Scienze Chimiche e Farmaceutiche, Università degli Studi di Trieste, Trieste, Italy</i>	Corici L, Pellis A, Ferrario V, Fattor D, Ebert C, Gardossi L Towards a rational design of enzyme catalyzed polycondensation
EA-15	Maja Leitgeb <i>University of Maribor, Faculty of Chemistry and Chemical Engineering, Laboratory for Separation Processes and Product Design, Maribor, Slovenia</i>	Leitgeb M, Čolnik M, Primožič M, Knez Ž Inactivation of black yeast cells by supercritical carbon dioxide treatment
EA-16	Selmihan Sahin <i>Suleyman Demirel University, Faculty of Arts and Sciences, Chemistry Department, Isparta, Turkey</i>	Şahin S, Ozmen I Effect of endo-β-1,4 glucanase obtained from local isolate Trichoderma aureoviride on denim garment
EA-17	Selmihan Sahin <i>Suleyman Demirel University, Faculty of Arts and Sciences, Chemistry Department, Isparta, Turkey</i>	Şahin S, Ozmen I Optimization of protease immobilization conditions
EA-18	Selmihan Sahin <i>Suleyman Demirel University, Faculty of Arts and Sciences, Chemistry Department, Isparta, Turkey</i>	Şahin S, Ozmen I Evaluation of enzymatic hydrolysis of different lignocellulosic materials pretreated with NaOH and H₂SO₄
EA-19	Selmihan Sahin <i>Suleyman Demirel University, Faculty of Arts and Sciences, Chemistry Department, Isparta, Turkey</i>	Şahin S, Ozmen I Production of endoglucanase from local isolate Aspergillus niger and its optimization under submerged fermentation
EA-20	Ioulia Smonou <i>Department of Chemistry, University of Crete, Crete, Greece</i>	Smonou I, Bariotaki A, Stergiou A, Kalaitzakis D Asymmetric enzymatic reductions: applications in the synthesis of high-added value compounds
EA-21	François Stricher <i>Enzyme Optimization Department, Global Bioenergies, Evry, France</i>	Stricher F Direct fermentation for Isobutene, Butadiene and Propylene production: a highway to renewable plastics, synthetic rubber and fuels
EA-22	Audrey Tanghe <i>Materia Nova, Ghislenghien, Belgique</i>	Berezina N, Tanghe A, Castel G, Jimenez-Tobon GA, Jaspers C Thermic and catalytic characterization of three fungal laccases and their application

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- EA-23 **Ilse Van de Voorde**
KU Leuven, Faculty of Engineering Technology, Department of Microbial and Molecular Systems (M²S), Cluster of Bioengineering Technology (CBET), Campus Gent (KAHO Sint-Lieven), Laboratory of Enzyme, Fermentation and Brewing Technology, Gent, Belgium
- Van de Voorde I, Syryn E, Van Holsbeeck M, Aerts G
Enzymatic production of the alternative sweetener D-tagatose
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- EA-24 **Monika Van Holsbeeck**
KU Leuven, Faculty of Engineering Technology, Department of Microbial and Molecular Systems (M²S), Cluster of Bioengineering Technology (CBET), Campus Gent (KAHO Sint-Lieven), Laboratory of Enzyme, Fermentation and Brewing Technology, Gent, Belgium
- Van Holsbeeck M, Tsakali E, Syryn E, Aerts G, Van Impe J, Van de Voorde I
Production, purification and characterization of a Geobacillus stearothermophilus L-arabinose isomerase
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- EA-25 **Tonka Vasileva**
Department Biochemistry and microbiology, P. Hilendarski University of Plovdiv, Plovdiv, Bulgaria
- Vasileva T, Staikova P, Naidenova V, Bozov P, Iliev I
Study of β -Mannanase from Aspergillus niger IBP1987 for production of prebiotic galactomannan oligosaccharides
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- EA-26 **Reynaldo Villalonga**
Department of Analytical Chemistry, Faculty of Chemistry, Complutense University of Madrid, Madrid, Spain
- Villalonga R, Díez P, Sánchez A, Martínez P, Martínez-Mañez R, Pingarrón JM
Janus nanoparticles-based smart nanomachines controlled by enzymatic biocomputing ensembles
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- EA-27 **Maarten Walmagh**
Centre for Industrial Biotechnology and Biocatalysis, Ghent University, Ghent, Belgium
- Walmagh M, Luley-Goedl C, Vogel A, Joosten HJ, Guisan JM, Kuballa J, Seibel J, Nidetzky B, Desmet T
Sucrose Synthase as Cost-Effective Mediator of Glycosylation Reactions (SuSy)
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- EA-28 **Roland Wohlgemuth**
Sigma-Aldrich, Buchs, Switzerland
- Wohlgemuth R
Kinases for Biocatalytic Asymmetric Phosphorylations of Metabolites
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- EA-29 **Deniz Yildirim**
University of Cukurova, Vocational School of Ceyhan, Adana, Turkey
- Yildirim D, Alagöz D, Tükel SS
Immobilization and characterization of epoxide hydrolase from Aspergillus niger onto sporopollenin
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