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Programme

Monday / June 27

Opening ceremony

SYMPHONY & RHAPSODY, 08:40–09:00

Plenary Speaker: Sin-Hyeog Im (Korea Republic)

Invited Speaker: Norbert Bomba (Slovakia)

Session 1: Microbiota Protection and Resilience: Part I

Chair: Koen Venema, Co-chair: Hania Szajewska

SYMPHONY & RHAPSODY, 09:10–10:30

09:10 Koen Venema (Netherlands)

O01 - How interindividual microbiota composition complicates outcomes of functional food trials – or does it?

09:50 Hania Szajewska (Poland)

O02 - What is new in guidelines on the use of probiotics and why do guidelines sometimes differ?

10:30–11:00 Coffee Break

Regulatory Workshop: Part 1: Current EFSA Requirements for Probiotics in Food & Feed

CARLTON HALL, 09:00–10:30

Invited Speaker: Laura Payo (Spain)

O03 - Current EFSA Requirements for Probiotics in Food & Feed. Implications of the Transparency Regulation

For a regulatory update, be sure not to miss Caroline Idowu and Laura Payo's regulatory workshop at the International Scientific Conference on Probiotics, Prebiotics, Gut Microflora and Health (IPC2022), which will be held on the 27th of June in Bratislava, Slovakia. This interactive workshop has been designed to give practical advice on the requirements to register microbial products for human food and animal feed in the EU. If you are a regulatory or project manager, R&D scientist, marketing or business development manager be sure to attend to understand how to comply with the latest changes following the transparency regulation, such as handling confidentiality requests and study notifications.

Session 2: Microbiota Protection and Resilience: Part II

Chair: Koen Venema, Co-chair: Hania Szajewska

SYMPHONY & RHAPSODY, 11:00–12:30

11:00 Jozsef Peter Pallos (Hungary)

O04 - Nystatin for Candidiasis and COVID-19: Killing Two Noxious Birds with One Stone

11:15 Ana Lúcia B. Penna (Brazil)

O05 - Changes in Metabolism and Microbiota in Mice Fed with Probiotic Fermented Milk with Fruit Pulps

11:30 Ezhil Arasan Ramanan (India)

O07 - Comparative Evaluation of Bifilac Clausi with Enterogermina and other Bacillus Clausii formulations

11:45 YSA: Robie Vasquez (Korea Republic)

O08 - Supplementation of Novel Probiotics, Limosilactobacillus mucosae LM1, Increased Fecal SCFA in Growing Pigs Through Gut Microbiome Modulation

12:00 Carly Amato-Menker (USA)

O09 - The Collaborative Influence of the Sex Chromosome Complement and Gut Microbiome on Humoral Immunity



Part 2: Implications of the Transparency Regulation

CARLTON HALL, 11:00–12:30

Invited Speaker: Caroline Idowu (Spain)

Implications of the transparency regulation

For a regulatory update, be sure not to miss Caroline Idowu and Laura Payo's regulatory workshop at the International Scientific Conference on Probiotics, Prebiotics, Gut Microflora and Health (IPC2022), which will be held on the 27th of June in Bratislava, Slovakia. This interactive workshop has been designed to give practical advice on the requirements to register microbial products for human food and animal feed in the EU. If you are a regulatory or project manager, R&D scientist, marketing or business development manager be sure to attend to understand how to comply with the latest changes following the transparency regulation, such as handling confidentiality requests and study notifications.

12:30–13:30 Lunch Break

Session 3: Bacteriocins and Antimicrobial Peptides Symposium: Part I

Chair: Svetoslav Todorov, Co-chair: Michael Chikindas

SYMPHONY & RHAPSODY, 13:30–16:00

13:30 Plenary Speaker: Svetoslav Todorov (Korea Republic)

O10 - Focus on human and veterinary medicine: From the detection to elimination of the vancomycin-resistant enterococci by lactic acid bacteria's bacteriocins

14:20 Michael Chikindas (USA)

O11 - Bacteriocin Producing Probiotics for Control of Pathogens in Farming Animals

15:00 Dzung Diep (Norway)

O12 - Therapeutic Perspectives of Bacteriocins

15:40 Invited Speaker; YSA: Ivy Fugaban (Korea Republic)

O13 - Enterococci-produced antimicrobials: antimicrobial and antifungal properties

Hands-on Workshop

CARLTON HALL, 13:30–16:00

EpilIntestinal is an in vitro tissue model generated from healthy human cells that mimics morphology and physiology of intestinal epithelium. It has been used in many areas to study the functions associated with small intestine including toxicity, drug and nutrient absorption and metabolism, gastrointestinal infection, basic handling of the model, including the cultivation techniques, measurement of barrier integrity, test article application, setup of permeation assay and tissue to practice the demonstrated techniques with actual tissue models. The workshop is suitable for those who have an experience with other in vitro models as well using the in vitro models in their research.

16:00–16:30 Coffee Break

Session 4: Bacteriocins and Antimicrobial Peptides Symposium: Part II

Chair: Svetoslav Todorov, Co-chair: Michael Chikindas

SYMPHONY & RHAPSODY, 16:30–17:45

16:30 Emília Dvorožňáková (Slovakia)

O14 - Lymphocyte Subpopulations Changes in the Small Intestine of Mice after Enterococci/Enterocins Treatment and Trichinella spiralis Infection

16:45 Shakhlo Miralimova (Uzbekistan)

O15 - Bacteriocins of Lactic Acid Bacteria for Dermatology

17:00 YSA, Thomas Førlund Oftedal (Norway)

O16 - Genome-assisted identification, purification and characterization of a novel bacteriocin

17:15 Jacob Scadden (United Kingdom)

O17 - Investigating the Regulation of the Nisin O Biosynthetic Cluster in the Human Gut Bacteria, Blautia Obeum

17:30 Aleksandra Tymoszevska (Poland)

O18 - A New Family of Man-PTS-Targeting Bacteriocins

Immunology Education Workshop

CARLTON HALL, 16:30–18:05

Plenary Speaker: Sin-Hyeog Im (Korea Republic)

Key concepts in immunology to understand the crosstalk between probiotics and the host's immune system

Intestinal microbiota plays a critical role in the modulation of human health. Dysregulation of the commensal flora is closely linked to functional changes in the immune system and subsequently contributes to the development of immune disorders. Probiotics are considered prophylactic or therapeutic modalities to restore the homeostasis of the host immune system. However, the efficacy of probiotics is strain specific and shows great variation even within the same species. Recent studies also suggest that taking inappropriate strains of probiotic strains could exacerbate ongoing immune disorders when patients or experimental animals are in the process of disease development. Thereby providing tailored probiotic strain(s) is essential to people who are in the stage of disease development. How can we identify and characterize the properties of specific probiotic strains? What are the effector molecules and their mode of action of them? How to prove efficacy? How do probiotics crosstalk with the host's immune system? To answer these questions, I will discuss the essential concept in immunology, especially the role of antigen-presenting cells, T helper cell differentiation, and effector molecules (e.g, cytokines, chemokines). In addition, I will discuss some of my own results that how we identified immune-stimulatory or immune regulatory probiotic strains and their effector molecules as potential live therapeutic products. I believe that by attending this education workshop we will learn the essential concept of immunology to understand the crosstalk network between probiotics and the host's immune system.

18:05–18:35 Welcome Drink

Tuesday / June 28

Session 5: Future of the Field

Chair: Sin-Hyeog Im

SYMPHONY & RHAPSODY, 09:00–11:00

- 09:00 Plenary Speaker: Sin-Hyeog Im (Korea Republic)
O19 - Probiotics on the border between functional food and pharmabiotics
- 09:50 Invited Speaker: Amandine Brochot (Belgium)
O20 - Akkermansia muciniphila from bench to bedside
- 10:10 Nadiya Boyko (Ukraine)
O21 - Microbiome Data and Strategy of 3P Medicine, Introduction of the First Exploitation Guide
- 10:30 Thomas Berngruber (Germany)
O22 - Self-sufficient in-vivo production of specialized pro-resolving lipid mediators by synbiotic application of Bacillus megaterium DSM 32963 and polyunsaturated fatty acids
- 10:45 Catherine Michel (France)
O83 - Could The Presence of the Quorum Sensing Inducers AI-2 in Bacteria-Enriched Foods Affect the Composition of the Gut Microbiota?

11:00–11:30 Coffee Break

Session 6: Beyond Probiotics with postbiotics and phages

Chair: Sin-Hyeog Im, Co-chair: Nadiya Boyko

SYMPHONY & RHAPSODY, 11:30–12:00

- 11:30 YSA, Xiaohui Huang (Italy)
O23 - Characterization of Cell-free Supernatant Mixture Obtained from Cultures of Lactobacilli Strains with Antimicrobial Efficacy
- 11:45 YSA, Molly Millar (United Kingdom)
O24 - Mechanistic Investigation into Potential Benefits of the Gut Commensal Genus Bifidobacterium Utilising Resistant Starch as a Prebiotic Fibre



Session 7: Live Biotherapeutic Products

SYMPHONY & RHAPSODY, 12:00–12:45

- 12:00 Claudia Cappello (Italy)
O25 - A Novel Functional Herbal Tea Containing Probiotic Bacillus Coagulans GanedenBC30: an In Vitro Study Using the SHIME Model
- 12:15 Corinne Grangette (France)
O26 - Characterization of New Gut Microbiota-Derived Commensal Candidate Strains as Live Biotherapeutics Against Obesity and IBD
- 12:30 Hyeji Kang (Korea Republic)
O27 - Mining Functional Probiotics Protecting Against Inflammatory Bowel Disease

12:45–13:45 Lunch Break

Session 8: Panel Discussion – Live Biotherapeutic Products

Chair, moderator: Bruno Pot

SYMPHONY & RHAPSODY, 13:45–14:45

Invited Speaker:

Plenary Speaker: Sin-Hyeog Im (Korea Republic)

Plenary Speaker: Nina Vinot (France)

Invited Speaker - ILSI: George Paraskevacos (Canada)

Session 9: Dietary Interventions: Scientific Approach to Diet, Personalized Nutrition in Healthcare, Fermented Foods, Prebiotics: Part I

Chair: Hans van der Saag, Co-chair: Martin Haranta

SYMPHONY & RHAPSODY, 14:45–15:35

- 14:45 Chair; YSA: Martin Haranta (Slovakia)
O28 - Personalised and Targeted Microbiome Modulation – How Far We Are
- 15:00 Invited Speaker: Petr Ryšávk (Czech Republic)
O29- Probiotic supplementation as a new way of preventing the serious course of covid-19
- 15:15 Invited Speaker: Sean Gibbons (United States)
O30 - Leveraging the microbiome to predict personalized responses to dietary, prebiotic, and probiotic interventions

15:35–16:05 Coffee Break

Session 10: Dietary Interventions: Scientific Approach to Diet, Personalized Nutrition in Healthcare, Fermented Foods, Prebiotics: Part II

Chair: Hans van der Saag, Co-chair: Martin Haranta

SYMPHONY & RHAPSODY, 16:05–18:00

- 16:05 Invited Speaker: Roman Gardlík (Slovakia)
O31 - Fecal Microbiota Transplantation as a Tool for Therapeutic Modification of Diseases
- 16:25 Invited Speaker: Peter Celec (Slovakia)
O32 - Fecal microbial transplantation between sexes in rats
- 16:45 Invited Speaker: Hans van der Saag (Netherlands)
O33 - Arabinoxylan; a Prebiotic with Metabolic and Immune Effects
- 17:05 Invited Speaker: Emanuela Simonetti (Italy)
O34 - Impact of a KAMUT® Khorasan Wheat-based Diet on the Gut Microbiota Evaluated in Human Clinical Trials
- 17:25 Invited Speaker; YSA: Mônica Maurer Sost (Netherlands)
O35 - Gut microbiota modulation of healthy subjects by asparagus officinalis dietary fibers
- 17:45 Eric Daliri (Lithuania)
O36 - Development of an Antidiabetic Functional Product From Beet Root That Modulates Gut Microbial Dysbiosis

19:30–20:30 Beer Scouting with organisers (informal exploration of close vicinity)

Wednesday / June 29

Session 11: Animal Health Symposium: Part I

Chair: Ajay Awati

CARLTON HALL, 09:00–10:40

- 09:00 Chair: Ajay Awati (Germany)
O37 - Animal gut health – how far we are?
- 09:40 Ahmad Amin (Czech Republic)
O39 - Interaction of Bifidobacteria with Granadaene Producing Lactococci with Zoonotic Potential
- 09:55 Magdaléna Crhánová (Czech Republic)
O40 - Comparison of Gut Microflora of Indoor Chickens in Commercial Production and Outdoor, Backyard Chickens
- 10:10 Charlotte Deschamps (France)
O41 - Development of a mucin-associated in vitro model of the dog large intestine with size-specific set-up
- 10:25 Mangala Lakshmi Ragavan (India)
O48 - Dietary supplementation of probiotic yeast in aquatic animals to promote their growth and immune responses

Session 12: Gut-Health Axis: Part I

Chair: Wilhelm Heinrich Holzapfel, Co-chair: Gerard Clarke

SYMPHONY & RHAPSODY, 09:00–10:40

- 09:00 Prof. Gerard Clarke (Ireland)
O43 - Therapeutic Targets in the Microbiota-gut-brain Axis
- 09:50 Invited Speaker - ILSI: Colette Shortt (United Kingdom)
O44 - Gut brain axis: looking ahead
- 10:10 YSA: Yuri Lee (Korea Republic)
O45 - Verification of the Anti-depressive Effect of Lactiplantibacillus plantarum APsulloc331261 in vivo
- 10:25 YSA: Hye-Shin Kim (Korea Republic)
O46 - Oral Administration of Lactiplantibacillus plantarum APsulloc331261 Inhibits Mucin Hypersecretion by Stimulating Butyrate Production in a Murine Allergic Airway Inflammation Model

10:40–11:10 Coffee Break

Session 13: Animal Health Symposium: Part II

Chair: Ajay Awati

CARLTON HALL, 11:10–12:10

- 11:10 Damien Preveraud (France)
O47 - Investigation of the Metabolite Profile of Bacillus Subtilis DSM 29784 and its Activity for Broiler Chickens
- 11:25 YSA: Bushra Abu-Helil (United Kingdom)
O38 - Variation of the broiler gastrointestinal tract at 13 days post hatching
- 11:40 YSA: Abubakar Siddique (Pakistan)
O49 - Lactobacillus reuteri and Enterococcus faecium from Poultry Gut Reduce Mucin Adhesion and Biofilm Formation of Cephalosporin and Fluoroquinolone-Resistant Salmonella enterica
- 11:55 Michal Zeman (Czech Republic)
O50 - Metabolism of Selected Members of Chicken Gut Microbiota In vivo



Session 14: Gut-Health Axis: Part II

Chair: Wilhelm Heinrich Holzapfel, Co-chair: Gerard Clarke

SYMPHONY & RHAPSODY, 11:10–12:20

11:10 Adrienne Weiss (Netherlands)

O51 - The Gut-Bone Axis: Bifidobacterium Lactis Strain BL-99 Reduces Intestinal Inflammation and Osteoporosis

11:25 Peter C. Konturek (Germany)

O52 - Role of Gut Liver Axis: From Bench to Bedside

12:05 Nina Vinot (France)

O53 - Precision Probiotics Development Journey Through a Target-Based Approach: 2 Examples of Molecular Mimetics in the Gut-Brain Axis

12:20–13:20 Lunch Break

Session 15: Clinical Day for Medical Professionals: Part I

Chair: Arthur Ouwehand, Co-chair: Irina Spacova

SYMPHONY & RHAPSODY, 13:20–15:05

13:20 Arthur Ouwehand (Finland)

O55 - Updated concise monograph on dietary probiotics, prebiotics and the gut microbiota in human health

13:40 Invited Speaker: Yala Stevens (Netherlands)

O56 - Clinical & Mechanistic Research on Flavobiotics

14:00 Invited Speaker: Irina Spacova (Belgium)

O57 - Selection and Application of Topical Probiotics Against Respiratory Diseases

14:20 Ezhil Arasan Ramanan (India)

O59 - Functional Abdominal Pain of Children: Therapy with Bacillus Coagulans GBI 30, 6086 and Insight into Its Probiotic Properties

14:35 Mahir Jallo (United Arab Emirates)

O60 - Intestinal Flora & Gestational Diabetes. Where We are in 2022?

14:50 Iveta Garaiova (United Kingdom)

O62 - Effect of Lab4 probiotic and vitamin C combination on antibiotic prescription in children: a randomised controlled trial

15:05–15:25 Coffee Break

Session 16: Clinical Day for Medical Professionals: Part II

Chair: Arthur Ouwehand, Co-chair: Irina Spacova

SYMPHONY & RHAPSODY, 15:25–17:10

15:25 YSA: Ipek Cicekli (Turkey)

O61 - Efficiency and Feasibility of Gluten-free Casein-free Diet in Autism Spectrum Disorders

15:40 YSA: Chiara Salvesi (Italy)

O63 - Probiotic Foods and Dietary Supplements for Supporting Healthy Ageing: PROBIOSENIOR Project

15:55 Javier Martin Ramirez (Spain)

O64 - Pediococcus acidilactici pA1c® Probiotic for Diabetes Control

16:10 Eline Klaassens (Netherlands)

O65 - A dedicated pipeline for strain level classification reveals positive effects of synbiotic infant formula on the infant microbiome

16:25 Tomotoshi Sugita (Japan)

O66 - Efficient Production of Human Milk Oligosaccharide Lacto-N-fucopentaose III in Engineered Escherichia coli

16:40 Saskia van Hemert (Netherlands)

O67- The potential of probiotics for relieving symptoms of autism spectrum disorders

16:55 Ravidarshdeep Kaur (India)

O06 - Influence of Heavy Metal Exposure on Gut Microbiota

20:00–23:00 Conference dinner

Thursday / June 30

Session 17: New Strains & Mechanisms of Action: Part I

Chair: *Gwenael Jan*, Co-chair: *Benjamin Jensen*

SYMPHONY & RHAPSODY, 09:00–10:25

- 09:00 Invited Speaker: Gwenael Jan (France)
O68 - The dairy probiotic bacterium *Propionibacterium freudenreichii* against colitis and mucositis: a key role of the surface layer protein SlpB
- 09:20 Invited Speaker: Benjamin Jensen (Denmark)
O69 - Ecology and physiology of the small intestine versus colon; potential consequences for probiotic administration?
- 09:55 Bobae Kim (Korea Republic)
O72 - Comprehensive Study of *Lactobacillus fermentum* 858 on Attenuation of Inflammatory Bowel Disease in Dextran Sulfate Sodium (DSS)-induced Colitis
- 10:10 Dong-Yeon Kim (Korea Republic)
O73 - Oral administration of *Lactobacillus sakei* CVL-001 protects mice from dextran sodium sulfate-induced colitis through microbiota modulation

Hands-on Workshop

CARLTON HALL, 09:15–10:40

EpilIntestinal is an in vitro tissue model generated from healthy human cells that mimics morphology and physiology of intestinal epithelium. It has been used in many areas to study the functions associated with small intestine including toxicity, drug and nutrient absorption and metabolism, gastrointestinal infection, basic handling of the model, including the cultivation techniques, measurement of barrier integrity, test article application, setup of permeation assay and tissue to practice the demonstrated techniques with actual tissue models. The workshop is suitable for those who have an experience with other in vitro models as well using the in vitro models in their research.

Session 18: Models to Study Intestinal Interactions: Part I

Chair: *Gwenael Jan*, Co-chair: *Benjamin Jensen*

SYMPHONY & RHAPSODY, 10:25–10:40

- 10:25 Stéphanie Blanquet-Diot (France)
O74 - Development and validation of an in vitro colonic model of gut microbiota dysbiosis associated to obesity
- 10:40–11:00 Coffee Break

Hands-on Workshop

CARLTON HALL, 11:00–12:05

EpilIntestinal is an in vitro tissue model generated from healthy human cells that mimics morphology and physiology of intestinal epithelium. It has been used in many areas to study the functions associated with small intestine including toxicity, drug and nutrient absorption and metabolism, gastrointestinal infection, basic handling of the model, including the cultivation techniques, measurement of barrier integrity, test article application, setup of permeation assay and tissue to practice the demonstrated techniques with actual tissue models. The workshop is suitable for those who have an experience with other in vitro models as well using the in vitro models in their research.

Session 19: New Strains & Mechanisms of Action: Part II

Chair: *Gwenael Jan*, Co-chair: *Benjamin Jensen*

SYMPHONY & RHAPSODY, 11:00–11:15

- 11:00 YSA: Roxana Angelescu (Romania)
O70 - The Characterization and Biological Role of Surface-Layer Proteins Produced by *Lb. helveticus* 34.9



Session 20: Models to Study Intestinal Interactions: Part II

Chair: *Gwenael Jan*, Co-chair: *Benjamin Jensen*

SYMPHONY & RHAPSODY, 11:15–11:45

11:15 Jade Davies (United Kingdom)

O75 - Breaking Bad: what triggers commensal sulphite-reducing bacteria to damage gut health?

11:30 YSA: Mateus Salgaço (Brazil)

O78 - Influence of *Lactobacillus acidophilus* – LA5 on the composition of the gut microbiota of type 2 diabetics using the SHIME®

Session 21: Clinical Studies and Efficacy: Part I

Chair: *Gwenael Jan*, Co-chair: *Benjamin Jensen*

SYMPHONY & RHAPSODY, 11:45–12:15

11:45 Kippeum Lee (Korea Republic)

O86 - Effects of *Lactobacillus curvatus* HY7601 and *Lactobacillus plantarum* KY1032 on Overweight and Gut Microbiota in Human

12:00 Lucie Etienne-Mesmin (France)

O87 - Use of a Fiber-based Strategy to Mitigate Virulence of Enterotoxigenic *Escherichia coli* Food-borne Pathogen Responsible for Travelers' Diarrhea

Session 22: Formulation and Production: Growing and Drying: Part I

Chair: *Gwenael Jan*, Co-chair: *Benjamin Jensen*

SYMPHONY & RHAPSODY, 12:15–12:45

12:15 Paraskevi Somalou (Greece)

O81 - Novel Functional Food Ingredients Based on Immobilized *Lactiplantibacillus pentosus* Cells

12:30 YSA: Karina Arellano Ayala (Korea Republic)

O82 - Study of Probiotic Safety, Functionality and Reactivation of Freeze-Dried Dormant Cells

12:45–13:45 Lunch Break

Session 23: Formulation and Production: Growing and Drying

Chair: *Vincenzo Cesi*, Co-chair: *Arthur Ouwehand*

SYMPHONY & RHAPSODY, 13:45–14:25

13:45 Vincenzo Cesi (Italy)

O80 - *Lactobacillus Reuteri* Grows in the Microalga *Isochrysis Galbana* Generating a Fermented Product That Reduces the AIEC Bacteria Harmfulness

Session 24: New Methods & New Equipment – Applications in Probiotic and Prebiotic Research

Chair: *Vincenzo Cesi*, Co-chair: *Arthur Ouwehand*

SYMPHONY & RHAPSODY, 14:25–14:40

14:25 Nassima Illikoud (France)

O79 - Do probiotic dairy starters adapt to vegetable milks?

14:40–15:00 Coffee Break

Session 25: Clinical Studies and Efficacy: Part II

Chair: Vincenzo Cesi, Co-chair: Arthur Ouwehand

SYMPHONY & RHAPSODY, 15:00–16:10

- 15:00 Arthur Ouwehand (Finland)
O84 - Designing and performing better human trials in probiotic research
- 15:40 Claus Christophersen (Australia)
O85 - Does Fibre-Fix help IBS patients consuming a low FODMAP diet to improve their gut health/microbiome, sleep and mental health?
- 15:55 Francisco Javier Hidalgo Bermejo (Spain)
O88 - Efficacy and Safety of a 7-Multistrain Synbiotic to Improve Acute Viral Diarrhea in Children. PRODINFANT Study

Session 26: Models to Study Intestinal Interactions: Part III

Chair: Vincenzo Cesi, Co-chair: Arthur Ouwehand

SYMPHONY & RHAPSODY, 16:10–16:40

- 16:10 Jan Markus (Slovakia)
O77 - Reconstructed 3D Human Small Intestine Tissue Model for Assessment of Substance Bioavailability and Safety
- 16:25 Orsolya Farkas (Hungary)
O76 - In Vitro Porcine Intestinal Co-Culture Model to Study the Effect of Enterococcus faecium in Escherichia coli and Salmonella Typhimurium Infection

Session 27

SYMPHONY & RHAPSODY, 16:40–17:30

- 16:40–17:00 **Young Scientist & Best Poster Awards**
- 17:00–17:30 **Closing session & Farewell drink**
 Sin-Hyeog Im
 Wilhelm Heinrich Holzapfel