

17TH

WORLD
CONGRESS

Polyphenols Applications

September 19-20, 2024

► University of Milan, Italy

Agenda



Polyphenols
APPLICATIONS

17th World Congress on Polyphenols Applications

September 19-20, 2024 – Università degli Studi di Milano Statale, Milan, Italy

Day 1 – September 19, 2024

8h00 **Welcoming of Attendees – Registration**

8h50 **Introduction of Polyphenols Applications 2024**

Jan Frederik Stevens, *President of Polyphenols Applications, Oregon State University, USA*

Sabrina Dallavalle, *President of the Local Organizing Committee, University of Milan, Italy*



9h00 **Why Demonstrating the Health Benefits of Polyphenols isn't Easy: Considerations on Experimental Design to Enhance the Impact of Future Polyphenols Research**

Daniele Del Rio, *University of Parma, Italy*

Session 1: Polyphenols in Health & Diseases: Mechanistic Insights & Perspectives

Chairs: Jan Frederik Stevens, Cristian Del Bo'



9h30 **Towards the Potency of Anthocyanin-Rich Extracts to Alleviate Side Effects of Chemotherapy**

Doris Marko, *University of Vienna, Austria*



9h55 **Antiviral Activity of Polyphenols: Latest Developments**

Sascha Venturelli, *University of Hohenheim, Germany*

10h20 - Coffee Break, Poster Session & Networking



11h00 **Polyphenols and the Enteroendocrine System: Implications for Obesity**

Anna Ardévol, *Universitat Rovira i Virgili, Spain*



11h25 **Effects of Polyphenols on Diabetes: A Mechanistic Insight**

Sonia Ramos Rivero, *ICTAN-CSIC, Spain*



11h50 **Interplay between Phenolic Compounds and Biological Rhythms**

Begoña Muguerza, *Universitat Rovira i Virgili, Spain*

12h15 **Short Oral Presentations (8 + 2 min)**

Flavonol and Hydroxybenzoic Acid Intake is Prospectively Associated with Depressive Symptoms in Young Australian Adults

Elizabeth Gamage, Deakin University, Australia

Increased Risk Factors of Cardiometabolic Diseases are Associated with Low-Polyphenols Intake and Pro-Inflammatory Diets

Óscar Javier Lara Guzmán, Vidarium–Nutrition, Health, and Wellness Research Center, Colombia

12h35 - Lunch Break, Poster Session & Networking

Session 2: Polyphenols, Microbiota & Metabolites: Recent Advances & Translation

Moderators: Juan Carols Espin, Michael Gänzle



14h00 Coevolutionary Role of Host and Gut Microbiota in Polyphenol Health Effects: Metabotypes and Precision Health

Juan Carlos Espin, Spanish National Research Council, Spain



14h25 2-Ene Reductases of Lactobacilli, an Unexpected Diversity of Enzymes for Conversion of Phenolic Compounds

Michael Gänzle, University of Alberta, Canada



14h50 Lactobacillus-Fermented Fruit and Vegetable Juices Attenuate Amyloid-Beta Proteotoxicity in an Alzheimer's Disease Model of the Nematode *Caenorhabditis elegans*

Gunter Peter Eckert, Justus-Liebig University of Giessen, Germany

15h00 **Short Oral Presentations (8 + 2 min)**

Interplay Between Gut Microbiota and Phenolic Compounds in Colon Cancer Prevention

Alice Cattivelli, University of Modena and Reggio Emilia, Italy

***Humulus lupulus* L. (Hops) Specialized Metabolites: Pharmacological Effects and Binding Interactions with Gastrointestinal Bitter Taste Receptors**

Luigi Milella, University of Basilicata, Italy

Effect of a Polyphenol and Fiber-Enriched Maternal Diet on Immune Response Programming of Wistar Rats

Sergi Casanova Crespo, University of Barcelona, Spain

15h30 - Coffee Break, Poster Session & Networking

Moderators: Daniela Martini, Andrea Pinto

16h15 **Short Oral Presentations & Pitch on Polyphenols Innovations (8 + 2 min)**

The Molecular Basis of the Degradation of Flavan-3-Ols by the Human Gut Bacterium *Eggerthella lenta*

Pascale Mosoni, Université Clermont Auvergne, INRAE, France

The Impact of Selected Microbial Starters on the Polyphenols Content in Fermented Vegetable Foods

Gianluca Bleve, Consiglio Nazionale delle Ricerche, Italy

Using Artificial Intelligence when Assessing the Bioavailability and Cardiometabolic Impact of Dietary Polyphenols

Pedro Mena, University of Parma, Italy

Hydroxycinnamic Acids and Related Polyamines in Cereal Grains: Chemical Diversity and Implications of Phenolamides in Human Health

Trust Beta, University of Manitoba, Canada

Curcumin Functionalized on Solid Lipid Microparticles against *Candida albicans* Biofilm

Cristina Catto', University of Milan, Italy

Age-Related Impact on Biotransformation of Olive Polyphenols

Stef Lauwers, University of Antwerp, Belgium

Olive Leaf Phenolics: The Impact on Ferroptosis in Cells

Gözde Seval Sözbilen, Olive Research Institute, Turkey

Unlocking the Power of Flow Biocatalysis for the Preparation of High-Value Natural and Nature-Inspired Polyphenols

Francesca Annunziata, Università degli Studi di Milano, Italy

Separation of Sorghum Polyphenols Based on Molecular Weight Indicates that Higher Molecular Weight Polyphenols Retain Greater Anti-Cancer and Anti-Glycation Activity

Dmitriy Smolensky, USDA-ARS, USA

Sex-Dependent Effects on the Absorption, Distribution, Metabolism, and Excretion of Grape Seed Proanthocyanins in Prepubescent Rats

Anna Arola-Arnal, Universitat Rovira i Virgili, Spain

Natural Feruloylamides and their Dimers: Chemoenzymatic Synthesis and Antimicrobial Activity

Denise Dozio, Università degli Studi di Milano, Italy

Cholesteroyl Phenolipids as Membrane Antioxidants

Fátima Paiva-Martins, University of Porto, Portugal

Diphenylether- And Biphenyl-Type Phlorotannins as Potential Antifungal Agents

Francesca Sacchi, Università degli Studi di Milano, Italy

Temporal Effects of Green Tea Extract on Postprandial Glucose and Insulin in Healthy Subjects

Noha Sulaimani, Monash University, Australia

18h35 **End of Polyphenols Applications Day 1**

20h00 **Polyphenols Applications 2024 Dinner (for ticket holders only)**

17th World Congress on Polyphenols Applications

September 19-20, 2024 – Università degli Studi di Milano Statale, Milan, Italy

Day 2 – September 20, 2024

8h00 Welcoming of Attendees - Registration

Session 3: Polyphenols & Food Research: Recent Advances

Moderators: Sabrina Dallavalle, Andreas Schieber



8h30 **Novel Developments on the Potential Application of Pyranoanthocyanin as Colorants**
Monica Giusti, Ohio State University, USA



8h55 **Polyphenols and Food Processing: The Critical Points**
Jianbo Xiao, Vigo University, Spain



9h20 **Polyphenols & Fermented Food: The Optimization**
Pasquale Filannino, University of Bari, Italy

9h45 **Short Oral Presentations (8 + 2 min)**

Polyphenol-Protein Interactions in Pigmented Cereals - A Clean-Label Approach to Tailor Starch Viscosity
Annegret Jannasch, University of Arkansas, USA

Extraction of Phenolic Compounds from *Perilla frutescens* using Choline Chloride – Based Deep Eutectic Solvents
Ana-Maria Mocanu, Dunărea de Jos University, Romania

Turning Sea Urchin Waste into Polyhydroxynaphtoquinone-Collagen Biomaterials
Stefania Marzorati, Università degli Studi di Milano, Italy

10h15 - Coffee Break, Poster Session & Networking

Session 4: Polyphenols Applications 2024: Clinical Applications and Future Directions

Moderators: Marvin Edeas, Alberto Davalos



11h00 **Polyphenols in Oncotherapy: Moving forward from the Bench to Clinical Applications**
José Estrela, University of Valencia, Spain



11h25 **Angiogenesis as a Target of Dietary (Poly)phenols and Derived Metabolites**
Juan A. Giménez-Bastida, CEBAS-CSIC, Spain



11h50 **Flavonoids & Critically ill Patients: From Experimental Study to Clinical Practice**
Wojciech Dabrowski, Medical University of Lublin, Poland

12h15 **Short Oral Presentations (8 + 2 min)**

Polyssacharide-Based Films Incorporating Pomegranate Anthocyanins as Intelligent Food Packaging Materials

Ângelo Luís, Universidade da Beira Interior, Portugal

Polyphenols as Active Ingredients in Innovative, Green, and Low Cost Active Wound Dressings

Sara Ferraris, Politecnico di Torino, Italy

12h35 - Lunch Break & Poster Session

Moderators: José Estrela, Mario Ferruzzi



13h30 **Contribution of Polyphenols in the Modulation of Intestinal Permeability: Targeting Mechanisms and Clinical Trials**
Cristian Del Bo, Università degli Studi di Milano, Italy



13h55 **Cardiose®, A Natural Flavonoid with Potential Health Benefits**
Teresa Pellicer, HealthTech Bioactives (HTBA), Spain



14h20 **Food-Derived Extracellular Vesicles as Nanocarriers of Bioactive Compounds: Therapeutic Potential**
Alberto Davalos, University of Madrid, Spain



14h45 **Resveratrol/Omega-3 Fatty Acids Association: Innovative Nutraceuticals to Counteract Ocular Diseases**
Dominique Delmas, University of Bourgogne, France



15h10 **Senolytic Drug and Polyphenol Combinations for Lung Disease**

Alessandra Gambero, Pontifical Catholic University of Campinas, Brazil *(Recorded, available on platform)*

Moderators: Elke Richling, Fabian Weber

15h10 **Short Oral Presentations & Pitch on Polyphenols Innovations (8 + 2 min)**

Targeting Senescence with an Extract of *Salvia haenkei* Extends Lifespan and Healthspan in Mice

Miles Sarril, University of Padova, Italy

Dietary Effects of Peanut Skin Extracts (PSE) on Hepatic Energy Reserves and Function in Mice Fed a Long-Term Atherogenic Diet

Ondulla Toomer, U.S. Department of Agriculture (USDA), USA

One-Week Daily Consumption of Hydroxytyrosol Modulates Circulating miRNAs Transported in Exosomes in Healthy Volunteers

María-Carmen López De Las Hazas, Instituto Madrileño de Estudios Avanzados (IMDEA), Spain

Formation, Analysis, and Valorisation Potential of Enzymatic Oxidative Coupling Products of Hydroxycinnamoylagmatines from Barley

Wouter J.C. De Bruijn, Wageningen University & Research, The Netherlands

Strategies to Overcome Resistance in Phytopathogenic Fungi using Multitarget Natural and Nature-Inspired Stilbenoids

Salvatore Princiotto, Università degli Studi di Milano, Italy

16h00 **Concluding Remarks & Awards 2024**

By Jan Frederik Stevens, President of Polyphenols Applications 2024

Andreas Schieber, Vice-President of Polyphenols Applications 2024

16h10 **Networking Accompanied by Drinks, Coffee and Snacks**