## PROBIOTICS, PREBIOTICS & NEW FOODS, NUTRACEUTICALS AND BOTANICALS for NUTRITION & HUMAN and MICROBIOTA HEALTH

## SCIENCE & BUSINESS SYMPOSIUM

# THE ELEVENTH EDITION WILL BE ABOUT

#### NEXT-GEN PROBIOTICS, PREBIOTICS AND POSTBIOTICS: WHO, WHAT & WHY?

#### **Probiotics**

This session will underline the advances of research and clinical applications of probiotics, stimulating the discussion on:

- Probiotics 2.0: new indications
- Revision of clinical studies
- Novel formulations and delivery systems
- Regulatory

#### **Prebiotics**

The composition and function of host gut microbiota can be impacted through the consumption of prebiotics. This session will review the definition of prebiotic and elaborate future frameworks for product development, encouraging the discussion on:

- Criteria for the classification of prebiotics
- New baseline for prebiotic innovation
- Discussion on the chances of prebiotics to improve gut heath
- Regulatory

#### **Postbiotics**

Metabolomics is increasing the evidence that postbiotics have a role similar to that of probiotics in maintaining health. The discussion will focus on:

- How to better understand the role of bacterial metabolites
- Applications to the food, nutrition and nutraceutics
- Audit of well-studied postbiotic ingredients
- Discussing pathways and health benefits
- Regulatory

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#### THE GUT MICROBIOTA, FOOD SCIENCE, AND HUMAN NUTRITION

- Microbiota-host crosstalk and intestinal microbiota signaling to extraintestinal organs
- Food botanicals microbiota interactions
- Effective therapeutic strategies to manipulate the gut microbiota
- Mobilome: the dynamic of gut microbiota
- Is it possible to modulate the quality and diversity of human microbiota?
- Is it possible to induce durable beneficial changes in gut microbiota?
- How to better understand the role of bacterial metabolites?
- Gut microbiota and development of diseases
- Gut microbiota and host defense against infectious diseases
- Gut-bone marrow axis
- Gut skin axis
- Mucosal microbiota in genito-urinary and respiratory systems
- · Gut microbiota and the immune system: from allergies to cancer
- Gut microbiota and gut secretory IgA in systemic metabolism
- Gut microbiota and tryptophan metabolism
- Gut microbiota and chemosensing mechanisms
- Gut mycobiota in immunity and inflammation
- SCFA: gut hormone release, digestive tract motility and appetite control
- Gut microbiota and metabolic syndrome

#### **GUT BRAIN AXIS**

Many preclinical and clinical studies demonstrate gut-brain mechanisms of action in neurological disorders.

- It is important to define what the bacterial metabolites are and which influence they have on the gut-brain axis communication and cognitive processes at multiple levels, and how do they operate in molecular mechanisms
- It is necessary to implement and translate these data into therapeutic trials delineating the role of the gut microbiota, diet and metabolites to prevent disease progression in, Autism, Depression, Parkinson, Alzheimer

#### **BOTANICALS, MICROBIAL MEDIATORS AND INTESTINAL HOMEOSTASIS**

- Botanicals impact the gut microbiome and intestinal homeostasis
- Exosome-like nanoparticles (ELNs) mediate communication with gut microbiota
- The impact of botanicals and fibers on the fermentation capabilities of gut microbiota:
  - Why does the same dietary fiber impact the composition of the microbiota differently in different people?
  - Do different people produce different metabolites from the same dietary fiber input?
  - Is it possible to devise personalized nutrition strategies?
- Botanicals and Immunity

#### **PROBIOTICS, PREBIOTICS AND BOTANICALS IN HEALTH AND IN DISEASES**

- Gastro-intestinal diseases
- Gut liver axis
- Gut kidney axis
- Gut skin axis
- Obesity, DiabetesType-2, Metabolic Syndrome

#### Intestinal Microbiota Transplantation: Clostridium difficile and beyond

#### **PROBIOTICS FOR SPORT NUTRITION**

- A healthy gut and an improved immune system are key factors to help overtake the competition
- Are gut microbiota modification a benefits for physical exercise in health?

#### **IMMUNO-ONCOLOGY & GUT MICROBIOTA**

Gut virome & phage therapy From lab bench to bedside: positioning microbiome analysis for clinical utility

#### WOMEN MICROBIOME: A DIFFERENT WAY TO FEEL HEALTHY

- Vaginal microbiome in menopause
- Gut-urogenital axis (cross link with gastroenterologists)
- Vaginal microbiome diseases & probiotics treatments in gynecology (women perceptions and feelings)
- Vaginal microbiome transplantation (new frontiers)

#### **PROBIOTICS REGULATORY AND OUTREACH SEMINAR**

- Global and IPA work
  - Brazil, USA, China, Argentina, Canada, etc...
- IPA EU and work from Brussels
- IPA TF Work at CODEX
  - Wrapping it all up
- IPA Outreach and Communication
  - Educating the educators; Outreach and Communication to the Universities, HCp's and Media
  - Insights and How to?
- Research and Clinicals

#### **EARLY MICROBIOTA COLONIZATION**

**By BINC Foundation** 

#### **ANIMAL NUTRITION & HEALTH**

- Animal health as a fundamental part of "One Health" concept
- · Go beyond Antibiotics: probiotics and prebiotics in livestock farming
- Regulatory Rules
- Novel food for animal nutrition

#### **GLOBAL PREBIOTIC ASSOCIATION WORKSHOP**

- Understanding the prebiotic market: Market trends and sizing
- Beyond digestion: Exploring the role of prebiotics outside the gut
- Developing standards of evidence for novel and established prebiotic mechanisms
  - Outlining 'established' mechanisms of action
  - How can we assimilate 'emerging' evidence and new mechanisms?
- · Examining the prebiotic effects of dietary polyphenols
- From traditional foods to designer carbohydrates: The search for novel prebiotic sources
  - Identification of novel prebiotics from 'traditional foods', processing by-products & waste streams
    - New technologies to create 'designer' prebiotics

#### **OPHTHALMOLOGY**

• The eye microbiome: from bench research to clinical diagnostic applications

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