

9th World Congress on

POLYPHENOLS APPLICATIONS

June 3-4-5, 2015 St Julian's - Malta

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June 3-4-5, 2015 – St Julian, Malta

Agenda



www.polyphenols-site.com

GENERAL INFORMATION

DATE

June 3-4-5, 2015

PARTICIPANTS

250-300 participants expected

CITY/COUNTRY

St Julian, Malta

EXHIBITION/SPONSORSHIP

Anne-Sophie Mailfert

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CONFERENCE VENUE

Radisson Blu St Julian Resort

St. George's Bay – STJ3391

St Julian's, Malta

REGISTRATION & PRACTICAL INFORMATION

Malta Polyphenols 2015 Secretary

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Introduction Note by Chairmen

Dear Colleagues,

On behalf of the International Society of Antioxidants in Nutrition and Health (ISANH) and the Scientific Committee, we are pleased to announce the **9th World Congress on Polyphenols Applications: Malta Polyphenols 2015**, which will be held in Malta, **from June 3 to 5, 2015**.

The 9th Malta Polyphenols World Congress will bring together experts from academia and industries to debate on the latest scientific advances in the field of polyphenols and their uses to improve human health.

Polyphenols Valorization from Foods & Bio-Products

A pre-conference workshop dedicated to "Polyphenols Valorization from Foods & By-Products" will be held on June 3, 2015.

Special Session Symposium: Natural Pigments & Colorants for Food & Beverages Industry

For the first time, a symposium dedicated to natural pigments and colorants, their extraction, characterization and applications in food and beverages will be held during the congress.

Special Session on Polyphenols & Natural Preservatives

During Malta Polyphenols 2015, we will discuss and present recent advances on antiviral, antibacterial and antifungal properties of polyphenols. The scientific committee will allocate time for more presentations on the role of polyphenols as natural preservatives in the food and beverage industries.

Malta Polyphenols 2015 three-day conference will highlight the following strategic subjects:

- Polyphenols in Health & Diseases: The Mechanistics
- Polyphenols and Microbiota: The Subtle Modulation
- Polyphenols & Prevention / Therapeutic Medicine
- Polyphenols & Industrial Applications and Innovations
 - Polyphenols & Natural Preservatives
 - Polyphenols, Functional Drinks & Functional Ingredients
- Polyphenols & Waste Valorisation from Fruits & Vegetable Processing

We look forward to welcoming you in lovely Malta for this special event.

Pr Marvin Edeas - Pr Andreas Schieber

Chairmen of Malta Polyphenols 2015

AGENDA OF MALTA POLYPHENOLS 2015

9th World Congress on Polyphenols Applications

June 3-4-5, 2015 – St Julian, Malta

Day 1 - June 3, 2015

Polyphenols Valorization from Food & By-Products Malta Polyphenols Pre-Conference Workshop

Chaired by Richard Maroun, Maria Angela Meireles & Andreas Schieber

08:00 Registration

09:00 Opening Session and Introduction

Marvin Edeas, Andreas Schieber, Chairmen of Scientific Committee

09:15 Polyphenols from By-products – an Overview of Opportunities and Challenges

Andreas Schieber, University of Bonn, Bonn, Germany

10:00 New Approaches for Isolation of Phenolic Compounds from Side Streams of Winemaking

Philip Ewald, Technical University of Braunschweig, Germany

10:30 - Coffee Break

11:00 Polyphenols from Berry By-products

Krasimir Dimitrov, University of Lille 1, France

11:45 Extraction of Polyphenols from Food By-Products Using Green Solvents: Supercritical Carbon Dioxide, Pressurized Ethanol, Ethanol and Water

Maria Angela Meireles, University of Campinas, Brazil

12:30 – Lunch Break

14:00 A Novel Approach to the Recovery of Alk(en)ylresorcinols from Cereal Brans

Hannes Patzke, University of Bonn, Germany

14:30 Optimization of Polyphenols Extraction from Wine Shoots & Grape Pomace

Richard Maroun, St Joseph University, Lebanon

15:00 Short Oral Presentations (5 + 2 minutes)

Factors Influencing Extractability, Retention and Modification of Tannins during Red Winemaking

Paul Smith, Australian Wine Research Institute, Australia

Instrumental Structure Determination of Complex Biflavonoids from *Garcinia buchananii*

Timo Stark, Technical University Munich, Germany

Characterization of a Polyphenolic Extract from Winery Waste Following Purification

Kenneth Olejar, University of Auckland, New Zealand

Inhibition of Mushroom Tyrosinase and Soybean Lipoxygenase by Regiolone, a Phenolic Compound from Walnut Husks: A New Potential Additive for Prevention of Oxidative Deterioration of Food

Lucia Panzella, University of Naples Federico II, Italy

Effects of Flavonoids Dietary Supplementation on Milk Antioxidant Capacity in Sheep

Michael Goliomytis, University of Athens, Greece

Novel Advanced Analytical Tools to Extract and Determine Polyphenols from Natural Matrices

Merichel Plaza, Lund University, Sweden

Valorisation of a Food-Industry By-Product: Intensification of Antioxidant Polyphenols Extraction by Ultrasound-Assisted Extraction from Chicory Grounds and Energy-Consuming Assessment

Delphine Pradal, Lille Nord University, France

Screening of Flavonoids as Potential Cytochrome P450 3a4 Inhibitors

Mirza Bojic, University of Zagreb, Croatia

By-product of the Wine Distillation as Source of Phenolic Compounds with Biological Effects

Andrade Fernando Jorge Goncalves, University of Aveiro, Portugal

Stilbenoids Extraction from Grape Stems and Canes

Zulema Pineiro, IFAPA-Rancho de la Merced Jerez de la Frontera, Spain

Water Extracts from Apple Pomace – A Valuable Source of Bioactive Compounds

Pedro Fernandes, Polytechnic Institute of Viseu, Portugal

Evaluation of Five Varieties of Cocoa Husk as a Source of Natural Antioxidant Polyphenols: Effect of Solid-liquid Extraction and Ultrasonic Wave Extraction

Rene Arley Villamizar-Jaimes, Industrial University of Santander, Colombia

Optimization of the Polyphenols Content of a Dairy Drink Made of Cocoa, Coffee and Orange By-Products

Fernanda Maria Quijano, Escuela Superior Politecnica del Litoral, Ecuador

Optimal Operation Conditions for Flavonoids from Mango By-products

Said Toro-Urbe, Industrial University of Santander, Colombia

17:00 Questions & Discussion with Speakers

18:00 End of Workshop on By-product Utilization

All posters will be presented during days 2 & 3.

Day 2 - June 4, 2015

**Malta Polyphenols Conference
Recent Advances & Applications**

07:30 Welcoming of Attendees - Registration

09:00 Opening Ceremony & Introduction - Polyphenols 2015: State-of-the-Art & the Missing Link

Marvin Edeas, Andreas Schieber, Chairmen of Scientific Committee

**Session 1: Polyphenols 2015: From Analysis to Mechanistic Aspects
How to overcome barriers & contradictions?**

Chaired by Marvin Edeas & Andreas Schieber

09:15 Antioxidants Activity of Polyphenols in Food & Human Plasma: Towards a ISANH Standard

José Ángel Rufián-Henares, Departamento de Nutrición y Bromatología Facultad de Farmacia, Spain

09:40 Clinical Importance of Polyphenol Analyses in Functional Food

Sigrun Chrubasik, University of Freiburg, Germany

10:05 From Inflammaging to Healthy Aging by Dietary Lifestyle Choices: Is Epigenetics the Key to Personalized Nutrition?

Win Vanden Berghe, Antwerpen University, Belgium

10:30 - Coffee Break, Posters Session & Exhibition

11:00 From Chemotaxonomy to Bioactivity - A Case Study on Brazilian Pepper (*Schinus terebinthifolius* Raddi)

Michelle Feuereisen, Bonn University, Germany

11:25 Resveratrol Post-transcriptionally Regulates Pro-inflammatory Gene Expression

Andrea Pautz, Johannes Gutenberg-Universität Mainz, Germany

11:50 Short Oral Presentations (5 + 2 minutes)

Crossing the Blood-Brain Barrier: Unraveling Beneficial Effects of Human Bioavailable (Poly)Phenol Metabolites

Ines Figueira, Instituto de Tecnologia Química e Biológica, Portugal

Overall Dietary Polyphenol Intake in a Bowl of Strawberries: The influence of Variety and Maturity Stage

Urska Vrhovsek, Edmund Mach Foundation, Italy

Anthocyanins-rich chokeberry fruit extract may protect endothelial progenitor cells against senescence induced by angiotensin II through Nrf2/HO-1 pathway activation

Marek Naruszewicz, Medical University of Warsaw, Poland

12:05 Discussion

12:40 – Lunch Break, Posters Session & Exhibition

**Session 2: Special Session on
Natural Pigments & Colorants: Food & Beverage Applications**

Chaired by Reinhold Carle & Elke Richling

- 14:00 **Why to Go from Synthetic and Animal-based Pigments to Those from Plant Sources?**
Reinhold Carle, Hohenheim University, Germany
- 14:25 **Studies Investigating the Biological Effects of Anthocyanins from Fruits in Humans**
Elke Richling, Kaiserslautern Technical University, Germany
- 14:50 **Anthocyanin Pigments Formation and Role in Colour, Mouth-feel and Astringency of Red Wine**
Dominik Durner, Weincampus Neustadt, Germany
- 15:15 **Comparison of HPLC and UPLC Separation for Analysis of Anthocyanins from Different Black Carrot Varieties (*Daucus carota* ssp. *sativus* var. *atrorubens* Alef.)**
Claudia Gras, Hohenheim University, Germany

15:40 - Coffee Break, Posters Session & Exhibition

- 16:10 **Natural Compounds for the Prevention and Treatment of Various Cancers Using Novel Oral, Systemic and Local Delivery Technologies**
Ramesh Gupta, Oncological Research University of Louisville, USA
- 16:35 **Maqui (*Aristotelia chilensis* (Mol.) Stuntz) Berries – Chemical Composition and Color Stability of the Anthocyanin-rich Superfruit**
Johanna Brauch, Hohenheim University, Germany
- 17:00 **Stabilisation of Anthocyanin–Metal Chelates with Pectins for their Application as Red and Blue Food Colorants**
Maria Buchweitz, Stuttgart University, Germany
- 17:25 **Short Oral Presentations (5 + 2 minutes)**

Chaired by Sigrun Chrubasik & Andrea Pautz

Obtention of a Water Transparent Food Colorant of Lutein

Jose Maria Obon, Universidad Politécnica De Cartagena, Spain

Polyphenol Modified Poly(lactic) Sponges with Improved Osteogenic Properties

Stefano Antenucci, University Degli Studi di Milano, Italy

Systematic Evaluation of (Poly-)phenolic Compounds for their Reactivating Effect on the Pseudo-halogenating Activity of Lactoperoxidase

Joerg Flemmig, Translational Centre for Regenerative Medicine Leipzig, Germany

The Bioavailability and Bioactivity of a Phenolic Enriched Extract of the Brown Seaweed *Ascophyllum nodosum*

Chris Gill, Ulster University, UK

Polyphenols Extraction from Vine Shoots with B-Cyclodextrin

Hiba Nehme Rajha, St Joseph University, Lebanon

Application of a DNA-based Sensor to Assess the Total Antioxidant Capacity of Different Samples

Cristina Soares, Polytechnic Institute of Porto, Portugal

Extracts from *Syzygium guineense* of Cameroon Suppress Wnt Signaling Proliferation and Migration of Triple-negative Breast Cancer Cells

Vladimir Katanaev, University of Lausanne, Switzerland

Monomeric Flavan-3-ol, Epicatechin Stimulates Insulin Secretion in INS-cells via CamkII Activation

Kaiyuan Yang, University of Alberta, Canada

Is there a Simpler Procedure to Assess the Phenolic Content in Wheat?

Filipe Lopes Nelson Machado, Centre for the Research and Technology of Agro-Environmental and Biological Sciences, Portugal

Study of Grape Polyphenols by High-Resolution Mass Spectrometry and Suspect Screening Analysis

Riccardo Flamini, Centro di Ricerca per la Viticoltura (CRA-VIT), Italy

18:30 End of Second Day

20:00 Malta Polyphenols Speakers Dinner

If you would like to participate, please register on line before May 15.

Day 3 - June 5, 2015

08:55 Opening of the third day

Session 3: Polyphenols and Microbiota: The Subtle Modulation

Chaired by Marvin Edeas, Clarissa Gerhäuser, Ramesh Gupta & Neville Vassallo

09:00 Towards the Fecal Metabolome Derived from Moderate Red Wine Intake

Bagona Bartolomé, Instituto de Investigacion en Ciencias de la Alimentacion, Spain

09:25 Short Oral Presentations (5 + 2 minutes)

Gut-brain Axis: Polyphenols-rich Food and Gut Microflora, Metabolic Risk Markers and Associated Cognitive Decline

Diana Oliviera, Lund University, Sweden

Cultivar-Dependant Biotransformation of Anthocyanin-Rich Potatoes (*Solanum Tuberosum* L.) in a Dynamic Gastrointestinal Model

Stan Kubow, Mc Gill University, Canada

Role of Chlorogenic Acid Combined with *Lactobacillus plantarum* in treatment LPS-induced Intestinal Inflammation

Farkas Orsolya, Szent Istvan University, Hungary

Biocatalysis of a Microbial Laccase in Non-conventional Media for the Project of Novel Nutraceutical Oligophenols

Selim Kermasha, McGill University, Canada

Session 4: Polyphenols in Health & Disease

Chaired by Marvin Edeas, Clarissa Gerhäuser, Ramesh Gupta & Neville Vassallo

09:55 Genome-wide Impact of Soy Isoflavones on DNA Methylation in the Mammary Gland

Clarissa Gerhäuser, German Cancer Research Center (DKFZ), Germany

10:20 Polyphenolic Compounds are Novel Protective Agents against Lipid Membrane Damage by Amyloid Aggregates in vitro

Neville Vassallo, University of Malta, Malta

10:45 - Coffee Break, Posters Session & Exhibition

**Session 5: Polyphenols Applications in Food & Beverages:
Recent Technologies & Innovations**

Chaired by Marvin Edeas, Clarissa Gerhäuser, Ramesh Gupta & Neville Vassallo

11:15 Inhibitory Effects of Grape Pomace Polyphenols on Collagenase and Elastase Activity

Judith Wittenauer, Fraunhofer Institute for Process Engineering and Packaging, Germany

11:40 Polyphenols & Tyrosinase Inhibition: A Survey of Recent Findings

Ilkay Erdogan Orhan, Gazi University, Turkey

12:05 Short Oral Presentations for Sessions 3, 4 & 5 (Part I) (5 + 2 minutes)

Polyphenol Glycosylation and Human Skin

Henning Rosenfeld, University of Hamburg, Germany

Can we Improve the Nutraceutical Composition of Apple Fruit?

Brian Farneti, Bologna University, Italy

Active Packaging Based upon Grape Tannins

Paul Andrew Kilmartin, University of Auckland, New Zealand

Influence of Disaccharides Addition on Phenolics and Antioxidant Activity of Freeze-dried Sour Cherry Puree

Ante Loncaric, Josip Juraj Strossmayer University of Osijek, Croatia

12:35 – Lunch Break, Posters Session & Exhibition

14:00 Short Oral Presentations for Sessions 3, 4 & 5 (Part II) (5 + 2 minutes)

Chaired by Dominik Durner & Ilkay Erdogan Orhan

Boosting the Antioxidant, Metal Binding, and Adsorption Properties of Spent Coffee Grounds by an Expedient Activation Process: Toward the Development of a Multifunctional Material for Technological Applications

Lucia Panzella, University of Naples Federico II, Italy

Polymers from Naturally Occurring Phenols as Novel Bioinspired Antioxidants

Alessandra Napolitano, University of Naples, Italy

Safety and Antioxidant Efficacy of Polyphenol-rich Date Seed Extract In Vivo

Carine Platat, United Arab Emirates University, UAE

Effect of Tyrosol, Resveratrol and their Derivatives on PAF Synthesis under Inflammatory Conditions in U-937 Cells

Ioanna Vlachogianni, Harokopio University, Greece

Phenolic Acid Degradation Ability of Lactic Acid Bacteria in Sunflower Substrates

Caroline Fritsch, Fraunhofer Institute for Process Engineering and Packaging (IVV), Germany

Recovery of Bioactive Compounds from Residues Generated from Food Processing using Colloidal Gas Aphron (CGA)

Nurmahani M. Maidin, University of Reading, UK

15:15 - Coffee Break, Posters Session & Exhibition

Potential Therapeutic effect of Resveratrol in Experimental Sepsis Involves Inhibiting PLD-1 Dependent Sphingosine Kinase Activation

Shazib Pervaiz, National University of Singapore, Singapore

Phenolic Metabolites of Flavonoids are More Active than their Precursor Structures in the Regulation of Vascular Cellular Adhesion Molecule-1 Secretion by Human Endothelial Cells

Emily Francesca Warner, University of East Anglia, UK

Acute Consumption of a Cocoa Flavanol-Enriched Drink Increases Cerebral Haemoglobin Levels at Rest and During Cognitive Performance in Healthy Adults

Crystal Haskell-Ramsay, Northumbria University, UK

The Novel Resveratrol Derivative Fehh4-1 Shows Potent Anti-Proliferative and Pro-Apoptotic Effects on Human Leukemia T-Cells

Burkhard Kloesch, Northumbria University, UK

Effect of Epigallocatechin Gallate on Crystal-Induced Inflammation: Beneficial Implications for Gout and other Crystal-Related Arthropathies

Francesca Oliviero, University of Padova, Italy

Diabetes and Oxidative Stress: Impact of Natural Antioxidants Consumption

Stéphanie Dal, Centre Européen d'Etude du Diabète (CEED), France

Protective Mechanisms of Red Wine Polyphenols in the Cardiovascular and Renal Systems

Olga Pechanova, Slovak Academy of Sciences, Slovak Republic

Resveratrol Suppresses the Topoisomerase-Inhibitory Potential of Doxorubicin in Human Colon Carcinoma Cells

Doris Marko, University of Vienna, Austria

17:30 General Discussion: Polyphenols Applications in 2015: From Source to Optimal Industrial Uses- State of the Art and Future Prospects

Concluding Remarks by Marvin Edeas, Andreas Schieber & Reinhold Carle

Malta Polyphenols 2015 Awards

18:00 End of Malta Polyphenols 2015