



***SCIENTIFIC COMMITTEE***

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Department of Mechanics, Mathematics and Management, Polytecnic of Bari, Italy PhD

## *Program*

### **November 12st**

#### **9.00 Registration and Welcome**

#### **10.00 Opening Ceremony and meeting presentation**

Antonio Felice Uricchio -Rector of University Aldo Moro Bari (UNIBA)

Eugenio Di Sciascio- Rector of Polytechnic of Bari

Angela Agostiano- President SCI (Italian Chemical Society)

Gianluca Farinola-President of EuChemS Organic Chemistry Division

Francesco Leonetti-Director of Department of Pharmacy-Drug Science, UNIBA

Carlo Sabbà-Director of Interdisciplinary Department of Medicine UNIBA

#### ***Topic Innovative extraction process design***

**CHAIR: Cravotto G. and Chemat F.**

10.30 **PL1** Jochen Strube (University of Clausthal-Zellerfeld, Germany) *Natural Products Extraction of the future – Solutions for Sustainable Manufacturing*

11.00 **PL2** Giancarlo Cravotto (University of Turin Italy) *Toward a transdisciplinary model in green extraction*

#### **Coffe Break**

12.00 **K1** Lukas Uhlenbrock (Clausthal University of Technology) *Quality by Design focused process development and water based extraction techniques for the isolation of valuable components from naturally variable raw material.*

12.20 O1 Daniele de Freitas Ferreira (University of Santa Maria Brasil) *Simultaneous solvent-free extraction of volatile and non-volatile antioxidant compounds from Rosemary using microwave hydrodiffusion and gravity.*

12.35 O2 Giorgio Grillo (University of Turin) *Mass transfer kinetic design of multi-stage ultrasound-assisted extraction of tea leaves*

12.50 SC1 Giada Maranaldi, Antonio Rosato (INDENA SpA) *Antibiofilm effect of plant extracts*

13.00 SC2 Marco Fiore (Leanfa srl) *Innovative Microwave Generators for Process Optimization*

## **LUNCH**

**CHAIR: Strube J., Perego P.**

### ***Topic Alternative solvents for green extraction***

14.30 K2 Anne Rossignol-Castera (Oléos-Hallstar, Manguio, France) *A new biomimetic green solvent coupled to co-intensified oleo-eco-extraction for performant skin actives: OSMOS<sup>TM</sup> concept*

14.50 K3 Ivana Radojčić Redovniković (Univeristy of Zagabria) *Green solvents for green technologies*

15.10 K4 Vito Capriati (University of Bari) *Natural Deep Eutectisc Solvents: The perfect springboard toward a sustainable future*

15.30 SC3 Luca Piemontese (University of Bari) *Deep Eutectic Solvents as effective media for the extraction of small molecules from natural sources*

### ***Topic Sustainable and clean extraction technologies***

15.40 O3 Chiara Samori (University of Bologna) *Milking of the microalga *Haematococcus pluvialis* for a non destructive extraction of astaxanthin*

15.55 O4 Ivo Rodrigues (Polytechnic Institute of Coimbra-Portugal) *Exploring the effects of carbohydrases-assisted pulp extraction from strawberry tree fruit*

## **Coffe break**

### ***Topic Valorisation of by products and biorefinery***

16.40 **K5** Silvia Tabasso (University of Turin-Italy) *Enabling technologies and green solvents for lignin extraction and valorization*

17.00 **O5** Visnja Gaurina Sreck (University of Zagreb) *Biological potential of proteins and peptides obtained from hempseed cake*

17.15 **O6** A. S. Fabiano-Tixier (Avignon University, INRA, France) *Green Sono extraction: study of the physical impacts on the leaves of Rosmarinus officinalis*

17.30 **O7** Angela Cardinali (Institute of Sciences of Food Production (ISPA-CNR Bari Italy) *Phytochemicals from artichoke by-product and their applications as natural ingredients for cosmetic industry.*

## **18.00 1<sup>st</sup> POSTER SESSION**

## **20.00 Social Dinner**

**November 13<sup>st</sup>**

**CHAIR: Franchini C., Amirante R.**

***Topic: Industrial and case study applications***

9.15 **PL3** Gerhard Schories (ttz Bremerhaven, Germany) *European Research Opportunities for Green Extraction Technologies*

9.45 **PL4** Farid Chemat (INRA, Université d'Avignon et des Pays de Vaucluse) *Alternative solvents for green extraction, purification and formulation for cosmetic, food and nutraceutical products*

10.15 **O8** Distaso Elia (Polytechnic of Bari, Italy) *Numerical Simulation of Unsteady Multiphase Non-Newtonian Fluid Flow for the Design of an Innovative Ultrasound Device Able to Improve Olive Oil Extractability and Quality*

10.30 **O9** Lea Vernes (Avignon University- France) *Bioactive compounds extraction from *Arthrospira platensis* through sonoporation induced by ultrasounds.*

10.45 **SC4** Alice ANGOY (IFTS, Foulayronnes, France) *Green extraction of natural products using microwaves and centrifugal force thanks to a semi-industrial pilote.*

10.55 **SC5** Roberto di Paolo: (REUS srl) *How to improve technology and usability of REUS ultrasounds machines: ULTRASONS REUS 2.0“ Simple but effective..”*

### **Coffe break**

11.30 **O10** Ramli, S.S. Siti Suhara (University Putra Malaysia) *Optimisation of the Oil Extracted from *Sardinella lemuru* Waste with Supercritical Fluid Extraction (SCCO<sub>2</sub>) using Response Surface Methodology (RSM)*

11.45 **O11** Meneguzzo Francesco (Institute of Biometeorology, CNR Italy) *Enhanced extraction from malt and hops in an innovative beer-brewing technology based on hydrodynamic cavitation processes*

12.00 **O12** Arrigucci Fredrik (ARCAROMA, Lund Sweden) *oliveCEPT® - A commercially available product for improving olive oil extraction yield and quality*

12.15 **SC6** Maria Grazia Roselli (Sergio Fontana srl) *Innovative Mixture With Antioxidant Action, With Positive Effect On The Intestinal Microbiota*

12.25 **SC7** Faraone Immacolata (University of Basilicata-Italy) *Green extractions of bioactives from *Vitis vinifera* L. (cv. Aglianico) leaves: phenolic profile, antioxidant and anti-cholinesterase activity of extracts.*

### ***Topic New tools for green extraction education and operator training***

12.35 **O13** Antonio Felice Uricchio (University of Bari) *Food taxes between ability-to-pay principle and extra-fiscal purposes*

## LUNCH

### Special Session “COMPETITIVE- Claims for Olive oil to improve its market Value- Ager Project

**CHAIR: Sacchi R., Clodoveo M.L, Corbo F.**

14.00 **O1** Raffaele Sacchi (University Federico II Naples Italy) *Virgin olive oil biophenols: evolution during the shelf-life and influence on aroma release and sensory quality*

14.15 **O2** Luigi Roselli (University of Bari Italy) *Consumer acceptance of innovations in extra virgin olive oil production process: socio-demographic and psychographic determinants*

14.30 **O3** Nadia Mulinacci (University of Florence) *New analytical approaches to determine the EVOO quality: a study on the volatiles and phenolic fraction of Italian oils from 2017*

14.45 **O4** Lorenzo Guerrini (University of Florence Italy) *Studies on extra-virgin olive oil degradation during shelf-life.*

15.00 **O5** Carmen Lammi (University of Milan Italy) *Development and validation of versatile cellular models for investigating the absorption and bioactivity of natural extracts*

15.15 **O6** Giancarlo Cravotto (University of Turin) *Pilot scale cavitation treatments in oil extraction processing*

15.30 **O7** Clodoveo Maria Lisa –Filomena Corbo (University of Bari) *The Fast Track to Innovation: the right tool to face the innovation challenge and the valley of death.*

15.45 **O8** Gianluca Picariello (CNR Avellino Italy) *Exploring alternative analytical strategies to quantify polyphenols in virgin olive oil.*

16.00 **O9** Marco Pichierri – Gianluigi Guido (University of Bologna-University of Salento) *Communicating the health value of olive oil: An analysis of consumers' emotional and attitudinal responses to label health claims*

16.15 **O10** Nicola Marrano (University of Bari Italy) *Effects of Free Fatty Acids and Phenolic Compounds of Extra Virgin Olive Oil on Beta-cells Survival and Function*

**16.30-17.30 2<sup>th</sup> POSTER SESSION**

**Awards Ceremony**

**17.30 FINAL REMARKS AND CLOSING**