

19TH
WORLD
CONGRESS

Polyphenols Applications

OCTOBER 8-9, 2026
MÁLAGA, SPAIN

OFFICIAL

AGENDA 2026



Polyphenols
APPLICATIONS

www.polyphenols-site.com

19th World Congress on Polyphenols Applications 2026

October 8 - 9, 2026 – Málaga, Spain

Dear Members of the Polyphenols Research Community,

We are pleased to welcome you to the 19th World Congress on Polyphenols Applications 2026, which will be held in Málaga, Spain, from October 8-9, 2026. It is dedicated to exploring the role of polyphenols in health, longevity, nutrition, and sustainable innovation.

Aims of Polyphenols Applications 2026

Polyphenols Applications 2026 is built around a clear strategic vision: positioning polyphenols as key agents in disease prevention, healthy aging, and sustainable nutrition systems.

Advancing Nutrition, Health and Sustainability through Polyphenol Research and Innovation

Day One will focus on prevention and healthy aging, highlighting the role of polyphenols in cardiovascular, metabolic, and neurodegenerative health, as well as the importance of microbiome–fiber–polyphenol interactions.

Day Two will cover applications and innovations, including polyphenols in animal health and agriculture, advances in polyphenol chemistry and formulation, and new ingredients and industrial applications.

This edition emphasizes the translation of mechanistic insights into practical strategies that can impact human and animal health, food systems and sustainable applications. Polyphenols Applications 2026 aims to strengthen the dialogue between science, nutrition, agriculture, and industry, and to advance the translation of polyphenol research into real-world solutions.

Thank you for being with us.

Warm regards,

On behalf of the Scientific Committee



Andreas Schieber
University of Bonn, Germany
Chairman of Scientific Committee
Polyphenols Applications 2026

Day One – October 8, 2026

FROM HUMAN HEALTH TO MECHANISMS

A progression from healthy aging and metabolic health to polyphenol metabolism, microbiome interactions and satiety.

8h00 Welcoming of attendees & Badge Distribution

8h55 **Welcome Note and Introduction**



Andreas Schieber

President of Polyphenols Applications 2026, University of Bonn, Germany

Session 1 – Polyphenols, Healthy Aging & Metabolic Health

Chairs : Marvin Edeas, Wojciech Dabrowski



9h00 **Rethinking Polyphenols and Their Metabolites: Is Mitochondrial Competence the Missing Link?**

Marvin Edeas, Université Paris Cité, France



9h25 **Can Polyphenols Delay Diabetic Complications? Pterostilbene as a Translational Model in Retinal Health**

Angel Ortega, Universitat de València, Spain



9h50 **Can Xanthohumol Protect the Brain? From Neuroinflammation and Critical Illness to Cognitive Decline**

Wojciech Dabrowski, Medical University of Lublin, Poland

10h15 Coffee Break, Networking and Poster Sessions



11h00 **Rethinking Polyphenol Intake in Modern Lifestyles: From Food Processing to Precision Nutrition**

Bhimu Patil, Texas A&M University, USA

11h25 Short Oral Presentations (10 Minutes)

From Lemon to the Brain: Tracking Flavanone Metabolites Across the Blood-Brain Barrier

María Ángeles Ávila Gálvez, CEBAS-CSIC, Spain

Circulating Urolithin a Metabolites Attenuate Neuroinflammation in Vitro and LPS-Induced Acute Neuroinflammation and Behavioural Alterations in Sprague–Dawley Rats

Antonio González-Sarrias, CEBAS-CSIC, Spain

Effects of Monomeric and Oligomeric Flavanols on Vascular Homeostasis and Hemodynamic Responses to Exercise: A Randomized Controlled Study

Khrystyna Semen, Maastricht University, Netherlands

Moderate Consumption of A Polyphenol-Enriched Reduced-Alcohol Wine Attenuates Alcohol-Associated Alterations in Hepatic Biomarkers in Overweight Adults: A Randomized Clinical Trial

Felipe Ávila, University of Talca, Chile

Anti-Proliferative Effects of Hesperetin and Eriodictyol in Colon Cancer: Insights From Transcriptomics and Metabolomics Profiling

Davide Tagliazucchi, University of Modena and Reggio Emilia, Italy

Intergenerational and Sex-Specific Effects of Curcumin on Lifespan, Gene Expression and Metabolism in *Drosophila melanogaster*

Anika Wagner, Justus Liebig University Giessen, Germany

12h30 Lunch Break, Networking, Group Photo

Session 2 – Polyphenol Characterization, Metabolism & Microbiome

Chairs : Andreas Schieber, Juha-Pekka Salminen



14h00 **Understanding Polyphenol Complexity: Analytical Challenges and Opportunities**
Juha-Pekka Salminen, University of Turku, Finland



14h25 **Metabolic Profiling of ¹³C-Labeled Rosmarinic Acid by LC-MS in an in Vitro Colon Model**
Maike Passon, University of Bonn, Germany



14h50 **Polyphenols, Fibers and Microbial Metabolites: Decoding the Gut Dialogue**
Kieran Tuohy, University of Leeds, United Kingdom



15h15 **Looking Beyond Composition: The Gut Microbiome's Capacity to Metabolize Dietary Polyphenols**
Stephanie Wilson, University of California Davis, USA

15h40 Coffee Break, Networking, Poster Presentation



16h20 **From Polyphenol Metabolism to Precision Nutrition: Advancing Translation to Human Health**
Pedro Mena, University of Parma, Italy

Focus 2026 — Polyphenols, Taste Receptors & Satiety



16h45 **Beyond the Tongue: Gut Taste Receptors as New Targets for Satiety**
Inge Depoortere, KU Leuven, Belgium

17h10 **From Microbiome to Mitochondria to Muscle: Preserving Lean Mass During GLP-1 Therapy with Naturally Fermented Pomegranate Metabolites**
Kojima Mitsuko, Innovation Labo Sciences, Japan

17h20 **From Wine Polyphenols to a Functional Beverage: Translating Complex Wine Polyphenols into Testable Food Matrix for Healthy and Satiety Research**
Diego Rocha, Genky Innovations S.L., Spain

Chairs : Stephanie Wilson, Pedro Mena

17h30 Short Oral Presentations (10 Minutes)

Maternal–Fetal Distribution of Dietary (Poly)Phenol Metabolites: Evidence from A Multi-Matrix Metabolomics Approach

María del Carmen Villegas Aguilar, University of Parma, Italy

Can Ellagitannin-Rich Foods Modulate Microbial Trimethylamine (TMA) Production in the Human Gut?

Mariam Gamal El-Din, Quadram Institute, United Kingdom

Exploring Polyphenol and Short-Chain Fatty Acids (SCFA) Metabolism in Blueberry Fiber-Rich Products, Connections with Microbiota During in Vitro Colonic Fermentation

Hugo Galván Gámez, IFAPA, Spain

Closing Perspective



18h00 **Ancient Egyptian Polyphenol-Rich Remedies: A Historical Perspective On Gut Health And The Microbiome**
Iman Hakim, University of Arizona, USA

18h15 End of Day One

19h30 **Speakers' Dinner - Reserved for ticket holders only**
[Register here](#)

Day Two – October 9, 2026

FROM FOOD SYSTEMS TO APPLICATIONS & INNOVATION

A progression from food, nutrition and sustainability to new delivery systems, biomaterials and emerging applications.

8h30 Welcoming of attendees

Session 3 – Polyphenols in Food, Nutrition, Agriculture & Sustainability

Chairs : Francisco Hidalgo, Bhimu Patil



9h00 **Polyphenols in Food Systems: Improving Quality and Safety**
Francisco J. Hidalgo, CSIC, Spain



9h25 **Rethinking Polyphenol Function: How Oxidation Changes Biological Activity**
Fabian Weber, University of Kassel, Germany



9h50 **Species-Specific Biofunctionality of Polyphenols: Insights from Ruminant and Human Nutrition**
Katrin Giller, University of Hohenheim, Germany

10h15 Coffee Break, Networking and Poster Sessions



11h00 **Reducing Methane Emissions with Polyphenols: New Strategies for Sustainable Animal Production**
Maria Hayes, Teagasc Food Research Centre, Ireland

11h25 Short Oral Presentations (10 Minutes)

**Optimising Phenolic Release in Australian Native Plum Fermentation:
An Infogest and Mathematical Model-Based Approach**
Indeewarie Hemamali Dissanayake, Western Sydney University, Australia

**Instant Controlled Pressure Drop Differentially Modulates Phenolic Compounds in
*Selaginella lepidophylla***
Santiago Papaqui-Labastida, ITESM, Mexico

Steam Explosion Unlocks Rice Straw Polyphenols for Sustainable Biorefinery Applications
Francisco Javier Álvarez-Martínez, Miguel Hernandez University, Spain

**From Coffee (*Coffea Arabica* L.) By-Product to Fungal Control: Potential of Coffee Husk Extract Against Two
Mycotoxigenic Fungi**
Milena Jiménez-Gutiérrez, University of Costa Rica, Costa Rica

**Hydroxytyrosol-Rich Olive Polyphenols Act as Hormetic Regulators of Plant Metabolism and Crop
Productivity**
Bassam Damaj, Veos Pharmaceuticals, SL, Spain

Gallic Acid and Its Derivatives: From Polyphenol Structure to Functional Applications
Sonia Losada-Barreiro, Universidade de Vigo, Spain

12h30 Lunch Break, Networking and Poster

Session 4 – Polyphenol Applications & Innovation

Chairs : Angel Ortega, Alberto Dávalos



14h00

Extracellular Vesicles and Polyphenols: A New Frontier for Precision Nutrition and Clinical Translation
Alberto Dávalos, IMDEA-Food, Spain



14h25

Engineering the Next Generation of Polyphenols: From Natural Bioactives to Multi-Target Therapeutics
Angela Corvino, University of Naples Federico II, Italy

14h50 Short Innovation & Translational Communications (10 Minutes)

Resveratrol Counteracts Lipid-Driven Resistance to Chemotherapy in Colorectal Cancer
Aurélié Mialhe, INSERM U1231 CTM, France

Bioactivity of the N-Butanol Fraction From Plukenetia Volubilis Leaf Extract and Its Flavonoids
Katia Castanho Scoretcci, Universidade Federal do Rio Grande do Norte, Brazil

From Olive Pomace to Functional Ingredients: An Innovative Alginate–Maltodextrin Hydrogel Formulation for Sustainable Polyphenol Encapsulation and Gastrointestinal Delivery
Sandra Rodríguez-Blázquez, Complutense University of Madrid, Spain

Mass Spectrometry-Aided Microfractionation For High-Throughput Discovery Of Bioactive Molecules From Natural Extracts
Geert Goeminne, VIB Metabolomics Core, Belgium

Polyphenols - Bioactive Compounds of Biomimetic Systems Used in Tissue Regeneration
Elena Iulia Oprita, National Institute R&D for Biological Sciences, Romania

Natural Orange Extract (NOE) Supplementation and Its Effects on Gastrointestinal Discomfort and Gut Microbiota in Healthy Adults
Juan Ignacio Cacho Aparicio, Health Tech Bioactives, Spain

Screening of Subcritical Water Extraction for *Tripolium Pannonicum* and *Sarcocornia Perennis*
Lorena Palomares Ruiz, Aalborg University, Denmark

Sustainable Extraction and Formulation Strategies: Aqueous vs. Methanolic Recovery of Polyphenols in *Ocimum basilicum* L.
André Riveiro Suárez, Universidad de Vigo, Spain

16h20 Concluding Remarks and Awards by Andreas Schieber and Marvin Edeas.

16h35 - Networking & Drinks

17h00 End of Polyphenols Applications 2026