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FCT-2024

November 25-27, 2024 | Valencia, Spain

Program

10th International Conference on

FOOD CHEMISTRY & TECHNOLOGY

November 25-27, 2024 | Valencia, Spain

Venue

Barcelo Valencia HOTEL, Avenida de Francia 11
46023, Valencia, Spain

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Food Bioscience journal is presenting the awards to the best oral presenter and two best poster presenters to support and encourage the young researchers to build their confidence and dedication towards food bioscience.

Best Oral Presenter –

400 EURO

Best Poster Presenter –

200 EURO

Certificate - The winners will receive a certificate issued by Elsevier.

ABOUT JOURNAL

Food Bioscience is a peer-reviewed journal that aims to provide a forum for recent developments in the field of bio-related food research. The journal focuses on both fundamental and applied research worldwide, with special attention to ethnic and cultural aspects of food bioresearch.

Topics covered in the journal include but are not limited to:

1. Biochemical, biophysical and biological properties of foods, ingredients, and components
2. Mechanism of functional foods and ingredients including both novel and traditional fermented foods
3. Genetic, and cellular and molecular biology germane to food production and processing
4. Foodomics: comprehensive studies involving genomics, proteomics, metabolomics, nutrigenomics and chemogenomics of foods and their interactions with humans
5. Biomaterials for food-related systems such as food packaging, food analysis, and delivery of nutraceuticals and functional food additives
6. Application of novel technology to foods.

For more details, please visit: <https://www.sciencedirect.com/journal/food-bioscience>

2023 IF: 4.8



07:30-08:30 Registrations & Badge Pick up @Foyer

08:30-08:40 Welcome & Introduction to FCT-2024
by **Prof. Javier Martínez Monzó**, Universitat Politècnica de València, Spain

Keynote Talks (25 + 5 QA)

Session Chairs: **Cristina Barrera Puigdollers**, Universitat Politècnica de València, Spain
Lucía Seguí Gil, Universitat Politècnica de València, Spain

08:40-09:10 **Hosahalli S. Ramaswamy**, McGill University, Canada
Acidified Thermal Processing of Low Acid Foods

09:10-09:40 **Charlotte Jacobsen**, Technical University of Denmark, Denmark
How Do We Obtain Healthy, Sustainable and Tasty Omega-3 PUFA Rich Foods for the Future?

09:40-10:10 **Antonio Vicente**, University of Minho, Portugal
New Food Processing Technologies: Modulating Protein Properties Using Electric Fields

10:10-10:40 **Poul Erik Jensen**, University of Copenhagen, Denmark
Design of Composite Gels from Fermented Protein Emulsions and Starch for Plant-based Cheese Alternatives

10:40-11:00 Coffee Break @Foyer

Session Chairs: **Cristina Barrera Puigdollers**, Universitat Politècnica de València, Spain
Lucía Seguí Gil, Universitat Politècnica de València, Spain

11:00-11:30 **Karin Schroen**, Wageningen University, Netherlands
Dynamic Processes Occurring During Food Production Microfluidic Techniques Used to Create Unique Insights

11:30-12:00 **Andreas Schieber**, University of Bonn, Germany
Plant Phenols as Multifunctional Food Constituents: From Sources to Reactions and Applications

12:00-12:30 **Cristina L.M. Silva**, Portuguese Catholic University, Portugal
Numerical Simulation and Optimization of Heat Transfer in Solar Box Cookers: A Pathway to Sustainable Cooking

12:30-13:30 Group Photo and Lunch Break @Foyer

Session Chairs: **Javier Martínez Monzó**, Universitat Politècnica de València, Spain
Pau Talens Oliag, Universitat Politècnica de València, Spain

13:30-14:00 **Clara Talens**, AZTI, Spain
Desirability-based Modeling - Integrating Non-traditional Proteins in Food Products

14:00-14:30 **Tan Lay Poh**, Nanyang Technological University, Singapore
Development of Cultivated Meat: Drawing Lessons from Tissue Engineering and Polymer Processing

14:30-15:00 **KSMS Raghavarao**, Indian Institute of Technology Tirupati, India
Extraction and Purification of Bioactive Compounds from Micro/Macroalgae and Hairy Root Cultures

15:00-15:20 Coffee Break and Poster Setup @Foyer

15:20–17:00

Poster Presentations Part I

@Foyer

- FCT-01 YRF **Angela Matilde da Silva Alves**, UNICAMP, Brazil
Biogenic Amines Formed in Goat Coalho Cheese during Maturation Using Autochthonous Culture *Limosilactobacillus mucosae*
- FCT-02 YRF **Luana Barros Pires**, University of São Paulo, Brazil
Development of Low-cost Gluten-free Bread from Raw Rice: Comparing the Cost of Gluten-free and Traditional Bread
- FCT-03 YRF **Charia Hadjipakkou**, University of Cyprus, Cyprus
Effect of pH in the Efficiency of Phenolic Antioxidants in Trapping Methylglyoxal
- FCT-04 YRF **Antiopi Vardaxi**, National Hellenic Research Foundation/Theoretical and Physical Chemistry Institute, Greece
Co-assembled, Physically Cross-linked Nanogels of Tannic Acid and Biocompatible Double Hydrophilic Random Copolymers Encapsulating Ovalbumin
- FCT-05 YRF **Vivek Gupta**, Indian Institute of Technology Tirupati, India
Design and Development of an Acoustic Mist Bioreactor for the Cultivation of *Amaranthus* Hairy Roots
- FCT-06 YRF **Vaishali Saraswat**, Indian Institute of Technology Tirupati, India
Extraction and Purification of R-phycoerythrin from Macroalgae
- FCT-07 YRF **Chiara Vatterli**, University of Naples Federico II, Italy
Up-cycling Food Waste for Bio-based Functional Coatings in Food Packaging
- FCT-08 YRF **Ngoc Quynh Anh Truong**, University of Parma, Italy
Comparative effects of High-pressure Processing on Colour, Anthocyanins, Phenolics, Vitamin C, and Browning Index of Raspberry Juice
- FCT-09 YRF **Erika Keiko Martinez Vargas**, Food Institute of Kaunas University of Technology, Lithuania
Improvement of the Protein Quality of Hemp Press Cakes by Fermentation for Use in Plant-based Meat Alternatives
- FCT-10 YRF **Žydrūnė Gaizauskaitė**, Kaunas University of Technology, Lithuania
Selection of Potential Cellulolytic Filamentous Fungal Strains for the Effective Degradation of Sugar Beet Processing By-products Lignocelluloses
- FCT-11 YRF **Li Ying Jessie Lau**, The University of Auckland, New Zealand
Proteomic Insights into Stress Responses and Adhesion Markers of *Lactobacillus reuteri* DPC16
- FCT-12 YRF **Anna Krajewska**, University of Life Sciences in Lublin, Poland
Pear Residue as a Functional Additive in Wheat Cookies
- FCT-13 YRF **Florina Dranca**, Stefan cel Mare University of Suceava, Romania
Innovative Hydrogel and Cryogel Applications of Pectin from Non-conventional Sources: Grape Pomace, Sugar Beet Flakes, and *Malus domestica* 'Fălticeni' Pomace
- FCT-14 YRF **Pei Xuan Lim**, National University of Singapore, Singapore
Isolation and Characterization of Stable Fish Cell Lines for Scalable Production of Cultured Fish Meat
- FCT-15 YRF **Francisco de la Haba**, University of Extremadura, Spain
Microencapsulation of Vitamin D by Using Proteins as Wall Material: Quality Evaluation
- FCT-16 YRF **Gokulakrishnan Marisami**, Institute of Agrifood Research and Technology, Monells, Spain
High Hydrostatic Pressure (HHP) Assisted Protein Extraction and Technofunctional Modification of Brewer's Spent Grain (BSG) Protein Rich Isolates
- FCT-17 YRF **Maria Martin Trueba**, Autonomous University of Madrid, Spain
Preliminary Study for the Development of Eco-sustainable Functional Beverages from Coffee Pulp

- FCT-18 YRF **Leticia Montes Martinez**, The University of Santiago de Compostela, Spain
Drying Kinetics and Characteristics of Olive Oil and Chitosan Oleogels
- FCT-19 YRF **Andrea Calleja Solera**, Universidad Politecnica de Valencia, Spain
Carbon Footprint of Avocado in *Comunitat Valenciana*, Influence of Management Practices
- FCT-20 YRF **Andrea Calleja Solera**, Universidad Politecnica de Valencia, Spain
Life Cycle Assessment of Biogas Production via Anaerobic Codigestion of Slurry and Organic Vegetable Waste: A Spanish Case Study
- FCT-21 YRF **Nikolina Sibirčić**, University of Belgrade, Yugoslavia
***Arthrospira platensis* Protein Hydrolysates as a Promising Alternatives to Serum in Animal-cell Culture**
- FCT-22 YRF **Judith Mphatso Kumatso**, Stellenbosch University, South Africa
Phytochemical Composition of *Garcinia huillensis* Pulp
- FCT-23 **Anders Langfelt Kjeldbjerg**, Business Academy Aarhus, Denmark
The Impact of Differential Level of Antinutrients in Legume Seeds
- FCT-24 **Selene Yadira Gonzalez Toledo**, Nestle, France
Unlocking Creaminess of Plant-based Yogurt Alternatives
- FCT-25 **Celine Cakir**, University of Lorraine, France
Complexation of Copper(II) Ion by Camel Milk Caseins and Their Tryptic Hydrolysate
- FCT-26 **Roberto Larcher**, Edmund Mach Foundation, Italy
Comparative Analysis of Carotenoid and Fat-soluble Vitamin Content in Dairy Products: A Comparison Between Alpine and Industrial Products
- FCT-27 **Raffaella Colombo**, University of Pavia, Italy
New Dynamic System to Investigate Food Compounds' Absorption
- FCT-28 **Flavia Dilucia**, University of Foggia, Italy
Chemical Features of Ready-to-eat Italian Omelettes Enriched with Vegetable By-products Obtained Through Classic Drying and a Patented Process
- FCT-29 **Irene Giordano**, University of Naples Federico II, Italy
Culture-dependent Methods and Flow Cytometry to Reveal the Effects of Ultrasound Attenuation on Probiotics
- FCT-30 **Elena Casanova**, Unifarco SpA, Italy
Developing New Formulations of Food Supplements Using Functional Excipients Capable of Providing Technological and Health Advantages
- FCT-31 **Juan de Dios Figueroa Cárdenas**, Cinvestav Unit Queretaro, Mexico
Effect of Nixtamalization on Nutrimental, and Nutraceutical Characteristic of Wheat and Pigmented Corn (Gluten-free) Leavened Breads
- FCT-32 **Rosana Chirinos**, Universidad Nacional Agraria La Molina, Peru
Protein Hydrolysate and Peptide Fractions of Tarwi (*Lupinus mutabilis*) with Iron (Fe⁺²) Chelating and Antioxidant Properties
- FCT-33 **Khin Yin Win**, Singapore Institute of Food and Biotechnology Innovation, A*STAR, Singapore
Tuning Protein Functionalities Through Extraction Process
- FCT-34 **Vahideh Ilbeigi**, Comenius University, Slovak Republic
Detection of Methanol in Wine Using Ion Mobility Spectrometry
- FCT-35 **Matthias Kasimir**, National Food Institute, Technical University of Denmark, Denmark
Does the Bioaccessibility of Micronutrients Depend on the Matrix? A Comparison Between Dairy and Plant-based Alternatives

17:00–18:30

Poster Presentations Part II and Networking Drinks

@Foyer

- FCT-36 **Daniel Franco Ruiz**, The University of Santiago de Compostela, Spain
Rheological Evaluation of Olive Oil Emulsions with Chitosan for Oleogels Production
- FCT-37 **Anna Picinelli Lobo**, SERIDA, Spain
Antioxidant Composition of By-products from the Cider Industry: Apple Pomace
- FCT-38 **Anna Picinelli Lobo**, SERIDA, Spain
Utilization of Cider By-products for Mannitol Bioproduction
- FCT-39 **Lucia Andreu Coll**, Miguel Hernández University of Elche, Spain
Assessing the Impact of Regulated Deficit Irrigation on Polyphenolic Profile in ‘Mirlo Rojo’ Apricots
- FCT-40 **Lucía Seguí Gil**, Universitat Politècnica de València, Spain
Response of Cabbage and Broccoli Powdered Ingredients to *In Vitro* Digestion
- FCT-41 **Lucía Seguí Gil**, Universitat Politècnica de València, Spain
Impact of Thermophysical Pretreatments on *Lactiplantibacillus plantarum* Growth and Antioxidant Properties on Fermented IV-range Broccoli Wastes
- FCT-42 **Cristina Barrera Puigdollers**, Universitat Politècnica de València, Spain
Enhancing *Lactiplantibacillus plantarum* Growth in Solid-state Fermentation of Broccoli Stems Through Microwave Pretreatment
- FCT-43 **Maria Teresa Murillo Arbizu**, Public University of Navarra, Spain
Temperature Effects on Texture Attributes of Dysphagia-oriented Purees: Implications for Product Development and Evaluation
- FCT-44 **Gabriela Clemente Polo**, Universitat Politècnica de València, Spain
Characterization of Flour from Mango Seed Almonds
- FCT-45 **Pau Talens Oliag**, Universitat Politècnica de València, Spain
Effect of Protein Hydrolysis on Antinutrient Content of Black Bean Flour Hydrolysed with Pineapple By-product Extract
- FCT-46 **Pau Talens Oliag**, Universitat Politècnica de València, Spain
Impact of Food Oral Processing and Digestive Conditions on Bolus Particle Size and Starch Digestibility of Red Lentil Pasta
- FCT-47 **Javier Martínez Monzó**, Universitat Politècnica de València, Spain
Effect of Incorporating Encapsulated Omega-3 in 3D Food Printed Gels
- FCT-48 **Marta Igual Ramo**, Universitat Politècnica de València, Spain
Gendered Perceptions of Food: A Cross-cultural Study of Spain and Ecuador
- FCT-49 **Ilyas Atalar**, Eskisehir Osmangazi University, Turkey
Clarified and Decolorized Black Carrot Colorant Process Liquid Waste as an Emerging Glycose Syrup Alternative: Potential in Gummy Confectionery Production
- FCT-50 **Amin Majdalawieh**, American University of Sharjah, United Arab Emirates
Evaluation of the Anti-bacterial and Anti-fungal Activity of Xanthones Obtained via Semi-synthetic Modification of α -mangostin
- FCT-51 **Roberta Hoskin**, North Carolina State University, United States
Pilot Scale Production of Spray Dried American Elderberry (*Sambucus canadensis* L.) Protein-polyphenol Particles
- FCT-52 **Marija Stojadinovic**, University of Belgrade, Yugoslavia
Systematic Assessment of Algal Extracts as an Alternative to Fetal Bovine Serum in ZEM2S Fish Cell Culture
- FCT-53 **Fabiana Maria Saguir**, National University of Tucumán, CONICET, Argentina
Ability of Lactic Acid Bacteria Strains to Improve the Safety and Functionality of Fermented Fruits Juices

- FCT-54 **Jose Luan da Paixao Teixeira**, Institute of Food Technology – ITAL, Brazil
Fortification of Plant-based Beverages of Almonds: Bioaccessibility Estimated with the Use of Microencapsulated Sodium Selenate
- FCT-55 **Maria Teresa Bertoldo Pacheco**, Institute of Food Technology (ITAL), Brazil
High-pressure Technology Sterilization of Common Bean (*Phaseolus vulgaris* L.) and Cowpea [*Vigna unguiculata* (L.) Walp] Cultivars: *In Vitro* Protein Quality and Bioactives Compounds
- FCT-56 **Flávio Alves Da Silva**, Federal University of Goiás, Brazil
Proximate Composition and Volatile Profile of Pequi (*Caryocar brasiliense*) Pulp
- FCT-57 **Flávio Alves Da Silva**, Federal University of Goiás, Brazil
Antioxidant Potential of the Residue from the Extraction of Pigments from Jaboticaba (*Plinia cauliflora*)
- FCT-58 **Alessandra Lopes de Oliveira**, University of Sao Paulo, Brazil
Pressurized Liquid Extraction of *Persea americana* Var. *Margarida* By-products: An Optimization Study to Recovery Phenolic Compounds
- FCT-59 **Alessandra Lopes de Oliveira**, University of Sao Paulo, Brazil
Composition of Black Soldier Fly (*Hermetia illucens* L.) Larvae Flour, Raw and Defatted by Supercritical CO₂ Extraction
- FCT-60 **Tatianne Ferreira de Oliveira**, The Federal University of Goiás, Brazil
Development of Films with Antimicrobial Properties Using Waste from *Solanum paniculatum* and *Dipteryx alata*
- FCT-61 **Tatianne Ferreira de Oliveira**, The Federal University of Goiás, Brazil
Study of a Local Productive Arrangement (LPA): Characterization of Aromatic Compounds Present in Cachaças from the Region of Orizónia – Goiás – Brazil
- FCT-62 **Madalina Ungureanu-Iuga**, Stefan cel Mare University of Suceava, Romania
Impact of Physical Treatments on Sorghum Flour Chemical Features
- FCT-63 **Cristina Coman**, University of Agricultural Sciences and Veterinary Medicine Cluj-Napoca, Romania
Toxicity of Gadolinium on *Stevia rebaudiana*
- FCT-64 **Vasile Coman**, University of Agricultural Sciences and Veterinary Medicine Cluj-Napoca, Romania
Accumulation of Metal Oxide Nanoparticles in Soybean Plants Grown *In Vitro*
- FCT-65 **Loredana F. Leopold**, University of Agricultural Sciences and Veterinary Medicine Cluj-Napoca, Romania
Rapid and Non-invasive Identification of Carotenoids in Food Samples Using Thin-Layer Chromatography Combined with Raman Detection
- FCT-66 **Solange Torres Galán**, University of Concepción, Chile
Fortified Edible Mushrooms with Vitamin D2 and Evaluation of Their Biological Properties
- FCT-67 **Lilian Abugoch**, Universidad de Chile, Chile
Obtain the Best Blend between Maqui (*Aristotelia chilensis* (Mol.) Stuntz) and Murta (*Ugni molinae*) Concentrated by Preparative HPLC, and Evaluate the Antioxidant and Anti-inflammatory Effect in Cellular Model
- FCT-68 **Ana-Milena Vanegas-Azuero**, Universidad Nacional Abierta y a Distancia – UNAD, Colombia
Sacha Inchi Oil Press-cake: An Alternative Protein Source for Obtaining Red Tilapia Fillets with Enhanced Levels of Essential Omega-3 Fatty Acids under a Sustainable Approach
- FCT-69 **Vanesa Sanz**, IATA-CSIC, Spain
Green Seaweed, Green Technologies: Towards Sustainable High-value Compound Extraction and Biofilm Production

Food Chemistry and Ingredients

Session Chairs: **Roberta Hoskin**, North Carolina State University, United States
Manuela M. Moreira, REQUIMTE/LAQV-ISEP, Portugal

- 08:30-08:55 **Vibeke Orlén**, University of Copenhagen, Denmark **Invited (20 + 5 QA)**
Plant Protein Functionality in a Nutshell
- 08:55-09:10 **Vladimiro Cardenia**, University of Turin, Italy
Synergistic Effect of Phytocannabinoids and Terpenes from Hemp Inflorescences in Preventing Lipid Oxidation
- 09:10-09:25 **Alessandra Fratianni**, University of Molise, Italy
Characterization and Use of Wild Edible Plants for the Realization of Functional Foods
- 09:25-09:40 **Trinidad Perez Palacios**, University of Extremadura, Spain
Development and Evaluation of Salt Microcapsules: Oral Release and Sensory Perception
- 09:40-09:55 **Joana Costa**, REQUIMTE-LAQV, University of Porto, Portugal
Allergens from Rosaceae Fruits: Challenges in Protein Extraction and IgE-reactivity Assessment
- 09:55-10:10 **Fabienne Remize**, SPO, INRAE, Univ Montpellier, Institut Agro, France
Modulation of Carotenoid Content in Sweet Potato through Cooking and Lactic Acid Fermentation
- 10:10-10:25 **Montserrat Ferrando**, Universitat Rovira i Virgili, Spain
Insect Proteins to Create Innovative Emulsifiers with Enhanced Antioxidant Capacity
- 10:25-10:40 **Jose Ricardo Perez-Correa**, Pontifical Catholic University of Chile, Chile
Multiobjective Optimization of Lactic Acid Fermentation of Murta Juice

10:40-11:00 **Coffee Break**

@Foyer

Food Chemistry and Ingredients

Session Chairs: **Joana Costa**, REQUIMTE-LAQV, Faculty of Pharmacy, University of Porto, Portugal
Trinidad Perez Palacios, University of Extremadura, Spain

- 11:00-11:25 **Trine Kastrup Dalsgaard**, Aarhus University, Denmark **Invited (20+5 QA)**
Stability of Individual Anthocyanins from Black Carrots Towards pH and Light-impact of Acylation
- 11:25-11:40 **Raquel B. Gomez-Coca**, Instituto de la Grasa - CSIC, Spain
The Mineral Oil Hydrocarbon Paradox in Olive Pomace Oils
- 11:40-11:55 **Roberta Hoskin**, North Carolina State University, United States
Spray Drying Microencapsulation is an Efficient Strategy to Produce Sustainable Insect Protein-derived Food Ingredients
- 11:55-12:10 **Jingyuan Liu**, University of Copenhagen, Denmark
Polyphenol-based Protein Modification: Reactivity of Amino Acids and Evaluation of the Biological Activity of Modified Products
- 12:10-12:25 **Manuela M. Moreira**, REQUIMTE/LAQV-ISEP, Portugal
Assessing the Quality of Honey from Natural Park of Montesinho: Antioxidant Properties, Phenolic Composition, and Environmental Contaminant Safety
- 12:25-12:40 **Evangelia D. Karvela**, Harokopio University, Greece
Green Extraction of Olive By-products from 2 Different Greek Varieties: Valorization of their Phenolic and Antioxidant Content for Food Grade Additive Production

12:40-13:40 **Lunch Break**

@Foyer

Food Chemistry and Ingredients

Session Chairs: **Renata Vardanega**, University of Minho, Portugal
Alessandra Fratianni, University of Molise, Italy

- 13:40–13:55 **Paula Jauregi**, AZTI, Spain
Natural Deep Eutectic Solvents (NADES) for Sustainable Extraction of Bioactives from Food By-products
- 13:55–14:10 **Sileshi Wubshet**, Nofima, Norway
Novel Bioanalytical Approach for Facilitated Discovery Bioactive Peptides and Optimization of Enzymatic Protein Hydrolysis
- 14:10–14:25 **Patricia Murciano Martinez**, Nestle Research, Switzerland
Tailored Carbohydrate Materials and Their Application in the Food Industry
- 14:25–14:40 **Qiang Liu**, Agriculture and Agri-Food Canada, Canada
Characterization of Molecular Structure, Physicochemical and Nutritional Properties of Starch and Flour from Lentil with Different Treatments Using Pulse Electrical Field (PEF), Microwave (MW), Ohmic Heating (OH), and Ultrasound Technologies
- 14:40–14:55 **Mariacinzia Rutigliano**, University of Foggia, Italy
The Second Life of Food By-products: Technological and Chemical Characteristics of Enriched Fresh Pasta with No-waste
- 14:55–15:10 **Renata Vardanega**, University of Minho, Portugal
Nanostructured Lipid Carriers for Enhanced Cannabidiol Bioaccessibility: *In Vitro* Digestion Study and Cytotoxicity Assessment
- 15:10–15:25 **Vikramaditya Shirsat**, Institute of Chemical Technology Mumbai, India
Mathematical Modeling of Bioactive Extraction from Cashew Apple: Maxwell-Stefan Approach to Resolve Effect of Internal Diffusivity and External Mass Transfer (YRF)
- 15:25–15:40 **Giulio Scappaticci**, University of Pisa, Italy
Bread Improvement with Nutraceutical Ingredients Obtained from Food By-products: Effect on Quality and Technological Aspects (YRF)

15:40–16:00 **Coffee Break**

@Foyer

Food Chemistry and Ingredients – YRF

Session Chairs: **Qiang Liu**, Agriculture and Agri-Food Canada, Canada
Giulio Scappaticci, University of Pisa, Italy

- 16:00–16:15 **Maria Muñoz Núñez**, Universitat Politècnica de Catalunya, Spain
Utilisation of Agri-food By-products with Antioxidant Properties for Beef Burgers Production
- 16:15–16:30 **Luís Machado**, University of Minho, Portugal
Identification of *Chlorella vulgaris* Proteins – Functional and Structural Characterisation
- 16:30–16:45 **Hippolyte Mouriot**, Andros – UMR SPO, France
Identification of a New Marker for Musty Off-flavor in Apple Products : 1-hydroxyoctan-3-one
- 16:45–17:00 **Zichen Zhao**, The Hong Kong Polytechnic University, Hong Kong
Fractionation, Characterization, and Assessment of Nutritional and Immunostimulatory Protein-rich Polysaccharide-protein Complexes Isolated from *Lentinula edodes* Mushroom
- 17:00–17:15 **Ilaria Proetto**, University of Catania, Italy
Valorisation of Brewer's Spent Grain Flour as a Functional Ingredient to Improve Nutritional and Health Quality in Dry Pasta Formulation

- 17:15–17:30 **Marta Ferrati**, UNICAM–University of Camerino, Italy
Exploitation of Microwave-assisted Extraction to Produce High-valuable Pomegranate Juice
- 17:30–17:45 **Assamae Chabni**, Autonomous University of Madrid, Spain
In Vitro Digestion Study Comparing a Predigested Glycerolysis Product versus Long-chain Polyunsaturated Fatty Acid-rich Oils (LCPUFA) as a Strategy for Administering LCPUFA to Preterm Neonates
- 17:45–18:00 **Joyce Andrade da Silva**, São Paulo State University (UNESP), Brazil
Antioxidant Capacity of Pequi Oil (*Caryocar brasiliense Camb.*) in the Nutrition of Laying Hens Under Heat Stress: Investigation of Changes in the Plasma Proteome
- 18:00–18:15 **Yanyu Zhu**, The Hong Kong Polytechnic University, Hong Kong
Cordyceps Cs-HK1 Exopolysaccharide Protects Intestinal Barrier Integrity and Mitigates Oxidative Stress in H₂O₂-exposed Caco-2 Cells

*YRF = Young Researchers Forum

Sustainability and Climate Neutral Food Sector

Session Chairs: **Nicola Mercanti**, University of Pisa, Italy
Grazielle Nathia-Neves, National Food Institute, Technical University of Denmark, Denmark

- 08:45-09:00 **Carmen Masia**, Novonesis, Denmark
The Power of Bacteria and Enzymes: Texture and Aroma Improvement in Pea Protein Gels for Plant-based Cheese
- 09:00-09:15 **Mary Nkongho Tanyitiku**, University of Greenwich, United Kingdom
Incorporating Stinging Nettles as a Sustainable Food Source?
- 09:15-09:30 **Grazielle Nathia-Neves**, National Food Institute, Technical University of Denmark, Denmark
Valorization of Lupin Seeds using Green Technologies: Extraction of Non-polar and Polar Compounds for High-protein Flour Production
- 09:30-09:45 **Andrea Natolino**, University of Udine, Italy
Simultaneous Recovery of Bioactive Compounds from Winemaking By-products by Green Subcritical Fluids
- 09:45-10:00 **Stefano Pettinelli**, University of Pisa, Italy
Use of Resonance Waves in Winemaking to Produce Sangiovese Red Wine without Sulphites Addition in a Sustainable Way
- 10:00-10:15 **Luis-Felipe Gutierrez**, National University of Colombia, Colombia
Microwave Assisted Extraction as a Sustainable Technology Approach to Recover Phenolic Compounds with Antioxidant Activity from Sacha Inchi Shell

- 10:15-10:30 **Anuj Niroula**, United Arab Emirates University, United Arab Emirates
Low pH-assisted Extraction of Date Seeds for the Preparation of Bioactive-rich Emulsions (YRF)

10:30-10:50 **Coffee Break**

@Foyer

Sustainability and Climate Neutral Food Sector - YRF

Session Chairs: **Paolo D'Incecco**, University of Milan, Italy
Stefano Gerna, University of Milan, Italy

- 10:50-11:05 **Stefano Gerna**, University of Milan, Italy
Development of Sodium-caseinate Packaging Films: Upcycling the Casein from Expired Pasteurized Milk in a Circular Economy Approach
- 11:05-11:20 **Natalia Cenitagoya Alonso**, University of Alicante, Spain
Exploring the Extraction and Optimization of Bioactive Compounds from *Carica papaya* L. by-products for Eco-friendly Food and Packaging Solutions
- 11:20-11:35 **Kioomi Lou-Ramos**, Institute of Agrochemistry and Food Technology-Spanish National Research Council (IATA-CSIC), Spain
Valorization of Mushroom Biomass for Protein Extraction
- 11:35-11:50 **Jane Chizie Ogbonna**, University of Tsukuba, Japan
Valorization of Cassava Peels via Hydrothermal Liquefaction as a Potential Co-emulsifier
- 11:50-12:05 **Antiopi Vardaxi**, National Hellenic Research Foundation/Theoretical and Physical Chemistry Institute, Greece
Novel and Sustainable Food-grade O/W Pickering Emulsions Valorizing Complexes of Bacterial Nanocellulose and Chitosan

12:05–12:20 **Shuai Hu**, Autonomous University of Madrid, Spain
Coupling *In Vitro* Food Digestion Process to Caco⁻² Cells Bioassays for a Lipid-enriched Supercritical CO₂ Extract from Coffee Pulp

12:20–13:20 Lunch Break @Foyer

Emerging Technologies and Future Food

Keynote – Invited Talks

Session Chairs: **Rossella Caporizzi**, University of Foggia, Italy
Tan Lay Poh, Nanyang Technological University, Singapore

13:20–13:50 **Kjeld Van Bommel**, TNO, Netherlands
The IMAGINE Project: Creating Fully Personalized Nutrition by Means of 3D Printing

13:50–14:15 **Peter Nieuwkerk**, CEO/founder Gastronomy 3D Food Works, Netherlands
3D Printed Food in Care Centers and Hospitals, a Boost for Healthy and Delicious Eating: First Market Results

14:15–14:40 **Rossella Caporizzi**, University of Foggia, Italy
Revolutionizing Food Structure Through 3D Printing for Enhanced Nutritional and Sensory Benefits

14:40–15:10 **Antonio Derossi**, University of Foggia, Italy
Shape Morphing of Pasta and Cereal Snacks Triggered by Engineered Surface Grooves

15:10–15:25 **Ricardo Nuno Correia Pereira**, University of Minho, Portugal
Ultra-high-temperature Effects on Whey Protein Isolate via Ohmic Heating

15:25–15:40 **Luis Loureiro**, University of Minho, Portugal
Enzymatic Pretreatment for Enhanced Ohmic Heating Effect on *Nannochloropsis gaditana* Cells Disruption/Permeabilization

15:40–16:00 Coffee Break @Foyer

Session Chairs: **Xiaojuan Xu**, National University of Singapore, Singapore
Daniela Bermudez-Aguirre, USDA ARS Eastern Regional Research Center, United States

16:00–16:15 **Lucia Parafati**, University of Catania, Italy
Use of *Wickerhamomyces anomalus* BS91 Glucanases to Improve Stability of Anthocyanins in Free Sulfur Dioxide Frappato Wine

16:15–16:30 **Maria Teresa Liberatore**, University of Foggia, Italy
Wine with Alcohol or Low Alcohol? An Alternative to Produce a New Low Alcohol Wine that Resemble a Classic Wine: Preliminary Results

16:30–16:45 **Xiaojuan Xu**, National University of Singapore, Singapore
Flavonoid-Induced Activation of MAPK and PI3K/AKT/mTOR Pathways Enhances Fish Muscle Stem Cell Growth for Cultured Meat Innovation

16:45–17:00 **Daniela Bermudez-Aguirre**, USDA ARS Eastern Regional Research Center, United States
A Comprehensive Approach to Ensure the Food Safety and Quality of In-shell Eggs

17:00–17:15 **Juan de Dios Figueroa Cárdenas**, Cinvestav Unit Queretaro, Mexico
Effect of Concentration and Charge of Maltodextrin, and Packing Factor on the Electrospinning Processing Performance

17:15–17:30 **Rosa Palmeri**, University of Catania, Italy
Mangosteen (*Garcinia mangostana* L.) Peels: A Novel Antibrowning Agent with Inhibition Effect of on Potato Polyphenol Oxidase

17:30–17:45 **Martin Heckl**, Technical University of Munich, Germany
Heterogeneous Structures of Starch-based Materials Using NIR Post-processing in 3D Food Printing (YRF)

17:45–18:00

Milica Veljković, University of Belgrade, Yugoslavia

From Waste to Taste: Characterization and Investigation of the Prebiotic Effect of Sunflower Meal Extract on Gut Microbiota Residents (YRF)

*YRF = Young Researchers Forum

Food and Health in A New Dimension

Session Chairs: **Svend Secher Dam**, Business Academy Aarhus, Denmark
Vladimiro Cardenia, University of Turin, Italy

- 08:30–08:45 **Roberta Tolve**, University of Verona, Italy
Crafting Guilt-free Indulgence: Exploring Dietary Fibers as Fat Replacers in Low-fat Ice Cream
- 08:45–09:00 **Svend Secher Dam**, Business Academy Aarhus, Denmark
Nutrients and Antinutrients in Legume Seeds
- 09:00–09:15 **Graziella Serio**, University of Palermo, Italy
Black Persimmon (*Diospyros digyna Jacq.*) Extracts: IL-1 β induced Inflammation Mitigation & Barrier Function Preservation in Intestinal Epithelial Cells
- 09:15–09:30 **Maria Salome Mariotti Celis**, Finis Terrae University, Chile
Exploring the Impact of Gastrointestinal Digestion on Phlorotannin Bioaccessibility and Antioxidant Capacity in Brown Algae-based Orally Consumed Products Throughout the Life Cycle
- 09:30–09:45 **Adele Papetti**, University of Pavia, Italy
Screening of Edible Plant Polyphenolic Extracts for Their Potential Activity towards Glycation Reaction
- 09:45–10:00 **Fangting Gu**, The Hong Kong Polytechnic University, Hong Kong
Simulated Digestion and Gut Microbial Fermentation of *Cordyceps sinensis* Polysaccharides and Effects on Intestinal Barrier (YRF)
- 10:00–10:15 **Noelia María Rodríguez Martín**, CSIC-Institute of Fat, Spain
Nutritional and Functional Benefits of Chickpea Protein Hydrolysates (YRF)
- 10:15–10:30 **Nicola Mercanti**, University of Pisa, Italy
Towards Sulphite-free Winemaking: A New Horizon of Vinification and Maturation (YRF)
- 10:30–10:50 **Coffee Break** @Foyer

Miscellaneous Topics

Session Chairs: **Mehdi Habibi**, Wageningen University and Research, Netherlands
Alessandro Bianchi, University of Pisa, Italy

- 10:50–11:05 **Franco Pedreschi**, Pontificia Universidad Católica de Chile, Chile
Application of Computer Vision for Predicting the Formation Content of Acrylamide and 5-Hydroxymethylfurfural in Crackers
- 11:05–11:20 **Alessandro Bianchi**, University of Pisa, Italy
Primary and Secondary Shelf-life of Bread as a Function of Formulation and MAP Conditions: Focus on Physical-chemical and Sensory Markers
- 11:20–11:35 **Aberham Hailu Feyissa**, National Food Institute, Technical University of Denmark, Denmark
Modelling Dynamics of Proving and Baking Process
- 11:35–11:50 **Mehdi Habibi**, Wageningen University and Research, Netherlands
Normal Force Rheology as a Novel Method for Food Characterization
- 11:50–12:05 **Isabel Mafra**, REQUIMTE-LAQV, University of Porto, Portugal
Novel Tools for the Botanical Authentication of Ayurveda Herbal Products: *Bacopa monnieri* and *Centella asiatica* as Case Studies

12:05–12:20	Tiziana Nardin , Edmund Mach Foundation, Italy Investigating Nitrosamine Formation in Meat: Effects of Cooking, Digestion, and Preservatives
12:20–12:35	Anabella Lopez , Institut Químic de Sarrià, Spain Green Bean Coffee Controlled Fermentation in Guatemala (YRF)
12:35–12:50	Mahrokh Ebrahimi , Institut Polytechnique UniLaSalle, France Development of Bioactive Edible Starch Films Incorporated with Lignin Extracted from the Ozonation of <i>Miscanthus giganteus</i> (YRF)
12:50–13:00	Awards and Closing Remarks
13:00–	Lunch and Departures @Restaurant

*YRF = Young Researchers Forum

We wish to see you again in

FCT-2025

Rome, Italy October 2025



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