7th International Conference on
FOOD CHEMISTRY AND TECHNOLOGY
November 08-10, 2021 | Virtual
Time zone: Paris, France Local Time
**Monday, November 08, 2021**

**Time zone:** Paris, France Local Time

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<th>Time</th>
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<tr>
<td>07:50 – 08:00</td>
<td>Zoom Joining and AV Check</td>
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<tr>
<td>08:00 – 08:10</td>
<td>Welcome &amp; Introduction to <strong>FCT-2021</strong></td>
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### Session I – Food Chemistry

**Chairs:** Pierluigi Plastina, University of Calabria, Italy  
Maya Davidovich-Pinhas, Technion - Israel Institute of Technology, Israel

#### Keynote Talks

<table>
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<tr>
<th>Time</th>
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</table>
| 08:10 – 08:40 | **Cocoa - from Bean to Bar to Human**  
Nikolai Kuhnert, Jacobs University, Germany                          |
| 08:40 – 09:10 | **From Molecular Assemblies to Nutritional Food Products**  
Maya Davidovich-Pinhas, Technion - Israel Institute of Technology, Israel |
| 09:10 – 09:40 | **Novel Regioselective Synthesis of Urolithin Glucuronides, Human Gut Microbiota Metabolites of Food Ellagitannins and Ellagic Acid**  
Francisco A. Tomás-Barberán, CEBAS-CSIC, Spain & Taif University, Saudi Arabia |
| 09:40 – 10:10 | **Pickering Emulsions and Janus Particles for Food and Agriculture**  
Guy Mechrez, Volcani Center, ARO, Israel                              |

10:10 – 10:20 **Short Break**

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<tr>
<th>Time</th>
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| 10:20 – 10:40 | **Identification of Bioactive Lipophenols in Olive Oil**  
Pierluigi Plastina, University of Calabria, Italy                      |
| 10:40 – 11:00 | **NMR-Based Metabolomic Approach to Study Olive Oils**  
Luisa Mannina, Sapienza University of Rome, Italy                       |
| 11:00 – 11:20 | **Novel Method Based-on Oxidase-like Nanozyme for Total Antioxidant Capacity Assay of Fruit and vegetable Food**  
Wentao Zhang, Northwest A&F University, China                         |
| 11:20 – 11:40 | **Cleaner and Sustainable Production of Biobased Surfactants using Ion-Exchange Resin Catalyst**  
Naomi Shibasaki-Kitakawa, Tohoku University, Japan                    |
| 11:40 – 12:00 | **High Throughput Method for Quantifying Androstenone and Skatole in Adipose Tissue from Uncastrated Male Pigs by Laser Diode Thermal Desorption-Tandem Mass Spectrometry**  
Birgitte Winther Lund, Danish Technological Institute, Denmark         |
| 12:00 – 12:20 | **Efficient and Sustainable Extraction of Marine Collagens from Starfish Using High Shear Homogenization and Ultrasound**  
Naveen Kumar Vate, Chalmers University of Technology, Sweden           |
| 12:20 – 12:40 | **Active Polymeric Sheets for Plant Protection based on Pickering Emulsion Templating**  
Karthik Ananth Mani, Volcani Center, ARO, Israel                      |
12:40 – 12:50  The Interference of Dietary Fibre with Lipolysis Depends on the Type of Administration of β-Glucans by Means of Different Solubilisation Processes  
Kathrin Haider, Quadram Institute Bioscience, United Kingdom

12:50 – 13:00  Protein Extraction from BSF Flour, Analysis of Composition and Protein Profile  
Lucas Sales Queiroz, Denmark Technical University (DTU), National Food Institute, Denmark

13:00 - 13:10  The Understanding of Sensory Descriptors of Wine by Australian-Italian and Vietnamese Non-Expert Consumers  
Thuy Hang Truong Christina, University of Verona, Italy

13:00 – 13:20  Short Break

Arantzazu Valdes Garcia, University of Alicante, Spain

13:40 – 13:50  Typicality of French Ossau-Iraty Cheeses by Direct Injection Mass Spectrometry  
Marine Reyrolle, The University of Pau and the Adour Region, France

13:50 – 14:00  Triple Detector for Characterization of Antioxidants in Olea europaea  
Yubin Ding, Free University of Bolzano, Italy

14:00 – 14:20  NMR Spectroscopy in Lipid Analysis  
Emmanuel Hatzakis, Ohio State University, OH, USA

14:20 – 14:40  Variation in the Essential Oil Composition of Turmeric Varieties Grown in North Alabama, USA  
Srinivasa Rao Mentreddy, Alabama A&M University, AL, USA

14:40 – 15:00  Antioxidant Pectins and Fibers Rescued from Agro-Industrial Residues Useful for Food Preservation  
Ana Maria Rojas, University of Buenos Aires, Argentina

15:00 – 15:20  Development of a Method for Measuring Chymotrypsin Inhibitor Activity in Soybeans and Other Legume Products  
Keshun Liu, US Dept. of Agriculture, Washington, USA

15:20 – 15:30  Short Break

Session II – Food Microbiology, Safety and Preservation

Chair: Ronald de Vries, Westerdijk Fungal Biodiversity Institute, Netherlands

Keynote Talks

15:30 – 16:00  The Potential of Fungal Enzymes for Production of Specific Pre-biotic Oligosaccharides  
Ronald de Vries, Westerdijk Fungal Biodiversity Institute, Netherlands

16:00 - 16:30  Active or Passive Chemical Approaches for Control of Food Spoilage- and Crop Disease- Fungi  
Simon Avery, University of Nottingham, United Kingdom

16:30 - 16:50  Reaction between Amino Acids and Polyphenols with Reactive Aldehydes in Foods and Their Safety Concerns  
Jie Zheng, Jinan University, China
16:50 - 17:10  Rapid Authentication of Meat Components Based on the Molecular Amplification Integrated Protocols  
Wei Chen, Hefei University of Technology, China

17:10 - 17:30  Formation of the Adducts Formed Between Acrylamide and Amino Acid in Foods  
Caihuan Huang, Jinan University, China

17:30 - 17:50  Application of High-Resolution Mass Spectrometry for the Evaluation of Migrating Chemicals Coming from Plastic Food Packaging Materials  
Maria Jose Gomez Ramos, University of Almeria, Spain

17:50 - 18:10  Rapid Control of Undeclared Sources of Meat in Foods: Recombinase Polymerase Amplification with Test Strip Detection to Identify Presence of Chicken and Pig Meat  
Anatoly V. Zherdev, Research Centre of Biotechnology of the Russian Academy of Sciences, Russia

18:10 - 18:30  Effect of Porophyllum linaria Essential Oil with Antifungal Activity on Flour and Baked Product Quality  
Zaida N. Juárez, Popular Autonomous University of the State of Puebla, Mexico

18:30 - 18:50  Challenges to Using Recycled Post-Consumer Polyolefins as Food Contact Materials (FCMs)  
Greg Curtzwiler, Iowa State University, IA, USA

18:50 - 19:10  Combinatorial Peptides Extract from Probiotics Reduce the Deterioration of Ready-To-Eat Mango Wedges  
Gabriela N. Tenea, Technical University of the North, Ecuador

19:10 - 19:20  From Starter-Assisted to Fermentome-Driven: A Paradigm Shift in Sourdough Fermentation  
Hana Ameur, Free University of Bolzano, Italy

19:20 - 19:30  From Cynara cardunculus Biomass to Active Protein-Based Films  
Seyyedeh Fatemeh Mirpoor, University of Naples, Italy

19:30 - 20:00 Poster Presentations

P-01  Influence of Ultrasounds on Wine Microbiota  
Raquel Munoz-Garcia, University of Castilla-La Mancha, Spain

P-02  Application of NIR Spectroscopy for Estimating Density, Polyphenol Content and Antioxidant Capacity of Natural Cork Stoppers  
Manuel López-Viñas, University of Castilla-La Mancha, Spain

P-03  NADES-based Surfactant-Free Microemulsions for Solubilization and Extraction of Curcumin from Curcuma longa  
Verena Huber, University of Regensburg, Germany

P-04  Role of Bile Salt in Lipid Digestion Process  
Natalia Łozińska, Gdańsk University of Technology, Poland

P-05  Bioaccessibility and Intestinal-Epithelial Transport of Bread-Melanoidins Extracted with10 kDa Polyethersulfone Membrane  
Gonzalo Salazar-Mardones, University of Burgos, Spain

20:00 - 20:10  Closing Remarks
### Session III – Symposium on Food Hydrocolloids

**Chairs:** Elena Poverenov, Agriculture Research Organization, The Volcani Center, Israel  
Fotis Spyropoulos, University of Birmingham, United Kingdom

#### Keynote Talk

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<th>Speaker</th>
<th>Affiliation</th>
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<tr>
<td>08:10 – 08:40</td>
<td>Post Consumption Hydrocolloid Interactions Affecting Digestion Kinetics</td>
<td>Alan Mackie</td>
<td>University of Leeds, United Kingdom</td>
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<tr>
<td>08:40 – 09:00</td>
<td>Active Edible Coatings to Enhance Quality and Storability of Fresh Food Products</td>
<td>Elena Poverenov</td>
<td>Agriculture Research Organization, The Volcani Center, Israel</td>
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<tr>
<td>09:00 – 09:20</td>
<td>Innovative Food Ingredients Based on the Chitosan-Milk Protein Complex Particles for the Fortification of Food with Essential Lipids</td>
<td>Maria Semenova</td>
<td>N. M. Emanuel Institute of Biochemical Physics of Russian Academy of Sciences, Russian Federation</td>
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<td>09:20 – 09:40</td>
<td>Application of Interfacial Covalent Interaction in the Formation of Emulsions</td>
<td>Yan Li</td>
<td>Huazhong Agricultural University, China</td>
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<td>09:40 – 10:00</td>
<td>Effect of pH on the Mechanical, Interfacial, and Emulsification Properties of Chitosan Microgels</td>
<td>Chen Huang</td>
<td>Hubei University of Technology, China</td>
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<td>10:00 – 10:20</td>
<td>Realistic Computer Simulation for Analyzing Food Flow during Swallowing</td>
<td>Yukihiko Michiwaki</td>
<td>Japanese Red Cross Musashino Hospital, Japan</td>
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<td>10:20 – 10:30</td>
<td>Short Break</td>
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<td>10:30 – 10:50</td>
<td>Study on Gelation Mechanisms and Network Structures in Carrageenan Gels from Macro and Microscopic Viewpoints</td>
<td>Shingo Matsukawa</td>
<td>Tokyo University of Marine Science and Technology, Japan</td>
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<td>10:50 – 11:10</td>
<td>Viscoelastic Properties of Durum Wheat Doughs Enriched with Soluble Dietary Fibres in Relation to Pasta-Making Performance and Glycaemic Response of Pasta</td>
<td>Donatella Peressini</td>
<td>University of Udine, Italy</td>
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<td>11:10 – 11:30</td>
<td>Modulating the Adsorbance of Particles at the Interface of Water in Water Emulsions</td>
<td>Taco Nicolai</td>
<td>Université du Maine, Le Mans, France</td>
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<td>11:30 – 11:50</td>
<td>Seed Coat Mucilages: Structural, Functional/Bioactive Properties and Genetic Information</td>
<td>Qingbin Guo</td>
<td>Tianjin University of Science and Technology, China</td>
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<td>11:50 – 12:10</td>
<td>Alginate Fluid Gels for the Encapsulation and Release of Small Molecular Weight Model Actives</td>
<td>Fotis Spyropoulos</td>
<td>University of Birmingham, United Kingdom</td>
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<td>12:10 – 12:30</td>
<td>Rheological Assessment of the Effect of Additives on the Stability of Chia (Salviahispanica L.) Mucilage Suspensions</td>
<td>Francesca Cuomo, University of Molise, Italy</td>
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<td>12:30 – 13:00</td>
<td>Lunch</td>
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<td>13:00 – 13:30</td>
<td><strong>Keynote Talk</strong></td>
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<td>13:30 – 13:50</td>
<td>Extraction of Virial Coefficients from Phase Diagrams</td>
<td>Arjen Bot, Unilever Foods Innovation Centre, Netherlands</td>
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<td>13:50 – 14:10</td>
<td>Alginites and Obesity</td>
<td>Matthew Wilcox, Newcastle University, United Kingdom</td>
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<td>14:10 – 14:30</td>
<td>Emulsion Stabilising Properties of Maillard Conjugates Formed by Fragmented Vegetable Proteins and Polysaccharides</td>
<td>Rammile Ettelaie, University of Leeds, Kingdom</td>
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<td>14:30 – 14:50</td>
<td>Water-in-Water (W/W) Emulsions Obtained by Condensation Methods</td>
<td>Jordi Esquena, IQAC-CSIC, Spain</td>
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<td>14:50 – 15:10</td>
<td>Encapsulation of Curcumin in Liquid Lipid Nanocapsules</td>
<td>Julia Maldonado-Valderrama, University of Granada, Spain</td>
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<td>15:10 – 15:30</td>
<td>Spruce Galactoglucomannan Stabilizers: Effect of Their Characteristics on Stability and Rheological Properties of Emulsion</td>
<td>Minh Thao Ho, University of Helsinki, Finland</td>
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<td>15:30 – 15:50</td>
<td>Adsorption Kinetics and Interfacial Rheology of Whey Protein Isolate at Oil-Water Interfaces: Effects of Protein Concentration, pH, and Heat Treatment</td>
<td>Beibei Zhou, Teagasc Food Research Centre, Ireland</td>
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<td>15:50 – 16:00</td>
<td>Propolis Nanoparticles Offering Pickering Stabilisation and Antimicrobial Activity onto O/W Emulsions</td>
<td>Nelli Chourmouziadi Laleni, University of Birmingham, United Kingdom</td>
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<td>16:00 – 16:20</td>
<td>Suppressive Effect of Fermented Brown Rice and Rice Bran on Spontaneous Type 1 Diabetes in NOD Mice</td>
<td>Keiko Kataoka, University of Tokushima, Japan</td>
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<tr>
<td>16:20 – 16:40</td>
<td>Seaweeds and Marine Animals as Protein Sources: Generation of Hydrolysates and Characterisation of Bioactivities, Iodine Content and Protein Digestibility</td>
<td>Maria Hayes, Teagasc Food Research Centre, Ireland</td>
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<td>16:40 – 17:00</td>
<td>Development of Pumpkin-Based Beverage Fermented by Mature Coconut Water Kefir Brew Using Response Surface Methodology</td>
<td>Koh Wee Yin, Universiti Malaysia Sabah (UMS), Malaysia</td>
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17:00 – 17:20  In-Vitro Digestion Nullified the Differences Triggered by Roasting in Phenolic Composition and α-Glucosidase Inhibitory Capacity of Coffee  
Marilisa Alongi, University of Udine, Italy

17:20 – 17:40  Protective Effects of Cabbage Seed Extract on Muscle and Brain in Accelerated Aging Rodent Model  
Debora Esposito, North Carolina State University, NC, USA

17:40 – 18:00  Development of Polyphenol-Rich Berry Fruit Beverages and their Effect on Hepatic Steatosis in Obese Rats  
Iza F Pérez-Ramírez, Autonomous University of Querétaro, Mexico

18:00 – 18:10  The Advantages of Using Scutellaria baicalensis and Its Flavonoids for the Management of Non-viral Hepatocellular Carcinoma  
Chen Minting, Hong Kong Baptist University, China

18:10 – 18:20  Microgreens from Pennisetum typhoides: Functional Foods with Opportunities for Novel Research  
Ratnika Sharma, GGS Indraprastha University, India

18:20 – 18:30  Evaluation of Belgian Endive Dietary Fibre Concentrate in Plant-Based Food Prototype Products  
Anna Twarogowska, Flanders Research Institute for Agriculture, Fisheries and Food, Belgium

18:30 – 18:40  Mycoprotein Structure Influences Carbohydrate and Lipid Digestion In vitro  
Raffaele Colosimo, Quadram Institute Bioscience, United Kingdom

18:40 – 18:50  Sourdough Fermentation as a Tool to Enhance the Nutritional and Functional Features of Tritordeum Bread  
Kashika Arora, Free University of Bolzano, Italy

18:50 - 19:20  Poster Presentations

P-06  Chitosan-WPI Electrostatic Complex as a Nanocontainer for Essential Lipids  
Sergey Chebotarev, Emanuel Institute of Biochemical Physics of Russian Academy of Sciences, Russia

P-07  High-Power Ultrasound for the Efficient Extraction of Pectin Fractions from Discarded Carrots (Daucus carota) and Eggplant (Solanum melongena) Fruit Exocarp  
Ana Maria Rojas, University of Buenos Aires, Argentina

P-08  Effect of Addition of Amaranth Seed and Sprout Flours on Tilapia Minced Restructured  
Miguel A. Martínez-Maldonado, Huichapan Institute of Technology and Higher Education-ITESHU, Mexico

P-09  The Impact of Environment on Micro and Macronutrients in Meat  
Sofia Skoumpa, Institute of Technology Carlow, Ireland

P-10  Predicting Functional Properties of Whey with Front-Face Fluorescence of Tryptophan  
Paulina Andrea Freire Vasconez, University of Barcelona, Spain

19:20 - 19:30  Closing Remarks
07:50 – 08:00  Zoom Joining and AV Check
08:00 – 08:10  Welcome & Introduction

**Session V – Food Technology**

**Chairs:** Kirsi S. Mikkonen, University of Helsinki, Finland
Antonio Derossi, University of Foggia, Italy

### Keynote Talk

08:10 – 08:40  **Nanobiosensors for Contaminants Detection**
Arben Merkoçi, Catalan Institute of Nanoscience and Nanotechnology, Spain

08:40 – 09:00  **Novel Applications of Quorn Fermentation Co-Product Extracts as Oil-Lowering Emulsifiers and Partial Egg White Replacers**
Julien Lonchamp, Queen Margaret University, United Kingdom

09:00 – 09:20  **Macromolecular Properties Underlying Carrageenan Implications on Digestive Proteolysis, Bioaccessibility of Bioactive Peptides and Colonic Microbiota**
Uri Lesmes, Technion - Israel Institute of Technology, Israel

09:20 – 09:40  **Effect of pH Na+ and Extractant on Emulsifying Properties of Soy Hull Polysaccharide**
Hong Song, Bohai University, China

09:40 – 10:00  **High Pressure Processing for Structure Modification of Meat and Milk Proteins**
Vibeke Orlien, University of Copenhagen, Denmark

10:00 – 10:10  Short Break

10:10 – 10:30  **Tailoring Functionalities of Plant-based Foods: Fermented Dairy Alternatives**
Rene Floris, Division Manager FOOD, NIZO, Netherlands

10:30 – 10:50  **Plant Proteins – Processing and Nutritional Quality**
Iben Lykke Petersen, University of Copenhagen, Denmark

10:50 – 11:10  **The Effect of Processing on Gastrointestinal Digestion of Infant Milk Formula**
Linda Giblin, Teagasc Food Research Centre, Ireland

11:10 – 11:30  **Soybean Okara Byproduct: Physicochemical and Conformational Changes Induced by Ultrasound-Driven Protein Extraction**
Gilda Aiello, The San Raffaele University of Rome, Italy

11:30 – 11:50  **Active Polysaccharide Matrices for Extending the Shelf-life of Fresh Plant Products**
Kirsi S. Mikkonen, University of Helsinki, Finland

11:50 – 12:10  **Protein Structural Changes and Physical Parameters of Abalone (Haliotis rufescens) Muscles Treated by High Hydrostatic Pressure**
Yamira Cepero Betancourt, University of the Bio-Bío, Chile
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<tr>
<td>12:10 – 12:30</td>
<td>Evaluation of Non-Equilibrium Dynamic Changes in Food Structure to Manage Appearance, Functionality and Stability</td>
<td>Pilar Buera, University of Buenos Aires, Argentina</td>
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<td>12:30 – 12:40</td>
<td>Chemical Profile of Colorful Bean (<em>Phaseolus Vulgaris L</em>) Flours: Changes Influenced by the Cooking Method</td>
<td>Juliana Aparecida Bento, Federal University of Goiás, Brazil</td>
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<td>12:40 – 12:50</td>
<td>Modeling and Optimization of High-Pressure Homogenization of Not from Concentrate Juice: Achieving Better Juice Quality Using Sustainable Production</td>
<td>Jianing Liu, Wageningen University &amp; Research, Netherlands</td>
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<td>12:50 - 13:00</td>
<td>Changes in Network Structure of Agarose during Gelation Studied by Multiple Particle Tracking Method and NMR</td>
<td>Hwabin Jung, Tokyo University of Marine Science and Technology, Japan</td>
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<td>13:00 - 13:20</td>
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17:20 - 17:40  Isolation and Molecular Identification of Lactic Acid Bacteria from D.sap, A New Grape Fermented Solution
Hossein Dezhakam, Kharazmi Institute of Higher Education, Iran

17:40 - 18:00  The Effect of Aromatic Rice (Joha) Phytonutrient(S) in High Fat High Carbohydrate (HFHC) Diet Induced Insulin Resistance In Vivo Model System
Rajlakshmi Devi, Institute of Advanced Study in Science & Technology, India

18:00 - 18:20  Tryptophan Fluorescence and Functional Properties of Whey
Paulina Andrea Freire Vasconez, University of Barcelona, Spain

18:20 - 18:50  Poster Presentations

P-11  Morphological, Organoleptic and Sensory Characterization of Almond Cultivars
Carmen Jurado Manogil, Centre of Edaphology and Applied Biology of Segura (CEBAS-CSIC), Spain

P-12  Fish Processing with Honey for Taste Component Maintenance
Hiroko Seki, Tokyo University of Technology, Japan

P-13  Inhibition of Bacterial Tyrosine Phenol-Lyase by Sesame (Sesamum indicum L.) Lignans
Daiki Oikawa, Tohoku University, Japan

P-14  Analysis of Underivatized Amino Acids in Wines by Solid Phase Extraction and HILIC-MS
Soo Hyun Park, Thermo Fisher Scientific, Germany

P-15  The Microbial Interaction and Stability in Taiwanese Ropy Fermented Milk during Fermentation and Successive Subcultures
Sheng-Yao Wang, National Taiwan University, Taiwan

18:50 - 19:00  Concluding Remarks
We wish to see you again in
FCT-2022