



IBS
2016

17th International
Biotechnology
Symposium
and Exhibition
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IBS 2016, Draft Program


DRAFT: 27/05/2016

Monday 24 October 2016			
8.00am	Conference registration opens		
9.00 – 9.45am	Welcome to IBS 2016 and AusBiotech 2016 Minister Dr Anna Lavelle , CEO, AusBiotech IUPAC Opening; Prof Francesco Nicotra , Chair of the IUPAC Subcommittee of Biotechnology, University of Milano-Bicocca, Italy		
9.45 – 10.30am	Keynote Plenary Mr Paul Perreault , CEO and Managing Director, CSL Ltd, USA		
10.30 – 11.00am	Morning Tea Break and networking with exhibitors		
	Breakout 1: Functional Foods	Breakout 2: Biobased production	Breakout 3: Glycomics
	Chair:	Chair:	Chair: Prof Mark von Itzstein , Director, Institute for Glycomics, Griffith University
11.00 – 11.30am	Keynote:	Keynote1 : Jamie Rodriguez , Director, Centre of Biotechnology, University of Concepción, Chile (20 mins) <i>Lipid and pigments produced by wood biodegrading microorganism isolated from native forest</i> Keynote 2: Prof David James , Professor of Bio Process Engineering, Sheffield University UK	Keynote 1: 25 mins Prof Dr Rita Gerardy-Schahn , Director and Professor, Institute for Cellular Chemistry, Hannover Medical School, Germany Keynote 2: 20 mins Prof Richard Payne , Professor of Organic Chemistry and Chemical Biology and ARC

		(20 mins)	Future Fellow, School of Chemistry, The University of Sydney
11.30 – 11.45am 11.45am – 12.00pm 12.00 – 12.15pm 12.15 – 12.30pm	Speaker 1: Speaker 2 Speaker 3 Q&A	Speaker 1: Dr Wayne Patrick , Senior Lecturer, University of Otago, New Zealand <i>Engineering superior DNA ligase enzymes for biomolecular applications</i> Speaker 2: A/Prof Johan Verbeek , Associate Professor, University of Waikato, New Zealand <i>New products for special needs, a new life for protein by-products</i> Q&A	Keynote 3: 20 mins Prof Richard Furneaux , Director, The Ferrier Research Institute, Victoria University of Wellington, New Zealand <i>Is there a chemical code for the diverse biological activities of heparan sulfate?</i> Panel 25mins
12.30 – 1.30pm	Lunch Break and networking with exhibitors		
	Breakout 4: BioRefinery	Breakout 5: IP Global Update	Breakout 6: Nanobiotech
	Chair: Prof Emile van Zyl , Senior Chair of Energy Research in Biofuels, Stellenbosch University, South Africa	Chair: Lorraine Chiroiu , Chief Industry Affairs Officer, AusBiotech	Chair:
1.30 – 2.00pm	Keynote: Prof Akihiko Kondo , Professor, Kobe University, Japan <i>Development of microbial cell factories for consolidated bioprocessing by synthetic biology platform</i>	Panel: Dr Lisa Haile , Partner & Co-Chair Global Life Sciences Sector, DLA Piper LLP, USA Tania Obranovich , Special Council, Watermark John Tessensohn , Board Member Shusaku. Yamamoto, Japan Dr Charles Harding , Partner, D Young & Co, UK	Keynote 1: Prof Justin Gooding , Scientia Professor and Founding Co-director, The Australian Centre for NanoMedicine, UNSW <i>3D printing of cells</i> Keynote 2: Prof Max Lu , Vice-Chancellor, University of Surrey UK
2.00 – 2.15pm 2.15 – 2.30pm 2.30 – 2.45pm 2.45 – 3.00pm	Speaker 1: Prof Danilo Porro , Professor, University of Milano-Biocca, Italy <i>Molecular and process design for chemical productions in yeasts cell factories</i> Speaker 2: Prof Kristala Jones Prather , Associated Professor, Massachusetts Institute of Technology, USA <i>In search of a better enzyme: biocatalyst screening to facilitate pathway engineering</i>		Speaker 1: Prof Gordon Wallace , Chief Investigator, University of Wollongong Speaker 2: Prof Soong Ho Um , Associate Professor, Sungkyunkwan University, South Korea <i>A DNA Origami-based Fluorescent System for Rapid and Selective Diagnosis of Cytosolic RNA Cancer Markers</i> Speaker 3 Q&A

3.00 – 3.30pm	Afternoon Tea Break and networking with exhibitors		
	Breakout 7: Plant Molecular Biology	Breakout 8: Bioremediation & Waste Remediation	Breakout 9: Vaccine Development
	Chair: Prof Ian Godwin , Professor in Plant Molecular Genetics, The University of Queensland	Chair:	Chair: Prof Mark Kendall , Group Leader, Delivery of Drugs and Genes Group AIBN, The University of Queensland
3.30 – 4.00pm	Keynote 1: Prof German Spangenberg , Executive Director, AgriBio Centre <i>Advances and prospects in forage systems biology and molecular breeding</i> Keynote 2:	Keynote: Prof Linda Blackall , Professor of Biosciences and Academic Director of Research Training, Swinburne University of Technology <i>Treatment of urban solid waste by composting with a focus on pathogen removal from the final product</i>	Keynote: Prof Alan Cowman , Head, Division of Infection and Immunity, The Walter and Eliza Hall institute of Medical Research <i>Current state of vaccine development for malaria</i>
4.00 – 4.15pm 4.15 – 4.30pm 4.30 – 4.45pm 4.45 – 5.00pm	Speaker 1: Prof Ian Godwin , Professor in Plant Molecular Genetics, The University of Queensland <i>Transgenic cereals with enhanced end-use qualities</i> Speaker 2: Prof Jimmy Botella , Professor of Plant Biotechnology University of Queensland <i>No equipment? No electricity? No problem! A simple, low-cost molecular/nanotechnology-based diagnostic system for crop, animal and human diseases.</i> Speaker 3: Q&A	Speaker 1: A/Prof Mike Manefield , Associate Professor, School of Biotechnology and Biomolecular Sciences, UNSW <i>Bioremediation of organochlorines in Australia</i> Speaker 2: Prof Gary Schenk , ARC Future Fellow and Reader, The University of Queensland Speaker 3 Q&A	Speaker 1: A/Prof Michael Nissen , Director of Scientific Affairs & Public Health, GSK Vaccines, Singapore Speaker 2: Prof Paul Young , Professor of Virology and Head of School, The University of Queensland Speaker 3 Q&A
5.00 – 6.30pm	Welcome reception IBS 2016 and AusBiotech 2016 <i>Supported by CSL</i>		



Tuesday 25 October 2016			
7.00am	Conference registration opens		
7.30 – 8.45am	<p>How To make life changing products available to more people sooner. Presenter: Chad Fox - President of MasterControl Asia</p> <p>Join us and experience our version of MasterControl quality management. You will see firsthand the essence of our mission statement; To make life changing products available to more people sooner.</p> <p><i>Spaces are limited; please express interest during the registration process. Spaces will be confirmed in early September.</i></p>		
8.45 – 9.20am	<p>Biotechnology and innovation: risk and precaution: social license or not? Prof Sir Peter Gluckman, Chief Science Advisor to the Prime Minister, Office of the Prime Minister, New Zealand</p>		
9.20 – 9.55am	<p>Millis Oration Prof Ian Gust AO, Professorial Fellow, University of Melbourne</p>		
9.55 – 10.30am	Plenary 2A: TBC		
10.30 – 11.00am	Morning Tea Break and networking with exhibitors		
	Breakout 10: Algae	Breakout 11: Commercialisation of biotech from universities	Breakout 12: Nano-biotechnology: from Drug Delivery to Tissue Regeneration
	Chair: Prof Volker Sieber , Chair, Chemistry of Biogenic Resources, Technical University of Munich, Germany	Chair:	Chair: Prof Francesco Nicotra , Chair of the IUPAC Subcommittee of Biotechnology, University of Milano-Bicocca, Italy
11.00 – 11.30am	Keynote Prof Peer Schenk , Professor, School of Agriculture and Food Sciences, University of Queensland <i>Microalgal biorefineries to cost-effectively produce food, feed and biofuel</i>	Keynote: Dr Noel Chambers , CEO, National Foundation for Medical Research and Innovation <i>Getting rubber to hit the road: funding research for impact</i>	Keynote: Prof Gert Storm , Utrecht University, The Netherlands <i>Targeted nanomedicine to address challenges in the delivery of biotech drug products</i>
11.30 – 11.45am	Speaker 1: Dr Sasi Nayar , Phytoplankton Biologist and Subprogram Leader, South Australian Research and Development Institute	Speaker 1: Dr Jim Henderson , Chief Operating Officer, UNSW Innovations	Speaker 1: Prof Teruykui Nagamune , Professor, The University of Tokyo, Japan
11.45am – 12.00pm		Speaker 2: Dean Moss , Chief Executive Officer, UniQuest	<i>Dynamic micro-patterning and sorting of mammalian cells on photo-cleavable PEG-</i>
12.00 – 12.15pm	Speaker 2: Andrew Lawson , Managing Director,		
12.15 – 12.30pm			

	<p>MBD Energy Ltd</p> <p>Speaker 3: Prof Yusuf Chisti, Professor, School of Engineering & Advanced Technology, University of New Zealand - INVITED</p> <p>Q&A</p>	<p>Speaker 3: Anna Grocholsky, Director of Commercialisation and innovation, Macquarie University</p> <p><i>Bench to bedside</i></p> <p>Q&A</p>	<p><i>lipid modified surface</i></p> <p>Speaker 2: Dr Raghavendra Kikkeri, Assistant Professor, Indian Institute of Science Education and Research, India</p> <p>Speaker 3: Prof Laura Cipolla, Dept. Biotechnology and Biosciences, University of Milano-Bicocca, Italy</p> <p><i>Nanostructured biomaterials for tissue regeneration: connecting carbohydrate and material chemistry</i></p> <p>Q&A</p>
12.30 – 1.30pm	Lunch Break and networking with exhibitors		
	Breakout 13: Global BioPolicy	Breakout 14: Bioprocessing in biomanufacturing	Breakout 15: Drug Development
	<p>Chair: Dr Anna Lavelle, CEO, AusBiotech</p>	<p>Co-Chairs: Prof Murray Moo-Young, Distinguished Professor Emeritus, University of Waterloo, Canada</p> <p>Prof Tomas Macek, Professor of Biochemistry, University of Chemistry and Technology, Prague, Czech Republic</p>	<p>Chair: Prof Ross Barnard, Director of Biotechnology Programs, The University of Queensland</p>
1.30 – 2.00pm	<p>Keynote:</p>	<p>Keynote:</p> <p>Prof Fengwu Bai, Distinguished Professor, Biochemical Engineering, Shanghai Jiao Tong University, China</p> <p><i>Bioreactor and bioprocess engineering strategies for the production of bulk commodities</i></p>	<p>Keynote 1: Prof Stefano Ciurli, Professor Department of Pharmacy and Biotechnology, University of Bologna, Italy (20 Mins)</p> <p><i>‘Catalysis and inhibition mechanisms of urease, a nickel enzyme, made crystal clear: a prodrome to drug discovery and development’</i></p>
2.00 – 2.15pm 2.15 – 2.30pm 2.30 – 2.45pm 2.45 – 3.00pm	<p>Panel</p> <p>Speaker 1: Andrew Casey, President & CEO, BIOTECanada</p> <p>Speaker 2: Dr Viola Bronsema, CEO & Secretary General, BIO Deutschland, Germany</p> <p>Speaker 3</p>	<p>Speaker 1: Thanasak Lomthong, Kasetsart University, Thailand</p> <p><i>Cloning, Expression and Characterization of Poly(L-lactide)-Degrading Enzyme from Laceyella sacchari LP175 in Escherichia coli and Application of the Recombinant Enzyme for Hydrolysis of Poly(L-lactide) Polymer</i></p>	<p>Speaker 1: Dr Chetan Goudar, Director, ATO Cell Science and Technology, Amgen, USA</p> <p>Speaker 2: Prof Darren Kelly, CEO and Managing Director, Occrux</p> <p>Speaker 3: Dr Evan Siegel, CEO, Ground Zero Pharmaceuticals, USA</p>

	Q&A	<p>Speaker 2: Ahmad Kajis, Universiti Putra, Malaysia <i>Comparative Study of Lipase-catalysed Kojic Acid Esters Synthesis in Stirred-tank, Fluidized and Packed Bed Bioreactors</i></p> <p>Speaker 3: Dr Yanyan Lid, Jiangnan University, China <i>Increasing L-isooleucine production in Corynebacterium glutamicum</i></p> <p>Q&A</p>	Q&A
3.00 – 3.30pm	Afternoon Tea Break and networking with exhibitors		
	Breakout 16: Pharmaceutical, Medical and Molecular	Breakout 17: Early stage life science investment	Breakout 18: Convergence Biotechnology
	Chair: Prof Gary Schenk , Professor of Biophysical Chemistry, The University of Queensland	Chair: Lawrence Gozlan , Chief Executive Officer, Scientia Capital	Chair: Dr Tai Hyun Park , Professor, School of Chemical and Biological Engineering, Seoul National University, South Korea
3.30 – 4.00pm	Keynote: A/Prof Max Cryle , Group Leader, EMBL Australia	Panel session: Dr Andrew Kelly , Executive Director, BioPacific Partners	Keynote: Prof Eiichi Tamiya , Professor, Osaka University, Japan <i>Single cells and organs on chips for biomedical diagnosis and drug screening</i>
4.00 – 4.15pm 4.15 – 4.30pm 4.30 – 4.45pm 4.45 – 5.00pm	<p>Speaker 1: Dr Kade Roberts, Senior Research Scientist, Monash University <i>Development of New Polymyxin Antibiotics with Improved Safety and Efficacy</i></p> <p>Speaker 2: Jin Hu, Tsinghua University, China <i>Elastin-like polypeptide fused interferon with superior pharmacokinetics, biodistribution and antitumor efficacy</i></p> <p>Speaker 3: Ji Hoon Park, Pusan National University, Korea <i>Nitric oxide-releasing poly(lactic-co-glycolic acid) nanofiber matrices for application to wound healing</i></p>		<p>Speaker 1: Prof Man Bock Gu, Department of Biotechnology, Korea University, Korea <i>Sandwich-type Biosensors and In vitro Diagnostic Systems using a Pair of Aptamers and Nanomaterials</i></p> <p>Speaker 2: Prof Sung Ok Han, Department of Biotechnology, Korea University, Korea <i>Designer Nano-scale Protein Complexes for C1/3/5/6 Biorefinery</i></p> <p>Speaker 3: A/Prof Alice Lee, Senior lecturer, UNSW <i>Plasmonic Nanoparticle-Immunodiagnostic Systems for Food Quality and Safety Monitoring</i></p>

	Q&A		Speaker 4: Dr Tai Hyun Park , Professor, School of Chemical and Biological Engineering, Seoul National University, South Korea <i>Olfactory and Taste Sensors: Integration of Biotechnology and Nanotechnology</i> Q&A
7.00 – 11.00pm	IBS 2016 and AusBiotech 2016 official conference dinner Supported by Patheon 		

Wednesday 26 October 2016			
8.00am	Conference registration open		
9.00 – 9.45am	A New Model for Drug Development in Academic Institutions Prof Dennis Liotta , Executive Director Emory Institute for Drug Development, Emory College, Atlanta USA		
9.45 – 10.30am	Interrogating and Guiding the Microbiome for Macro-organism Health and Productivity Dr James Tiedje , Director, Centre for Microbial Ecology, Michigan State University, USA		
10.30 – 11.00am	Morning Tea Break and networking with exhibitors		
	Breakout 19: Biocatalysis	Breakout 20: Biofuels and Bioenergy	Breakout 21: Industrial Bioactive Discovery and Development
	Chair: Dr Colin Scott , Group Leader Environmental & Industrial Biotechnology, CSIRO	Chair: Prof Akihiko Kondo , Professor, Kobe University, Japan	Chair: Dr Jess Smith , Associate, FB Rice
11.00 – 11.30am	Keynote: Prof Nicholas Turner , Professor, The University of Manchester, UK <i>Biocatalytic Cascade Reactions Enabled by Synthetic Biology</i>	Keynote: Prof Emile van Zyl , Senior Chair of Energy Research in Biofuels, Stellenbosch University, South Africa	Keynote: Dr James Crawford , Chemistry Team Leader, Small Molecule Drug Discovery, Genentech, USA <i>Discovery of non-covalent BTK inhibitors for the treatment of rheumatoid arthritis and lupus</i>
11.30 – 11.45am	Speaker 1: Dr Colin Jackson , Leader - Chemical	Speaker 1: Prof Gunnar Liden , Professor, Lund	Speaker 1: Prof Maree Smith , Executive

11.45am – 12.00pm 12.00 – 12.15pm 12.15 – 12.30pm	and Structural Biotechnology, Australian National University Speaker 2: Dr Claudia Vickers , Associate Group Leader and Accelerate Fellow, Australian Institute for Bioengineering and Nanotechnology <i>Engineering microbial production of isoprenoid-based biofuels and biochemicals</i> Speaker 3: Dr Carol Hartley , Research Scientist & Biocatalysis Team Leader, CSIRO Q&A	University, Sweden <i>High-solids processing of lignocellulosic biomass to sugars and ethanol</i> Speaker 2: Juan Xia , Shanghai Jiao Tong University, China <i>The regulation of flocculation by c-di-GMP phosphoesterase genes in Zymomonas mobilis</i>	Director, The University of Queensland <i>Discovery-Translation and the Valley of Death: A Personal Perspective</i> Speaker 2: Georgina Kilfoil , Chief Clinical Officer, Benitec Biopharma <i>Optimization of product development in a small company: trusting the process. A case study in two types of clinical trial failure</i> Speaker 3: Dr Paul Stupp , Director of Medicinal Chemistry, Cancer Therapeutics CRC <i>The Discovery of Potent and Selective Inhibitors of the Arginine Methyl Transferase PRMT5</i>
12.30 – 1.30pm	Lunch Break and networking with exhibitors		
	Breakout 22: BioFuel/BioEnergy production	Breakout 23: Drug discovery in academic institutions	Breakout 24: Clean environmental sustainability and pollution abatement
	Chair: Prof Peer Schenk , Professor, School of Agriculture and Food Sciences, University of Queensland	Chair:	Co-Chairs: Prof Murray Moo-Young , Distinguished Professor Emeritus, University of Waterloo, Canada Prof Tomas Macek , Professor of Biochemistry, University of Chemistry and Technology, Prague, Czech Republic
1.30 – 2.00pm	Keynote: Prof Volker Sieber , Chair, Chemistry of Biogenic Resources, Technical University of Munich, Germany	Keynote:	Keynote: Prof Murray Moo-Young , Distinguished Professor Emeritus, University of Waterloo, Canada <i>Waste as a misplaced resource: biofuels from biomass residues</i>
2.00 – 2.15pm 2.15 – 2.30pm 2.30 – 2.45pm 2.45 – 3.00pm	Speaker 1: Dr Paul Bennett , Science Leader, Clean Technologies, Scion, New Zealand Speaker 2: Dr William Rowlands , Chief Scientist, Licella, New Zealand Speaker 3 Q&A	Speaker 1: Speaker 2 Speaker 3 Q&A	Speaker 1: Prof Eugenia Olquin , Professor, National Institute of Ecology and Climate Change, Mexico <i>Phytoremediation and phycoremediation as core tools in a sustainable biorefinery</i> Speaker 2: Prof Ondrej Uhlík , A/Prof, Group

			<p>Leader, University of Chemistry and Technology, Prague, Czech Republic</p> <p>Speaker 3: Dr Libing Chu, Associate Professor, Tsinghua University, China</p> <p><i>Biological denitrification using biodegradable polymer PBS as carbon source to remove nitrate from groundwater and bacterial community analysis of biofilm</i></p>
3.00 – 3.30pm	Afternoon Tea Break and networking with exhibitors		
	Breakout 25: Marine Biotechnology and Aqua Culture	Breakout 26: Chemistry to Biology a new manufacturing possibility	Breakout 27: BioFuels and BioEnergy
	Chair: Prof Wei Zhang , Director, Centre for Marine Bioproducts Development, Flinders University	Chair:	Chair: Prof Fengwu Bai , Distinguished Professor, Biochemical Engineering, Shanghai Jiao Tong University, China
3.30 – 4.00pm	<p>Keynote 1: Prof Tadashi Matsunaga, President Tokyo University of Agriculture and Technology, Japan</p> <p><i>New technologies for bioenergy production using algae and other aquatic microorganisms</i></p> <p>Keynote 2: Prof Wei Zhang, Director, Centre for Marine Bioproducts Development, Flinders University</p> <p><i>Australia National Marine Science Plan: Putting Marine Biotechnology and Bioproducts into the Economic Agenda</i></p>	Keynote	<p>Keynote: Dr Guo-Hua Miao, Director, DuPont, China</p> <p><i>Biofuels Development: from Discovery to Commercialization</i></p>
4.00 – 4.15pm 4.15 – 4.30pm 4.30 – 4.45pm 4.45 – 5.00pm	Speaker 1 Speaker 2	<p>Speaker 1: Dr Tom Williams, Research Fellow In Synthetic Biology, Macquarie University</p> <p>Speaker 2: A/Prof Robert Speight, Associate Professor, Microbial Biotechnology, Queensland University of Technology</p> <p>Speaker 3</p> <p>Q&A</p>	<p>Speaker 1: Prof Yang Mu, Professor, University of Science and Technology of China, China</p> <p><i>Biohydrogen production from wastewater in microbial electrolysis cells</i></p> <p>Speaker 2</p> <p>Speaker 3</p> <p>Q&A</p>
5.00 – 6.00pm	International BioFest Networking Reception, networking for all three BioFest events Canapes, drinks, live entertainment and networking		

Thursday 27 October 2016	
8.30am	Conference registration opens
9.00 – 9.45am	<i>Self-Assembled Supramolecular Nanosystems for Targeting Therapy of Intractable Diseases</i> Prof Kazunori Kataoka , Professor, Department of Materials Engineering and Bioengineering Graduate Schools of Engineering, University of Tokyo, Japan
9.45 – 10.30am	<i>Synthetic Designer Vaccines Protect from Bacterial Infections</i> Prof Dr Peter Seeberger , Director, Max-Planck Institute of Colloids and Interfaces, Germany
10.30 – 11.00am	Morning Tea Break and networking
11.00 – 11.45am	<i>Biotech and the future of man</i> Prof Huanming Yang , President, BGI-Shenzhen, China
1.45am – 12.30pm	<i>Development of Peptide and Peptidomimetic Therapeutic Agents from a New Zealand Perspective</i> Prof Margaret Brimble , Distinguished Professor, The University of Auckland, New Zealand
12.30 – 1.00pm	IBS 2016 Closing Reception
1.00 – 2.00pm	IBS 2016 Closing lunch and drinks