



5TH MICROBIOME R&D & BUSINESS COLLABORATION FORUM: USA

COLLABORATIONS IN MICROBIOME RESEARCH, LIVE BACTERIAL THERAPEUTICS, HUMAN HEALTH & DISEASE

2ND PROBIOTICS CONGRESS: USA

IDENTIFICATION, DEVELOPMENT & DELIVERY OF PROBIOTICS AND PREBIOTICS IN HUMAN HEALTH

SAN DIEGO, USA

NOVEMBER 2-3 2017



#GEMB17

@lifesciences_GE



Global Engage is pleased to announce, as part of their worldwide microbiome series, the **5th U.S. Microbiome R&D and Business Collaboration Forum** and co-located **2nd Probiotics Congress** which will be held on November 2-3, 2017 in San Diego. The congress which attracted over 350 attendees in 2016 is the sister meeting to both the European and Asian Congresses held in Amsterdam and Hong Kong which bring together an even-split of industry and academic delegates to discuss the latest microbiome science, the development of partnerships and commercial collaborations in this area and the growth of product pipelines.

An increasing awareness of the importance of the role different bacterial ecosystems play with regards to human and animal health has led to a surge in research, publications and companies coming out of the microbiome and probiotic space. As changes in our lifestyle and the growth of multi-drug resistant bacterial strains have also increased the need for better solutions and management of chronic and life-threatening illnesses, microbiome and probiotic research is one of the most scientifically important and potentially lucrative avenues to be exploring. There is mounting evidence that selected probiotic strains can confer health benefits to us especially in digestive diseases and paediatric health and the first microbiome-based drugs will be headed to market in the next few years.

Attracting over 400 attendees, the 12th meeting in the global series will build upon the success of last year's meeting as well as our highly popular European and Asia forums 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, roundtable discussions and an exhibition area allowing solution providers to showcase their products and services. The Global Engage series is rapidly gaining a fantastic reputation as the number one microbiome networking event for fostering partnerships across academia, pharma and biotech. If looking to either learn more from the top scientists in the microbiome and probiotic space; showcase exciting developments in your research; or seek partnerships and funding within the industry; it is a congress not to be missed!

EXPERT SPEAKERS Include:



TIM LU

Associate Professor in the
Department of Electrical Engineering
and Computer Science, MIT



SARKIS MAZMANIAN

Louis & Nelly Soux Professor of
Microbiology, California Institute
of Technology



LEE JONES

Founder, President
& CEO, Rebiotix



ROB KNIGHT

Professor of Pediatrics and
Computer Science & Engineering,
University of California San Diego

SUMMARY

- +50 presentations from industry and academic leaders
- +7 hours of dedicated networking time
- 7 expert-led roundtable discussions
- 3 extended senior-level interactive panel discussions
- Showcasing the latest start-ups
- Fall sun in beautiful San Diego

GUT MICROBIOME

- Gut microbiome in health and disease
- Pharma and biotech drug development – bugs as drugs
- Microbiome and cancer
- Interventions in the microbiome – probiotics/phage/FMT/synthetic biology
- Research in obesity, cardio-metabolic disease, IBD, MS, allergy, metabolic disease, autoimmune disorders & more
- Utilizing microbiome data sets

OUTSIDE THE GUT

- Skin microbiome - acne, eczema, atopic dermatitis, probiotics, wound health & cosmetic applications
- Women's health – host-interactions, vaginal microbiome, preterm birth and pregnancy progression
- Gut-brain axis – signalling, links to disease and behaviour
- Oral and respiratory microbiome research

COMMERCIALIZATION OF THE MICROBIOME

- Venture capital and funding options
- Pharma and biotech case studies and strategies
- Partnering across the microbiome field – industry/academia
- Development, application & acquisition of technology platforms within the microbiome space
- Regulatory compliance
- Intellectual property considerations and protection
- Drug target validation and candidate selection
- Preclinical modelling
- Translational research
- How to develop microbiome start-ups
- Consumer markets v therapeutic markets

PROBIOTICS AND PREBIOTICS

- Probiotics and digestive health
- Probiotics in paediatrics
- Regulation and product development
- Strain identification, screenings and safety
- Delivery methods and encapsulation
- Regulatory considerations and quality control
- Case studies of pro- and prebiotic effects on human health
- Role of human milk oligosaccharides
- Commercializing pro- and prebiotic research

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Other Exhibitors & Content Sponsors





TIMOTHY LU

Associate Professor in the Department of Electrical Engineering and Computer Science, MIT



HENRIK BJØRN NIELSEN

Chief Scientific Officer, Clinical-Microbiomics



LATA JAYARAMAN

Senior Director, Seres Therapeutics



LEE JONES

Founder, President & Chief Executive Officer, Rebiotix



YORICK TROMP

Product Manager, Winclove Probiotics



SONIA MICHAIL

Professor of Clinical Pediatrics, University of Southern California



FRECK LAMBOO

Process Engineer, SynCo Bio Partners



MALCOLM KENDALL

Founder & CEO, Microbiome Insights



COLLEEN CUTCLIFFE

CEO & Co-Founder, Whole Biome Inc.



SENIOR REPRESENTATIVE

TNO



SENIOR REPRESENTATIVE

Triskelion



SENIOR REPRESENTATIVE

DNA Genotek



ROB KNIGHT

Professor of Pediatrics and Computer Science & Engineering, University of California San Diego



MARK SMITH

Chief Executive Officer, Finch Therapeutics



SARKIS MAZMANIAN

Louis & Nelly Soux Professor of Microbiology, California Institute of Technology



DARIO GUTIERREZ

(Track Chair)
Immuno-Biology Lead, Merck Research Laboratories



MIKE STEP

CEO, Ritter Pharmaceuticals



JACKIE PAPKOFF

Senior Vice President Research, Evelo Biosciences



PIERRE BELICHARD

CEO, Enterome



CHRISTINE PIERCE

Assistant Member, Cancer Epidemiology, Moffitt Cancer Center



SENIOR REPRESENTATIVE

Second Genome



SERGIO BARANZINI

Professor, Department of Neurology, University of California, San Francisco



HENRY RATH

Vice President of Business Development, Seres Therapeutics



JENNIFER WARGO

(Reserved)

Associate Professor, Surgical Oncology, University of Texas MD Anderson Cancer Center



ILANA BRITO

Assistant Professor, Department of Biomedical Engineering, Cornell University



MOHAN IYER

Chief Business Officer, Second Genome



DAVID DONABEDIAN

Co-Founder & CEO, Axial Biotherapeutics



MICAH MACKISON

Senior Vice President, Corporate Development & Strategy, Assembly Biosciences, Inc.



MICHAEL BAILEY

Associate Professor, Pediatrics, The Ohio State University



ANUK DAS

Head of Scientific Innovation, Janssen Human Microbiome Institute



JOHN SLATTERY

Director of Research & Innovation, Aces Health Inc. Atlanta, GA



ADELA RAMBÍ GUANCO CARDONES

Assistant Professor of Dermatology, Duke University



JENNY KIM

Professor of Clinical Medicine, University of California, Los Angeles



SUSAN SMITH

Head of Immunology, Dermatology Therapy Area, GlaxoSmithKline



LADA RASOCHOVA

(Track Chair)
CEO, Dermala Inc.



JASMINA AGANOVIC

President, Mother Dirt



TREVOR STEYN

CEO, ESSE Probiotic Skincare



CHRIS CALLEWAERT

Postdoctoral Scholar, University of California, San Diego/Founder of "Dr. Armpit"



MUN SU RHEE

Associate Director of R&D, Xyrobe Therapeutics, Inc



BENJAMIN LELOUVIER

Chief Science Officer, Vaiomer



EMMA TAYLOR

Chief Executive Officer & Co-Founder, Naked Biome



BONNIE FELDMAN

(Track Chair)
Digital Health Analyst and Chief Growth Officer, DrBonnie360 – Your Autoimmunity Connection



WENYUAN SHI

Professor and Chair of Oral Biology, UCLA Schools of Medicine and Dentistry/Founding Scientist, C3J Therapeutics, Inc.



PETER CHRISTEY

CEO, General Automation Lab Technologies



MACIEJ CHICHLOWSKI

Principal Scientist, Mead Johnson Nutrition



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Assistant Professor, University of California, Davis



MICHEL WELS

Expertise Group Leader Microbiomics, NIZO



ERIK SPEK

Vice President – Head of Intellectual Property, Vedanta Biosciences



NIKOLE KIMES

Co-Founder & Vice President, Siolta Therapeutics



MARINA WALTHER-ANTONIO

Assistant Professor of Surgery, College of Medicine, Mayo Clinic



PETER LEE

Founder & Executive Chairman, Osel inc.



BURKHARD JANSEN

Chief Medical Officer, DermTech Inc.



TRAVIS WHITFILL

(Track Chair)
Co-Founder & CSO, Azitra Inc.



BILL MOHN

Professor, Department of Microbiology & Immunology, University of British Columbia



FANNY TENG

Senior Study Director, Metabolon



STEPHEN WOODY

Chief Executive Officer, Avadim Technologies



DUNCAN PEYTON

CEO, 4D pharma plc.


ANURAG PANDE

Vice President – Scientific Affairs,
Sabinsa Corporation


MARIA MARCO

(Track Chair)

Associate Professor, Food
Science and Technology,
University of California, Davis


YUYING LIU

Associate Professor, Department
of Pediatrics University of Texas


LUIS VITETTA

Director of Medical Research,
Medlab Clinical/Professor,
University of Sydney, Australia


**JAN PETER VAN
PIJKEREN**

Assistant Professor, Department
of Food Science, University of
Wisconsin-Madison


**SENIOR
REPRESENTATIVE**

Capsugel


ULRICH KULOZIK

Professor & Chair of Food
Process Engineering and Dairy
Science, Technical University of
Munich, Germany


JENNIFER BOYD

Regulatory Manager Human
Health & Nutrition - US, Canada
& Latin America, Chr. Hansen


JOY SCARIA

Assistant Professor, Department
of Veterinary & Biomedical
Sciences, South Dakota State
University


**ASHTON JAMES
HARPER**

Head of Medical Affairs, Protexin
Human Healthcare


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Executive Science Officer,
International Scientific
Association for Probiotics and
Prebiotics


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Genomics and Microbiome
Science Leader, DuPont Nutrition
& Health


PAUL COTTER

Head of Department, Food
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APC Microbiome Institute,
Republic of Ireland


**VARUNI
NAGULESAPILLAI**

Research Scientist, Lallemand
Health Solutions, Canada


LEE MADSEN II

Vice President & Chief Science
Officer, ISOThrive


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Associate Professor, Colorado
State University


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(Track Chair)

Chief Executive Officer, Kurago
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and Nutrition Sciences, North
Carolina State University


JISOO PAE

CEO, Genome and Company,
Republic of Korea


BRAD SAVILLE

Chief Science Officer & Founder,
Prenexus Health


BOB RASTALL

Professor of Food Biotechnology,
University of Reading, UK

08:00-08:45

Room: Sunset Ballroom 3&5

Registration & Refreshments

Room: Mission Bay

GUT MICROBIOTA IN HEALTH & DISEASE

08:45-08:50

Global Engage Welcome Address and Morning Chair's Opening Remarks

08:50-09:30


**KEYNOTE ADDRESS:
ROB KNIGHT**

Professor of Pediatrics and Computer Science & Engineering, University of California San Diego
Title TBC

09:30-09:55


TIMOTHY LU

Associate Professor in the Department of Electrical Engineering and Computer Science, MIT
Engineering the Microbiome

Synthetic biology is enabling more precise strategies for modulating the human microbiome, both in terms of adding microbes with artificial functions as well as deleting targeted microbiome members. Here we will discuss technology platforms for microbiome engineering and clinical applications being pursued.

09:55-10:25


**SPONSORED PRESENTATION:
HENRIK BJØRN NIELSEN**

Chief Scientific Officer, Clinical-Microbiomics

Platforms for Microbiome Systems Biology

- High-resolution Microbiomics – the Metagenomic Species and Beyond
- Imputing from shallow to deep shotgun sequenced metagenomics with < 1% information loss
- Functional Species Concept – overcoming Ecological Complexity and Redundancy



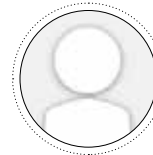
Room: Docside

PROBIOTICS CONGRESS

08:45-08:50

Global Engage Welcome Address and Morning Chair's Opening Remarks

08:50-09:30


KEYNOTE ADDRESS:

SENIOR REPRESENTATIVE (Invite to)

FDA

Title TBC

09:30-09:55


JENNIFER BOYD

Regulatory Manager Human Health & Nutrition - US, Canada & Latin America, Chr. Hansen
Probiotic and Dietary Supplement Regulatory Concerns

09:55-10:25


**SPONSORED PRESENTATION:
ANURAG PANDE**

Vice President – Scientific Affairs, Sabinsa Corporation

Sabinsa, founded in 1988, provides alternative and complementary natural products for human nutrition and well-being. Sabinsa has pioneered the introduction of more than 100 standardized botanical extracts, and privately funded clinical studies in conjunction with prestigious institutions in support of these products. Globally positioned with 1,000 people working in manufacturing and distribution facilities, and 100 full-time scientists conducting on-going research in India and the United States. Ingredients by Sabinsa are Kosher and Halal certified.



10:25-11:35

Room: Sunset Ballroom 3&5

Morning Refreshments / Poster Presentations / Scheduled One-to-One Meetings

Room: Mission Bay

GUT MICROBIOTA IN HEALTH & DISEASE

TRACK CHAIR:

LATA JAYARAMAN

Senior Director, Seres Therapeutics

Ecobiotic Drugs – A New Paradigm for Drug Discovery

- The gut microbiota are critical players that modulate a variety of host functions including

barrier integrity, mucosal immune homeostasis, bile acid metabolism, prevention of infestation by pathogens and cancer.

- At Seres, we are committed to creating a new class of medicines to treat diseases resulting from functional deficiencies in the microbiome, a condition known as dysbiosis. We are a clinical biopharmaceutical company with a powerful platform to discover and develop drugs to treat diseases in multiple areas of medicine that arise from dysbiosis.
- We pinpoint functional differences between a healthy and dysbiotic microbiome, and rationally design potential Ecobiotic drugs. These therapeutics are ecological compositions made up of beneficial organisms that are designed to target functional deficiencies and re-establish keystone features of a healthy microbiome.

ANUK DASHead of Scientific Innovation,
Janssen Human Microbiome Institute**Leveraging Partnerships to Harness the Potential of the Microbiome**

The microbiome is experiencing notable activity across therapeutics, diagnostics and consumer health, presenting tremendous opportunities to transform healthcare. However, the field is also facing obstacles across the R&D continuum, including regulation, manufacturing and computational challenges. There's an opportunity to engage industry stakeholders – from entrepreneurs and researchers to investors and pharmaceutical companies – to work together and translate promising science into microbiome-based health solutions for a range of disease areas.

Room: Sunset Ballroom 1&2

R&D OUTSIDE THE GUT

TRACK CHAIR: **TRAVIS WHITFILL**

Co-Founder & CSO, Azitra Inc.

ADELA RAMBI GUANCO CARDONES

Assistant Professor of Dermatology, Duke University

The Cutaneous Microbiome in Immune Mediated Skin Disorders: Promises and Challenges

- Aberrations in the cutaneous microbiome have

been implicated in the pathogenesis of chronic, immune mediated skin diseases.

- Techniques that restore microbial homeostasis or diversity of the cutaneous microbiota have been proposed as therapeutic options.
- There are real challenges, but also opportunities, in designing and executing studies that involve the cutaneous microbiome.

JENNY KIM

Professor of Clinical Medicine, University of California, Los Angeles

Skin Immunology and Acne

Room: Docside

PROBIOTICS CONGRESS

TRACK CHAIR: **MARIA MARCO**

Associate Professor, Food Science and Technology, University of California, Davis

YUYING LIUAssociate Professor, Department of Pediatrics
University of Texas**Resetting microbiota by *Lactobacillus reuteri* inhibits Treg deficiency-induced autoimmunity**

Regulatory T-cell (Treg) deficiency causes lethal,

CD4+T cell-driven autoimmune diseases. Foxp3+Treg deficiency results in gut microbial dysbiosis over the lifespan of scurfy (SF) mouse. Remodeling microbiota with *L. reuteri* prolonged survival and reduced multi-organ inflammation in SF mice. *L. reuteri* changed the metabolomic profile with a major effect was to restore levels of the purine metabolite inosine. Feeding inosine prolonged life and inhibited multi-organ inflammation by reducing Th1/Th2 cell associated cytokines. The inhibition of inosine on the differentiation of Th1 and Th2 cells in vitro depended on adenosine A2A receptors, which were also required for the efficacy of inosine and of *L. reuteri* in vivo. The study reveals that the Lactobacilli-microbiota-inosine-A2A axis might represent a potential avenue for combatting autoimmune diseases mediated by Treg dysfunction.

LUIS VITETTADirector of Medical Research, Medlab Clinical/
Professor, University of Sydney, Australia**The effect of a novel probiotic on metabolic biomarkers in adults with prediabetes and recently diagnosed type 2 diabetes mellitus: a randomized controlled trial**

- T2DM is characterised by persistent low-grade inflammatory responses associated with the development of insulin resistance.
- Variations in the type, diversity and metabolic capacity of the gastrointestinal microbiota have been shown to alter metabolic and inflammatory pathways within the host by shifting energy balance and storage and promoting metabolic endotoxaemia.
- An evidence-based multi-species probiotic formulation was investigated postulated to shift the GI microbiome from a disease-prone to a balanced state and in turn improving metabolic markers associated with T2DM.

12:25-12:50

**LEE JONES**

Founder, President & Chief Executive Officer,
Rebiotix

Bugs as Drugs: Creating Microbiota Based Drugs with Quality Science

Research and business around the microbiome continues to rapidly expand. There are currently many institutions and companies looking at various ways to utilize bugs as drugs. More science and quality parameters are being developed to create, manufacture and commercialize these new and unique medicines to treat various diseases of the microbiome. Microbiota Restoration Therapy (MRT) is one example of a new and novel way to provide bugs as drugs utilizing Science and Quality.

12:00-12:25

**SUSAN SMITH**

Head of Immunology, Dermatology Therapy Area,
GlaxoSmithKline

The Promise and Challenge of Applying Microbiome Research to Drug Discovery

- Commensals and inflammation
- Appreciating cause and effect
- Practical applications

12:00-12:25

**JAN PETER VAN PIJKEREN**

Assistant Professor, Department of Food Science,
University of Wisconsin-Madison

Development of Lactobacillus reuteri as a therapeutic delivery platform

One of the long-term goals of the Van Pijkeren Laboratory is to develop probiotic bacteria as therapeutic delivery vehicles. The health-promoting phenotypes, the long history of safe consumption, combined with the ability to survive passage through the mammalian gastrointestinal tract, make select probiotic strains excellent candidates to deliver therapeutics in situ. Our model organism is Lactobacillus reuteri(Lr), a gut symbiont with well-characterized probiotic characteristics. Lr is also one of few probiotic strains for which high-throughput genome editing tools are available. We will discuss the development of various genetic tools for use in Lr, and its applications towards the development of a therapeutic delivery vehicle.

12:50-1:20

**SPONSORED PRESENTATION:
JOHN SLATTERY**

Director of Research & Innovation, Aces
Health Inc. Atlanta, GA

The Exposome and the Microbiome: The case and need for better data collection and analysis through software automation

- In this talk I will discuss the power of mHealth technology and Aces Health as a centralized data collection and repository hub for clinical trials.
- We will discuss factors that alter the microbiome from the Environment (ie the Exposome) and how we can leverage software and technology advancements to better understand and detect factors affecting the microbiome in clinical trials and natural history/longitudinal studies to better understand microbiome disruption in relation to disease pathogenesis
- Biomarker and metabolomics considerations will be discussed and considered in relation to the Exposome and Microbiome
- Finally, this presentation will discuss the power of Aces Health's automated collection of environmental factors that have been linked to microbiota and microbiome disruption with a focus on CNS disorders and how we can normalize and quantify these factors in real time during trials involving microbiome therapeutics and/or modulators



12:50-1:20

**SPONSORED PRESENTATION:
STEPHEN WOODY**

Chief Executive Officer, Avadim Technologies

The Emerging Revolution in Infection Prevention Through Topical Microbiome Management

Until now, infection prevention has been focused on decontamination and eradication of ALL microorganisms on the skin. What if this approach was outdated, not working for all populations around the world? The new 21st century approach to reducing hospital-acquired infections revolves around optimizing the patient's skin immunology. Specifically, this session will address deficiencies in the old paradigm of decolonization for infection prevention and highlight the new paradigm of microbiome management. The microbiome of the skin and associated tissue are key to establishing and maintaining a balance of healthy flora on the skin, resulting in an appropriate way to manage the infections that plague hospitals around the globe. This approach, and Avadim's Theraworx therapies, have been effective in America, attaining reductions of between 50% to 90% in CAUTI levels, and reductions up to 50% in CLABSI rates as well as efficacy against MRSA and c.Diff levels in hospitals and LTC facilities.



12:50-1:20

**SPONSORED PRESENTATION:
BOB RASTALL**

Professor of Food Biotechnology, University
of Reading, UK

Targeted Synbiotics to Manipulate the Microbiome for Health

A synbiotic is a combination of a prebiotic and a probiotic. Most synbiotics studied to date have been mixtures of readily available carbohydrates and commercial probiotics driven by availability. A more rational approach is to utilise the metabolic machinery of a target organism to generate an oligosaccharide mixture that is highly metabolisable by that producing strain. Such mixtures may enhance fermentation selectivity for that organism in vivo. This concept has been developed with galacto-oligosaccharides as these are complex mixtures where the structural profile maps onto the substrate specificity of the b-galactosidases that were used in their manufacture. This presentation will explore this concept in more detail and show how this approach has been used in the rational development of a synbiotic designed to reduce cholesterol.



1:20-2:20

Lunch

Room: Mission Bay

GUT MICROBIOTA IN HEALTH & DISEASE

TRACK CHAIR:

**SPONSORED PRESENTATION:
YORICK TROMP**

Product Manager, Winclove Probiotics

The intestinal microbiota plays a role in metabolic, nutritional, physiological and immunological processes in the human body.

The collective genome of the intestinal microbiota outnumbers our human genes. Major recent efforts have been made to better understand the complexity, diversity, and function of this "extra organ", especially with respect to metabolism. Numerous pathways involved in the metabolism of energy, amino acids, carbohydrates and vitamins have been found to be associated in the microbiota, and it has been shown that these pathways influence human health. A more detailed understanding of what certain bacteria can actually do in the gut, gives rise to the possibility to target these processes in very direct ways. For instance, certain probiotic strains have been shown to be able to produce vitamins (B-group and K2). This suggests that next generation probiotics might be able to influence not only the composition of the gut, but also the functional (metabolic) activity of the microbiota itself. Winclove is currently investigating how such metabolites of probiotic strains can directly influence the human host to be beneficial beyond the gut (eg. cardiovascular, bones, skin, and the brain) and also how the functional properties of next generation probiotics could positively benefit the microbiome and human health.

W I N C L O V E
P R O B I O T I C S

2:20-2:50

Room: Sunset Ballroom 1&2

R&D OUTSIDE THE GUT

TRACK CHAIR: LADA RASOCHOVA

CEO, Dermala Inc.

PANEL DISCUSSION:

The Microbiome: An Opportunity for Smarter Cosmetics

- Impact of the microbiome on traditional products, and on marketing campaigns
- Integrating smart bacteria into products
- Impact of products on commensal skin flora
- Accounting for diversity and age
- Health claim substantiation and regulatory considerations

**JASMINA AGANOVIC**

President, Mother Dirt

**TREVOR STEYN**

CEO, ESSE Probiotic Skincare

**CHRIS CALLEWAERT**

Postdoctoral Scholar, University of California, San Diego/Founder of "Dr. Armpit"

2:20-2:50

Room: Docside

PROBIOTICS CONGRESS

TRACK CHAIR:

**SPONSORED PRESENTATION:
SENIOR REPRESENTATIVE**

Capsugel

Capsugel designs, develops and manufactures a wide range of innovative dosage forms for the biopharmaceutical and consumer health & nutrition industries. Our unique combination of science, engineering, formulation and capsule expertise enables our customers to optimize the bioavailability, targeted delivery and overall performance of their products. We partner with more than 4,000 customers in over 100 countries to create novel, high-quality and customized solutions that align with our customers' evolving needs and benefit patients and consumers.

2:20-2:50

2:50-3:15



SENIOR REPRESENTATIVE (Invite to)
FDA
Title TBC

3:15-3:40



SONIA MICHAIL
Professor of Clinical Pediatrics, University of Southern California

Modification of the Pediatric Gut Microbiome: Past, Present and Future

- The role of the pediatric gut microbiome in health and disease
- Effective ways to modify the gut microbiome
- Fecal microbial transplant and how it impacts the gut microbiome

3:40-3:55



**COMPANY SHOWCASE:
FREEK LAMBOO**

Process Engineer, SynCo Bio Partners
SynCo Bio Partners, a world leading GMP contract manufacturer of live microbial products, has a proven technical and

quality track record in the bulk drug substance manufacturing and aseptic filling and lyophilization of a broad range of live microbial products. Located in Amsterdam, approved by several international authorities and with over 20 years GMP manufacturing experience, SynCo supports many clients in bringing their live microbial products through clinical development and safely to the patient.

2:50-3:15



MUN SU RHEE

Associate Director of R&D, Xyrobe Therapeutics, Inc
Synthetic Biology Approach to Treatment of Skin Issues via Microbiota

- Exploring possible deficiencies in microbiome-centric strategies for treating inflammatory issues
- Reviewing similarities between the gut and skin and how we can translate microbiome therapies accordingly
- Discussing use of the microbiota to optimize topical delivery of biotherapeutics

3:15-3:40



EMMA TAYLOR

Chief Executive Officer & Co-Founder, Naked Biome

Challenges in Developing a Live Biologic Therapeutic

- Strain selection
- Intellectual Property
- Rx vs DTC
- Manufacturing
- Formulation
- Regulatory strategy
- Clinical Trial

3:40-3:55



**COMPANY SHOWCASE:
BURKHARD JANSEN**

Chief Medical Officer, DermTech Inc.
An Adhesive Patch Device for Skin Microbiome Studies

Our understanding of the skin-residing

microbiome on skin health has improved dramatically in recent years, and diagnostic or therapeutic applications based on the skin microbiome are starting to emerge. Progress has been hampered by deficiencies in obtaining skin microbiome samples of sufficient quality and quantity. A noninvasive adhesive patch device is capable of reliably obtaining sufficient amounts of micro biome samples which may open opportunities to use this new tool in a variety of clinical applications. The adhesive patch allows us to collect and study microbiome samples from the deeper epidermal layers and not just those on the skin surface. The unique advantages this adhesive patch offers may benefit clinical applications including: investigating and assessing skin microbiome compositions and populations and assessing and monitoring skin cell gene expression signatures.



2:50-3:15



ULRICH KULOZIK

Professor & Chair of Food Process Engineering and Dairy Science, Technical University of Munich, Germany

Preservation of the vitality of probiotics during processing and protection against environmental stress by encapsulation

- Drying of microbial starter cultures and probiotics for preservation and storage purposes can be optimized in terms of survival
- The reduction of drying times can be achieved by microwave technology applied to accelerate freeze drying and vacuum drying, without compromising on degree of survival and activity upon rehydration. The key insights of recent works are currently being applied in drying of the human gut microbiome and representative surrogates. The dried material can be used as part of a concept of treatment of patients with a disturbed microbiome.
- Sensitive probiotics can be protected against outer environmental and processing stress factors in very dense protein encapsulation matrices

3:15-3:40



JOY SCARIA

Assistant Professor, Department of Veterinary & Biomedical Sciences, South Dakota State University

Screening Gut Microbiota Strain Libraries

- My lab has developed a culturomics method to develop gut microbiota strain libraries in a high-throughput manner and to screen them for beneficial properties

3:40-3:55



**COMPANY SHOWCASE:
ASHTON JAMES HARPER**

Head of Medical Affairs, Protexin Human Healthcare

IBS and Probiotics: From Mechanisms to Clinical Evidence

- Pathophysiology of IBS
- The relationship between IBS and gut bacteria
- Probiotic mechanisms for the prevention and treatment of IBS symptoms
- Review of probiotics in IBS human clinical trials
- Future perspectives



3:55-4:45

Afternoon Refreshments / Poster Presentations / Scheduled One-to-One Meetings

GUT MICROBIOTA IN HEALTH & DISEASE

TRACK CHAIR: BONNIE FELDMAN

Digital Health Analyst and Chief Growth Officer, DrBonnie360 – Your Autoimmunity Connection

4:45-5:00

**COMPANY SHOWCASE:
SENIOR REPRESENTATIVE**

TNO Research

5:00-5:15

**COMPANY SHOWCASE:
SENIOR REPRESENTATIVE**

Triskelion

R&D OUTSIDE THE GUT

TRACK CHAIR: JACK BEARD

Conference Producer, Global Engage

4:45-5:15

**COMPANY SHOWCASE:
DUNCAN PEYTON**

CEO, 4D pharma plc.

Live Biotherapeutics – Bug to Drug

As live biotherapeutics begin to mature as a new class of medicine, the presentation will discuss progress made in the understanding of:

- The mechanisms by which live biotherapeutics are able to impact disease
- The potential of the microbiome to diagnose and stratify patients
- How live biotherapeutics can be manufactured as regulated biological products
- Strategies for the integration of live biotherapeutics into clinical practice

4:45-5:15

PROBIOTICS CONGRESS

TRACK CHAIR: WILLIAM BAIRD

Director, Global Engage Ltd.

SPONSORED PRESENTATION

For sponsorship opportunities please contact
Gavin Hambrook at gavin@globalengage.co.uk

4:45-5:10

**BILL MOHN**

Professor, Department of Microbiology & Immunology, University of British Columbia
How host factors relate to the skin microbiome

5:40-6:05

**WENYUAN SHI**

Professor and Chair of Oral Biology, UCLA Schools of Medicine and Dentistry/ Founding Scientist, C3J Therapeutics, Inc.

Oral Microbiome & Its Targeted Modulation

The talk will cover the basic biology of oral microbiome including its composition, spatial location, social interactions, as well as our latest efforts on developing novel diagnostic and therapeutic tools to reengineering oral microbiome.

INDUSTRY & INVESTMENT ROUNDTABLE DISCUSSIONS:**TABLE 1:
MALCOLM KENDALL**

Founder & CEO, Microbiome Insights
The Gut-Brain Link: How the Microbiome Effects Brain Health and Neurological Diseases

**TABLE 2:
COLLEEN CUTCLIFFE**

CEO & Co-Founder, Whole Biome Inc.
Balancing IP and Regulatory Risk in the Microbiome

**TABLE 3:
Successful collaborations between academia and industry**

- Collaboration models
- Structuring successful collaborations
- Investments

**TABLE 4:
MARK SMITH**

Chief Executive Officer, Finch Therapeutics
Microbiome Product Strategies and Opportunities

- What are the comparative advantages of product strategy in terms of regulatory, manufacturing, clinical, and biological features?
- What specific risks do each carry?
- What regulatory or scientific questions, once answered, will enhance the competitiveness of each category?
- How should microbiome drug developers prioritize crowded disease areas with meaningful clinical data and many competitors versus 'white space' therapeutic areas with minimal data but less competition? What analogies can be drawn from other technologies?
- Besides drug developers, businesses in the microbiome space include informatics specialists, contract manufacturers, molecular characterization firms, etc. Which spaces offer unique opportunities for differentiation in product development or elsewhere? Which services will be important for drug developers to insource versus outsource?

5:15-6:06

ROUNDTABLE DISCUSSIONS:**TABLE 5:
MARY ELLEN SANDERS**

Executive Science Officer, International Scientific Association for Probiotics and Prebiotics
Consumers Deserve to Know What's in the Bottle

- Taking probiotic product verification to the next level
- What options are out there?
- What are the roadblocks?
- When can consumers expect to see third party verification that probiotic products are what they claim?

**TABLE 6:
BOB RASTALL**

Professor of Food Biotechnology, University of Reading, UK
Prebiotics: a view of the future

There has been much recent debate over the definition of a prebiotic, culminating in the recent clarification and simplification of wording by ISAPP. Looking forward, what does the future hold for prebiotics? This round table discussion will address the following questions:

- Where will the next generation of prebiotics come from?
- How do we establish selective utilisation?
- Which microorganisms will we target in the future?
- Is it all just Short Chain Fatty Acids?
- What health impact will prebiotics have made in 10 years and in 20 years' time?

5:15-6:06

6:05-7:05

End of Day One / Drinks Reception - If you would like to sponsor the drink's reception contact Gavin Hambrook at gavin@globalengage.co.uk

08:00-08:25 Room: Sunset Ballroom 3&5 Networking Meetings & Refreshments

08:25-08:30 MORNING CHAIR'S OPENING REMARKS: **DARIO GUTIERREZ**,
Immuno-Biology Lead, Merck Research Laboratories

Room: Mission Bay

GUT MICROBIOTA IN HEALTH & DISEASE

08:30-08:55

**JENNIFER WARGO** (Reserved)Associate Professor, Surgical Oncology, University of Texas MD Anderson Cancer Center
Title - TBC

08:55-09:35

**KEYNOTE ADDRESS:**
SARKIS MAZMANIAN

Louis & Nelly Soux Professor of Microbiology, California Institute of Technology

The Gut-Microbiome-Brain Connection in Neurological Disease

The intestinal microbiota influences neurodevelopment, modulates behavior, and contributes to various neurological disorders. However, a functional link between gut bacteria and neurodegenerative diseases remains unexplored. Synucleinopathies are characterized by aggregation of the protein α -synuclein (α Syn), often resulting in motor dysfunction, as exemplified by Parkinson's disease (PD). Using mice that overexpress α Syn, we report herein that the microbiota are required for motor deficits, microglia activation, and α Syn pathology. Antibiotic treatment ameliorates, while microbial colonization promotes, pathophysiology in adult animals, suggesting disease arises from postnatal signaling between the gut and the brain. Indeed, oral administration of the microbial metabolites, short-chain fatty acids, to germ-free mice promotes neuroinflammation and motor symptoms. Remarkably, colonization of α Syn-overexpressing mice with microbiota from PD patients enhances physical impairments compared to microbiota transplants from healthy human donors. These findings reveal that gut bacteria potentiate numerous Parkinsonian-like features in a mouse model, and suggest that alterations in the human microbiome represent a novel risk factor for PD.

Room: Mission Bay

GUT MICROBIOTA IN HEALTH & DISEASE

TRACK CHAIR: DARIO GUTIERREZ

Immuno-Biology Lead, Merck Research Laboratories

08:25-08:30 MORNING CHAIR'S OPENING REMARKS: **JOSE ANTONIO CRUZ**,
Chief Executive Officer, Kurago Biotech, Mexico

Room: Dcside

PROBIOTICS CONGRESS

08:30-08:55

**BUFFY STAHL**Genomics and Microbiome Science Leader, DuPont Nutrition & Health
Digital PCR for Strain-Specific Enumeration of Probiotics

08:55-09:35

**KEYNOTE ADDRESS:**
PAUL COTTER

Head of Department, Food Biosciences, Teagasc, and PI, APC Microbiome Institute, Republic of Ireland

Health-Promoting Properties Encoded within Fermented Food Microbiota

- Putative health-promoting attributes associated of fermented foods
- Sequencing based insights into health-promoting genes encoded within such foods
- How to harness this knowledge?

Room: Sunset Ballroom 1&2

R&D OUTSIDE THE GUT

TRACK CHAIR:

Room: Dcside Room

PROBIOTICS CONGRESS

TRACK CHAIR: JOSE ANTONIO CRUZ,

Chief Executive Officer, Kurago Biotech, Mexico

9:40-10:10


**SPONSORED PRESENTATION:
MIKE STEP**

CEO, Ritter Pharmaceuticals

Ritter Pharmaceuticals develops novel therapeutic products that modulate the gut microbiome to treat gastrointestinal diseases.

Its lead product, RP-G28, has the potential to become the first FDA-approved treatment for lactose intolerance, a condition that affects millions worldwide. The company is further exploring the functionality and discovering the therapeutic potential gut microbiome changes may have on treating/preventing a variety of conditions including: gastrointestinal diseases, immuno-oncology, metabolic, and liver disease.



9:40-10:10


**SPONSORED PRESENTATION:
PETER CHRISTEY**

CEO, General Automation Lab Technologies

Enabling Access to Microbes - A Next Generation Platform for Exploring the Microbiome

General Automation Lab Technologies, Inc. (GALT) is transforming microbiome research and microbial product development with our innovative high throughput microbiology research platform. There is a critical need for new improved research tools to drive our understanding of complex microbial populations and their interactions with their environment. GALT is currently focused on solving two core problems in microbiology: 1) cultivating target microbes that are difficult or impossible to cultivate using current technologies, and 2) screening microbiomes, strain collections or engineered populations of microbes for target phenotypes or metabolites.



9:40-10:10


**SPONSORED PRESENTATION:
VARUNI NAGULESAPILLAI**

Research Scientist, Lallemand Health Solutions, Canada

Lallemand Health Solutions offers a full line of ready-to-market probiotic formulas such as Lacidofil®, Probiokid®, Probio'Stick®, Protecflor®, and can also design, develop and produce custom formulations based on the documented Rosell, Harmonium, or Lahti® strains. From lab to shelf, LHS controls the overall manufacturing process of its products. Our probiotic strains and formulas are produced in-house in one of our many available bacteria production facilities at LHS to ensure customers are receiving the highest quality standard of probiotic formulations.



10:10-11:20

Room: Sunset Ballroom 3&5

Morning Refreshments / Poster Presentations / Scheduled One-to-One Meetings

PANEL DISCUSSION:
The 'Oncobiome' - Human Microbiome and Cancer Therapies

- How does the microbiome influence/protect from cancer development?
- Microbiome interactions with cancer therapies
- How does the microbiome impact cancer development in sites outside the gut?
- Manipulating the microbiome to improve prognosis and treatment
- Development of immune-microbiome cancer therapies


JACKIE PAPKOFF

Senior Vice President Research, Evelo Biosciences


PIERRE BELICHARD

CEO, Enterome


CHRISTINE PIERCE

Assistant Member, Cancer Epidemiology, Moffitt Cancer Center


JENNIFER WARGO (Reserved)

Associate Professor, Surgical Oncology, University of Texas MD Anderson Cancer Center

11:20-12:10

11:20-11:45


MACIEJ CHICHLOWSKI

Principal Scientist, Mead Johnson Nutrition

The Impact of Milk Oligosaccharides on Brain-Gut-Microbiota Axis

- There are extensive bidirectional interactions between the gut microbiota and the central nervous system
- We tested whether oligosaccharides naturally found in human milk prevent stressor-induced alterations in gut microbial community composition
- Our study demonstrates that milk oligosaccharides support normal microbial communities and behavioral responses during stressor exposure, potentially through effects on the gut microbiota-brain axis.

11:45-12:10


MELANIE GAREAU

Assistant Professor, University of California, Davis

Gut Feelings: The developing microbiota-gut-brain axis in mice

- Intestinal dysbiosis may be leading to changes in mood and behaviour
- Probiotics may restore the microbiota and prevent dysfunction of the microbiota-gut-brain axis
- Identifying the developmental window during which the microbiota-gut-brain axis is vulnerable to long term detrimental impacts

11:20-11:45


LEE MADSEN II

Vice President & Chief Science Officer, ISOThrive

The Interplay of Indigenous Microbiota and Transient Probiotic Species

Focused almost exclusively on the microbiota present in the colon, most of the attention in the pro/prebiotic sector has involved either the introduction of probiotic species with the hope of transient population or feeding select microbiota with some sort of prebiotic soluble fiber. Here, we discuss the role of indigenous (autochthonous) bacterial species with respect to foreign (allochthonous) organisms, and how the interplay may be connected to states of disease in the colon and distal esophagus.

11:45-12:10


TIFFANY WEIR

Associate Professor, Colorado State University

PreForPro: A phage-based therapy for modifying the gut microbiota

- Background on phage therapy and potential use as a dietary supplement
- Description of the PreForPro clinical trial
- Interpretation of phage-induced changes to the gut microbiota and in physiological clinical parameters

12:10-12:40


**SPONSORED PRESENTATION:
SENIOR REPRESENTATIVE**

Second Genome

Second Genome Solutions, the premier microbiome profiling provider, has completed over 350 microbiome studies to date for researchers in academia, and pharma/biotech, nutrition and skincare companies. Our Microbiome Discovery Platform of validated analysis and bioinformatics methods has been expertly developed to deliver the most complete and reliable microbiome insights.

12:10-12:40


**SPONSORED PRESENTATION:
MICHEL WELS**

Expertise Group Leader Microbiomics, NIZO

Predict & Connect: Controlling microbial composition through expertise driven identification of microbiome modulators

NIZO's Connect and Predict modules have been developed to identify microbiome modulators based on expert knowledge, consisting of a set of algorithms and databases with dedicated modules constructed for processes related to health issues (e.g. toxin/virulence, antibiotic resistance, malodour formation, dryness) together with modules for the detection of easily accessible modulators (e.g. carbon source or amino acid metabolism pathways). The combination of these modules called Connect can be regarded as the expert input required for the identification of new microbiome modulators. Overall, the Predict analysis would increase the quality of the predicted modulators, resulting in less compounds to include in in vitro validation studies. Next to being high quality modulators, the mode of action of a designed modulator will be described on the molecular level, providing a unique IP position. In the presentation we will showcase examples of the Connect & Predict modules for skin, gut and women's health



12:10-12:40


**SPONSORED PRESENTATION:
BRAD SAVILLE**

Chief Science Officer & Founder,
Prenexus Health

Why Selectivity is Critical for Prebiotics: Clinical Developments in Prebiotics & Xylooligosaccharides

- Importance of selectivity in prebiotics
- Understanding differences among prebiotic types
- Xylooligosaccharides & selectivity
- Scientific developments in prebiotics



12:40-12:55


**COMPANY SHOWCASE:
SENIOR REPRESENTATIVE**

DNA Genotek

DNA Genotek Inc., a subsidiary of OraSure Technologies, Inc. (NASDAQ: OSUR), provides high-quality biological sample collection products and end-to-end services for human genomics, microbiome and infectious disease applications. Our OMNIgene product line immediately stabilizes microbiota, ensuring an unbiased 'snapshot' of the microbial community is maintained. Kits for stool, oral, vaginal and animal sampling are available. We also offer GenoFIND™, a complete suite of genomics and microbiome services including sample processing, wet lab and bioinformatics analysis.

12:40-12:55


**SPONSORED PRESENTATION:
BENJAMIN LELOUVIER**

Chief Science Officer, Vaiomer

Analysis of the blood microbiome by highly sensitive 16S Metagenomic Sequencing: a new tool for diagnosis

- Specific pipelines of qPCR and 16S targeted metagenomic sequencing were optimized to analyze blood bacterial DNA.
- Highly diversified blood microbiome exists in healthy human donors.
- Specific alterations in the blood microbiota are diagnostic of metabolic diseases.



12:40-12:55

COMPANY SHOWCASE

For sponsorship opportunities please contact
Gavin Hambrook at gavin@globalengage.co.uk

12:55-1:55

Room: Sunset Ballroom 3&5

Lunch / Scheduled One-to-One Meetings

Room: Mission Bay

1:55-2:20

**SERGIO BARANZINI**

Professor, Department of Neurology, University of California, San Francisco

Exploring the structure and function of the gut microbiome in multiple sclerosis

- Largest study in MS microbiome under way
- Preliminary data shows moderate but consistent dysbiosis in MS patients
- Bioinformatics, in-vitro and in-vivo studies suggest the MS gut microbiome plays a role in disease pathogenesis

2:20-2:45

**ILANA BRITO**

Assistant Professor, Department of Biomedical Engineering, Cornell University

Transmissible Components in the Microbiome

Room: Sunset Ballroom 1&2

1:55-2:20

**ERIK SPEK**

Vice President – Head of Intellectual Property, Vedanta Biosciences

Patenting Microbiome Therapeutics

- Categories of microbiome therapeutics
- Patent prosecution and the 101 hurdle
- Strategies for patenting microbiome therapeutics

2:20-2:45

**NIKOLE KIMES**

Co-Founder & Vice President, Siolta Therapeutics

Next Generation Microbial Therapeutics - Transforming the Therapeutic Landscape of Asthma and Atopy

Siolta Therapeutics is an early-stage biotech pursuing next generation microbial therapeutics aimed at the prevention and treatment of inflammatory diseases. Our current research and development is focused on the rational design of a mixed-species therapeutic microbial consortium to treat airway inflammation. We are concurrently working towards a future in which the microbiome can help drive patient stratification and tailored microbial therapeutics.

Room: Docside

1:55-2:20

**MACIEJ CHICHILOWSKI**

Principal Scientist, Mead Johnson Nutrition

The Dietary Prebiotics polydextrose and galactooligosaccharides Impact the Microbiome and Brain of Developing Animals

- Optimal development of the microbiome is an emerging health benefit and is only more likely to grow in awareness and demand from a consumer perspective over time
- Modulating gastrointestinal bacteria during a critical period can result in demonstrable changes in brain development, neurotransmitter systems, and expression of anxiety-like behaviors
- The objective of this study was to determine the impact of polydextrose (PDX) and galactooligosaccharides (GOS), during early postnatal development on cognition, social, and anxiety-related behaviors, and gut microbiota in rodents.

2:20-2:45

**MONIQUE LACROIX**

Professor & Director, Research Laboratories in Sciences, INRS-Institut Armand-Frappier, Canada

Cancer Preventive Effect of a Probiotic Fermented Milk containing L. Acidophilus CL1285, L. Casei LBC80R, L. Rhamnosus CLR2

The potential of fermented milk containing three Lactobacillus strains on colon carcinogenesis was investigated. Results showed that rats supplemented with probiotic formula had significantly lowered the count of aberrant crypt (AC) and the number of aberrant crypt foci as compared to the control group ($p \leq 0.05$). Rats administered with the fermented milk pellet were able to significantly ($p \leq 0.05$) induce the activity of quinone reductase as compared to the control group. Rats administered with the fermented milk showed a significant lower activity of β -glucuronidase ($p \leq 0.05$), a reduced activity of β -glucosidase and an induction of the activity of glutathione S-transferase ($p \leq 0.05$). These results indicate that the probiotic bacteria and the metabolite release during the fermentation process could prevent colorectal carcinogenesis.

2:45-3:15


**SPONSORED PRESENTATION:
PIERRE BELICHARD**

CEO, Enterome

Enterome is a clinical-stage company specialized in the discovery and development of drugs with novel modes of action relating to defects of the gut Microbiome. Our pipeline is comprising a Phase 1 program, and 6 discovery small-molecule and peptide programs in IBD, Cancer. Some of these programs are partnered with companies like BMS, J&J, or Takeda. Enterome has 35 employees, operating from its Paris, France headquarters and having a business office in Cambridge US.



2:45-3:15


**SPONSORED PRESENTATION:
FANNY TENG**

Senior Study Director, Metabolon

**Metabolites at the Intersection between
Microbiota and Host Metabolism**

The gastrointestinal tract of mammals is colonized by a complex microbial community. These microbes have co-evolved with us for thousands of years and are closely linked to many aspects of human health. But, in most cases, the complex influences of microbiota on our health are not yet functionally understood. Metabolites serve as a language that mediates cross-species relationships, and Metabolon's unbiased global metabolomics approach provides a great tool to decipher the complex biological story. This talk will cover who we are and what we do and how one can best leverage this technology to address their microbiome research questions as supported by case studies.

2:45-3:15

SPONSORED PRESENTATION

For sponsorship opportunities please contact
Gavin Hambrook at gavin@globalengage.co.uk

3:15-3:40

Room: Sunset Ballroom 3&5

Afternoon Refreshments

PANEL DISCUSSION:

The Business of the Microbiome

- Building a business strategy and model
- Structuring successful collaborations
- Riding the wave on fundraising

**MOHAN IYER**

Chief Business Officer, Second Genome

**HENRY RATH**

Vice President of Business Development, Seres Therapeutics

**DAVID DONABEDIAN**

Co-Founder & CEO, Axial Biotherapeutics

**MICAH MACKISON**

Senior Vice President, Corporate Development & Strategy, Assembly Biosciences, Inc.

**MICHAEL BAILEY**

Associate Professor, Pediatrics, The Ohio State University

Examining the Impact of Stress on the Gut Microbiome

Exposure to stressful stimuli is known to affect both immune system reactivity to infectious challenge and microbial community composition in the intestines. Studies from this laboratory, as well as others, indicate that these phenomena are intimately linked. Data will be presented showing that the intestinal microbiota are involved in stressor-induced immunomodulation at local sites (such as the intestines) as well as systemic sites (such as the spleen and the brain). In addition, novel strategies to maximize the abilities of probiotic microbes, as well as commensal microbes, to attenuate the deleterious effects of stressful stimuli on host inflammatory responses in the intestines, spleen, and brain will be discussed.

**COLLEEN CUTCLIFFE**

CEO & Co-Founder, Whole Biome Inc.

Using Microbiome Analytics to Drive Development of Interventions

- Generation of tools to analyze next generation sequencing, metabolite data and host-microbiome interactions data
- Integrating these with pathway predication tools to generate a comprehensive view of an individual's microbiome and identify novel targets
- Testing interventions and generating new data to drive improved development of diagnostics and interventions

Reserved

3:40-3:55

SENIOR REPRESENTATIVE (Reserved)

Forsythe Institute

Title TBC

3:55-4:40

**MARINA WALTHER-ANTONIO**

Assistant Professor of Surgery, College of Medicine, Mayo Clinic

Microbiome Signature in Endometrial Cancer

- Endometrial microbiome can be used to identify patients with endometrial cancer
- Vaginal microbiome can be used as a proxy of the endometrial microbiome to identify patients with malignancy
- In search of a microbiome predictor. Can we identify patients on a carcinogenic path?

4:20-4:45

**JISOO PAE**

CEO, Genome & Company

Microbiome as a New Treatment Modality for Immunooncology

- Science in the field of immuno-onco-probiotics.
- Genome and Company's development strategy, pipeline and development status.

3:40-3:55

**ARJAN NARBAD**

Professor & Research Leader, Institute of Food Research, UK

Title TBC

3:55-4:40

**SARAH O'FLAHERTY**

Senior Research Scientist, Department of Food, Bioprocessing and Nutrition Sciences, North Carolina State University

Building and exploiting the genetic engineering toolbox in lactobacilli

- Overview and update of molecular tools in the CRISPR era
- Using these tools to understand and enhance colonization
- Applying these tools to build a lactobacilli vaccine platform

4:20-4:45

**PETER LEE**

Founder & Executive Chairman, Osel inc.

Restoring the Vaginal Microbiome to Prevent/Treat Urogenital Infections

- The human vaginal microbiome is unique and important for vaginal health
- Vaginal dysbiosis is associated with common infections: bacterial vaginosis, recurrent urinary tract infection, candidiasis
- Recent data also demonstrate that the vaginal microbiome is important in In Vitro Fertilization (IVF) success rate and preterm birth risk
- Novel approaches beyond antibiotics are needed to restore the healthy vaginal microbiome in women with dysbiosis

4:45-5:10

5:10

Conference Close



Paradise Point Resort & Spa,
 1404 Vacation Road, San Diego, CA 92109
www.paradisepoint.com

Paradise Point, San Diego's island resort, is a private 44-acre island tucked away on gentle Mission Bay, minutes from the heart of downtown San Diego and adjacent to the famous SeaWorld San Diego. This San Diego hotel located near SeaWorld features comfortable, California beach bungalow-style guest rooms amidst lush, tropical gardens and meandering lagoons. Perfect for families, weddings, groups and conferences, this Southern California resort features over 460 guestrooms, including everything from spacious suites to lanai patio and garden rooms. You're sure to relax comfortably in our tranquil bayside bungalows, featuring breezy patios with striking views.

Though the resort is home to an array of diverse dining options, Paradise Point's critically acclaimed restaurant Tidal is not to be missed. Perched above Mission Bay's shoreline, Tidal is where craft and catch converge in a thoughtful selection of local seafood, seasonal ingredients and craft beverages. The waterfront eatery has been named one of the top 10 restaurants in San Diego by Zagat and one of the top 100 in the U.S. by OpenTable.

This spa resort in San Diego also features the world-class, island-themed The Spa at Paradise Point, which offers massages and treatments for the body and face from the most exotic islands around the world, plus a salon and state-of-the-art fitness center.

There is a guaranteed rate at the venue available through Global Engage.



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