



29th WORKSHOP Developments in the Italian PhD Research on Food Science Technology and Biotechnology



Scientific Programme

WEDNESDAY, 10th SEPTEMBER 2025

DAY 1

09:00-13:30 REGISTRATION

13:30 OPENING SESSION AND INSTITUTIONAL GREETINGS

AULA MAGNA

KEYNOTE LECTURE

14:00 *Designing Future Food Research for a Sustainable Planet*
Prof. Milena Corredig, Aarhus University, Denmark

KEYNOTE LECTURE

14:30 *Unraveling the Role of Foods and Recipes as Modulator of Inflammatory and Oxidative Response in "Real Life" Nutrition*
Prof. Mauro Serafini, University of Teramo, Italy

AULA MAGNA

Chair: **Sonia Calligaris (UNIUD)**, **Giorgia Spigno (UNICATT)**

AULA TESI

Chair: **Fabio Licciardello (UNIMORE)**, **Eleonora Carini (UNIPR)**

AULA 7

Chair: **Clara Comuzzi (UNIUD)**, **Prospero Di Piero (UNINA)**

PARALLEL SESSION 1 Processing-Structure-Function Relationships in Food Design

15:15 Application of innovative technologies for the functionalisation of alternative proteins and the associated functional and rheological characterisation, **Federico Drudi**, UNIBO

15:30 Impact of process factors and agri-food by-products on the oxidative and physico-chemical stability of oleogels, **Giulia Salvatori**, UNIBO

15:45 Development of Plant-Based Cheese Analogues: The Role of Ingredients and Processes, **Irene Fenga**, UNIPR

PARALLEL SESSION 2 Smart Packaging and Green Technologies for Food Preservation

Microbial Biopolymers for Potential Applications in Food Packaging, **Marianna Ciccone**, UNIBO

Biodegradable Innovative Packaging: A Sustainable Solutions for Food Shelf Life Extension, **Corinne Giacondino**, UNIRC

Sustainability and innovation of spray packaging applied to food and nutraceutical products: development of innovative sprayable solutions and study of their application in bakery and confectionery, **Chiara Rossetti**, UNICATT

PARALLEL SESSION 3 Innovative and Green Approaches for Food Safety and Sustainability

Use of Non-Thermal Treatments to Improve the Quality, Safety, and Shelf-Life of Raw Pork Sausages, **Chiara Angelucci**, UNIBO

Nature-inspired compounds: synthesis and interaction with molecular targets for the application in plant protection, **Francesca Sacchi**, UNIMI

Biomimetic synthesis of phytoalexins as environmentally friendly antimicrobials, **Denise Dozio**, UNIMI

16:00-16:45 COFFEE BREAK AND POSTER SESSION

16:45 Exploring the physical, structural and technological properties of ball-milled starches from different origins from granules to porous gels, **Reindorf Boateng**, UNITE

Free and microencapsulated olive pomace extracts to improve the phenolic content and shelf-life of fresh pasta, **Mariana Miccolis**, UNIBA

Dietary Exposure to Chemicals and Implications for Consumers Health, **Giovanni Tommaso Lanza**, UNIPR

17:00-17:30 POSTER SESSION

Aula Magna

Chair: **Simone Giacosa (UNITO)**, **Fabio Chinnici (UNIBO)**

Aula Tesi

Chair: **Giovanna Ferrentino (UNIBZ)**, **Giacomo Squeo (UNIBA)**

Aula 7

Chair: **Donato Angelino (UNITE)**, **Luca Coccolin (UNITO)**

PARALLEL SESSION 4A Advanced Approaches in Wine Science

17:30 Optimizing Negroamaro Wine Quality: The Effect of Withering Techniques and Defoliation the Apulian Landscape, **Ilaria Prezioso**, UNISALENTO

17:45 Assessment of quercetin precipitation risk in Italian red wines, **Alessandra Luciano**, UNINA

18:00 Wild yeasts as source for designing specific "synthetic microbiota" to be used for wine fermentations, **Ernesto Petruziello**, UNINA

PARALLEL SESSION 5A Functional Ingredients from By-Products

Fostering Sustainability in the Olive Oil Supply Chain: Valorization of Typical Extra Virgin Olive Oils and Olive Mill By-products, **Sofia Zantedeschi**, UNIBO

Development of functional ingredients using byproducts from agro-industrial process, **Benedetta Fanesi**, UNIVPM

Technological treatments to obtain high-quality vegetable products, **Iolanda Cilea**, UNIRC

PARALLEL SESSION 6A Food, Microbiota and Health

Ultra-Processed foods: from the nutritional characteristics to the impact on human health, **Beatrice Pellegrini**, UNIMI

In Vitro Evaluation of Probiotic, Enzymatic, and Botanical Supplements on Gut Microbiota and Digestion, **Robin Duncan**, UNIMI

Genomic characterization of Lactic Acid Bacteria strains for the development of a novel psychobiotic product, **Chiara Maria Calvanese**, UNINA

18:15-19:00 POSTER SESSION

19:00 WELCOME COCKTAIL



UNIVERSITÀ DEGLI STUDI DI TERAMO

Campus Aurelio Saliceti, Polo Spaventa
Via R. Balzarini, 1, 64100
TERAMO (TE)



Scientific Programme

THURSDAY, 11th SEPTEMBER 2025

DAY 2

KEYNOTE LECTURE

09:00

Computational Food Science: making sense of food data
Prof. József Baranyi, ERA-Chair Holder, foodigIT Computational Food Science Centre, Aristotle University of Thessaloniki, Greece

Aula Magna

Chair: Simone Giacosa (UNITO), Fabio Chinnici (UNIBO)

Aula Tesi

Chair: Giovanna Ferrentino (UNIBZ), Giacomo Squeo (UNIBA)

Aula 7

Chair: Donato Angelino (UNITE), Luca Coccolin (UNITO)

PARALLEL SESSION 4B Advanced Approaches in Wine Science

09:45

Yeast Derivatives for Precision Oenology: Emerging and Sustainable Application for Wine Production (WinnY), **Alessio Altomare**, UNIMI

10:00

Oenological characterization of ancient Sicilian cultivars and grape heterogeneity assessment using technological parameters and phenolic markers, **Clara Vitaggio**, UNIPA

PARALLEL SESSION 5B Functional Ingredients from By-Products

Integrated strategies to overcome lignocellulosic recalcitrance for the recovery, fractionation and characterization of functional fibers, **Pio Viscusi**, UNIPR

Sustainable valorisation of high value added compounds from secondary raw materials of the milling industry, **Claudio Cinquanta**, UNIMOL

PARALLEL SESSION 6B Food, Microbiota and Health

Study of the Effects of Plant-Derived MicroRNAs on the Human Gut Microbiota, **Hatice Hazal Okur**, UNIBZ

Influence of food matrix on metabolic fate of polyphenols: role of phenol-nutrient interactions, **Manuela Flavia Chiacchio**, UNINA

10:15

Methodologies to guide consumers towards a healthy and sustainable Mediterranean Diet, **Perla Degli Innocenti**, UNIPR

10:30-11:15 COFFEE BREAK AND POSTER SESSION

Aula Magna

Chair: Roberto Moschetti (UNITUS), Cristina Alamprese (UNIMI)

Aula Tesi

Chair: Amalia R.M. Piscopo (UNIRC), Massimiliano Rinaldi (UNIPR)

Aula 7

Chair: Diego Mora (UNIMI), Teresa Zotta (UNIBAS)

PARALLEL SESSION 7 Smart and Sustainable Food Processing

11:15

Innovative Technologies and Processes for Sustainable Frozen Foods, **Bilge Ece Ozel**, UNITE

11:30

Integrating automation in food processing operations, **Eleonora Di Palma**, UNIFG

11:45

Integrating food reformulation strategies and emerging technologies to promote healthy diet, **Grazia Marinaro**, UNIFG

12:00

Application of IoT and Machine Learning Technologies for Monitoring Hop Cone Ripening, **Martina Galaverni**, UNIPR

12:15

Innovative approaches for shelf-life extension: chemical, physical and microbiological strategies, **Giulio Scappaticci**, UNIP/BARILLA

12:30

Applications of MOX Sensors for Volatile Organic Compound Detection in Agri-Food sector, **Elisabetta Poeta**, UNIMORE

PARALLEL SESSION 8 Processing and Reformulation Strategies for Product Innovation

Technological and Nutritional Properties of Pigmented Whole Wheat Foods: The Role of Innovative Technologies, **Ilenia Gaeta**, UNIMOL

Valorization of dairy production in inland areas: product and process innovation, **Caroline Vitone**, UNIMOL

Application of Liquid Nitrogen for Pistachio Skin Removal, **Fabiola Pesce**, UNICT

Effect of durum wheat meal in low-moisture texturized vegetable proteins and its application in filled pasta, **Vittoria Latrofa**, UNIBA

Plant-based analogues: a sensory-based and consumer-led approach to enhance product acceptance and innovation, **Marta Appiani**, UNIMI

Bioactive-Rich Mushrooms for Food Reformulation (BIOMUSH-FOOD), **Giulia Bearzi**, UNIMI

PARALLEL SESSION 9 Food Microbiology and biotechnology (1)

Innovative Approaches in the Development of Novel Organic Food Products by Applying Careful Processing, **Yasmin Muhammed**, UNIBA

Microbial Collections as Biorepositories for Sourdough Microbiomes: Microbiological Assessment, Metagenomic Analysis, and Nutritional Profiling, **Roberta Coronas**, UNISS

Lactic acid bacteria as a tool to reduce the allergenicity of Arginine Kinase and Tropomyosin from the edible insect *Hermetia illucens*, **Claudia Dellapina**, UNIPR

Genomic and functional characterization of a novel BSH-positive *Lactocaseibacillus rhamnosus* probiotic candidate with potential hypocholesterolemic effect, **Gianluigi Agolino**, UNICT

Selection of lactic acid bacteria to improve the technological, nutritional and functional value of products and by-products in the agri-food chain, **Saverio Monica**, UNIPR

Exploitation of the functional potential of autochthonous microorganisms from fermented foods, **Anna Rossi**, UNIUD

12:45-14:00 LUNCH AND POSTER SESSION

Scientific Programme

THURSDAY, 11th SEPTEMBER 2025

DAY 2

AULA MAGNA

KEYNOTE LECTURE

14:00 *Consumer-led Product Ecodevelopment: Can We Truly Shape the Future of Sustainable Food Using Consumers, Sensory Sciences, and Life Cycle Analysis?*
Prof. Ronan Symoneaux, Ecole Supérieure des Agricultures (ESA), France

14:30 *Flow Cytometry Meets Food Science: Exploring Applications from Food Processing to Human Health*
Dr. Marina Ramal Sanchez, UNITE *sponsored by Beckman Life Sciences*

Aula Magna

Chair: **Alessandra Fratianni (UNIMOL)**,
Michele Paradiso (UNISALENTO)

PARALLEL SESSION 10

Emerging Analytical Tools for Food Quality and Safety

15:00 Combining Instrumental and Sensory Methods to Assess the Quality and Authenticity of Foods of Animal Origin, **Mara Antonia Gagliano**, UNIBO

15:15 Advanced chemical characterization and functional assessment of hemp flour-enriched bread: opportunity and challenges in valorizing hemp chain by-products, **Lorenzo Del Vecchio**, UNIPR

15:30 Electrochemical and Machine Learning Approaches for the Classification and Functional Assessment of Oenological Tannins During Wine Ageing, **Rosario Pascale**, UNIVR

Aula Tesi

Chair: **Cristina Restuccia (UNICT)**,
Giampiero Sacchetti (UNITE)

PARALLEL SESSION 11
Genomics and Microbiomes for Food Systems and Environment

Development of a comprehensive cheese metagenome catalogue reveals potential markers of origin and quality, **Raffaele Magliulo**, UNINA

Closing the loop in agriculture: effects of a fermented tomato-based biostimulant on tomato growth and fruit quality, **Anna Agosti**, UNIPR

Effect Of Biochar and Wood Distillate Application on Vegeto-Productive Performances of Strawberry Plants (cv. Charlotte), Under Controlled Conditions, **Samreen Nazeer**, UNIPR

Aula 7

Chair: **Fabio Minervini (UNIBA)**,
Annalisa Serio (UNITE)

PARALLEL SESSION 12
Food Microbiology and biotechnology (2)

Innovative bioprocesses and extraction techniques of high value molecules and products from agricultural biomasses, **Luca Fontechiari**, UNIPR

Effect of GABA production on biomass yield and stress robustness of *Levilactobacillus brevis*, **Emanuela Lavanga**, UNIBAS

Valorisation of Alternative Protein Sources by Tailored Biotechnological Processes and Non-Thermal Technologies to Obtain New Ingredients to Be Used in the Formulation of Innovative Foods, **Solidea Amadei**, UNIBO

15:45-16:30 COFFEE BREAK AND POSTER SESSION

16:30 Analysis of volatiliome of virgin olive oils and flavored oils: quality grade evaluation and study of modification during storage, **Rosalba Tucci**, UNIBO

16:45 Identification and quantification of microplastics in the clam *Chamelea gallina* using different analytical techniques, **Rosaria Aloia**, UNITE

17:00 Designing advanced materials and self contained platforms for analytical applications in food analysis, **Davide Paolini**, UNITE

Genomic and physiological insights into bacterial heavy metal resistance for environment decontamination, **Alice Melzi**, UNIMI

Microbiome Mapping in Meat Food Chain from Farm to Fork, **Asim Ur Rahman**, UNINA

Optimization of Fermentation Parameters for Biomass Production of *Streptococcus thermophilus* BT01 with Low or High Urease Activity, **Ylenia Zanchetta**, UNIMI

17:00-18:30 POSTER SESSION

20:30-23:30 WORKSHOP GALA DINNER



VILLA PARIS
Via F. Marccacci, 1, 64025
Roseto degli Abruzzi (TE)





29th WORKSHOP Developments in the Italian PhD Research on Food Science Technology and Biotechnology



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FRIDAY, 12th SEPTEMBER 2025

DAY 3

09:15 OPENING SESSION

AULA MAGNA

Chair: Prof. Dario Compagnone, Prof.ssa Daniela Mancini (UNITE)

09:15 KEYNOTE LECTURE

Skills to create the future food system, **Maarten Van Der Kamp** (EITFood, BE)

09:45 KEYNOTE LECTURE

From Research to Market: First Steps to Build a Startup
Dr. Danilo Mazzara (SkillforEquity, IT)

Chair: Prof. Luca Simone Cocolin (UNITO), Prof.ssa Paola Pittia (UNITE)

10:15 Interactive session: My PhD skills: which, what for, and in my future I will..

10:45-11.15 COFFEE BREAK

Chair: Prof. Marco Dalla Rosa (UNIBO), Prof. Antonello Piga (UNISS)

11:15 **Round Table: Research and PhD programs for the food systems transition**

Lorenzo Cerretani (Vice-President Order of Food Technology, Industry consultant)

Lorenzo De Berardinis (Process and Product development Perfetti van Melle)

Maria Cristina Di Domizio (Federalimentare)

Fabio D'Elia (Food Hub)

Rosalba Lanciotti (SIMTREA, University Alma Mater Bologna)

Daniele Rossi (Vice-President Cluster CLAN)

Chair: Prof. Dino Mastrocola (SISTAL, UNITE)

12:15 **AWARDS SESSION: What For (CLAN), SISS, Anton Paar, Barilla**

13:00 CLOSING SESSION