









# 26TH WORKSHOP ON THE DEVELOPMENTS IN THE ITALIAN PHD RESEARCH ON FOOD SCIENCE TECHNOLOGY AND BIOTECHNOLOGY

26<sup>th</sup> Workshop on the Developments in the Italian PhD Research on Food Science, Technology and Biotechnology

Università degli Studi di Torino Asti, 19<sup>th</sup>-21<sup>st</sup> September 2022 Venue: **UniASTISS**Polo Universitario di Asti Studi Superiori
"Rita Levi Montalcini"

Piazzale Fabrizio de André, Asti, Italy

Web: www.phdfood.it

# **26TH WORKSHOP PROGRAM**

Last update: 2022-09-11

# Monday, September 19, 2022

Registration opens at 10:00 time

13:30 – 14:00 Workshop opening ceremony and welcome note (Aula Magna 1, in parallel streaming Aula Magna 2)

Maurizio Rasero, Sindaco Città di Asti

Mario Sacco, Presidente Polo Universitario UniASTISS Stefano Geuna, Magnifico Rettore Università di Torino

Rosalba Lanciotti, Presidente SIMTREA Ernestina Casiraghi, Presidente SISTAL

14:00 – 14:45 Plenary lecture (Aula Magna 1, in parallel streaming Aula Magna 2)

"The 12 pleasures of science"

Marcel Zwietering, Wageningen University, The Netherlands











#### 14:45 – 16:15 Parallel session 1: Microbial fermentation (Aula Magna 1)

Session Chairs: Monica Gatti, Gianluigi Mauriello

Marilisa Giavalisco, SAFE, University of Basilicata

"Use of *Lactiplantibacillus* strains and yeasts for the production of fermented table olives and extra virgin olive oil"

#### Anđela Martinović, DeFENS, University of Milano

"The ability of *Streptococcus thermophilus* ST870 to modulate urease activity in healthy subjects' fecal samples depends on the biomass production process"

#### Samantha Rossi, DISTAL, University of Bologna

"Biotechnological approaches to valorise alternative protein source, waste and by-products of food industries."

#### 14:45 – 16:15 Parallel session 2: Bakery products (Aula Magna 2)

Session Chairs: Maria Cristina Messia, Monica Laureati

Veronica Oliviero, Department of Agriculture, University of Napoli Federico II

"Design and validation of healthy leavened bakery products: Focus on chemical-physical and sensory properties"

#### Martina Moretton, DI4A, University of Udine

"Formulation and processing strategies for obtaining bakery products tailored to the elderly's needs"

**Alice Costantini**, Faculty of Science and Technology, Free University of Bozen-Bolzano "Leavened baked goods for improving the functionality"

Oumayma Toumi, Department of Agricultural Sciences, University of Sassari

"Use of response surface methodology to investigate the effect of partial substitution of sodium chloride with *Salicornia ramosissima* powder in wheat dough and bread"

#### 16:15 6<sup>th</sup> What For Award, Federalimentare

Video presentation of the selected final proposals (Aula Magna 1 and Aula Magna 2)

#### 16:15 - 17:00 Coffee break

Poster viewing (PhD I year Aula 6 - ground floor; PhD II year Aula seminari - first floor)

#### 17:00 – 18:30 Parallel session 3: Food analysis (Aula Magna 2)

Session Chairs: Ernestina Casiraghi, Angelita Gambuti

#### Silvio Iacovino, DiAAA, University of Molise

"Flour rheological properties assessed through empirical and fundamental methods"

#### Anna Luparelli, Department of Chemistry, University of Bari

"Development of innovative methods for the multiple analysis of allergens in processed foods"

#### Luca Menegoz Ursol, DI4A, University of Udine

"Optimization of rapid analytical protocols for monitoring the contamination with hydrocarbons of petrogenic origin in the olive oil supply chain"

#### Giacomo Bedini, DIBAF, University of Tuscia

"Use of non-destructive analysis techniques for the technological and chemical-physical characterization of fruit and vegetables and for monitoring of the drying process"









# UNIVERSITÀ

#### 17:00 – 18:30 Parallel session 4: Microbial characterization (Aula Magna 1)

Session Chairs: Alessio Giacomini, Marisa Manzano

**Cecilia Crippa**, Department of Agricultural and Food Sciences, University of Bologna "Application of Next Generation Sequencing for the characterization of microbial hazard in Italian dairy and meat food productions realized in small-scale plants"

**Federica Barbieri**, Department of Agricultural and Food Sciences, University of Bologna "Characterization of new bio-protective and functional lactic acid bacteria isolated from spontaneously European fermented sausages"

Luca Bettera, Food and Drug Department, University of Parma

"Non-starter Lactic Acid Bacteria: origin and characterization for a potential targeted use in cheesemaking"

Rossella Filardi, DeFENS, University of Milano

"Isolation and characterization of new isolates of *Akkermansia muciniphila* with a focus on antibiotic-resistance phenotypic and genotypic traits"

## Tuesday, September 20, 2022

08:30 – 09:15 Plenary Lecture (Aula Magna 1, in parallel streaming Aula Magna 2)

"From idea to business start-up - developing entrepreneurial skills for life"

Jonathan Tait, EIT Food, Belgium

09:15 – 10:45 Parallel session 5: Food sustainability (Aula Magna 1)

Session Chairs: Monica Anese, Massimiliano Rinaldi

Mirella Noviello, DiSSPA, University of Bari

"Sustainable approaches to winemaking and wine aging"

**Marika Valentino**, Department of Agricultural Sciences, University of Napoli Federico II "Biopolymer active coating to extend the shelf-life of minimally processed fruits and vegetables"

Angela Michela Immacolata Montone, DIIN, University of Salerno

"Development of edible coating functionalized with hydroxyapatite, complexed with bioactive compounds for the shelf-life extension of food products"

Valeria Frigerio, DeFENS, University of Milano

"Shelf-life estimation as a strategic tool for the eco-design of a sustainable food packaging"

09:15 – 10:45 Parallel session 6: Food biotechnology (Aula Magna 2)

Session Chairs: Prospero Di Pierro, Angela Capece

Serena Malabusini, DeFENS, University of Milano

"Bioetholgy of a promising parasitoid associated with fig pests"

**Chiara Purgatorio**, Food Sciences, University of Teramo

"Alternative antimicrobial strategies for the replacement of traditional preservatives and evaluation of the impact on stability and safety of food products"

Francesca Melini, DIBAF, University of Tuscia

"Application of metabolites secreted by plant growth-promoting bacteria to selected crops and evaluation of nutritional quality thereof"









#### Francesco Salini, DI4A, University of Udine

"Heterologous expression of two novel antimicrobial peptides and investigation of their dedicated protease"

10:45 6<sup>th</sup> What For Award, Federalimentare

Video presentation of the selected final proposals (Aula Magna 1 and Aula Magna 2)

10:45 - 11:30 Coffee break

Poster viewing (PhD I year Aula 6 - ground floor; PhD II year Aula seminari - first floor)

11:30 – 13:30 Parallel session 7: Food processing (Aula Magna 2)

Session Chairs: Maria Cristina Nicoli, Giuseppe Gambacorta

Nazarena Cela, SAFE, University of Basilicata

"Optimization of microbrewing process for high quality gluten free beer production"

Aniello Falciano, Department of Agricultural Sciences, University of Napoli Federico II

"Processing and innovation in the Neapolitan Pizza manufacturing"

Fosca Vezzulli, DiSTAS, Università Cattolica del Sacro Cuore

"Multifactorial traceability and characterization of green and roasted coffee"

Davide Emide, DeFENS, University of Milano

"The complexity of protein network in foods: insight in the protein structure in cereal products"

Andrea Bresciani, DeFENS, University of Milano

"Effects of processing on pulses and related products"

11:30 – 13:30 Parallel session 8: Probiotics, prebiotics and nutraceutics (Aula Magna 1)

Session Chairs: Carlo Rizzello, Fabio Minervini

**Stefan Klettenhammer**, Faculty of Science and Technology, Free University of Bozen-Bolzano "Innovative techniques to encapsulate food-grade bioactives"

**Claudia Cappello**, Food engineering and Biotechnology, Free University of Bozen-Bolzano "A novel functional herbal tea containing probiotic *Bacillus coagulans* GanedenBC<sup>30</sup>: an *in vitro* study using the Simulator of the Human Intestinal Microbial Ecosystem (SHIME)"

**Margherita D'Alessandro**, Department of Agricultural and Food Sciences, University of Bologna "Development and investigation of functional foods conceived for specific categories of consumers and produced with selected strains isolated from healthy vaginal environment and human breast milk"

Annalisa Porrelli, DiSSPA, University of Bari

"Functional food and *per os* microbial delivery system with a potential role in the prevention of diseases related to the human intestinal microbiota"

Giovanni Turchetti, DIBAF, University of Tuscia

"Identification and characterization of bioactive plant extracts and evaluation of viable use in the food industry"

13:30 - 14:30 Lunch

Poster viewing (PhD I year Aula 6 - ground floor; PhD II year Aula seminari – first floor)











14:30 – 15:15 Plenary lecture (Aula Magna 1, in parallel streaming Aula Magna 2)

"The future of wine-making... the role of the scientific research"

Luigi Moio, University of Napoli Federico II and President of the OIV, Italy

15:15 – 16:45 Parallel session 9: Food circularity (Aula Magna 1)

Session Chairs: Matteo Mario Scampicchio, Rossella Di Monaco

**Patricia Dahdah**, Department of Agricultural Sciences, University of Sassari "Valorization of olive oil extraction by-products through functional bread making"

Marco Montemurro, DiSSPA, University of Bari

"Exploitation of unconventional plant matrices and agri-food waste through biotechnological processes"

Marica Troilo, DiSSPA, University of Bari

"Grape pomace as an innovative flour for the formulation of bakery products: how nutritional, textural and sensorial properties were affected?"

15:15 – 16:45 Parallel session 10: Targeted nutrition (Aula Magna 2)

Session Chairs: Ilario Ferrocino, Francesca De Filippis

Massimiliano Tucci, DeFENS, University of Milano

"Definition and validation of a healthy and sustainable dietary pattern, enriched with plant-based foods rich in bioactives compounds, in the context of the MIND FoodS Hub project"

Flavia Casciano, DISTAL, University of Bologna

"In vitro study of short-term effect on gut microbiota of foods and ingredients for specific consumer categories"

Cinzia Franchini, Department of Food and Drug, University of Parma

"Promotion of nutrition knowledge and sustainability of dietary behaviors in different student populations"

**Veronica D'Antonio**, Bioscience and Agro-Food and Envr. Technology, University of Teramo "Role of typical foods from Abruzzo region in reducing oxidative, inflammatory and metabolic stress in frail elderly people and/or affected by degenerative diseases"

16:45 – 17:00 Awarding Ceremony (Aula Magna 1, in parallel streaming Aula Magna 2)

Fondazione Prof. Roberto Massini - ETS

17:00 – 18:30 Poster viewing and discussion

(PhD I year Aula 6 - ground floor; PhD II year Aula seminari – first floor)

17:30 – 19:00 PhD Coordinators meeting (Aula 5)

19:00 Bus departure from the Workshop venue (Piazzale Fabrizio De André, Asti) to the Gala Dinner

20:00 Gala Dinner (Foro Boario Pio Corsi, Piazza Garibaldi, Nizza Monferrato, AT)

23:30 (est.) Bus departure from the Gala Dinner venue back to Asti and Torino









# Wednesday, September 21, 2022

09:00 – 09:45 Plenary lecture (Aula Magna 1, in parallel streaming Aula Magna 2)

"Sustainable nutrition: the new challenge for the Italian food system" Mauro Fontana, President of the Italian AgriFood Cluster (CLAN), Italy

09:45 – 11:45 Parallel session 11: Innovation in the food system (Aula Magna 1)

Session Chairs: Marco Dalla Rosa, Fernanda Galgano

Federico Basso, DI4A, University of Udine

"Hyperbaric storage: An innovative and sustainable technology to extend stability and improve functionality of food"

**Giulia D'Alessio**, Bioscience and Agro-Food and Envr. Technology, University of Teramo "Impact of high dynamic pressure treatments on the physicochemical properties and technological functionality of pea proteins"

Giulia Romano, DI4A, University of Udine

"Optimization of cooking for food service: matching quality and nutritional requirement as drivers for development of innovative tools"

Mehmet Onur Oral, DAFNE, University of Foggia

"Adding unprecedent economic and social values to the side- and by-products of Mediterranean fruit and vegetables by reshaping them in novel source of nutrients and tailored food products mediated by 3D printing technology"

**Vincenzo Valentino**, Department of Agricultural Sciences, University of Napoli Federico II "Validation of Microbiome Mapping Strategies for the Food Industry"

9:45 – 11:45 Parallel session 12: Wine quality and analysis (Aula Magna 2)

Session Chairs: Fabio Mencarelli, Daniela Fracassetti

Francesco Maioli, DAGRI, University of Firenze

"Monitoring and management of chemical and physical wine parameters by using different tank materials into the winemaking process"

Giulia Scalzini, DISAFA, University of Torino

"What is the best time to harvest red grapes cv. Nebbiolo destined to withering? A three-years study"

Sabrina Voce, DI4A, University of Udine

"Yeast strain and processing technology affect the composition of yeast autolysates: characterization and potential effects on wine evolution"

Paola Bambina, SAAF, University of Palermo

"1H-NMR-based metabolomics to assess the impact of the soil on the chemical composition of Nero d'Avola red wines"

Rolla El Harati, Department of Agricultural Sciences, University of Sassari

"Utilization of citral as antimicrobial on the mutants of  $\Sigma 1278b$  library of Saccharomyces cerevisiae"











11:45 – 12:30 Awarding ceremony (Aula Magna 1, in parallel streaming Aula Magna 2)

6th What For Award, Federalimentare

12:30 – 13:00 Closing ceremony (Aula Magna 1, in parallel streaming Aula Magna 2)

13:00 – 14:30 Lunch and farewell

14:00 Post-event: COSTAL meeting (Aula 5)

# Networks, Institutional partners and Supporters













































# List of Miniposter contributions (1st year PhD students)

Miniposters are presented in Aula 6 – ground floor.

| Miniposter location | PhD student<br>Institution                               | Miniposter contribution title  |
|---------------------|--|--|
| 101                 | <b>Gianmarco Alfieri</b><br>University of Tuscia         | Low-cost non-destructive sensors for monitoring polyphenols, volatile compounds and quality parameters in grapes, musts and wines  |
| 102                 | <b>Giuliana Aliberti</b><br>University of Milano         | Development of a multifunctional cooking appliance: evaluation of food quality indexes and cooking functions   |
| 103                 | <b>Giulia Andreani</b><br>University of Parma            | Using consumer science to improve healthy and sustainable eating behavior  |
| 104                 | <b>Claudia Antonino</b><br>University of Bari            | Sustainable approach to obtain innovative fresh cheeses by increasing shelf-life and nutritional features  |
| 105                 | Andrea Balivo<br>University of Napoli Federico II        | Inclusion of fresh forage in lactating ruminant diet. Evaluation of sustainability and effect on the chemical and sensory properties of milk and dairy products  |
| 106                 | <b>Andrea Bandiera</b><br>University of Tuscia           | Use of deep learning in combination with FT-NIR spectroscopy for the analysis of extra virgin olive oil  |
| 107                 | Federico Baris<br>University of Bologna                  | Insights on the mechanisms underlying the colour expression and stability of Italian rosé wines  |
| 108                 | <b>Lorenzo Barozzi</b><br>University of Udine            | Novel plant protein sources for the beverage sector: technological functionality, nutritional properties, sensory characteristics, and consumer acceptability  |
| 109                 | <b>Ilary Belardi</b><br>University of Perugia            | Development of sustainable and innovative strategies for the valorization of by-products of the brewing industry   |
| 110                 | <b>Tommaso Bellesia</b><br>University of Milano          | ECO-sustainable packaging materials for the food industry (ECOPACKMAT)   |
| 111                 | <b>Elena Bertolotti</b><br>University of Parma           | Development of innovative tools for nutrition education: a promising strategy to tackle and prevent malnutrition and to reduce the environmental impact of food through the adoption of healthier and more sustainable diets |
| 112                 | <b>Paola Biscotti</b><br>University of Milano            | Valorization of milk and dairy products in healthy and sustainable dietary patterns  |
| 113                 | <b>Sara Bolchini</b><br>Free University of Bozen-Bolzano | Antioxidant activity of Maillard reaction products by multiresponse kinetic models   |
| 114                 | Ambra Bonciolini<br>University of Torino                 | Strategies for developing functional food products by creating a polyphenol-phytosterols complex   |
| 115                 | Sara Margherita Borgonovi<br>University of Milano        | Biobased approaches at modulating the interaction between legume biopolymers and bioactives: a perspective for the production of gluten-free baked goods   |
| 116                 | <b>Laura Brunelli</b><br>University of Milano            | Assessment of the stability and efficacy of a newly developed probiotic blend in the context of IBS through a pilot multicentre study  |
| 117                 | Angela Carboni<br>University of Sassari                  | Valorisation of artichoke by-product as ingredients for functional dairy foods   |











| Miniposter<br>location | PhD student<br>Institution                                     | Miniposter contribution title  |
|------------------------|--|--|
| 118                    | Andrea Casson<br>University of Milano                          | Eco-design tool development for sustainability optimization in food production systems and food waste reduction  |
| 119                    | <b>Miriam Chiodetti</b><br>University of Parma                 | Bio-sustainable technologies to produce raw materials and food products with improved physico-chemical, nutritional and safety properties                |
| 120                    | Valentina Civa<br>University of Firenze                        | Non-conventional Inactivated Yeasts and Tannins: evaluation of their impact on the chemical, physical and sensorial characteristics of wines             |
| 121                    | <b>Fatma Dadi</b> Università Cattolica del Sacro Cuore         | Strategies to increase the sustainability of plant-based proteins  |
| 122                    | Federica De Agostini<br>University of Milano                   | Shelf-life modelling as a strategic tool to validate sustainable food/packaging solutions: the case of coffee  |
| 123                    | Lorenzo De Berardinis<br>University of Udine                   | Engineering of bioaerogels as key ingredients in the development of functional foods to deliver health through diet                                      |
| 124                    | Ester De Martino<br>University of Napoli Federico II           | Enzyme biotechnology to recovery byproducts from agricultural and food wastes  |
| 125                    | Camilla De Paolis<br>University of Torino                      | Impact of different filtration processes on genetic traceability of monovarietal wines   |
| 126                    | <b>Giulia Di Filippo</b><br>University of Udine                | Health-promoting whey protein-derived peptides in functional foodstuff   |
| 127                    | <b>Flavia Dilucia</b><br>Università di Foggia                  | Use of vegetable by-products for the formulation and study of foods with high health value and to prolong their shelf-life                               |
| 128                    | <b>Peyman Ebrahimi</b><br>University of Padova                 | Sustainable technologies and valorisation of food by-products by the recovery of bioactive compounds   |
| 129                    | <b>Dilek Eltemur</b> Free University of Bozen-Bolzano          | Authentication of hay milk and its dairy products with nuclear magnetic resonance spectroscopy   |
| 130                    | Vanessa Eramo<br>University of Tuscia                          | Ozone technology for sanitization and product quality in the dairy supply chain  |
| 131                    | Alessia Esposito<br>University of Napoli Federico II           | Selection of Next-Generation Probiotics (NGPs) from the gut microbiome of subjects with different dietary patterns                                       |
| 132                    | <b>Chiara Evangelista</b> University of Tuscia                 | Development of strategies for the adaptation of the livestock sector to the new climate regime with machine learning and artificial intelligence methods |
| 133                    | <b>Camilla Febo</b> Free University of Bozen-Bolzano           | Development of a food-waste derived bioink for sensing applications  |
| 134                    | Gebremedhin Gebremariam<br>Gebremical<br>University of Bologna | Applications of cold atmospheric plasma as green technology for food shelf life extension  |
| 135                    | Stefano Gerna University of Milano                             | Integrated green strategies for the management, recovery and recycling of waste in a dairy factory   |
| 136                    | <b>Gloria Ghion</b><br>University of Padova                    | Fermentation of plant by-products by using probiotic microorganisms to obtain functional foods with potential health benefits                            |











| Miniposter<br>location | PhD student<br>Institution                              | Miniposter contribution title  |
|------------------------|---|--|
| 137                    | <b>Elena Gramiccia</b><br>University of Tuscia          | Morphological and genetic characterization of <i>Phaseolus vulgaris</i> and <i>P. coccineus</i> landraces grown in the Aniene's Valley and evaluation of agronomic and nutritional performances of <i>Helianhtus tuberosus</i> accessions of different geographical origin cultivated in marginal environments |
| 138                    | <b>Ignazio Maria Gugino</b><br>University of Palermo    | Analysis and characterization of Sicilian cereals landraces to destined at malting and brewing industry  |
| 139                    | <b>Giuseppe laniri</b><br>University of Molise          | Use of wild edible plants as environmental indicators and as ingredients for the creation of new functional and enriched products  |
| 140                    | <b>Merima Jasarevic</b><br>University of Tuscia         | Plant health monitoring of crops of high territorial relevance, identification with advanced diagnostic tools and design of sustainable prevention systems   |
| 141                    | <b>Karen Lacey</b><br>University of Parma               | Development of methods and technologies for the specific inhibition of enzymes relevant for low colour stability of fruit juices and nectars   |
| 142                    | Carmen Laezza<br>University of Napoli Federico II       | Cell cultures of Mediterranean plant species involved in the production of novel food  |
| 143                    | <b>Umberto Lanza</b> University of Udine                | Food and food bioactives fighting chronic inflammation   |
| 144                    | Celeste Lazzarini<br>University of Bologna              | Production and analytical characterization of new and traditional foods: focus on sustainability   |
| 145                    | Micaela Lembo<br>University of Tuscia                   | "Green" Technologies in the supply chain of agri-food company  |
| 146                    | Alessia Lena<br>University of Udine                     | Application of an eco-sustainable technology: use of direct and photodynamic UV light for the microbial decontamination on food industries   |
| 147                    | <b>Leandra Leto</b> University of Parma                 | Bioactive compounds from hop leaves: a green opportunity   |
| 148                    | Caterina Li Citra<br>University of Palermo              | Application of innovative, non-thermal technology and edible coating to extend the <i>shelf life</i> of fresh cut fruits   |
| 149                    | Francesco Limongelli<br>University of Bari              | Apulian Salicornia: from medicinal plant to innovative nutraceutical supplement  |
| 150                    | Rosangela Limongelli<br>University of Bari              | Use of meta-omics approaches for characterization of microbiota isolated from different ecological niches  |
| 151                    | <b>Eleonora Loffredi</b><br>University of Milano        | Advanced emulsions as bioactive compound carriers for functional food design: technological and nutritional aspects  |
| 152                    | Marco Lopriore<br>University of Udine                   | Development of multiresponse kinetic models for the prediction of stability and shelf life of dry foods  |
| 153                    | <b>Fahimeh Masoumi</b> Free University of Bozen-Bolzano | Fruit waste reduction through post-harvest early damage detection using 3D imaging methods   |
| 154                    | <b>Sofia Massaro</b><br>University of Padova            | Development of extracts and fermented officinal plants for food use endowed with sensory, antimicrobial and nutraceutical properties   |











| Miniposter location | PhD student<br>Institution                                     | Miniposter contribution title  |
|---------------------|--|--|
| 155                 | <b>Federica Mastrolonardo</b> Free University of Bozen-Bolzano | Insight into in-vitro digestibility of leavened baked goods  |
| 156                 | <b>Anna Mengozzi</b><br>University of Parma                    | Improvement and optimization of eco-friendly and sustainable packaging materials for meat products   |
| 157                 | <b>Cristiana Mignogna</b><br>University of Parma               | Identification of aggregate metabolic phenotypes for dietary (poly)phenols and assessment of the factors associated with their formation: development of an oral (poly)phenol challenge test (OPCT)    |
| 158                 | Anthea Miller<br>University of Messina                         | Sensory and technological improvement of hemp seed flour. Strategies for food applications   |
| 159                 | Roberta Miolla<br>University of Bari                           | Production of added-value bakery products by upcycling oenological by-<br>products   |
| 160                 | <b>Arnaud Molle</b><br>University of Parma                     | Non destructive method for predicting cheese making traits   |
| 161                 | Marco Nasso<br>University of Tuscia                            | Exploring barriers and enablers for the environmental sustainability communication "Zero-Waste supply chain": insights from the Italian vegetables supply chain trough the LOWINFOOD project           |
| 162                 | Elisabetta Orecchia<br>University of Udine                     | Sustainable innovation for improving the quality of meat products in the era of the Green Deal   |
| 163                 | <b>Anastasia Palatzidi</b> Free University of Bozen-Bolzano    | The potential of the cheese microbiome to control cheese fermentation and its repercussions for the industry   |
| 164                 | Alessia Pampuri<br>University of Milano                        | Industry 4.0 in the agri-food sector: innovative sensors and smart logistics to support the sustainability of the supply chain   |
| 165                 | <b>Giovanni Patania</b><br>University of Milano                | Response of plant holobiont to bacterial invasion: a focus on plant-growth promoter and antibiotic resistant bacteria  |
| 166                 | <b>Lorenzo Pedroni</b><br>University of Parma                  | Computational approaches integrated to biomolecular technologies to study foodborne viral infections: virulence factors and identification of food grade components with potential anti-viral activity |
| 167                 | Stefano Pettinelli<br>University of Pisa                       | Applying and testing of "on site on time" sensors and tools for the sustainability of wine and extra virgin olive oil processes  |
| 168                 | Ilaria Picco<br>University of Udine                            | Study of oenological practices for the production of long-lived white wines  |
| 169                 | <b>Debora Pinamonti</b><br>University of Udine                 | New strategies to face antibiotic resistance in healthcare and food sectors  |
| 170                 | Simona Pizzi<br>University of Milano                           | Grapevine-associated microorganisms as biocontrol agents against the proliferation of pathogenic fungi   |
| 171                 | Cesare Ravagli<br>University of Bologna                        | Technological, sensory and nutritional assessment of ecofriendly food lipid  |
| 172                 | Mutasem Razem Free University of Bozen-Bolzano                 | Antioxidant activity of ancient vs conventional cereals  |
| 173                 | Claudia Rorandelli<br>University of Firenze                    | ALTERTASTE: improving food pleasure and intake in oncology patients receiving chemotherapy   |











| Miniposter location | PhD student<br>Institution  | Miniposter contribution title  |
|---------------------|---|--|
| 174                 | Alessio Pio Rossetti<br>University of Teramo                          | Influence of grape-born yeasts on wine colour  |
| 175                 | <b>Ecaterina Savchina</b><br>Free University of Bozen-Bolzano         | Technologies for reducing saturated fats in food formulations  |
| 176                 | <b>Gabriele Serafino</b> University of Torino                         | Microbial interactions during fermentations in winemaking  |
| 177                 | Alessio Sergiacomo<br>University of Milano                            | Less common grains in bakery industry: product and process optimization  |
| 178                 | <b>Syed Mudabbar Hussain Shah</b><br>University of Napoli Federico II | Development of a decision support system (DSS) to predict and extend food shelf-life   |
| 179                 | <b>Gvantsa Shanshiashvili</b><br>University of Milano                 | Improving the grape pressing for a sustainable wine production chain (GrapePress 4.0)  |
| 180                 | <b>Francesco Spataro</b> University of Parma                          | Untargeted/targeted UHPLC-HRMS approach for quality assessment in hazelnuts and finished products of the confectionery industry  |
| 181                 | <b>Alessandro Stringari</b><br>Free University of Bozen-Bolzano       | Use of sourdough for the recycling of agro-food by-products  |
| 182                 | <b>Rajat Suhag</b><br>Free University of Bozen-Bolzano                | Innovative approaches for the valorization of apple by-products  |
| 183                 | Adineh Tajmousavilangerudi<br>Free University of Bozen-Bolzano        | Development and preclinical testing of a functional beverage for boosting the immune system in the elderly   |
| 184                 | Simona Tatasciore<br>University of Teramo                             | Innovative formulation and process approaches for new plant-based ingredients with enhanced techno-functionalities   |
| 185                 | <b>Francesco Tedesco</b> University of Basilicata                     | Use of chitin and its derivatives obtained from sustainable sources as an alternative to the use of chemical additives in the food production  |
| 186                 | <b>Chiara Traina</b> University of Torino                             | Microbiomes in food systems  |
| 187                 | <b>Elisabetta Trossolo</b> Free University of Bozen-Bolzano           | Encouraging the consumption of alternative protein sources through the design of novel fermented foods   |
| 188                 | <b>Sara Vignati</b><br>University of Milano                           | Green sensors and smart services for the optimization of agri-food supply chains with a view to industry 4.0: greater sustainability of production, business competitiveness and reduction of food waste |
| 189                 | <b>Valentina Vinelli</b><br>University of Milano                      | Development of strategies aiming to ameliorate the nutritional impact and feasibility of a sustainable plant-based dietary pattern rich in bioactive compounds   |
| 190                 | <b>Francesca Vurro</b><br>University of Bari                          | The flat breads of the Mediterranean area: valorisation and innovation   |
| 191                 | <b>Andrea Zava</b> University of Torino                               | Innovative strategies aimed at improving the sustainability of the oenological process   |











# List of Poster contributions (2<sup>nd</sup> year PhD students)

Posters are presented in Aula seminari – first floor.

| Poster location | PhD student<br>Institution  | Poster contribution title  |
|-----------------|---|--|
| 201             | <b>Lucrezia Angeli</b><br>Free University of Bozen-Bolzano                    | Synergistic and antagonistic interactions between food antioxidants  |
| 202             | <b>Umme Asma</b> Free University of Bozen-Bolzano                             | Effect of different cooking treatments on polyphenols content and antioxidant activities of apples grown in South Tyrol                                |
| 203             | <b>Diletta Bagnoli</b><br>University of Molise                                | Cultivation and metagenomics for the assessment of microbial biodiversity in grapes and musts from different viticultural areas of Italy               |
| 204             | Alessandro Bianchi<br>University of Pisa                                      | Effect of the modified atmosphere packaging on the shelf-life of Tuscan DOP Bread  |
| 205             | <b>Giulia Bisson</b><br>University of Udine                                   | Microbial exopolysaccharides as postbiotics for the development of new functional foods: optimization of yields  |
| 206             | Carolina Cantele<br>University of Torino                                      | Are phenolipids able to counteract lipid oxidation in oil-in-water emulsions?  |
| 207             | Antonio Francesco Caputi<br>University of Bari                                | Assessment of bioactive and contaminat compounds in underexploited agrifood wastes and new food products through targeted and non-targeted approaches  |
| 208             | <b>Beatrice Cellini</b><br>University of Bologna                              | Biotechnological valorization of residues and by-products from agro-food industries  |
| 209             | Johnny Ciancetta University of Teramo   | Physical, and microstructural properties of dairy dessert creams: effect of composition and frozen storage   |
| 210             | Francesco Ciuffarin<br>University of Udine                                    | Oil structuring for improving healthy and sustainable diets: The case study of extra virgin olive oil oleogelation                                     |
| 211             | Martina Coletta<br>University of Camerino                                     | Soil and legumes of the Sibillini for high quality pasta   |
| 212             | Irene Maria Grazia Custureri<br>Università Mediterranea di Reggio<br>Calabria | Enrichment of extra virgin olive oil for the development of functional oil to special consumers  |
| 213             | Nidhi Dalal<br>University of Napoli Federico II                               | Traceability of Mediterranean anchovies with NIR spectroscopy  |
| 214             | <b>Giuditta de Gennaro</b><br>University of Bari                              | Olive cake as functional ingredient to improve the quality of gluten-free baked goods  |
| 215             | Maria De Sena<br>University of Napoli Federico II                             | Late blowing defect in "Grottone" cheese: detection of clostridia and control strategies   |
| 216             | Fabio D'Elia<br>University of Bologna   | Study and development of innovative seafood products through the application of emerging process technologies  |
| 217             | <b>Chiara Demarinis</b><br>University of Bari                                 | Development of biotechnological protocols for the valorization of alternative plant matrices as a strategy for the sustainability of agri-food systems |











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|--------------------|---|--|
| 218                | Rohini Dhenge                                 | Modifications of vegetables subjected to conventional, innovative and non-           |
| 216                | University of Parma                           | thermal technologies   |
| 219                | Cristina Di Fiore                             | Sample preparation for the qualification and quantification of microplastics         |
|                    | University of Molise                          | in some food matrices  |
| 220                | Federica D'Onofrio                            | Stress response analysis of three different <i>Listeria monocytogenes</i> strains: a |
|                    | University of Teramo                          | comparative study  |
| 221                | Silvia Donzella                               | Sustainable production of bio-based surfactants from diary waste using               |
|                    | University of Milano                          | oleaginous yeasts  |
| 222                | Giulia Elli                                   | Development of an electrical sensor to detect micro and nanoplastics in              |
|                    | Free University of Bozen-Bolzano              | environmental and agri-food samples  |
| 223                | Luigi Esposito                                | Food combinations and its quality as hallmarks for biogenic amines                   |
|                    | University of Teramo                          | exposure. A study on current people habits in specific meals and snacking occasions  |
| 224                | Maria Pia Fabrile                             | New tools for authentication and traceability to assure the integrity of food        |
|                    | University of Parma                           | chain  |
| 225                | Giovanni Fiorile                              | New sensory methods ensuring authenticity and fostering Mediterranean                |
|                    | University of Napoli Federico II              | fish   |
| 226                | Antonio Gattuso                               | Application of functional molecules recovered from bergamot by-products:             |
|                    | Università Mediterranea di Reggio<br>Calabria | development and improvement of food systems  |
| 227                | Elisa Ghitti                                  | Role of root-exudated secondary metabolites in beneficial interactions               |
|                    | University of Milano                          | between plant and polychlorinated biphenyls-degrading bacteria                       |
| 228                | Irene Giordano                                | Metabolic attenuation of probiotics: a strategy for functional fruit juices          |
|                    | University of Napoli Federico II              | development  |
| 229                | Ilaria Grigoletto                             | Sustainability of technology, quality control and consumption of olive oil           |
|                    | University of Bologna                         |  |
| 230                | Jessica Laika                                 | Detoxifying effect of cold atmospheric plasma on pure Alternaria mycotoxins          |
|                    | University of Teramo                          | and naturally contaminated sun-dried tomatoes  |
| 231                | Qiuyu Lan                                     | Metabolomics to investigate the effects of treatments on food and of food            |
|                    | University of Bologna                         | consumption on health  |
| 232                | Francesco Letizia                             | Preliminary chemico-physical evaluation of soymilk fermented by                      |
|                    | University of Molise                          | Lactiplantibacillus plantarum LP 95  |
| 233                | Giacomo Mantegazza                            | Ready-to-Eat food as a vehicle of microorganisms in the context of the               |
|                    | University of Milano                          | microbial deprivation hypothesis   |
| 234                | Ida Mercurio                                  | Antimicrobial coatings to preserve microbiological quality of dried fruits           |
|                    | University of Molise                          |  |
| 235                | Oscar Moreno-Araiza                           | Legume flours: characterization and food applications                                |
|                    | University of Camerino                        |  |
| 236                | Agata Nolasco                                 | Characterization and study on the recycling of coffee by-products for the            |
|                    | University of Napoli Federico II              | manufacture of feed and functional food intended for human use and                   |
|                    |   | bioplastics  |











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|--------------------|---|--|
| 237                | <b>Davide Nucciarelli</b><br>University of Perugia            | New technological approaches for improving the quality and shelf life of extra virgin olive oils   |
| 238                | Michela Pellegrini<br>University of Udine                     | Lacticaseibacillus casei: a bioprotective culture with antioxidant properties?   |
| 239                | Antonino Pirrone<br>University of Palermo                     | Technological development of new tropical fruit products and beverages   |
| 240                | Michela Quiquero<br>University of Molise                      | Prolonged leavening to mitigate acrylamide formation in Neapolitan pizza   |
| 241                | <b>Noemi Sofia Rabitti</b><br>University of Milano            | Individual variation in food perception and implication in consumer preference of sustainable products   |
| 242                | <b>Arianna Ressa</b><br>University of Bari                    | Novel insights on the functional/nutritional features of the foods based on cereals, pseudocereals and legumes   |
| 243                | <b>Nicolò Salgarella</b><br>University of Torino              | Development of palm olein and high oleic sunflower seed oil-based oleogels and their physical characterization   |
| 244                | Amira Salim<br>University of Sassari                          | Antimicrobial, anti-quorum sensing, and anti-virulence potentials of pomegranate ( <i>Punica granatum</i> L.) peel extract against foodborne pathogenic bacteria |
| 245                | <b>Giuseppina Sequino</b><br>University of Napoli Federico II | Metagenomics and Big-Data approaches for monitoring food quality and safety  |
| 246                | <b>Lucia Sportiello</b><br>University of Basilicata           | Optimization of the extraction techniques using Deep Eutectic Solvents for the recovery of biomolecules from food industry by-products                           |
| 247                | <b>Marianna Tagliasco</b><br>University of Udine              | The effect of particle sizes and cell wall integrity on the cohesiveness and starch digestibility of durum wheat and rye bread                                   |
| 248                | Valeria Tava<br>University of Milano                          | Fusarium musae, a potential new food safety threat. Can a diseased banana be the source of a fungal disease for humans?  |
| 249                | <b>Stefano Tonini</b> Free University of Bozen-Bolzano        | Advancement and prospects of study of bioactive peptides during food fermentation  |
| 250                | Angelo Topo<br>University of Udine                            | Evaluation of wine evolution, application of conventional and innovative approaches  |
| 251                | <b>Nicole Tosi</b><br>University of Parma                     | Phenolic metabolites after acute and chronic consumption of different flavan-3-ol sources  |
| 252                | Michela Pia Totaro<br>University of Bari                      | Technological approaches to improve the quality of meat products   |
| 253                | <b>Dimitra Tsoureki</b><br>University of Torino               | Pathogens-seeking along infant food production chain: could untargeted approaches go a long way towards targeted ones?   |
| 254                | <b>Manyu Wu</b><br>University of Padova                       | Identification and characterization of exopolysaccharides-producing<br>Liquorilactobacillus mali T6 52   |