INTERNATIONAL SOCIETY OF ANTIOXIDANTS

15th World Congress on Polyphenols Applications

September 28-30, 2022 - Valencia, Spain & Online

Conference & Workshop Agenda

www.polyphenols-site.com
Welcome to Polyphenols Applications 2022 Congress

On behalf of the International Society of Antioxidants in Nutrition and Health (ISANH), the International Society of Microbiota, and the Scientific Committee, we are delighted to announce that the 15th World Congress on Polyphenols Applications will be organized on September 28-30, 2022. This year, we are optimistic that we can meet in-person in Valencia, Spain. We will of course keep you updated if our initial plans change. In both cases, live streaming will be available for those who would rather participate remotely.

This year’s edition will also bring together experts from academia and industry to discuss the latest scientific advances in fundamental and applied research on polyphenols. While the focus of the conference will be on food and nutrition research, pharmaceutical and medical sciences, as well as related disciplines such as microbiology and biotechnology, will also be covered.

We particularly welcome contributions to the following areas of research on polyphenols:

- Polyphenols & Microbiota – Recent Advances & Perspectives
- Polyphenols & Health: What We Know
- Technological Innovations in Polyphenols Extraction & Valorization
- Sensory Aspects of Polyphenols
- Polyphenols Applications 2022 – Innovations & Perspectives

Cannabis 2022

This year a new workshop on "Medical Cannabis, Cannabinoids and Derivatives: Recent Advances and Applications" will be held. Cannabis 2022 aims to cover the cannabis constituents, their isolation, and their application in the medical sector and food industry.

Abstracts are welcome for all the above-mentioned topics. A significant part of the conference will be allocated to presentations from young scientists. Therefore, we particularly encourage postdoctoral fellows and advanced doctoral students to submit abstracts for consideration of potential inclusion as oral or poster presentations.

We hope that you will enjoy the Polyphenols 2022 Congress and that your interactions with your colleagues from many countries will stimulate a creative exchange of ideas and challenges.

Prof. Dr. Andreas Schieber
President of Polyphenols Applications 2022
University of Bonn, Germany
Polyphenols Applications 2022 Speakers

Polyphenols and Extracellular Vesicles: A New Revolution?
Ramaroson Andriantsitohaina
France

Effects of Berry (Polyphenols) on Cardiovascular Health: Clinical Evidence and Mechanistic Insights
Ana Rodríguez-Mateos
King’s College London, United Kingdom

Inhibition Mechanism of Catechins on Dietary AGEs Absorption and Toxicity
Qian Wu
Hubei University of Technology, China

Conversion of Phenolic Compounds in Food Fermentations by Lactic Acid Bacteria: Metabolic Pathways and Functional Metabolites
Michael Gänzle
University of Alberta, Canada

Molecular Taste: Molecular Approaches to Understand Food Polyphenols Astringency and Bitterness
Susana Soares
Universidade do Porto, Portugal

Ion Mobility–Mass Spectrometry in Food Analysis
Sonia Sentellas
University of Barcelona, Spain

Flavan-3-ols Induces Browning of Adipose Tissues through Sympathetic Nerve Activation
Naomi Osakabe
Shibaura Institute of Technology, Japan

Towards the Utilization of Cannabinoids as Anticancer Agents
Guillermo Velasco
Instituto de Investigación Sanitaria San Carlos, Spain

The Challenge of Modulating the Gut Microbiota with Polyphenols in Metabolic Syndrome Patients
Juan Carlos Espin
Spanish National Research Council, Spain

GC-MS Analysis of Cannabinoids
Luke Busta
University of Minnesota Duluth, USA

Chemical and Sensory Evaluation of Astringency Modulation in Red Wine
Fabian Weber
University of Bonn, Germany

Evaluation of Cell Microstructure and Supercritical Fluid Extraction of Polyphenols from Sweet Potato
Juan Manuel Castagnini
University of Valencia, Spain

Recovery of Polyphenols from Algerian Medicinal Plants Extracts Assisted by Pulsed Electric Fields
Noelia Pallarés
University of Valencia, Spain

Gut Microbial Metabolism of Dietary Polyphenols in Health and Disease
Jan Claesen
Cleveland Clinic, USA

Impact of Berries, Cherries and Quinoa Polyphenols on Gut Microbiota & Health
Franck Carbonero
Washington State University-Spokane, USA

Micellar Formulations Enhance the Post-Digestive Solubility and Bioavailability of Polyphenols
Jan Frank
The University of Hohenheim, Germany

Chemistry and Pharmacology of Cannabinoids
Jan Frederik Stevens
Oregon State University, USA

Inhibition of Oxytosis/Ferroptosis by Cannabinol Requires Mitochondria and is Independent of Cannabinoid Receptors
Pam Maher
The Salk Institute for Biological Studies, USA

Phenolic Compounds as a Putative Adjunct Approach for COVID-19 Manifestations
Paula Rossini Augusti
Universidade Federal do Rio Grande do Sul (UFRGS), Brazil

Ocular Delivery of Polyphenols
Yolanda Diebold
Universidad de Valladolid, Spain

Procyanidin C1 is a Natural Agent With Senolytic Activity Against Aging and Age-Related Diseases
Yu Sun
The Chinese Academy of Sciences, China

Wine Polyphenols and Gut Microbiota
Nenad Naumovski
University of Canberra, Australia

Methods of Quantitative Analysis for Cannabinoids in Industrial Hemp
Jennifer Duringer
Oregon State University, USA

Beneficial Health Effects of Polyphenol-Rich Fruit Juice in Humans
Elke Richtling
University of Kaiserslautern, Germany

Discoloration Caused by Interactions Between Flavonoids and Iron
Jean-Paul Vincken
Wageningen University & Research, The Netherlands

Innovative Technologies for the Extraction of Antioxidant Bioactive Compounds from Mushrooms
Mara Calleja
University of Valencia, Spain

Biological Activities of Extracts Obtained from Microalgae After the Application of Innovative Processes
Francisco Juan Martín-Quijal
University of Valencia, Spain

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15th World Congress on Polyphenols Applications
September 28-30, 2022 – Valencia, Spain

Program

– Day 1 –
Wednesday, September 28, 2022

8h50 Introduction Note

9h00 – 9h30 Keynote Introduction

Polyphenols Application 2022: Where We Are Now and What’s Next

9h30 – 11h45

Session 1: Polyphenols & Microbiota – Recent Advances & Perspectives

The Challenge of Modulating the Gut Microbiota with Polyphenols in Metabolic Syndrome Patients
Juan Carlos Espín, Spanish National Research Council, Spain

Conversion of Phenolic Compounds in Food Fermentations by Lactic Acid Bacteria: Metabolic Pathways and Functional Metabolites
Michael Gänzle, University of Alberta, Canada

Wine Polyphenols and Gut Microbiota
Nenad Naumovski, University of Canberra, Australia

Impact of Berries, Cherries and Quinoa Polyphenols on Gut Microbiota & Health
Franck Carbonero, Washington State University-Spokane, USA

Gut Microbial Metabolism of Dietary Polyphenols in Health and Disease
Jan Claesen, Cleveland Clinic, USA
11h45 – 12h30

Session 2: Polyphenols & Health: What We Know

**Phenolic Compounds as a Putative Adjunct Approach for COVID-19 Manifestations**
Paula Rossini Augusti, Universidade Federal do Rio Grande do Sul (UFRGS), Brazil

**Flavan-3-ols Induces Browning of Adipose Tissues through Sympathetic Nerve Activation**
Naomi Osakabe, Shibaura Institute of Technology, Japan

12h30 – Lunch Break

**Procyanidin C1 is a Natural Agent with Senolytic Activity Against Aging and Age-Related Diseases**
Yu Sun, The Chinese Academy of Sciences, China

**The Impact of Cranberry Consumption on Endothelial Function in Healthy Adults**
Ana Rodriguez-Mateos, King's College London, UK

**Beneficial Health Effects of Polyphenol-Rich Fruit Juice in Humans**
Elke Richling, University of Kaiserslautern, Germany

**Inhibition Mechanism of Catechins on Dietary AGEs Absorption and Toxicity**
Qian Wu, Hubei University of Technology, China

16h00 – Coffee Break
16h30 – 17h30

Session 3: Technological Innovations in Polyphenols Extraction & Valorization

Evaluation of Cell Microstructure and Supercritical Fluid Extraction of Polyphenols from Sweet Potato
Juan Manuel Castagnini, University of Valencia, Spain

Recovery of Polyphenols from Algerian Medicinal Plants Extracts Assisted by Pulsed Electric Fields
Noelia Pallarès, University of Valencia, Spain

Innovative Technologies for the Extraction of Antioxidant Bioactive Compounds from Mushrooms
Mara Calleja, University of Valencia, Spain

Biological Activities of Extracts Obtained from Microalgae After the Application of Innovative Processes
Francisco Juan Martí-Quijal, University of Valencia, Spain

Short Oral Presentations

Lemon Peel Polyphenol Extract Reduces Interleukin-6 Dependent Invasiveness and Matrix Metalloproteinase-9/2 Expression in Human Gastric and Primary Colon Carcinoma Cells.
Rosaria Arcone, University of Naples Parthenope, Italy

A Green Alternative Approach to Citrus Peel Bio-Waste Disposal: Characterization and Bioactive Potential
Esther Gomez Mejía, Complutense University of Madrid, Spain

You can submit your abstract here.

18h00 End of Polyphenols Applications 2022 Day 1
15th World Congress on Polyphenols Applications
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Program

– Day 2 –
Thursday, September 29, 2022

8h50 Introduction Note of Day 2

9h00 – 12h30

Session 4: Sensory Aspects of Polyphenols

Chemical and Sensory Evaluation of Astringency Modulation in Red Wine
Fabian Weber, University of Bonn, Germany

Discoloration Caused by Interactions Between Flavonoids and Iron
Jean-Paul Vincken, Wageningen University & Research, The Netherlands

Molecular Perception of Astringency & Bitter Taste of Tannins in Food
Susana Soares, Faculdade de Ciências da Universidade do Porto (FCUP), Portugal

Ion Mobility–Mass Spectrometry in Food Analysis
Sonia Sentellas, University of Barcelona, Spain

12h30 pm – Lunch Break
14h00 – 16h30

Session 5: Innovations & Perspectives in Polyphenols Applications

Polyphenols and Extracellular Vesicles: A New Revolution?
Ramaroson Andriantsitohaina, France

Ocular Delivery of Polyphenols
Yolanda Diebold, Universidad de Valladolid, Spain

Micellar Formulations Enhance the Post-Digestive Solubility and Bioavailability of (Poly)phenols
Jan Frank, The University of Hohenheim, Germany

Short Oral Presentations

You can share your latest findings on polyphenols innovations during this session.
Submit your abstract here.

Among the accepted poster presentations for Polyphenols Applications 2022

18h00 Polyphenols Applications 2022 Awards

18h15 End of Polyphenols Applications 2022 Day 2
Cannabis 2022

Medical Cannabis, Cannabinoids and Derivatives:
Recent Advances and Applications

Aims and Objectives:

Cannabis 2022 aims to evaluate the constituents of cannabis and medical cannabis, mainly cannabinoids, flavonoids and their derivatives.

We will focus on the identification, characterization and isolation of different constituents in cannabis.

We will highlight recent studies and research in all related fields: health, wellbeing & food.

President and Chairman of the Workshop

Prof. Jan Frederik Stevens,
Oregon State University
USA
Cannabis 2022 Topics

9h00 Welcome note & introduction

9h10 Session 1 – General Introduction on Cannabis & Derivatives

Chemistry and Pharmacology of Cannabinoids
Jan Frederik Stevens, Oregon State University, USA

Gas Chromatography-Mass Spectrometry Analysis of Cannabinoids: Chemical Diversity Across a Range of Feral Cannabis Plants
Luke Busta, University of Minnesota Duluth, USA

The Comparison Between HPLC-MS/MS and HPLC-PDA Analysis
Jennifer Duringer, Oregon State University, USA

10h40 Coffee break

10h50 Session 2 – Mechanisms of Action of Cannabinoids

Inhibition of Oxytosis/Ferroptosis by Cannabinol Requires Mitochondria and is Independent of Cannabinoid Receptors
Pam Maher, The Salk Institute for Biological Studies, USA
11h50  **Session 3 – Therapeutic Potential of Cannabinoids**

Towards the Utilization of Cannabinoids as Anticancer  
Guillermo Velasco, Instituto de Investigación Sanitaria San Carlos, Spain

12h50  **Session 4 – Approaches for Further Development**

- Improvement of the biological availability of cannabinoids
- Selective activation of cannabinoid receptors
- Modulation of the endocannabinoid system
- Interaction with other neurotransmitter pathways

13h50  **Abstracts Presentations**

Call for abstracts
The scientific committee will select short oral presentations to be showcased during the workshop. You can submit your abstract [here](#).

14h30  **End of Cannabis 2022**