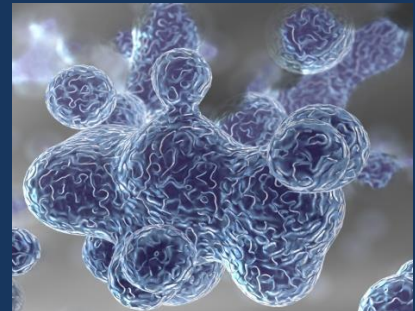




The 2nd Microbiome R&D and Business Collaboration Congress: Asia

COLLABORATIONS IN MICROBIOTA RESEARCH, PROBIOTICS, PREBIOTICS, HEALTH & DISEASE

Global Engage is pleased to announce its **2nd Microbiome R&D and Business Collaboration Congress: Asia** which will be held on 29 February - 1 March in Kuala Lumpur, Malaysia and co-located with our inaugural Probiotics Congress.

The field of metagenomics has allowed researchers to look into the diversity of the body's microbiota with findings that the microbiome is a home for diversity, natural immunity, metabolism, behavioural traits, and plays an instrumental role in health and disease. With large-scale collaborative projects underway and sequencing data placed in the public domain, there is a rich source of information for researchers and companies looking for opportunities in this exciting field. With increasing signs that our microbiome may be the key not only for curative but preventative medicine, efforts are focusing on increasing investment opportunities, clinical trials and innovative research in this area. With an increasing focus on healthy living and a therapeutics market that is expected to grow to \$1.2 trillion by 2016, microbiome research can be developed in order to provide preventative treatments, cures, therapies and supplements for a worldwide audience in demand.

Attracting over 150 attendees, the congress will build upon our established American and European meetings as well as last year's highly-acclaimed Asia meeting to explore the interface between our evolving cultures, technologies and our microbiome through a series of interactive presentations with leading academics and industry experts, panel discussions and an exhibition area allowing solution providers to showcase their products and services. We will look into the latest scientific findings and see how we can develop microbiome research across the Asia-Pacific region and begin to look towards forging collaborations and commercializing this research.

Confirmed Speakers Include:



Liping Zhao

Professor of Microbiology & Director for SJTU Joint Center for Microbiota and Health, Shanghai Jiao Tong University, China



Sin-Hyeog Im

Group leader/ Professor, Institute for Basic Science (IBS), Pohang University of Science and Technology, Republic of Korea



Karen Nelson

President & Professor, Genomic Medicine Group, J. Craig Venter Institute, USA

Conference Synopsis

Characterizing the Microbiome Community

- Updates on the Asian gut microbiome project
- Can we characterize the 'normal' microbiome?
- Sequencing and bioinformatics of the human microbiome
- Panel Discussion: Developments and directions in regional microbiome research
- Host-microbiome communication
- Metagenomic and post-metagenomic approaches to microbiome research
- What is the scope of microbiome research – can it live up to the hype?
- Building a translation microbiome program
- Animal models in microbiome research
- Preservation and handling of fecal samples
- Human infant microbiome
- Gut microbiota as an emerging target for healthy ageing

Probiotics, Prebiotics and Personalized Nutrition

- Dietary modulation of the human gut microbiome
- Gut microbiota in varying nutritional states
- Panel Discussion: Probiotics and functional foods
- Developing nutritional products utilising microbiome research
- Novel indigenous probiotics
- Role of the microbiome in food allergy
- Role of short-chain fatty acids
- Milk-oriented microbiota

The Human Microbiome in Health and Disease

- Studies in the GI tract & intestinal epithelium
- The gut microbiome and its role in IBD, cancer, obesity, immunity, diabetes and cancer
- Fecal transplantation in the treatment of inflammatory bowel disease
- Personalized medicine approach to IBD
- The human mucosal virome & its role in health and disease
- Bacteriophage therapy
- Antibiotic Exposure: Contemplating novel antibiotic therapies that do not destroy the healthy microbiome

Research and Development outside the Gut

- Skin microbiome – acne, eczema, atopic dermatitis, and microbiomes of chronic and acute wounds
- Oral microbiome and vaginal microbiome in health and disease
- Developments on the gut-brain axis and behaviour – implications for neurodevelopmental disorders
- Respiratory microbiome – the new world of the lung microbiome for targeted asthma, COPD and respiratory disease therapies

Collaboration, Investment and Commercialization

- Commercializing the microbiome – developing business relationships between academic research, pharma and investors
- Collaborations partnerships – the global scope of microbiome research/structuring successful collaborations
- Bringing live microbial products to market – IP, regulation, GMP
- Pharmaceutical involvement and development

Confirmed Speakers



Liping Zhao
Professor of Microbiology & Director for SJTU Joint Center for Microbiota and Health, Shanghai Jiao Tong University, China



Andrew Holmes
Associate Professor, School of Molecular Bioscience and Charles Perkins Centre, University of Sydney, Australia



Suzanne Brewerton
Group Leader of Bioinformatics, Human Longevity Inc. [RESERVED]



Connie Woo
Assistant Professor, Department of Pharmacology & Pharmacy, University of Hong Kong



Raja Affendi Ali
Head Of Quality Assurance, UKM Medical Molecular Biology Institute, National University of Malaysia [SESSION CHAIR]



Yunsheng Yang
Professor & Director, Digestive Disease Center, Chinese PLA Medical College, China



Chris Griffin
Clinical Senior Lecturer, School of Women's and Infants Health, University of Western Australia



Dragana Stanley
Lecturer, Central Queensland University, Australia



Philippe Judlin
Professor, Department of Obstetrics & Gynecology/Chief, Department of Gynecology, University of Lorraine/University Hospital Nancy, France [SESSION CHAIR]



Yun Kun Lee
Associate Professor, Department of Microbiology, National University of Singapore



Dipankar Ghosh
Assistant Professor, Special Centre for Molecular Medicine, Jawaharlal Nehru University, India



Angie Boyer
Associate Director of P&G Life Science Transformative Platform Technology and Global Biotechnology, P&G, Singapore



David Topping
Chief Research Scientist, CSIRO Food and Nutrition Flagship, Australia



Johan van Hylckama Vlieg
Senior Director, Microbiome - Health & Nutrition Division, Chr. Hansen A/S, Denmark



Jun Sun
Associate Professor, University of Illinois at Chicago, USA



Tina J. Hieken
Associate Professor of Surgery, Mayo Clinic College of Medicine, USA



Youngnim Choi
Professor, Department of Oral Microbiology/Immunology, Seoul National University, Republic of Korea



Fabrizio Arigoni
Director & Head, Nestlé Research Center Tokyo & Beijing [RESERVED]



Eric Chan
Associate Professor, Department of Pharmacy, National University of Singapore



Sin-Hyeog Im
Group leader/ Professor, Institute for Basic Science (IBS), Pohang University of Science and Technology, Republic of Korea



Karen Nelson
President & Professor, Genomic Medicine Group, J. Craig Venter Institute, USA



Thomas Dawson Jr
Senior Principal Investigator, Institute of Medical Biology, A*STAR, Singapore



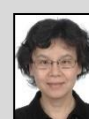
Phil Hansbro
Professor, School of Biomedical Sciences and Pharmacy, University of Newcastle Australia



Gilda Tachedjian
Associate Professor & Principal for Sexual and Reproductive Health, Burnett Institute, Australia



Paraic Ó Cuív
Research Fellow, University of Queensland Diamantina Institute, Australia



Xin Wang
Principal Research Scientist, Key Laboratory for Food Microbial Technology of Zhejiang Province, Zhejiang Academy of Agricultural Science, China



Barnaby Young
Associate Consultant, Infectious Diseases, Tan Tock Seng Hospital, Singapore [SESSION CHAIR]



Carlos Merino
Microbiome Technical Project Manager, DNAGenotek

Speakers at Co-Located Probiotics Congress

<http://www.globalengage.co.uk/probiotics-asia.html>

Christophe Lay, Senior Scientist Gut Microbiology, Danone R&D Hub Singapore

Santasabuj Das, Senior Scientist, National Institute of Cholera and Enteric Diseases, India [RESERVED]

Endang S. Rahayu, Professor, Faculty of Agriculture Technology, Gadjah Mada University, Indonesia

Leslie Than, Senior Lecturer, Molecular Biology, University Putra Malaysia

Dan Donoghue, Professor, Department of Poultry Science, University of Arkansas, USA

Somying Tumwasorn, Associate Professor and Head Division of Bacteriology, Faculty of Medicine, Chulalongkorn University, Thailand

Pradeep Dudeja, Professor of Physiology, Division of Gastroenterology & Hepatology, University of Illinois, Chicago, USA

Neerja Hajela, Head of Science, Yakult Danone India Pvt. Ltd

Dae-Kyung Kang, Associate Professor, Lab. of Industrial Microbiology & Biotechnology, Dankook University, Republic of Korea

Ying-Chieh Tsai, Professor, National Yang Ming University, Taiwan

Prakash Halami, Senior Principal Scientist & Professor, CSIR-Central Food Technological Research Institute, India

Hani El-Nezami, Associate Professor, Food Safety and Toxicology Laboratory, University of Hong Kong

Rina Agustina, Senior Scientist, University of Indonesia

Harsharn Gill, Professor of Food & Health Biosciences & Head - Department of Food Science & Nutrition, RMIT University, Australia [RESERVED]



Media Partners



Venue

Renaissance Kuala Lumpur Hotel
Corner of Jalan Sultan Ismail and
Jalan Ampang,
Kuala Lumpur
50450
Malaysia

A discounted group rate is available to all attendees. Details of how to book are available on registration. Space is limited and accommodation is available on a first come basis.



Agenda: Day One – Monday 29th February 2016

08.00-08.50	Registration & Coffee
08.50-09.00	Global Engage Welcome Address & Morning Chair's Opening Remarks Chairperson: Fabrizio Arigoni, Director & Head, Nestlé Research Center Tokyo & Beijing
09.00-09.30	Keynote Address: The Significance of the Human Microbiome and Potential Impact for Health and Disease - Recap on human microbiome research, past and present - Significant recent findings - Complications in the field - Development of new diagnostics and therapeutics CONFIRMED: Karen Nelson, President & Professor, Genomic Medicine Group, J. Craig Venter Institute, USA
09.30-10.00	Keynote Address: Gut Microbiota and Metabolic Disorders: From Association to Causation to Translation CONFIRMED: Liping Zhao, Professor of Microbiology & Director for SJTU Joint Center for Microbiota and Health, Shanghai Jiao Tong University, China
10.00-10.30	Solution Provider Presentation For sponsorship opportunities please contact Steve Hambrook at steve@globalengage.co.uk
10.30-11.30	Morning Refreshments Poster Presentations & Networking Meetings
11.30-11.55	How Environmental Factors and Host Adaptation Alter the Impact of Dietary Fat Profile on Diabetes CONFIRMED: Andrew Holmes, Associate Professor, School of Molecular Bioscience and Charles Perkins Centre, University of Sydney, Australia
11.55-12.20	Interlink between Gut Microbiota and Toll like Receptor Family - The role of gut microbiota in pregnancy - Interaction of TLR with gut microbiota - Function of TLR in embryonic development via gut microbiota CONFIRMED: Connie Woo, Assistant Professor, Department of Pharmacology & Pharmacy, University of Hong Kong
12.20-12.45	Title To Be Confirmed FMT for Refractory Ulcerative Colitis: A Chinese Case Study CONFIRMED: Yunsheng Yang, Professor & Director, Digestive Disease Center, Chinese PLA Medical College, China
12.45-13.00	Small Company Showcase: Title To Be Confirmed CONFIRMED: Carlos Merino, Microbiome Technical Project Manager, DNAgenotek
13.00-14.00	Lunch
	Session Chair: Raja Affendi Ali, Head Of Quality Assurance, UKM Medical Molecular Biology Institute, National University of Malaysia
14.00-14.25	Vitamin D/Vitamin D Receptor Regulation of Gut Microbiome in Health and Diseases - Non-classical functions of vitamin D and <i>Vitamin D receptor</i> (VDR); - Our recent findings on VDR regulation of microbiome and innate immunity in the context of health and inflammation; Mechanistic concepts that underlie inflammation and cancer; - Potential therapeutic strategies to manipulate microbiota in IBD and cancer. CONFIRMED: Jun Sun, Associate Professor, Departments of Biochemistry, Medicine (GI), Immunology/ Microbiology, Rush University, USA
14.25-14.50	One Bad Apple: The Case of Pseudomonas Cross Kingdom Signalling in the Microbiome <i>Pseudomonas aeruginosa</i> , is increasingly associated with the microbiome of gut, skin, eye and lung. Whereas the mechanisms of pathogenesis of this opportunistic bacteria in diseases like Cystic Fibrosis is highly characterized, much less is known about its mechanisms of pathobiology mediated by a sophisticated network of exocytosed of small molecule metabolites. The talk will highlight metabolomics of <i>Pseudomonas</i> signalling mediators in dysregulating the host microbiome and neuro-immune homeostasis. CONFIRMED: Dipankar Ghosh, Assistant Professor, Special Centre for Molecular Medicine, Jawaharlal Nehru University, India
14.50-15.05	Small Company Showcase For opportunities please contact Steve Hambrook at steve@globalengage.co.uk



For more information please contact Steve Hambrook, Conference Director, Global Engage Ltd.

steve@globalengage.co.uk

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15.05-15.35	Panel Discussion: Microbiome Technologies - Challenges and future technology needs - Next generation sequencing, 16S, RNA-Seq, metagenomics, metatranscriptomics in microbiome research - Improving computational tools - Bioinformatics and large data sets - Process and interpretation - Microbiome quality control - Handling, DNA extraction, storage, biobanking capabilities, bioinformatics, experiment protocols, - Knowledge transfer and software needs - Synthetic biology: possibilities and usage – probiotics, synthetic human microbiomes, synthetic phages - Germ-free platforms Reserved: Suzanne Brewerton, Group Leader of Bioinformatics, Human Longevity Inc. Eric Chan, Associate Professor, Department of Pharmacy, National University of Singapore Invite to: Senior Representatives x4
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15.35-16.25	Afternoon Refreshments Poster Presentations & Networking Meetings
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16.25-16.50	The Microbiome of Sterile Human Breast Tissue in Varied Disease States Our work focuses on the sterile human tissue microbiome and biomarkers of breast cancer risk prediction. Our work suggests that sterile human breast tissue has a distinct microbiome with systematic and demonstrable differences between benign and malignant disease states. We are exploring the relevance of these findings in relation to breast cancer risk prediction.
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CONFIRMED:

Tina J. Hieken, Associate Professor of Surgery, Mayo Clinic College of Medicine, USA

16.50-17.15	How Microbiome Research Improved People's Lives: The Practical Aspect of Fundamental Research
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CONFIRMED:

Angie Boyer, Associate Director of P&G Life Science Transformative Platform Technology and Global Biotechnology, P&G, Singapore

17.15-17.40	Expedited Bioprospecting of the Human Gut Microbiome for Novel Biotherapeutic Discovery
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CONFIRMED:

Paraic Ó Cuív, Research Fellow, University of Queensland Diamantina Institute, Australia

17.40	Chairman's Closing Remarks & End of Day One
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17.40-18.40	Drink's Reception
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Coffee & Stream Chair's Opening Address

Session Chair: Barnaby Young, Associate Consultant, Infectious Diseases, Tan Tock Seng Hospital, Singapore

08.40-09.10 Keynote Address:
Rationally Selected Probiotics as an Immune Modulator for Hyper-immune Disorders
 CONFIRMED:
Sin-Hyeog Im, Group leader/ Professor, Institute for Basic Science (IBS), Pohang University of Science and Technology, Republic of Korea

09.10-09.40 Keynote Address:
Regionalized Probiotics for Health & Disease Prevention

- Differences in composition of the gut microflora of people from different geographical region
- Specific nutritional and health requirements in different geographic regions
- Survivability in local food matrices
- Different in probiotic functions
- Technological developments

CONFIRMED:
Yun Kun Lee, Associate Professor, Department of Microbiology, National University of Singapore

09.40-10.10 **Title To Be Confirmed**

CONFIRMED:
Johan van Hylckama Vlieg, Senior Director, Microbiome - Health & Nutrition Division, Chr. Hansen A/S, Denmark

10.10-11.10 **Morning Refreshments**
Poster Presentations & Networking Meetings

11.10-11.25 **Small Company Showcase**
 For opportunities please contact Steve Hambrook at steve@globalengage.co.uk

11.25-11.50 **Feeding a Hungry Microbiome – Resistant Starch and the Australian Paradox**

- Dietary fibre is recognised as a nutrient important for human health
- Population studies show dose-dependent reductions in risk of the diseases of affluence with greater consumption
- Australia has experienced a substantial increase in consumption, largely as cereal fibre but the expected reduction in colorectal cancer has not occurred – the Australian Paradox
- It transpires that short chain fatty acids (SCFA) produced by large bowel fermentation mediate many of the effects ascribed to fibre itself
- Data from in vitro, animal and human studies show improvement in gut function with greater availability of SCFA, specially butyrate
- Resistant starch (RS) is starch escaping small intestinal digestion is an important fermentative substrate and levels in processed foods are low.
- CSIRO and partners are developing new ingredients to increase RS availability.

CONFIRMED:
David Topping, Chief Research Scientist, CSIRO Food and Nutrition Flagship, Australia

11.50-12.15 **Effects of Variation in the Community Structures of Human Gut Microbiota on the Utilization of Marine Oligosaccharides in Food**
 Marine polysaccharides, such as Agarose and carrageenan from red algae have a long history as food ingredients in East Asia. Although the higher molecular weight of k-carrageenan is required in finished food products, fragments with lower molecular weight are always present. The human gut microbes responsible for the degradation of AO and KCO have not yet been fully investigated. Here, we reported that AO and KCO can be degraded and utilized at various rates by fecal microbiota obtained from different individuals. Different *Bacteroides* strains isolated from human feces showed a pronounced ability to degrade AO and KCO. Feeding the germ free mice with AO and KCO incorporated with degradation bacteria showed varied impacts. Reduction in high fat diet induced body weights are observed in the group of mice feeding with AO. In contrast, germ free mice fed with KCO and degrading bacteria showed low grade inflammation. Current results implied that the varied structures of gut microbiota should be taken into account when evaluation of the healthy impacts of oligosaccharides on human health.

CONFIRMED:
Xin Wang, Principal Research Scientist, Key Laboratory for Food Microbial Technology of Zhejiang Province, Zhejiang Academy of Agricultural Science, China

12.15-12.40 **The Lung Microbiome in Respiratory Disease**
 Recent technical advances have enabled the assessment of entire microbiomes in tissues. This had led to the elucidation of their roles in health and disease. Until recently the lower respiratory tract was thought to be sterile but microbiome studies have shown this not to be the case and that there is a core lung microbiome. Alterations in the microbiome indicate and may be causal in disease. In dysbiosis commensals are displaced by pathogens that drive inflammation and inflammatory diseases including the in the respiratory tract. It is now established that there is infectious and inflammatory cross talk between the lung and gut and so changes in gut microbiomes may also be involved in respiratory disease potentially through the induction of systemic inflammation. The current state of the field in asthma and COPD will be assessed and new data from our lab on the role of changes in the gut microbiome in COPD will be presented.

CONFIRMED:
Phil Hansbro, Professor, School of Biomedical Sciences and Pharmacy, University of Newcastle Australia

12.40-13.10	Panel Discussion: Microbiome Asia: Developments and Directions in Regional Microbiome Research • What is the current state of microbiome research in Asia? • What are the most likely areas of growth and what investment is needed? • Collaborations and developments • Regional microbiome studies • Can microbiome research live up to its promise? Invite to: Senior Representatives x4
13.10-14.10	Lunch Session Chair: Philippe Judlin, Professor, Department of Obstetrics & Gynecology/Chief, Department of Gynecology, University of Lorraine/University Hospital Nancy, France
14.10-14.35	Short Chain Fatty Acids can Remodel Intestinal Microbiota to Protect from Type 1 Diabetes Fibre plays an essential role in digestion and contributes to multiple health benefits such as helping to control blood sugar levels, improving heart and skin health, reducing the risk of stroke, helps in weight management, but most prominent is its role in digestion and maintenance of a healthy gut. Special benefits come from fibres such as resistant starches that are fermented by the large bowel microbiota into short chain fatty acids (SCFAs) such as acetate, propionate and butyrate. SCFAs most likely affect the gut environment and the resident bacteria. Here we show that consumption of specially formulated diets high in resistant starch and SCFAs protected non-obese diabetic (NOD) mice from autoimmune diabetes (T1D) and caused substantial microbiota remodelling. Microbiota formed by prolonged consumption of such diets or specific short chain fatty acid formulations, when transferred from diabetes protected NOD mice to naïve germ-free (GF) NOD mice fed a normal diet was effective at providing protection. CONFIRMED: Dragana Stanley, Lecturer, Central Queensland University, Australia
14.35-15.00	Manipulation of the Female Microbiome - Facts and Fiction • Effect of antibiotics upon the maternal and neonatal microbiome • Influencing the microbiome to the benefit of women • Prebiotic influences upon the pregnant woman's microbiome and disease outcome • From laboratory to the clinical field - specific actions of probiotics CONFIRMED: Chris Griffin, Clinical Senior Lecturer, School of Women's and Infants Health, University of Western Australia
15.00-15.25	Antimicrobial and Immune Modulatory Effects of Vaginal Microbiota Acid Metabolites • Distinct acid metabolites produced by vaginal bacteria associated with eubiosis and dysbiosis • Acidification of vagina by lactic acid produced by lactobacilli • Bactericidal and HIV virucidal activity of lactic acid vs short chain fatty acids (SCFAs) produced by bacterial vaginosis-associated bacteria • Immune modulatory properties of lactic acid and SCFAs on the vaginal mucosa CONFIRMED: Gilda Tachedjian, Associate Professor & Principal for Sexual and Reproductive Health, Burnett Institute, Australia
15.25-15.55	Afternoon Refreshments
15.55-16.20	Role of the Cutaneous Microbiome in Healthy Scalp – Community Analysis, Pathogen Identification, New Comparative Genomics, and Design of Intervention Strategy Dandruff and seborrheic dermatitis are hyperproliferative scalp disorders which result from pathogenic activity of the cutaneous microbiome. Research has identified the most likely organisms, genomics has revealed specific pathogenic mechanisms, and successful treatment interventions are commonly seen in the consumer market. This presentation will review current understanding of healthy versus diseased scalp, the scalp Mycobiome, the role of <i>Malassezia</i> in dandruff and seborrheic dermatitis, state of the art in <i>Malassezia</i> genomics, and how current treatment options influence the scalp Mycobiome. CONFIRMED: Thomas Dawson Jr, Senior Principal Investigator, Institute of Medical Biology, A*STAR, Singapore
16.20-16.45	Imbalances in the Oral Microbiota associated with Oral Mucosal Diseases Both recurrent aphthous stomatitis (RAS) and oral lichen planus (OLP) are one of the common oral mucosal disorders with unknown etiopathogenesis. The oral mucosal microbiota in RAS and OLP were characterized in comparison with healthy microbiota of control subjects. Logistic regression analyses of the microbiota data revealed bacterial species associated with each disease, which allowed us to investigate their potential roles in the pathogenesis of the mucosal disorders. CONFIRMED: Youngnim Choi, Professor, Department of Oral Microbiology/ Immunology, Seoul National University, Republic of Korea
16.45	Conference Close



For more information please contact Steve Hambrook, Conference Director, Global Engage Ltd.

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