

19TH
WORLD
CONGRESS

Polyphenols Applications

OCTOBER 8–9, 2026
MÁLAGA, SPAIN

Polyphenols as Strategic Actors
in Health, Longevity and
Sustainable Nutrition

AGENDA

2026

Málaga
SPAIN


Polyphenols
APPLICATIONS

Welcome to Polyphenols Applications 2026

Dear Colleagues and Friends,

It is our pleasure to welcome you to the **19th** World Congress on Polyphenols Applications, taking place in Málaga, Spain, on October 8–9, 2026.

This year's congress will explore how polyphenols can contribute to health, longevity, nutrition, and sustainable innovation, with a particular focus on translating scientific discoveries into meaningful applications.

Polyphenols Applications 2026 is built around a clear ambition: to better understand the role of polyphenols and their metabolites in disease prevention, healthy aging, and sustainable nutrition systems.

Advancing Health, Nutrition and Sustainability through Polyphenol Research and Innovation

Day One will move from human health to mechanisms, addressing healthy aging, metabolic and neurodegenerative health, polyphenol metabolism, microbiome interactions, and the emerging links between taste receptors and satiety.

Day Two will move from food systems to applications and innovation, covering food and nutrition, agriculture and sustainability, polyphenol chemistry, formulation, delivery systems, and emerging industrial applications.

Throughout these two days, we aim to strengthen the dialogue between researchers, clinicians, nutrition scientists, agriculture experts, and industry, and to identify new opportunities to translate polyphenol science into real-world solutions.

ABSTRACTS BOOK & DOI

All accepted abstracts will be referenced in the official Polyphenols Applications 2026 Abstracts Book. The Abstracts Book will receive a DOI, which will be activated after the congress to provide a permanent, citable scientific record.

ACKNOWLEDGEMENTS

We warmly thank all speakers for their scientific contributions and commitment to this 19th edition. Special thanks to **Iprona** for its support of Polyphenols Applications 2026.

We are delighted to welcome you to Málaga and thank you for being part of this 19th edition.

Welcome to Málaga



Andreas Schieber
Chairman of Scientific Committee
University of Bonn, Germany
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 Welcome & 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 each (7 min + 3 min Q&A)

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 Presentations



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

Focus 2026 - Polyphenols, Taste Receptors & Satiety

Chairs: Stephanie Wilson, Pedro Mena



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

17h10 **Reverse-Engineering from a Paradox: Metabolomic Insights From Two Randomized Trials Toward A Naturally Fermented Urolithin Complex**
Francisco Javier Álvarez-Martínez, Miguel Hernández University, Spain

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

17h30 Short Oral Presentations - 10 minutes each (7 min + 3 min Q&A)

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 Introduction by Marvin Edeas



18h05 **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

20h30 **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 Welcome & Badge Distribution

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 each (7 min + 3 min Q&A)

Chair: Fabian Weber

**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 Hernández 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 Sessions

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 each (7 min + 3 min Q&A)

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

16h10 Concluding Remarks and Scientific Awards by Andreas Schieber and Marvin Edeas.

About Iprona - Polyphenols Applications Collaboration : Open Call for Polyphenol Research Proposals - €5,000 Research Support



Polyphenols Applications and Iprona are launching a new initiative to support innovative research using standardized polyphenol extracts. Two €2,000 Research Seed Grants and one €1,000 Iprona Innovation Award will support selected projects, with research materials also provided. Applications are open worldwide, with a deadline of 30 November 2026.

16h35 Networking & Drinks

17h00 End of Polyphenols Applications 2026



FROM RECOGNITION TO NEW RESEARCH

Supporting the next generation of polyphenol science



POLYPHENOLS APPLICATIONS 2026 AWARDS

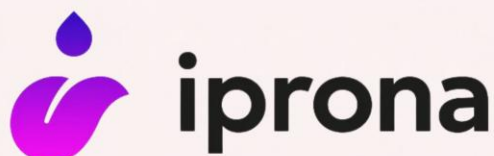
Scientific recognition will be announced during the
Closing Session on Day 2.

CELEBRATING EXCELLENCE
IN POLYPHENOL RESEARCH

OPEN CALL FOR POLYPHENOL RESEARCH PROPOSALS

€5,000

in Research Funding from Iprona



Polyphenols Applications and Iprona are launching a global initiative
to support innovative research using standardized polyphenol extracts.

The program includes **two €2,000 Research Seed Grants**, research materials for selected projects, and
one **€1,000 Iprona Innovation Award**.

Applications are open worldwide, with priority encouragement for
early-career researchers. **Deadline: 30 November 2026.**

DISCOVER THE CALL & APPLY



IDEAS
EXTRACTS
IMPACT



See you at
Polyphenols Applications 2027

POLYPHENOLS
APPLICATIONS 2026

*From Science to Health,
Nutrition & Sustainable
Innovation*

Thank you for being part of the
19th World Congress on Polyphenols Applications

Málaga · October 8–9, 2026



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