Società Chimica Italiana
Divisione di Spettrometria di Massa

ACETO BALSAMICO di MODENA
CONSORZIO TUTELA

# SCIENTIFIC PROGRAMME

Draft 1.0

## 9th MS FOOD DAY

**October 7-9, 2026**

**Modena - Italy**

## COMMITTEES

### Scientific Committee

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| **Giuseppe Avellone** | *Università di Palermo* |
| **Giuliana Bianco** | *Università della Basilicata, Potenza* |
| **Franco Biasioli** | *Fondazione Edmund Mach, S. Michele A/A (TN)* |
| **Lucia Bonassisa** | *BonassisaLab S.p.A., Foggia* |
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| **Luciano Navarini** | *illycaffè* |
| **Michele Suman** | *Barilla & Università di Parma* |
| **Sauro Vittori** | *Università di Camerino* |

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## ORGANIZED BY

Società Chimica Italiana
Divisione di Spettrometria di Massa

ACETO BALSAMICO DI MODENA
CONSORZIO TUTELA

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## SCIENTIFIC PROGRAMME

### Wednesday, October 7th, 2026

2:00 p.m. Registration
2:30 p.m. Welcome addresses

***Federico Desimoni***
Presidente Consorzio Tutela Aceto Balsamico di Modena, Modena

***Paola Montoro***
University of Salerno, President of the Division of Mass Spectrometry of the Italian Chemical Society

***Gianluca Giorgi***
University of Siena, 9th MS Food Day Chairman

3:00 p.m. **Session 1: Volatilomics**

*Chairpersons: Luciano Navarini, Carmela Zacometti*

3:00 p.m. **PL1: The key role of GC×GC-MS in food analysis**

*Giorgia Purcaro*

Analytical Chemistry, Gembloux Agro-Bio Tech, University of Liège, Belgium

3:45 p.m. **OR1: South Tyrolean speck aroma: characterization of volatiles and aroma-active compounds by GC-MS**

*Ariana Soledad Poetto, Daniela Hey, Flavia Bianchi, Andrea Moretta, Thomas Winnischhofer, Peter Robatscher*

Laboratory of Flavours and Metabolites - Laimburg Research Centre, Auer-Ora, Italy

4:00 p.m. **OR2: Volatilomic profiling of balsamic vinegars by HS-SPME-GC×GC-TOFMS: from protected-origin differentiation to maturation assessment**

*Allan Polidoro, Sofia Malcangi, Monica Romagnoli, Nicola Marchetti, Flavio A. Franchina*

Department of Environmental and Prevention Sciences, University of Ferrara, Ferrara, Italy

4:15 p.m. **OR3: Defining the chemical and sensory identity of Italian no- and low-alcohol beers market by HS-SPME-GC×GC-MS and sensory analysis**

*Leonardo D'Intino, Gianluca Donadini, Giorgia Spigno, Mario Gabrielli*

Dipartimento di Scienze e Tecnologie Alimentari per una filiera agro-alimentare sostenibile (DiSTAS), Università Cattolica del Sacro Cuore, Piacenza (Italy)

4:30 p.m. **OR4: From waste to bioactive resource: GC-MS profiling and bioherbicidal potential of Petroselinum crispum essential oil**

*R. Francolino, R. Gaeta, L. De Martino, V. De Feo*

Department of Pharmacy, University of Salerno, Fisciano, SA, Italy

4:45 p.m. **OR5: Unveiling chemical fingerprints of aging in balsamic vinegar of Modena (PGI) with GC-IMS**

*S. Pellacani, M. Cocchi, G. Gazzoli, F. Martone, R. Marabottini, A. Napolitano, F. Ladogana, F. Desimoni, C. Durante, L. Strani*

Department of Chemical and Geological Sciences, University of Modena and Reggio Emilia, Modena, Italy

5:00 p.m. Poster session (Poster P1-P26), Coffee break

5:30 p.m. **Session 2: Stable isotopes & food**

*Chairpersons: Roberto Larcher, Giuliana Bianco*

5:30 p.m. **OR6: Orbitrap HRMS for compound-specific isotope measurements: applications to pharmaceuticals and curcumin**

*Alberto Roncone, Domenico Masuero, Roberto Penasa, Silvia Pianezze, Luana Bontempo*

Fondazione Edmund Mach, Traceability Lab., San Michele all'Adige (TN), Italy

5:45 p.m. **OR7: Application of stable isotope ratio mass spectrometry (IRMS) for verification of geographical origin of egg products: establishment of a French reference dataset**

*Michele Suman, Freddy Thomas*

Barilla G.R. F.lli SpA, Research, Development & Quality & University of Parma, Parma, Italy

6:00 p.m. **OR8: *Griffonia simplicifolia* seed-based supplements: how stable isotope ratio analysis can help in commercial samples authentication**

*Silvia Pianezze, Sara Malpaga, Arianna Vanelli, Filomena De Biasio, Matteo Perini*

Centro di Trasferimento Tecnologico, Fondazione Edmund Mach, San Michele all'Adige, TN

6:15 p.m. **OR9: Authentication of high-value food products using combined GC-MS and GC-IRMS approaches: case studies on lavender and mint essential oils**

*Roberto Penasa, Luana Bontempo, Long Chen, Mauro Paolini, Alberto Roncone, Domenico Masuero, Roberto Larcher*

Fondazione Edmund Mach, San Michele all'Adige, Trento

6:30 p.m. **OR10: From liquid phase to headspace: compound-specific $\delta^{13}C$ analysis of aceto balsamico tradizionale di modena PDO by IRMS-based techniques**

*Veronica D'Eusanio, Mirco Rivi, Andrea Marchetti*

Department of Chemical and Geological Sciences, University of Modena and Reggio Emilia, Modena, Italy

6:45 p.m. **IP1: High- and low-resolution Agilent GC/MS platforms: technologies applied to the food market**

*Marica Beggio*

Agilent Italia

6:55 p.m. End of session

7:00 p.m. Welcome cocktail

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## Thursday, October 8th, 2026

9:00 a.m. **Session 3: Chemical contaminants**

*Chairpersons: Michele Suman, Donatella Caruso*

9:00 a.m. **PL2: Mass spectrometry analytical toolbox to tackle the PFASs challenge in food**

*Stefan van Leeuwen*

Wageningen University & Research (The Netherlands)

9:45 a.m. **OR11: Beyond chromatography: unmasking spice & herbs adulteration via AP-MALDI-MS**

*Alessandra Tata, Alessia Di Noi, Andrea Massaro, Chiara Salvitti, Carmela Zacometti, Michele Suman, Federico Pepi, Anna Troiani*

Laboratory of Experimental Chemistry, Istituto Zooprofilattico Sperimentale delle Venezie, Vicenza (VI), Italy

10:00 a.m. **OR12: Beyond standard trichothecenes: profiling emerging NX toxins in rice and wheat**

*Alessandro Annunziato, Vito D'Ascanio, Daria Carella, Gerline Wiesenberger, Antonia Susca, Miriam Haidukowski, Antonio Moretti*

National Research Council (CNR), Institute of Sciences of Food Production (ISPA), Bari, Italy

10:15 a.m. **OR13: Integrated mass spectrometry workflow for PFAS assessment in food contact materials according to the new PPWR requirements**

*F. Cozzolino, F. Pratesi, M. Vitulli*

Food Contact Center s.r.l

10:30 a.m. **OR14: Determination of phthalates in bottled, purified and reusable bottled water by SPME-GC/MS**

*Claudia Lino, David Bongiorno, Serena Indelicato, Giuseppe Avellone*

Dipartimento di Scienze e Tecnologie Biologiche, Chimiche e Farmaceutiche, Università di Palermo, Palermo, Italy

10:45 a.m. **OR15: Development and validation of an analytical procedure based on a simplified µ-QuEChERS extraction for monitoring bisphenols in different honey botanical varieties using UHPLC-MS/MS**

*Lorenzo Marino Cerrato, Rosalia López-Ruiz, Roberto Romero-González, Antonia Garrido Frenich, Stefania Albrizio*

Department of Pharmacy, School of Medicine and Surgery, University of Naples Federico II, Naples, Italy

11:00 a.m. Poster session (Poster P1-P26), Coffee break

11:40 a.m. **Session 4**: Joint session with the Divisione di Chimica degli Alimenti-SCI

**Bioactive compounds**

*Chairpersons: Paola Montoro, Nadia Mulinacci*

11:40 a.m. **KN: The gas-phase goldmine: volatilomics from cutting edge platforms to real world use**

*Philipp Weller, Lukas Bodenbender, Richard Frey, Nabiollah Mobaraki*

Technical University of Applied Sciences, Mannheim, Germany

12:10 p.m. **OR16: HS-SPME-GC-MS and HPLC-DAD-MS as tools to support the optimization of high-quality flavoured olive oils produced through co-milling: case studies using chili peppers, basil and rosemary**

*Lorenzo Cecchi, Carlotta Breschi, Tommaso Ugolini, Erminio Monteleone, Renzo Fusi, Francesca Ieri, Silvio Menghini, Fabio Boncinelli, Maria Bellumori, Marzia Innocenti, Nadia Mulinacci, Bruno Zanoni*

Department of Agricultural, Food, Environmental, and Forestry Sciences and Technologies (DAGRI) – University of Florence, Firenze, Italy

12:25 p.m. **OR17: From cabbage to fermented foods: integrated profiling of bioactive compounds**

*Tiziana Nardin, Francesca Martinelli, Roberto Larcher*

Fondazione Edmund Mach, Technology Transfer Centre, Food Chemistry, San Michele all'Adige (TN), Italy

12:40 p.m. **OR18: Marine by-product valorization: LC-MS/MS Characterization of collagen peptides derived from the edible sea urchin *Paracentrotus lividus***

*Tamara Chwojnik, Gijs JC Vreeke, Giovanni A van Kralingen, Matteo Brilli, Stefania Marzorati, Michela Sugni, Jean-Paul Vincken*

Department of Environmental Science and Policy, University of Milan, Milan, Italy

12:55 p.m. **OR19: Supramolecular solvents for modern food analysis**

*Noelia Caballero-Casero, Soledad Rubio*

Department of Analytical Chemistry, Institute of Chemistry for Energy and the Environment (IQUEMA), University of Córdoba, Córdoba, Spain

1:10 p.m. End of session

1:15 p.m. Buffet lunch

2:30 p.m. **Session 5: Flavour**

*Chairpersons: Franco Biasioli, Caterina Durante*

2:30 p.m. **PL3: Flavour is not concentration: using dynamic mass spectrometry insights to engineer food perception**

*Ian Fisk*

International Flavour Research Centre, University of Nottingham

3:15 p.m. **OR20: Basil volatilome and quality assessment for high-quality pesto: tracing aroma markers across the production chain**

*Giulia Tapparo, Erica Liberto,Gianluca Cucco*

Department of Drug Science and Technology, University of Turin, Turin, Italy

3:30 p.m. **OR21: Influence of fermentation state and amino acid supplementation on volatile compound production by *Lactiplantibacillus plantarum* in a model fermentation system**

*Max Nally, Iuliia Khomenko, Franco Biasioli, Phil Bremer, Pat Silcock, Graham Eyres*

Department of Food Science, University of Otago, Dunedin, New Zealand

3:45 p.m. **OR22: Pyridine precursors other than trigonelline under coffee roasting conditions**

*Valentina Lonzarich, Luciano Navarini*

illycaffè S.p.A., Trieste, Italy

4:00 p.m. Poster session (Poster P27-P52), Coffee break

4:45 p.m. **Session 6: Targeted & untargeted analysis**

*Chairpersons: Sauro Vittori, Chiara Cordero*

4:45 p.m. **OR23: Soft chemical ionization and ultra fast isomer separation in food analysis using Vocus high-resolution chemical ionisation ion mobility spectrometry time-of-flight (Vocus HR-CI-IMS-TOF)**

*Iuliia Khomenko, Andrea Romano, Mehdi Moayedi, Jiayi Zhang, Emanuela Betta, Michele Pedrotti, Matteo Tonezzer, Luca Cappellin, Franco Biasioli*

Fondazione Edmund Mach, San Michele all'Adige, Italy

5:00 p.m. **OR24: A rigorous chemometric workflow for multi-year shelf-life prediction of hazelnuts**

*Sara Tanilli, Andrea Caratti, Giuseppe Genova, Alex Fissore, Cristina Casetta, Angelica Fina, Fulvia Trapani, Erica Liberto, Chiara Cordero*

Department of Drug Science and Technology, University of Turin, Turin, Italy

5:15 p.m. **OR25: The use of the untargeted approach by HPLC-Q-ToF to study the chemical profile of different matrices**

*Laura Acquaticci, Simone Angeloni, Massimo Ricciutelli, Giovanni Caprioli*

University of Camerino, School of Pharmacy, Chemistry Interdisciplinary Project (ChIP), Camerino, Italy

5:30 p.m. **OR26: Exploring the phytochemical profile and biological potential of artichoke petal, leaf and stem extracts**

*Lorenza Marinaccio, Eulogio J. Llorent-Martínez, Gokhan Zengin, Angelo Cichelli, Adriano Mollica, Azzurra Stefanucci*

Department of Innovative Technologies in Medicine and Dentistry, “G. d'Annunzio” University of Chieti-Pescara, Chieti, Italy

5:45 p.m. **OR27: A comprehensive characterization of anthocyanins in fungal-resistant red grape varieties by high-resolution mass spectrometry**

*M. De Rosso, S. Soligo, E. Piutti, A. Piccinin, D. Piccinin, R. Carraro, L. Tarricone, G. Masi, S. Roccotelli, M. Gardiman, A. Panighel, F. Tarricone, L. Sansone, R. Flamini*

Consiglio per la ricerca in agricoltura e l’analisi dell’economia agraria (CREA), Conegliano (TV), Italy

6:00 p.m. **OR28: Identification of carboxymethylcellulose (CMC) and potassium polyaspartate (KPA) in wine through parallel targeted enzymatic digestion workflows and UHPLC-HRMS**

*Francesca Martinelli, Emiliano Fadanelli, Andrea Rosolen, Roberto Larcher, Tiziana Nardin*

Fondazione Edmund Mach, San Michele all'Adige (TN), Italy

6:15 p.m. **OR29: Integrated untargeted metabolomics workflow enables comprehensive metabolic profiling of *Lepidium sativum* microgreens and vegetative plants**

*Francesca Monzillo, Luigi d'Aquino, Vincen Wu, Nicola Zamboni, Sonia Piacente, Paola Montoro*

Department of Pharmacy, University of Salerno, Fisciano, Italy

6:30 p.m. **OR30: Multiplatform profiling of Maillard reaction products in PEF-treated nuts**

*Laura Alessandroni, Albert Sebastià, Emilia Ferrer, Francisco J. Barba, Gianni Sagratini*

Chemistry Interdisciplinary Project (ChIP), School of Pharmacy, University of Camerino, Camerino, Italy

6:45 p.m. End of session

8:30 p.m. Social dinner

## Friday, October 9th, 2026

9:00 a.m. **Session 7: AI & metabolomics**

*Chairpersons: Linda Monaci, Fabiana Piscitelli*

9:00 a.m. **PL4: Chemically grounded AI for untargeted food profiling**

*Rasmus Bro*

University of Copenhagen, Faculty of Science, Frederiksberg, Denmark

9:45 a.m. **OR31**: **LC-HRMSMS profiling of bioactive lLipids and triterpenoids in pumpkin seeds**

*Annunziata Paolillo, Assunta Napolitano, Milena Masullo, Sonia Piacente*

Dipartimento di Farmacia, Università degli Studi di Salerno, Fisciano (SA), Italy

10:00 a.m. **OR32: Characterization of pancetta piacentina PDO during ripening through redox markers, fatty acid profiling, and integrated untargeted metabolomics-lipidomics**

*Gabriele Rocchetti, Federico Froldi, Giulia Fappani, Michela Errico, Maria Chiara Fontanella, Samantha Sigolo, Aldo Prandini*

Department of Animal Science, Food and Nutrition, Università Cattolica del Sacro Cuore, Piacenza, Italy

10:15 a.m. **OR33: Profiling microbial metabolism of verbascoside and olive pomace extract in an *in vitro* fermentation model using a metabolomics approach**

*Shaymaa Abdulrazzaq, Rocío García Villalba, Francisco Tomás-Barberán, Stefania Silvi, Polina Makarycheva, Dennis Fiorini, Carlos J. Garcia*

School of Science and Technology, University of Camerino, Camerino (MC), Italy

10:30 a.m. **OR34: Formulation, biochemical characterization and shelf-life study of YoAlp® whey based beverage containing local fruits juices**

*S. Valentini, M. Merlet, T. Flutto, R. Pramotton, S. Zenato, L. Vernetti-Prot*

Institut Agricole Régional, Aosta, Italy

10:45 a.m. **OR35: Enhanced MOSH and MOAH screening in fat-rich foods using integrated LC-GC-FID and GC×GC-QToF/FID approaches**

*I. Annovazzi, D. Baglio, P. Rovellini, V. Cardenia*

Department of Agricultural, Forest and Food Science, University of Turin, Grugliasco (Turin) Italy

11:00 a.m. **IP2:** Shimadzu

11:10 a.m. Poster session (Poster P27-P52), Coffee break

11:45 a.m. **Session 8: Primary and specialized metabolites**

*Chairpersons: Giuseppe Avellone, Rita Petrucci*

11:45 a.m. **OR36: Unravelling geographical, seasonal and technological variability in the untargeted metabolomic profile of Parmigiano Reggiano PDO natural whey starter through ASCA-integrated chemometrics**

*Pier Paolo Becchi, Rasmus Bro, Valentina Pizzamiglio, Luigi Lucini*

Department for Sustainable Food Process, Università Cattolica del Sacro Cuore, Piacenza, Italy

12:00 p.m. **OR37: A precursor ion scan-based mass spectrometry workflow for intact glucosinolate characterization in radish microgreens for nutraceutical applications**

*Vincenzo Piccolo, Maria Maisto, Adua Marzocchi, Erika Esposito, Emma Mitidieri, Roberta d'Emmanuele di Villa Bianca, Vincenzo Summa, Gian Carlo Tenore*

Department of Pharmacy, University of Naples Federico II, Naples, Italy

12:15 p.m. **OR38: Enzyme-assisted multidimensional LC-IM-HRMS annotation of acetylated xylo-oligosaccharides generated from commercial xylans**

*G. Lupi, A. Fuso, A. Caligiani*

University of Parma, Parma, Italy

12:30 p.m. **OR39: LC-MS/MS analysis of marker peptides for the detection of various mustard species and rapeseed in foods**

*Barbara Prandi, Andrea Faccini, Francesca Lambertini, Tullia Tedeschi*

Department of Food and Drug, University of Parma, Parma, Italy

12:45 p.m. **OR40: Role of red cabbage anthocyanins in the reaction with AAPH and carotenoid protection**

*Claudia Lombroni, Ksenia Morozova, Tiziana Nardin, Roberto Larcher, Matteo Scampicchio*

University of Turin, Department of Agricultural, Forest and Food Sciences, Grugliasco (TO), Italy

1:00 p.m. Concluding remarks & Arrivederci!!

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## POSTER COMMUNICATIONS

**P1 From dairy by-product to functional ingredient: valorization of mozzarella stretching water as a source of bioactive peptides through microbial fermentation**

*Antonella Lamonaca, Alessia Marzulli, Marianna de Gioia, Loris Pinto, Rosa Pilolli*

National Research Council of Italy, Institute of Sciences of Food Production (CNR-ISPA), Bari, Italy

**P2 Data fusion of the non-volatile and volatile metabolome for shelf-life and sensory quality prediction of skim milk powder**

*Giulia Gula, Luigi Locuratolo, Franco Rosso, Andrea Peraino, Augusta Caligiani*

Food and Drug Department, University of Parma, Parma, Italy

**P3 Aromatic and fatty acid profiling of Aosta Valley milk and fontina PDO cheese: the value of summer alpine pasture**

*Thedy Laura, Luca Vernetti-Prot, Sabina Valentini*

Institut Agricole Régional, Reg. Aosta, Italy

**P4 Comparative metabolite profiling of fourteen aromatic herbs using targeted and untargeted mass spectrometry approaches, combined with chromatographic separation techniques**

*Paola Di Matteo, Teresa Bovenzi, Mario Borrelli, Rita Petrucci*

Dip. SBAI, Sapienza Università di Roma, Rome, Italy

**P5 Evaluation of Cherry and Datterino tomatoes freshness and variety using a multi-analytical platform: combining PTR-ToF-MS, HS-SPME-GC-MS, and two portable electronic noses**

*J. Zhang, I. Khomenko, M. Tonezzer, E. Betta, M. Pedrotti, A. Romano, R. Capuano A. Catini, C. Di Natale, F. Biasioli*

Università di Cagliari, Dipartimento di Scienze Chimiche e Geologiche, Campus di Monserrato, Monserrato, Italy

**P6 HPLC-MS/MS and $^{1}$H-qNMR as complementary techniques for the characterization and quantification of shatavarins in *Asparagus racemosus* L.**

*Beatrice Zonfrillo, Maria Bellumori, Mohamad Khatib, Lorenzo Cecchi, Michele Zucherman, Gianluca Bartolucci, Marta Menicatti, Marzia Innocenti, Nadia Mulinacci*

Department of Neurofarba, Nutraceutical and Pharmaceutical section, University of Florence, Sesto Fiorentino, Italy

**P7 Effect of *in vitro* gastrointestinal digestion on the metabolic profile of the ancient cultivar "Pericina" pear (*Pyrus communis*) from Picentini Mountains (Salerno, Italy)**

*Roberta Cuozzo, Milena Masullo, Sonia Piacente*

Dipartimento di Farmacia, Università degli Studi di Salerno, Fisciano (SA), Italy

**P8 High-resolution mass metabolomic profiling for the chemical biodiversity of traditional apulian sweet pepper (*Capsicum annuum L.*) landraces**

*Antonino Rizzuti, Emanuela Blanco, Biagia Musio, Vito Gallo, Piero Mastrorilli, Anna Bonasia, Giulia Conversa, Gabriella Sonnante*

Department of Civil, Environmental, Land, Construction and Chemistry (DICATECh), Polytechnic University of Bari, Bari, Italy

**P9 Characterisation of the volatile fraction of wild food plants before and after fermentation by HS-SPME/GC–MS**

*Leandra Leto, Benedetta Bottari, Marco Biagi, Francesco Martelli, Federico Bertoldo, Renato Bruni, Martina Cirlini*

Department of Food and Drug, University of Parma, Parma, Italy

**P10 An ASCA-based investigation of hazelnuts volatilome evolution during storage**

*Sara Tanilli, Andrea Caratti, Giuseppe Genova, Alex Fissore, Cristina Casetta, Fulvia Trapani, Erica Liberto, Chiara Cordero*

Department of Drug Science and Technology, University of Turin, Turin, Italy

**P11 Detection of biosynthetic citric acid and sugar addition in Italian tomato passata using liquid chromatography-chemical oxidation-isotope ratio mass spectrometry**

*Silvia Pianezze, Domenico Masuero, Matteo Perini, Stefania Carpino, Nicola Barilaro, Vincenzo Di Martino, Luana Bontempo*

Fondazione Edmund Mach, San Michele all'Adige, Italy

**P12 Acrylamide: from bean to cup**

*Barbara Angelone, Paolo Candotti, Barbara Massardi, Rita Salami, Giulia Lorenzi, Simonetta Menotta, Mara Gasparini*

Istituto Zooprofilattico Sperimentale della Lombardia e dell'Emilia Romagna "Bruno Ubertini", Brescia, Italy

**P13 Linalool in green *Coffea arabica* by HS-SPME/GC-MS and HS/GC-IMS**

*Gaia Bechis, Valentina Lonzarich, Matteo Bordiga, Luciano Navarini*

illycaffè S.p.A., Trieste, Italy

**P14 Multi-analytical benchmarking of cold-brew systems: HS-SPME-GC-MS reveals quality evolution during refrigerated storage**

*Agnese Santanatoglia, Martina Prioretti, Matteo Petrolati, Giovanni Caprioli,Gianni Sagratini*

School of Pharmacy (ChIP), University of Camerino, Camerino (MC), Italy

**P15 Cellulose-based films from coffee silverskin for sustainable active packaging: the rECOBIOpack project**

*Chiara Scapuzzi, Tamara Chwojnik, Valeria Romanucci, Luisella Verotta, Luciano Navarini, Paola Crisafulli, Stefania Lupinelli, Giovanni Di Fabio, Daniele Carullo, Stefano Farris, Stefania Marzorati*

Department of Environmental Science and Policy, University of Milan, Milan, Italy

**P16 Coffee-derived caffeoylquinides rapidly remodel the intestinal endocannabinoidome and improve epithelial barrier function in Caco-2 cells**

*Fabiana Piscitelli, Marco Allarà, Roberta Verde, Elisabetta De Angelis, Elena Guercia, Javiera Fontecilla-Escobar, Fabio Arturo Iannotti, Luciano Navarini*

Consiglio Nazionale delle Ricerche – Istituto di Chimica Biomolecolare (CNR-ICB), Pozzuoli (NA), Italy

**P17 Quinolizidine alkaloids in lupin: a case of acute intoxication**

*Ilaria Prizio, Mariantonietta Peloso, Gaetan Minkoumba Sonfack, Elisabetta Caprai*

National Reference Laboratory for natural toxins in food, Food Chemical Department, Izsler, Bologna, Italy

**P18 Capturing toxic tropane alkaloids from *Datura stramonium*, *Datura metel*, *Mandragora autumnalis* in plant based foods via DART-HRMS**

*Nicole Cascio, Carmela Zacometti, Francesca Asson, Andrea Massaro, Roberto Stella, Roberta Masin, Giancarlo Biancotto, Alessandra Tata*

Istituto Zooprofilattico Sperimentale delle Venezie, Laboratory of Experimental Chemistry, Vicenza, Italy

**P19 Investigating amino acid–sugar interactions for cocoa-like aroma generation in a chickpea flour-based solid food matrix**

*Giorgia Mattina, Leonardo Lorenzi, Andrea Francioni, Riccardo Bottiroli, Vincenzo Fogliano, Eugenio Aprea*

University of Trento, San Michele all'Adige, Italy

**P20 Advancing peanut aroma analysis through integrated headspace sampling and GC×GC–HRMS**

*Andrea Caratti, Angelica Fina, Sara Tanilli, Fulvia Trapani, Erica Liberto, Giuseppe Genova, Cristina Casetta, Carlo Bicchi, Chiara Cordero*

Department of Drug Science and Technology, University of Turin,Turin, Italy

**P21 Authentication of the geographical origin of Italian multifloral honey: multi-analytical characterization of the composition and pesticide residues to distinguish the production area**

*Francesca Asson, Carmela Zacometti, Andrea Massaro, Fabjola Bilo, Marianna Martinello, Franco Mutinelli, Elisabetta Schievano, Alessandra Tata*

Laboratory of Experimental Chemistry, Istituto Zooprofilattico Sperimentale delle Venezie, Vicenza (VI), Italy

**P22 Comprehensive characterization of honey from Kazakhstan, Italy, China and other countries through volatile profiling by GC-MS, polyphenolic profiling by HPLC-MS/MS and quantification of 5-hydroxymethylfurfural by HPLC-DAD**

*Gulzhan Khamitova, Laura Acquaticci, Lazzat Karasholakova, Giovanni Caprioli*

Research Institute of Biotechnology and Ecology, Zhetysu University named after I.Zhansugurov, Taldykorgan, Kazakhstan

**P23 HS-GC-IMS authenticates the botanical origin of seven types of Italian monofloral honey, annotating the significant volatile compounds by the novel HS- SPME-GC-IMS-MS prototype**

*Filippo Panni, Andrea Massaro, Lukas Bodenbender, Carmela Zacometti,Roberto Piro, Angela Felicita Savino, Philipp Weller, Alessandra Tata*

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**P24 High-resolution mass spectrometry for varietal authentication of bread wheat**

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**P25 UPLC–HRMS and $^{1}$H NMR Fingerprinting for the Authentication of Italian Saffron**

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**P26 Development of a HS/GC-IMS screening method for honey geographical origin classification**

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**P27 Characterisation of monofloral and polyfloral honey from rural areas of Guatemala and role in the daily nutrition**

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**P28 Screening of fruity esters in sparkling wines produced by refermentation in pressurized stainless steel tank (Charmat-Martinotti method)**

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**P29 Impact of a novel copper-free formulation on stilbene biosynthesis in grapevine shoots**

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**P30 Multi-matrix LC-MS/MS screening of 40 PFAS in edible oils and food contact paper materials**

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**P31 Chemical characterization of olive mill wastewater by untargeted UHPLC-QTOF-MS data-dependent analysis approach**

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**P32 High-resolution metabolomics uncovers xylem metabolic signatures associated with *Philaenus spumarius* feeding in olive**

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**P33 Comparison of commercial monovarietal extra virgin olive oil classification methods: targeted profiling with HS-SPME-GC-MS and HPLC-DAD vs untargeted fingerprinting with HS-GC-IMS**

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**P34 Comparative evaluation of green solvents for the extraction of olive leaf phenolics by UHPLC-HRMS/MS-based metabolomics**

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**P35 Tracking reactive aldehydes in bakery matrices and oven emissions via HS-SPME-GC-MS/MS**

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**P36 UHPLC-HRMS profiling of botanical extracts for antifungal and bioactive applications in bakery products**

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**P37 An LC-MS/MS method for evaluating cyanotoxins contamination in bivalve mollusks through freshwater-to-marine pathways**

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**P38 Levels of 3-monochloropropane-1,2-diol (3-MCPD as sum of free and ester-bound forms) and glycidyl esters (GE) in fish oil: results of five-year monitoring**

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**P39 Effects of fishing pressure on the fatty acid composition in red mullet (*Mullus barbatus*) from the central Adriatic sea**

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**P40 Unravelling aroma modulation in extruded pea protein through carob bean protein incorporation: A comprehensive GC×GC–MS volatilomic study**

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**P41 Wildlife: a protein alternative to intensive farming? Food security and environmental bioindicator study**

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**P42 Zein-based nanoparticles: a green approach to bioactive peptides delivery**

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**P43 Comparison between conventional and functional data analysis of time resolved volatilomics data: a case study of microalgae fermentation with kefir starters**

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**P44 From insect frass to valuable microalgal biomass: screening species for sustainable omega-3 PUFA production within the ALGINLOOP project**

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**P45 Real-time PTR–ToF–MS tracking of volatile sulfur compound release in food matrices: the role of whole saliva and the oral bacterial enzyme FnaPatB1**

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**P46 Chewing on flavour: temporal dynamics of aroma and sweetness in sugar-free gum**

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**P47 Assessment of phthalate migration from reusable plastic water bottles into drinking water**

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**P48 Investigation of inorganic elements in insect-based novel foods by ICP-MS**

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**P49 In silico assessment of the potential allergenicity of purple phototrophic bacteria biomass**

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**P50 Determination of Volatile Organic Compounds (VOCs) released from plastic packaging for dry foods: headspace analysis (HS-GC-MS) and migration studies using Tenax® as food simulant**

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**P51 Land snails as terrestrial sentinel organisms for monitoring heavy metal and phthalate accumulation**

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**P52 Evaluation of SPME fibers and extraction salts for the volatilomic profiling of paprika using a chemometric approach**

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**P53 Effect of Vitis vinifera leaf enrichment on the volatile profile and sensory properties of grape juice**

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