



MACROWINE 2025 Conference Program Bolzano, Italy, 24–27 June 2025

Date: Tuesday, 24/June/2025

11:00am - 2:00pm	Registration (Seminar room 1) and display (Crane Hall) of all the posters Location: Seminar room 1 All posters (including those associated with flash talks) will remain on display until Thursday afternoon (three sessions). See at https://macrowine2025.events.unibz.it/?page_id=20 the provided downloadable files with the complete numbered list of posters and posters + flash talks.
2:00pm - 2:30pm	Welcome and opening addresses Location: Seminar room 1 Emanuele Boselli (Free University of Bozen-Bolzano) and Michael Oberhuber (Director, Laimburg Research Center), Chairs Marco Baratieri - Vice Rector for Teaching (Free University of Bozen-Bolzano) Fabrizio Mazzetto - Vice Dean for Research, Faculty of Agricultural, Environmental and Food Sciences (Free University of Bozen-Bolzano) Vincent Mauroit - Director of Innovation & Tech Transfer, NOI Techpark Herbert Dorfmann - Member of the European Parliament - on-line Luis Walcher - Councillor for Agriculture, Forestry and Tourism (South Tyrol)
2:30pm - 3:00pm	Plenary 1: Keynote lecture 1 Location: Seminar room 1 Session Chair: Silvia Carlin , Fondazione Edmund Mach Session Chair: Mónica Bueno , Laboratorio de Analisis del Aroma y Enología (LAAE). Department of Analytical Chemistry, Universidad de Zaragoza, Instituto Agroalimentario de Aragón (IA2) (UNIZAR-CITA)
3:05pm - 4:45pm	SES-01: Wine Identity and Quality: Insights into Composition, Perception and Expression Location: Seminar room 1 Session Chair: Vicente Ferreira , Laboratory of Aroma Analysis and Enology (LAAE) associated with AgriFood Institute of Aragon (IA2). University of Zaragoza. Zaragoza, 50009, Spain. Session Chair: Paola Piombino , University of Naples Federico II
4:45pm - 6:00pm	Poster session 1: All Posters Location: Crane Hall All posters (including those associated with flash talks) will remain on display until Thursday afternoon (three sessions). See at https://macrowine2025.events.unibz.it/?page_id=20 the provided downloadable files with the complete numbered list of posters and posters + flash talks.
6:00pm - 7:00pm	Welcome drink

Date: Wednesday, 25/June/2025

9:00am - 9:30am	Plenary 2: Keynote lecture 2 Location: Seminar room 1 Session Chair: Luca Rolle , University of Turin Session Chair: Maria João Cabrita , MED, Évora University
9:35am - 10:55am	Parallel SES-02: Innovations in Resistant Grape Varieties Location: Seminar room 1 Session Chair: Carlo Andreotti , Facoltà di Scienze agrarie, ambientali e alimentari, Libera Università di Bolzano, piazza Università 5, 39100 Bolzano (Italy) Session Chair: Rocio Gil-Muñoz , IMIDA
9:35am - 10:55am	Parallel SES-03: Analytical Advances in Wine Research Location: Seminar room 2 Session Chair: Pierre-Louis Teissedre , Université de Bordeaux, ISVV, UMR 1366 OENOLOGIE, 33140 Villenave-d'Ornon, France Session Chair: Stéphane Arbault , CNRS - LabCom REDOXWINE
11:00am - 11:20am	Coffee break
11:25am - 1:05pm	Parallel SES-04: Quality of Wines from Resistant Grape Varieties Location: Seminar room 1 Session Chair: Álvaro Peña-Neira , Departamento de Agroindustria y Enología. Facultad de Ciencias Agronómicas, Universidad de Chile Session Chair: Encarna Gomez-Plaza , University of Murcia
11:25am - 1:05pm	Parallel SES-05: Stability of Wine Components Location: Seminar room 2 Session Chair: Felipe Laurie , Universidad de Talca Session Chair: Cristina Alcalde-Eon , University of Salamanca



MACROWINE 2025 Conference Program Bolzano, Italy, 24–27 June 2025

1:05pm - 1:50pm	Lunch break
1:50pm - 2:20pm	Plenary 3: Keynote lecture 3
Seminar room 1	Location: Seminar room 1 Session Chair: Andrea Curioni , DAFNAE, Università di Padova Session Chair: Karine Pedneault , UQO
2:25pm - 3:45pm	SES-06: Flash talks 1 - Precision Winemaking
Seminar room 1	Location: Seminar room 1 Session Chair: Panagiotis Arapitsas , University of West Attica Session Chair: Maria Tiziana Lisanti , Università degli Studi di Napoli Federico II
3:45pm - 4:05pm	Coffee break
4:10pm - 5:10pm	SES-07: Flash talks 2 - Instrumental Analysis and Profiling
Seminar room 1	Location: Seminar room 1 Session Chair: Aurélié Roland , Institut Agro Montpellier Session Chair: Peter Robatscher , Laimburg Research Centre
5:10pm - 6:00pm	Poster session 2: All Posters
Crane Hall	Location: Crane Hall All posters (including those associated with flash talks) will remain on display until Thursday afternoon (three sessions). See at https://macrowine2025.events.unibz.it/?page_id=20 the provided downloadable files with the complete numbered list of posters and posters + flash talks.
7:30pm - 10:00pm	Social dinner in the historical town center
Castel Mareccio	Location: Castel Mareccio
Date: Thursday, 26/June/2025	
9:15am - 9:45am	Plenary 4: Keynote lecture 4
Seminar room 1	Location: Seminar room 1 Session Chair: Ryan John Elias , The Pennsylvania State University Session Chair: Sílvia M. Rocha , Chemistry Department, LAQV – REQUIMTE, University of Aveiro, Campus Universitário de Santiago, Aveiro 3810-193, Portugal
9:50am - 11:10am	SES-08: Wine Aroma Diversity: Origins, Challenges and Sensory Expression
Seminar room 1	Location: Seminar room 1 Session Chair: Fulvio Mattivi , Fondazione Edmund Mach, Via Edmund Mach, 1, 38098 San Michele all'Adige TN Session Chair: Daniela Fracassetti , Università degli Studi di Milano
11:10am - 11:30am	Coffee break
11:30am - 12:30pm	SES-09: No- and Low-Alcohol wines
Seminar room 1	Location: Seminar room 1 Session Chair: Simone Vincenzi , Università di Padova Session Chair: Angelita Gambuti , University of Naples Federico II
12:35pm - 1:35pm	Lunch break
1:35pm - 2:35pm	SES-10: Flash talks 3 - Sensory Profiles and Consumer Acceptance
Seminar room 1	Location: Seminar room 1 Session Chair: Simone Giacosa , Università degli Studi di Torino Session Chair: Edoardo Longo , Free University of Bozen/Bolzano
2:40pm - 3:40pm	Poster session 3: All Posters
Crane Hall	Location: Crane Hall All posters (including those associated with flash talks) will remain on display until Thursday afternoon (three sessions); posters must be taken down at the end of this session. See at https://macrowine2025.events.unibz.it/?page_id=20 the provided downloadable files with the complete numbered list of posters and posters + flash talks.
3:45pm - 8:00pm	Technical tour followed by a light dinner at local wineries
Piazza of NOI Techpark	Location: Piazza of NOI Techpark
Date: Friday, 27/June/2025	
9:00am - 9:30am	Plenary 5: Keynote lecture 5
Seminar room 1	Location: Seminar room 1 Session Chair: Josep Valls Fonayet , University of Bordeaux, INRAE, Bordeaux INP, Bordeaux Sciences Agro, UMR



MACROWINE 2025 Conference Program Bolzano, Italy, 24–27 June 2025

	1366, OENO, ISVV, Villenave d'Ornon, F-33140, France Session Chair: Susana Río Segade , University of Turin
9:35am - 10:35am	SES-11: Advanced Profiling of Wine Precursors and Macromolecular Complexity
Seminar room 1	Location: Seminar room 1 Session Chair: Mariona Gil i Cortiella , Universidad Autónoma de Chile Session Chair: Davide Slaghenaufi , University of Verona
10:35am - 10:55am	Coffee break
10:55am - 11:55am	SES-12: Sustainable Strategies for Wine Stability and Resource Optimization
Seminar room 1	Location: Seminar room 1 Session Chair: Anna Puig-Pujol , IRTA - INCAVI Session Chair: Bin Tian , Lincoln University
12:00pm - 12:30pm	Presentation of Macrowine 2027 and Macrowine 2029
Seminar room 1	Location: Seminar room 1 Session Chair: Anna Puig-Pujol , IRTA - INCAVI Session Chair: Bin Tian , Lincoln University
12:30pm - 12:50pm	Award ceremony for best contributions and Closing Session
Seminar room 1	Location: Seminar room 1 Session Chair: Peter Robatscher , Laimburg Research Centre Session Chair: Emanuele Boselli , Free University of Bozen-Bolzano
8:00pm - 11:00pm	free jazz concerts: Südtirol Jazzfestival Alto Adige: OPENING NIGHT 2025
Piazza of NOI Techpark	Location: Piazza of NOI Techpark



MACROWINE 2025 Conference Program Bolzano, Italy, 24–27 June 2025

Presentations

Plenary 1: Keynote lecture 1

Time: Tuesday, 24/June/2025: 2:30pm - 3:00pm · *Location:* Seminar room 1

Session Chair: Silvia Carlin, Fondazione Edmund Mach

Session Chair: Mónica Bueno, Laboratorio de Analisis del Aroma y Enología (LAAE). Department of Analytical Chemistry, Universidad de Zaragoza, Instituto Agroalimentario de Aragón (IA2) (UNIZAR-CITA)

Key learnings about the chemical bases of wine uniqueness and quality, essential companions for future developments

Vicente Ferreira

Laboratory of Aroma Analysis and Enology (LAAE) associated with AgriFood Institute of Aragon (IA2). University of Zaragoza. Zaragoza, 50009, Spain., Spain; vferre@unizar.es

SES-01: Wine Identity and Quality: Insights into Composition, Perception and Expression

Time: Tuesday, 24/June/2025: 3:05pm - 4:45pm · *Location:* Seminar room 1

Session Chair: Vicente Ferreira, Laboratory of Aroma Analysis and Enology (LAAE) associated with AgriFood Institute of Aragon (IA2), University of Zaragoza, Zaragoza, 50009, Spain.

Session Chair: Paola Piombino, University of Naples Federico II

3:05pm - 3:25pm

Investigating Perceptual Interactions of Fruity Aromas in Bordeaux Red Wines Through Addition and Reconstitution Sensory Studies

Hannah May Charnock^{1,2}, Jean-Christophe Barbe^{1,2}, Philippe Darriet^{1,2}

¹Université de Bordeaux, Bordeaux INP, INRAE, OENO, UMR 1366, ISVV, F-33140 Villenave d'Oron, France; ²Bordeaux Sciences Agro, Bordeaux INP, INRAE, OENO, UMR 1366, ISVV, F-33170 Gradignan, France; hannah.arnock@u-bordeaux.fr

3:25pm - 3:45pm

From varietal and terroir expression to off-odors: chemical background of wine aroma evolution during aging

Maurizio Ugliano¹, Giovanni Luzzini¹, Jessica Samaniego-Solis¹, Leonardo Vanzo¹, Olga Melis¹, Davide Slaghenaufi¹, Aldo Mendoza¹, Arnaud Massot², virginie Moine²

¹University of Verona, Italy; ²Biolauffort; maurizio.ugliano@univr.it

3:45pm - 4:05pm

The capacity of spectrofluorometric fingerprints to discern changes of wine composition: applications in classifying wine additives and tracking red wine maturation and ageing

Shuyue Fan¹, Keren Bindon², David Jeffery¹

¹School of Agriculture, Food and Wine, and Waite Research Institute, The University of Adelaide, PMB 1, Glen Osmond, SA 5064, Australia; ²The Australian Wine Research Institute, PO Box 197, Glen Osmond, SA 5064, Australia; shuyue.fan@adelaide.edu.au

4:05pm - 4:25pm

Quantification of newly identified C8 aroma compounds in musts and wines as an analytical tool for the early detection of Fresh-Mushroom Off-Flavor

Sarah Ployon¹, Lucas Suc¹, Christine Le Guernevé¹, Eleonore Augès², Héloïse Mahé², Marion Hervé³, Audrey Bloem¹, Aurélie Roland¹

¹UMR SPO, Univ Montpellier, INRAE, Institut Agro, Montpellier 34060, France; ²Comité Champagne, Epernay, France; ³Centre de recherche Robert-Jean de Vogüé, Moët Hennessy, Oiry, France; sarah.ployon@supagro.fr

4:25pm - 4:45pm

Unveiling the Secrets of Catechin: Insights from NMR Spectroscopy

Giacomo Zuccon^{1,3}, Edoardo Longo¹, Emanuele Boselli^{1,2}, Alberto Ceccon³

¹Oenolab, Faculty of Agricultural, Environmental and Food Sciences, Free University of Bozen-Bolzano, NOI TechPark Alto Adige/Südtirol, Via A. Volta 13B, 39100 Bolzano, Italy; ²2ICOFF: International Competence Center for Food Fermentations, Free University of Bozen-Bolzano, Piazza Università 5, 39100 Bolzano, Italy; ³Laimburg Research Centre, Laimburg 6 - Pfatten (Vadena), 39040 Auer (Ora), BZ, Italy; alberto.ceccon@laimburg.it



MACROWINE 2025 Conference Program Bolzano, Italy, 24–27 June 2025

Poster session 1: All Posters

Time: Tuesday, 24/June/2025: 4:45pm - 6:00pm · Location: Crane Hall

Potential of Native Uruguayan Yeast Strains for Production of Tannat Wine

Paula Gonzalez Pombo, Stefani de Ovalle, Guillermo Morera
Universidad de la Republica, Uruguay; pgonzale@fq.edu.uy

The role of protein-phenolic interactions in the formation of red wine colloidal particles

Matteo Marangon¹, Valentina Marassi², Fulvio Mattivi³, Christine Mayr Marangon¹, Luigi Moio⁴, Barbara Roda⁵, Luca Rolle⁵, Maurizio Ugliano⁶, Andrea Versari⁷, Sara Zanella¹, Andrea Curioni¹

¹Department of Agronomy, Food, Natural Resources Animals and Environment (DAFNAE), University of Padua, Italy; ²Department of Chemistry "G. Ciamician", University of Bologna, Italy; ³Metabolomic Unit, Research Innovation Centre, Fondazione Edmund Mach, San Michele all'Adige, Italy; ⁴Department of Agricultural Sciences, Division of Vine and Wine Sciences, University of Napoli Federico II, Italy; ⁵Department of Agricultural, Forest and Food Sciences, University of Torino, Italy; ⁶Department of Biotechnology, University of Verona, Italy; ⁷Department of Agricultural and Food Sciences, University of Bologna, Italy; matteo.marangon@unipd.it

Transforming Winemaking Waste: Grape Pomace as a Sustainable Source of Bioactive compounds

Anna Karastergiou, Anne-Laure Gancel, Michael Jourdes, Pierre-Louis Teissedre
Institut des Sciences de la Vigne et du Vin (Université de Bordeaux), France; anna.karastergiou.1@u-bordeaux.fr

Effect of elicitors and ripening moment on the phenolic composition of Monastrell

ROCIO GIL-MUÑOZ¹, MARIA JOSÉ GIMENEZ-BAÑÓN¹, JUAN DANIEL MORENO-OLIVARES¹, JUAN ANTONIO BLEDA-SANCHEZ¹, ENCARNA GÓMEZ-PLAZA²

¹IMIDA, Spain; ²University of Murcia, Spain; mariar.gil2@carm.es

Development of novel drought-tolerant grape cultivars from Monastrell: enhancing anthocyanin and flavonol content under elevated temperatures

Juan Daniel Moreno-Olivares, María José Giménez-Bañón, Diego José Fernández-López, Ana Cebrián-Pérez, José Cayetano Gómez-Martínez, María Isabel Pérez-Quílez, Luis Javier Pérez-Prieto, Juan Antonio Bleda-Sánchez, Leonor Ruiz-García, Rocio Gil-Muñoz
IMIDA, Spain; mariar.gil2@carm.es

Managing extraction of colour, tannin and methoxypyrazines in Pinot noir grapes treated by leaf removal

Bin Tian¹, Pradeep Wimalasiri¹, Roland Harrison¹, Ivan Donaldson², Belinda Kemp³
¹Lincoln University, New Zealand; ²Pegasus Bay Winery, New Zealand; ³NIAB, United Kingdom; bin.tian@lincoln.ac.nz

Free and bound terpene profile of recovered minority white grape varieties by GCxGC-TOFMS

Cristina Cebrián-Tarancón¹, Nuno Martins², Argimiro Sergio Serrano-Parra^{1,3}, Daniela Fonseca², Maria João Cabrita², Gonzalo Luis Alonso¹, Maria Rosario Salinas¹, Rosario Sánchez-Gómez¹
¹Cátedra de Química Agrícola, E.T.S.I. Agronómica y de Montes y Biotecnología, Universidad de Castilla-La Mancha, Avda. de España s/n, 02071 Albacete, Spain.; ²MED—Mediterranean Institute for Agriculture, Environment and Development, CHANGE—Global Change and Sustainability Institute, Universidade de Évora, Pólo da Mitra, Ap. 94, Évora, 7006-554, Portugal.; ³Instituto Regional de Investigación y Desarrollo Agroalimentario y Forestal de Castilla-La Mancha (IRIAF).; cristina.ctarancon@uclm.es

Release and perception of γ -nonalactone and massoia lactone in the red wine matrix: impact of ethanol and acidity

Roberto Salvatore Di Fede, Elisabetta Pittari, Luigi Moio, Paola Piombino
University of Naples Federico II, Italy; robertosalvatore.difede@unina.it

Physical-chemical characterization of Moscatel de Setúbal fortified wines from different vintages

Joana Granja-Soares¹, Sofia Catarino^{1,2,3}, Jorge Ricardo-da-Silva^{1,2}
¹LEAF – Linking Landscape, Environment, Agriculture and Food Research Center, Instituto Superior de Agronomia, Universidade de Lisboa, Tapada da Ajuda, 1349-017 Lisboa, Portugal; ²Associate Laboratory TERRA, Instituto Superior de Agronomia, Universidade de Lisboa, Tapada da Ajuda, 1349-017 Lisboa, Portugal; ³CeFEMA (Centre of Physics and Engineering of Advanced Materials) Research Center, Instituto Superior Técnico, Universidade de Lisboa, Av. Rovisco Pais, 1, 1049-001 Lisboa, Portugal; jgranjasoares@isa.ulisboa.pt



MACROWINE 2025 Conference Program Bolzano, Italy, 24–27 June 2025

Characterization of intact glycoside aroma precursors of recovered minority Spanish red grape varieties by High-Resolution Mass Spectrometry

Cristina Cebrián-Tarancón¹, Mirko De Rosso², Annarita Panighel², Riccardo Flamini², Gonzalo L. Alonso¹, M. Rosario Salinas¹, Juan L. Chacón-Vozmediano³, Rosario Sánchez-Gómez¹

¹Cátedra de Química Agrícola, E.T.S.I. Agronómica y de Montes y Biotecnología, Universidad de Castilla-La Mancha, Avda. de España s/n, 02071 Albacete, Spain.; ²Council for Agricultural Research and Economics - Research Center for Viticulture & Enology (CREA-VE), Conegliano, 31015, Italy.; ³Instituto Regional de Investigación y Desarrollo Agroalimentario y Forestal de Castilla-La Mancha (IRIAF), Ctra. Toledo-Albacete s/n, Tomelloso, 13700, Spain.; rosario.sgomez@uclm.es

White Wine Lees: Unlocking the Relationship Between Chemical Composition and Antioxidant Potential

Luca Garcia, Benjamin Poulain, Alice Douliez, Eloïse Naud, Josep Valls-Fonayet, Claudia Nioi

1. Univ. Bordeaux, Bordeaux INP, Bordeaux Sciences Agro, INRAE, OENO, UMR 1366, ISVV, F-33140 Villenave d'Ornon, France; luca.garcia@u-bordeaux.fr

Effects of urea and nano-urea foliar treatments on the aromatic profile of Monastrell wines

María José Giménez-Bañón¹, Juan Daniel Moreno-Olivares¹, Juan Antonio Bleda-Sánchez¹, Ana Cebrian-Pérez¹, Belén Parra-Torrejón², Gloria-Belén Ramírez-Rodríguez², José-Manuel Delgado-López², Rocío Gil-Muñoz¹

¹IMIDA, Spain; ²Department of Inorganic Chemistry, Faculty of Science, University of Granada; mariaj.gimenez8@carm.es

Influence of social interaction levels on panel effectiveness in developing wine sensory profiles using consensus method

Inès Elali¹, Gilles de Revel¹, Laurent Riquier¹, Christophe Loisel², Sophie Tempere¹

¹Univ. Bordeaux, INRAE, Bordeaux INP, Bordeaux Sciences Agro, OENO, UMR 1366, ISVV, F-33140 Villenave d'Ornon, France; ²DIAM Bouchage SAS, 3 Rue des Salines, 66400 Céret, France; ines.elali@u-bordeaux.fr

Evaluating the Greenness of Wine Analytical Chemistry: A New Metric Approach

Vasiliki Thanasi^{1,2}, Ana Beatriz Lopes^{1,2}, Paulo Barros³, Natália Ribeiro³, Jorge M. Ricardo-da-Silva^{1,2}, Sofia Catarino^{1,2,4}

¹LEAF-Linking Landscape Environment Agriculture and Food—Research Center, Instituto Superior de Agronomia, Universidade de Lisboa, Tapada da Ajuda, 1349-017 Lisboa, Portugal; ²Associate Laboratory TERRA, Instituto Superior de Agronomia, Universidade de Lisboa, Tapada da Ajuda, 1349-017 Lisboa, Portugal; ³Instituto dos Vinhos do Douro e do Porto, I.P., Rua de Ferreira Borges, 27, 4050-253 Porto, Portugal; ⁴CeFEMA-Centre of Physics and Engineering of Advanced Materials, Instituto Superior Técnico, Universidade de Lisboa, Av. Rovisco Pais, 1, 1049-001 Lisboa, Portugal; vasilikithanasi@isa.ulisboa.pt

Simultaneous Determination of Ethanol and Methanol in Wines Using FTIR and PLS Regression

Vasiliki Thanasi^{1,2}, Ilda Caldeira^{3,4}, Luís Santos⁵, Jorge M. Ricardo-da-Silva^{1,2}, Sofia Catarino^{1,2,6}

¹LEAF-Linking Landscape, Environment, Agriculture and Food—Research Center, Instituto Superior de Agronomia, Universidade de Lisboa, Tapada da Ajuda, 1349-017 Lisboa, Portugal; ²Associate Laboratory TERRA, Instituto Superior de Agronomia, Universidade de Lisboa, Tapada da Ajuda, 1349-017 Lisboa, Portugal; ³Instituto Nacional de Investigação Agrária e Veterinária, Polo de Inovação de Dois Portos, Quinta de Almoinha, 2565-191 Dois Portos, Portugal; ⁴MED-Mediterranean Institute for Agriculture, Environment and Development, CHANGE—Global Change and Sustainability Institute, Instituto de Investigação e Formação Avançada, Universidade de Évora, Pólo da Mitra, Ap. 94, 7006-554 Évora, Portugal; ⁵Centro de Química Estrutural, Institute of Molecular Sciences, Departamento de Engenharia Química, Instituto Superior Técnico, Universidade de Lisboa, Av. Rovisco Pais 1, 1049-001 Lisboa, Portugal; ⁶CeFEMA-Research Centre of Physics and Engineering of Advanced Materials, Instituto Superior Técnico, Universidade de Lisboa, Av. Rovisco Pais, 1, 1049-001 Lisboa, Portugal; vasilikithanasi@isa.ulisboa.pt

¹³⁷Cs analysis by gamma spectrometry and its potential for dating Portuguese old wines

Vasiliki Thanasi^{1,2}, Marta Santos^{3,4,5}, Rosa Marques^{3,4}, Natália Ribeiro⁶, Paulo Barros⁶, Jorge M. Ricardo-da-Silva^{1,2}, Mário Reis^{3,4,5}, Joe Bultth-Williams⁷, Nigel A. Spooner⁷, Markus Herderich^{8,9}, Sofia Catarino^{1,2,10}

¹LEAF-Linking Landscape, Environment, Agriculture and Food—Research Center, Instituto Superior de Agronomia, Universidade de Lisboa, Tapada da Ajuda, 1349-017 Lisboa, Portugal; ²Associate Laboratory TERRA, Instituto Superior de Agronomia, Universidade de Lisboa, Tapada da Ajuda, 1349-017 Lisboa, Portugal; ³Center of Nuclear Sciences and Technologies (C2TN), Instituto Superior Técnico, Universidade de Lisboa, EN 10 (km 139.7), 2695-066, Bobadela, Portugal; ⁴Departamento de Engenharia e Ciências Nucleares (DECN), Instituto Superior Técnico, Universidade de Lisboa, EN 10 (km 139.7), 2695-066 Bobadela, Portugal; ⁵Laboratório de Protecção e Segurança Radiológica (LPSR), Instituto Superior Técnico, Universidade de Lisboa, EN 10 (km 139.7), 2695-066 Bobadela, Portugal; ⁶Instituto dos Vinhos do Douro e do Porto, I.P., Rua de Ferreira Borges, 27, 4050-253 Porto, Portugal; ⁷Prescott Environmental Luminescence Laboratory (PELL), Faculty of Sciences, Engineering and Technology, University of Adelaide, Adelaide, SA 5005, Australia; ⁸The Australian Wine Research Institute, P.O. Box 197, Glen



MACROWINE 2025 Conference Program Bolzano, Italy, 24–27 June 2025

Osmond, SA 5064, Australia; ⁹Discipline of Wine Science and Waite Research Institute, The University of Adelaide, PMB 1, Glen Osmond, SA 5064, Australia; ¹⁰CeFEMA-Centre of Physics and Engineering of Advanced Materials Research Center, Instituto Superior Técnico, Universidade de Lisboa, Av. Rovisco Pais, 1, 1049-001 Lisboa, Portugal; vasilikithanasi@isa.ulisboa.pt

Exploring the physico-chemical modification of grape seed extracts to improve their clarifying effect in red wine

María José Carrasco Palazón¹, Encarna Gómez Plaza¹, Enrique Pérez Navarro², Ricardo Jurado Fuentes³, Ana Belén Bautista Ortín¹

¹Department of Food Technology, Nutrition and Bromatology, Faculty of Veterinary Science. University of Murcia, 30100, Murcia, Spain.; ²Statistical and Bioinformatics Support Unit of the Biosanitary Research Service (SIB), Scientific and Technical Research Area (ACTI). University of Murcia, 30100, Murcia, Spain.; ³Agrovin S.A., Avenida de los Vinos s/n, 13600 Alcázar de San Juan, Ciudad Real, Spain.; mariajose.carrasco1@um.es

Exploring the use of high-power ultrasound in white and rosé winemaking

Paula Pérez-Porras¹, Ana Belén Bautista-Ortín¹, Lara Labrador-Fernández², María Consuelo Díaz-Maroto², Leticia Martínez-Lapuente³, Zenaída Guadalupe³, Belén Ayestarán³, María Soledad Pérez-Coello², Encarna Gómez-Plaza¹

¹Department of Food Science and Technology, Faculty of Veterinary Sciences, University of Murcia, 30100 Murcia, Spain; ²Department of Food Technology, Faculty of Chemical Sciences and Technologies, Regional Institute for Applied Scientific Research (IRICA), University of Castilla-La Mancha, Ciudad Real, Spain; ³Institute of Vine and Wine Sciences, ICVV (University of La Rioja, Government of La Rioja and CSIC), Finca La Grajera, Logroño, Spain; paula.perez2@um.es

Study of the volatile aroma profile of five Italian grape varieties submitted to controlled postharvest withering

Jessica Anahi Samaniego Solis¹, Marta Baviera², Lorenzo Ferrero³, Tommy Avesani¹, Enrico Manfron¹, Maurizio Ugliano¹, Daniela Fracassetti², Simone Giacosa³, Davide Slaghenaufi¹

¹Univeristy of Verona, Italy; ²Università degli Studi di Milano; ³Università degli Studi di Torino; jessicaanahi.samaniegosolis@univr.it

Development of a new lab-scale carbonation method for applications to sparkling wines

Zoé Grolier^{1,2,3}, Raphaël Vallon¹, Florian Lecasse¹, Clément Jacquemin¹, Frédéric Polak¹, Clara Cilindre¹, Arnaud Massot², Virginie Moine², Stéphanie Marchand-Marion³, Gérard Liger-Belair¹

¹Université de Reims Champagne-Ardenne, Equipe Effervescence & Champagne (GSMA), UMR CNRS 7331, Reims Cedex 251687, France; ²Biolaffort, 11 Rue Aristide Berges, 33270 Floirac, France; ³Université de Bordeaux, Bordeaux INP, Bordeaux Sciences Agro, INRAE, UMR OENO 1366, ISVV, 33140 Villenave d'Ornon, France; zoe.grolier@laffort.com

Two Dimensions, one mission: Unlocking grape composition by GC×GC

Nuno Martins¹, Daniela Fonseca², Raquel Garcia¹, Pedro Rodrigues³, Vanda Pedrosa⁴, António M. Jordão³, Maria João Cabrita¹

¹Mediterranean Institute for Agriculture, Environment and Development & Global Change and Sustainability Institute, University of Évora, Pólo da Mitra, Ap. 94, 7006-554 Évora, Portugal; ²Mediterranean Institute for Agriculture, Environment and Development & Institute of Research and Advanced Training, University of Évora, Pólo da Mitra, Ap. 94, 7006-554 Évora, Portugal; ³Polytechnic University of Viseu, Agrarian School (CERNAS Research Centre), 3500-606 Viseu, Portugal; ⁴Dão Wine Studies Center - Nelas Innovation Hub (CCDRC), 3520 Nelas, Portugal; mjbc@uevora.pt

Adapting Portuguese vineyards to climate change: impact of different irrigation regimes on phenolic composition

Daniela Fonseca¹, Cristina Cebrián-Tarancón², Rosario Sánchez-Gómez², M. Rosario Salinas², Nuno Martins³, Raquel Garcia³, José Silva⁴, Rui Flores⁴, Ana Carina Neto⁴, Maria João Cabrita³

¹Mediterranean Institute for Agriculture, Environment and Development & Institute of Research and Advanced Training, University of Évora, Pólo da Mitra, Ap. 94, 7006-554 Évora, Portugal; ²Cátedra de Química Agrícola, E.T.S. Ingeniería Agronómica y de Montes y Biotecnología, Departamento de Ciencia y Tecnología Agroforestal y Genética, Universidad de Castilla-La Mancha, Avda. de España s/n, 02071 Albacete, Spain; ³Mediterranean Institute for Agriculture, Environment and Development & Global Change and Sustainability Institute, University of Évora, Pólo da Mitra, Ap. 94, 7006-554 Évora, Portugal; ⁴Esporão S.A., Avenida do Restelo 44, 1400-315 Lisboa, Portugal; daniela.fonseca@uevora.pt

Evolution of grapeseed composition during maturation and characterization of its impact on wine compound using molecular networks

Julien Foisnon, Marie Le Scanff, Amelie Rabot



MACROWINE 2025 Conference Program Bolzano, Italy, 24–27 June 2025

UMR Oeno, Bordeaux University, ISVV, 210 Chemin de Leysotte, 33140 Villenave d'Ornon, France; julien.foisnon@u-bordeaux.fr

Unveiling the chemical headspace of sparkling wine glasses by laser spectroscopy

Florian Lecasse¹, Raphaël Vallon¹, Clément Jacquemin^{1,2}, Vincent Alfonso¹, Clara Cilindre¹, Bertrand Parvitte¹, Virginie Zéninari¹, Gérard Liger-Belair¹

¹1. GSMA, UMR CNRS 7331, Université de Reims Champagne-Ardenne, Reims, France; ²MirSense, 1 rue Jean Rostand, Campus Eiffel, 91400 Orsay, France; florian.lecasse@univ-reims.fr

Enhancing Monastrell Wine Quality in a Climate Change scenario: The Role of Cation Exchange Resins in Addressing Acidity Challenges

Ana Leticia Perez-Mendoza¹, Alejandro Martínez-Moreno¹, Encarna Gomez-Plaza¹, Paula Pérez-Porras¹, Paola Sanchez-Bravo¹, Ricardo Jurado², Ana Belén Bautista-Ortín¹

¹University of Murcia, Spain; ²Agrovin S.A.; encarna.gomez@um.es

Lactic acid bacteria: a possible aid to the remediation of smoke taint?

Phuti Reginald Lekokotla¹, Rémi Schneider², Maret Du Toit¹, Benoit Divol¹

¹Stellenbosch University, South Africa; ²Oenobrand SAS, France; divol@sun.ac.za

Geographical indication “Brandy Italiano”: study on the influence of wood barrel toasting and natural seasoning on endogenous and wood-derived compounds of aged distillates.

Silvia Arduini¹, Fabio Chinnici^{1,2}

¹Department of Agricultural and Food Sciences, University of Bologna, Viale Fanin 40, 40127 Bologna, Italy; ²Centro Interdipartimentale di Ricerca Industriale Agroalimentare (CIRI AGRO), Via Quinto Bucci 336, 47521 Cesena, Italy; silvia.arduini2@unibo.it

Towards 2D mapping of gaseous ethanol in the headspace of wine glasses by infrared laser spectrometry

Vincent Alfonso, Raphaël Vallon, Florian Lecasse, Clara Cilindre, Bertrand Parvitte, Virginie Zeninari, Gérard Liger-Belair

Université de Reims Champagne-Ardenne, CNRS, GSMA, Reims, France; vincent.alfonso@univ-reims.fr

Understanding colloidal instability in white wine through model solutions: a study focused on the effect of polysaccharides and salts onto bentonite protein removal efficiency

Mário Bezerra¹, Miguel Ribeiro^{1,2}, Luis Filipe Ribeiro¹, Fernanda Cosme^{1,3}, Fernando M. Nunes^{1,4}

¹Chemistry Research Centre-Vila Real (CQ-VR), Food and Wine Chemistry Laboratory, University of Trás-os-Montes and Alto Douro, Vila Real, Portugal; ²Genetics and Biotechnology Department, School of Life Sciences and Environment, University of Trás-os-Montes and Alto Douro, Vila Real, Portugal; ³Biology and Environment Department, School of Life Sciences and Environment, University of Trás-os-Montes and Alto Douro, Vila Real, Portugal; ⁴Chemistry Department, School of Life Sciences and Environment, University of Trás-os-Montes and Alto Douro, Vila Real, Portugal; mariojbezerra02@gmail.com

Modulation of the Tannic Structure of Tannat Wines through maceration techniques : Cross Analytical and Sensory study

Laura LESCOT^{1,2,3,4}, Elodie GASSIOLLE², Frédéric VIOLLEAU^{1,3}, Marianne GOSSET⁴

¹Plateforme TFFFC, Université de Toulouse, INP-PURPAN, 75 Voie du Toec, 31076 Toulouse, France; ²Plaimont R&D, 99 Route de Corneillan, 32400 SAINT-MONT, France; ³Laboratoire de Chimie Agro-industrielle, LCA, Université de Toulouse, INRA, 4 Allée Emile Monso, 31000 Toulouse, France; ⁴Département sciences de l'agroalimentaire et de la nutrition, Université de Toulouse, INP-PURPAN, 75 Voie du Toec, 31076 Toulouse, France; laura.lescot@partner.purpan.fr

Effect of bleaching with different agents on protein hydrolysate characteristics

María del Rosario Rodríguez-Muñoz, Francisco J. Heredia, M. Lourdes González-Miret, María Jesús Cejudo-Bastante

Universidad de Sevilla; mrodriguez48@us.es

Wine chemical markers assess nitrogen levels in original grape juice

Ágnes Dienes Nagy¹, Matthieu Wilhelm¹, Frédéric Vuichard¹, Danielle Nardone¹, Marie Blackford^{1,2}, Thibaut Verdenal¹, Sandrine Belcher¹

¹Agroscope, Switzerland; ²Changins, HES-SO University of Applied Sciences and Arts Western Switzerland, College for Viticulture and Enology, Switzerland; agnes.dienes-nagy@agroscope.admin.ch

Sensory and chemical effects of postharvest grape cooling on wine quality

Ulrich Pedri, Daniela A. Hey, Danila Chiotti, Eva Überegger, Andreas Sölva, Christof Sanoll, Norbert Kofler, Sebastian Lanaro, Peter Robatscher, Andreas Putti
 Laimburg Research Centre, Italy; daniela.hey@laimburg.it

Evaluation of the composition of pomace from grapes grown in the slopes of the Popocatepetl volcano (Puebla, Mexico). Feasibility of its application for obtaining functional foods

Samia Andrade Alle², Ana Ortega-Regules², Ana Belén Bautista-Ortín¹, Encarna Gomez-Plaza¹
¹University of Murcia, Spain; ²Universidad de las Americas Puebla, Mexico; encarna.gomez@um.es

What Defines the Aging Signature of Chasselas Wines?

Marie Blackford^{1,2}, Ágnes Dienes Nagy¹, Pascale Deneulin², Pascal Fuchsmann¹, Vivian Zufferey¹, Gilles Bourdin¹
¹Agroscope, Switzerland; ²Changins, HES-SO University of Applied Sciences and Arts Western Switzerland, College for Viticulture and Enology, Nyon, Switzerland; agnes.dienes-nagy@agroscope.admin.ch

A fast and sensitive method for total tannin determination in wine based on the substoichiometric quenching of silicon-rhodamine conjugates

Daniel Bátorá^{1,2}, Ágnes Dienes Nagy³, Liming Zeng⁴, Christian E. Gerber¹, Jérôme P. Fischer¹, Martin Lochner¹, Jürg Gertsch¹
¹Institute of Biochemistry and Molecular Medicine, University of Bern, 3012 Bern, Switzerland; ²Graduate School for Cellular and Biomedical Sciences, University of Bern, 3012 Bern, Switzerland; ³Agroscope, Switzerland; ⁴University of Applied Sciences and Arts of Western Switzerland (HES-SO), Changins Viticulture and Enology College, 1260 Nyon, Switzerland; daniel.batora@unibe.ch

Evolution and contribution sensory of ethyl acetate in sweet wines

Emilie Paudois, Sophie Tempère, Axel Marchal
 Université de Bordeaux, France; emilie.paudois@u-bordeaux.fr

Impact of fining agents on Swiss Pinot Noir red wines

Liming ZENG¹, Aleksandr Arakelyan¹, Ágnes Dienes-Nagy², Lama Aleid-Germanier³, Kelly Marti¹, Pierrick Rébénague-Martinez¹, Philippe Mayer³, Laurent Amiet², Stefan Bieri², Olivier Viret³
¹Changins college for viticulture and enology, University of Applied Sciences and Arts of Western Switzerland (HES-SO), Route de Duillier 52, 1260 Nyon, Switzerland; ²Agroscope, Route de Duillier 60, 1260 Nyon, Switzerland; ³Service de l'Agriculture et de la Viticulture (SAVI), 1110 Morges, Switzerland; liming.zeng@changins.ch

Studying the redox state of wines under oxidative processes with a multi-parametric analysis

Alice DAUPHIN¹, Samuel GUILBAULT¹, Fabrice MEUNIER², Arnaud MASSOT², Virginie MOINE², Stéphane ARBAULT¹
¹Univ. Bordeaux, CNRS, Bordeaux INP, CBMN, UMR 5248, F-33600 Pessac, France; ²Biolaaffort, 11 rue Aristide Berges, 33270 Floirac, France; stephane.arbault@u-bordeaux.fr

Identification of compounds produced by reactions of flavonoids and acetaldehyde in wine

Ezekiel Warren, Ryan J. Elias, Misha T. Kwasniewski
 The Department of Food Science, The Pennsylvania State University, United States of America; erw5235@psu.edu

Metal reducing agents (Fe and Al) as possible agents to measure the dimensions of the hydrogen sulfide (H₂S) pool of precursors in wines

Susana Ainsa-Zazurca, Vicente Ferreira
 Laboratory of Aroma Analysis and Enology (LAAE) associated with AgriFood Institute of Aragon (IA2). University of Zaragoza. Zaragoza, 50009, Spain.; sainsa@unizar.es

South American Creole grapevines: new varieties identified in the Caravelí Valley (Peru) and their aromatic profile



MACROWINE 2025 Conference Program Bolzano, Italy, 24–27 June 2025

Naïssa Prévêde Bernardo¹, Keith Díaz², Renata Vieira da Mota³, Eduardo Purgatto^{4,5}, Sebastián Debernardi Ruiz-Eldredge⁶, Gustavo A. Aliquó⁷, Yasser Hidalgo⁸

¹Department of Biotechnology, University of Verona, Villa Lebrecht, via della Pieve 70, 37029 San Pietro in Cariano (VR), Italy;

²Ingeniero Agrónomo. Consultor en Viticultura y Enología; ³Minas Gerais Agricultural Research Agency (EPAMIG), Experimental Field of Caldas, Grape and Wine Technological Centre, Avenida Santa Cruz, 500, postal code 33, 37780-000, Caldas, Brazil;

⁴Department of Food Science and Experimental Nutrition, School of Pharmaceutical Sciences, University of São Paulo, Avenida Prof Lineu Prestes, 580, bl 14, 05508-000, São Paulo, Brazil; ⁵Food Research Centre, University of São Paulo, São Paulo, Brazil;

⁶Ingeniero Agrónomo, Consultor en Viticultura y Enología; ⁷Instituto Nacional de Tecnología Agropecuaria (INTA), Mendoza, Argentina. Master en Viticultura y Enología; ⁸Ingeniero de Industrias Alimentarias, Asesor Enológico y Consultor en Bioprocesos;

naissa.previdebernardo@univr.it

Aroma profile evaluation in whole grape juices

Naïssa Prévêde Bernardo¹, Laura Franco Carvalho Lucas², Angélica Bender², Francisco Mickael de Medeiros Câmara², Claudia R. de Souza², Gabriela Fontes Alvarenga², Lucas Bueno do Amaral², Eduardo Purgatto^{3,4}, Renata Vieira da Mota²

¹Department of Biotechnology, University of Verona, Villa Lebrecht, via della Pieve 70, 37029 San Pietro in Cariano (VR), Italy;

²Minas Gerais Agricultural Research Agency (EPAMIG), Experimental Field of Caldas, Grape and Wine Technological Centre, Avenida Santa Cruz, 500, postal code 33, 37780-000, Caldas, Brazil; ³Minas Gerais Agricultural Research Agency (EPAMIG), Experimental Field of Caldas, Grape and Wine Technological Centre, Avenida Santa Cruz, 500, postal code 33, 37780-000,

Caldas, Brazil; ⁴Food Research Centre (FoRC), University of São Paulo, São Paulo, Brazil; naissa.previdebernardo@univr.it

Comprehensive Lipid Profiling of Grape Musts: Impact of Static Settling

Louise Ramousse¹, Zandile Mlamla², Jean-Paul Pais de Barros^{2,3,4}, Hervé Alexandre¹, Chloé Roullier-Gall¹

¹Université Bourgogne Europe, Institut Agro, INRAE, UMR PAM F-21000 Dijon, France; ²Plateforme DiviOmics, US 58 BioSanD, Université Bourgogne Europe, Dijon, France; ³UMR1231, Inserm/Université Bourgogne Europe, Dijon, France; ⁴LipSTIC Labex, Dijon, France; louise_ramousse@etu.u-bourgogne.fr

The role of malolactic bacteria metabolism on the organoleptic qualities of wines

Amaury Aumeunier^{1,2}, Chloé Roullier-Gall¹, Benjamin Leroux², Magali Deleris-Bou², Stéphanie Weidmann¹

¹Université de Bourgogne Europe, Institut Agro, INRAE, UMR PAM, F-21000 Dijon, France; ²LALLEMAND S.A.S, Blagnac, France; amaury_aumeunier@etu.u-bourgogne.fr

Antioxidant Activity of Yeast Peptides released during fermentation and autolysis in model conditions

Alberto De Iseppi^{1,2}, Matteo Marangon^{1,2}, Sara Zanella¹, Andrea Curioni^{1,2}

¹Department of Agronomy, Food, Natural Resources, Animals and Environment (DAFNAE), University of Padova, Viale dell'Università 16, 35020 Legnaro, Italy; ²Interdepartmental Centre for Research in Viticulture and Enology (CIRVE), University of Padova, Viale XXVIII Aprile 14, 31015 Conegliano, Italy; sara.zanella.3@phd.unipd.it

Colloidal Color Stabilization in Wine: A Comparative Study of Saccharomyces and Non-Saccharomyces Mannoproteins

Saul Assunção Bicca¹, Océane Quideau¹, Nathalie Sieczkowski², Rémi Schneider³, Julie Mekoue², Céline Poncet-Legrand¹, Thierry Doco¹

¹Unité Mixte de Recherche Sciences Pour l'Enologie, Institut Agro, INRAE, Université de Montpellier, Montpellier, France;

²Lallemand, SAS, 19 rue des Briquetiers, BP 59, 31702 Blagnac, France.; ³Oenobrand, Parc Scientifique Agropolis 2196 boulevard de la Lironde, 34980 Montferrier-sur-Lez, France.; saul.assuncao@supagro.fr

Effect of polysaccharide extracts from grape pomace on the oxidative evolution of hydroxycinnamic acids

Iván Puerta-García, María Teresa Escribano-Bailón, Ignacio García-Estévez

Grupo de Investigación en Polifenoles, Facultad de Farmacia, Universidad de Salamanca, Salamanca E37007, Spain; ivanp@usal.es

Impact of grape ripening and post-harvest withering on must composition and fermentation kinetics

Marta Baviera¹, Giulio Staffieri¹, Lorenzo Ferrero², Jessica Samaniego Solis³, Ivano De Noni¹, Antonio Tirelli¹, Simone Giacosa², Davide Slaghenaufer³, Daniela Fracassetti¹

¹Università degli Studi di Milano, Dipartimento di Scienze per gli Alimenti, la Nutrizione e l'Ambiente. Via Celoria 2, 20133 Milano, Italy; ²Università degli Studi di Torino, Dipartimento di Scienze Agrarie, Forestali e Alimentari. Corso Enotria 2/C, 12051 Alba, Italy;

³Università degli Studi di Verona, Dipartimento di Biotechnologie. Via della Pieve 70, 37020 San Floriano-San Pietro in Cariano, Italy; marta.baviera@unimi.it



MACROWINE 2025 Conference Program Bolzano, Italy, 24–27 June 2025

Aroma typicity of Timorasso wines: influence of ageing on volatile organic compounds and sensory descriptors

Maria Alessandra Paissoni^{1,2}, Micaela Boido¹, Pietro Margotti³, Simone Giacosa^{1,2}, Susana Río Segade^{1,2}, Vincenzo Gerbi^{1,2}, Luca Rolle^{1,2}, Christoph Schuessler³, Stefanie Fritsch⁴, Beata Beisert⁴, Silvia Brezina⁴, Doris Rauhut⁴, Rainer Jung³, Andrii Tarasov³

¹Department of Agricultural, Forest, and Food Sciences, University of Torino, Corso Enotria 2/C, 12051 Alba, Italy;

²Interdepartmental Centre for Grapevines and Wine Sciences, University of Torino, Corso Enotria 2/C, 12051 Alba, Italy;

³Department of Enology, Hochschule Geisenheim University (HGU), Von-Lade-Straße 1, 65366 Geisenheim, Germany;

⁴Department of Microbiology and Biochemistry, Hochschule Geisenheim University, Von-Lade-Straße 1, 65366 Geisenheim, Germany; luca.rolle@unito.it

UV-VIS-NIR Spectroscopy as a Tool for Predicting Volatile Compounds in Grape Must

Marta Pinillos, Jose Ignacio Manzano, Mar Vilanova de la Torre

ICVV-CSIC, Spain; mar.vilanova@csic.es

Bioanalytical workflow for exploring the chemical diversity and antioxidant capacity of grape juice peptides

John Carlos¹, Laurence Noret¹, Camille Loupiac¹, Régis Gougeon¹, Sarah Foley², Maria Nikolantonaki¹

¹Institut Universitaire de la Vigne et du Vin (IUVV) – Jules Guyot, UMR PAM 1617, Université de Bourgogne Europe/Institut Agro/INRAE, 2 Rue Claude Ladrey, BP 27877, 21000 Dijon, France; ²Laboratoire Chrono-Environnement – UMR 6249 CNRS/UFC, Université Marie & Louis Pasteur, Campus de la Bouloie, 16 rue de Gray, 25030 Besançon, France; John_Carlos@etu.u-bourgogne.fr

Further insight on the use of Yeast Derivative Products as alcoholic fermentation enhancers

Alessio Altomare¹, Giulio Staffieri¹, Denis Allieri¹, Maria Manara², Daniela Fracassetti¹

¹Università degli Studi di Milano, Dipartimento di Scienze per gli Alimenti, la Nutrizione e l'Ambiente. Via Celoria 2, 20133 Milano, Italy.; ²Ricerca e Sviluppo, Dal Cin S.p.a., Via I Maggio 67, 20863 Concorezzo (MB), Italy.; alessio.altomare1@unimi.it

Determining the impact of thiophenols on ashy flavor recognition in smoke-affected wines

Jenna Fryer, Jillian Thrall, Camilla Sartori, Elizabeth Tomasino

Oregon State University, United States of America; elizabeth.tomasino@oregonstate.edu

Exploring the behavior of alternatives to montmorillonite clays in white wine protein stabilization

Marco Lagori¹, Matteo Marangon^{2,3}, Simone Vincenzi^{2,3}, Beatrice Cordero¹, Negin Seif Zadeh¹, Maria Alessandra Paissoni¹, Susana Río Segade¹, Simone Giacosa¹, Giuseppina Sandri⁴, César Viseras Iborra⁵, Luca Rolle¹

¹Department of Agricultural, Forest, and Food Sciences, University of Torino, 12051 Alba, Italy; ²Department of Agronomy, Food, Natural Resources, Animals and Environment (DAFNAE), University of Padova, 35020 Legnaro, Italy; ³Interdepartmental Centre for Research in Viticulture and Enology (CIRVE), University of Padova, 31015 Conegliano, Italy; ⁴Department of Drug Science, University of Pavia, 27100 Pavia, Italy; ⁵Department of Pharmacy and Pharmaceutical Technology, University of Granada, 18071 Granada, Spain; marco.lagori@unito.it

Colour, phenolic, and sensory characteristics of commercial monovarietal white wines produced with maceration

Anastasiia Kasianova¹, Micaela Boido¹, Lorenzo Ferrero¹, Giorgia Botta¹, Susana Río Segade^{1,2}, Simone Giacosa^{1,2}, Luca Rolle^{1,2}, Maria Alessandra Paissoni^{1,2}

¹Department of Agricultural, Forest, and Food Sciences, University of Torino, Corso Enotria 2/C, 12051 Alba, Italy;

²Interdepartmental Centre for Grapevines and Wine Sciences, University of Torino, Corso Enotria 2/C, 12051 Alba, Italy; anastasiia.kasianova@unito.it

Effects of winemaking variables on the chemical and sensory quality of Schiava wines up to one year storage in bottle

Aakriti Darnal^{1,2}, Adriana Teresa Ceci¹, Simone Poggesi³, Tanja Mimmo^{1,4}, Emanuele Boselli^{1,5}, Edoardo Longo¹

¹Faculty of Agricultural, Environmental and Food Sciences, Free University of Bozen-Bolzano, Piazza Università 1, 39100 Bolzano, Italy; ²Laimburg Research Centre, Laimburg 6 - Pfatten (Vadena), 39040 Auer (Ora), BZ, Italy; ³Food Experience and Sensory Testing (Feast) Lab, Massey University, Palmerston North 4410, New Zealand; ⁴Competence Centre for Plant Health, Free



MACROWINE 2025 Conference Program Bolzano, Italy, 24–27 June 2025

University of Bolzano, Bolzano, Italy; ⁵International Competence Centre on Food Fermentations, Free University of Bolzano, Bolzano, Italy; Aakriti.Darnal@student.unibz.it

A facile and robust method for the quantification of polyphenols in red wine via NMR

Felix Bacher¹, Francesca Tilocca^{1,3,4}, Alberto Ceccon², Edoardo Longo^{3,4}, Emanuele Boselli^{3,4}, Peter Robatscher¹

¹Laboratory of Flavours and Metabolites, Laimburg Research Centre, Italy; ²Laboratory of NMR Spectroscopy, Laimburg Research Centre, Italy; ³Oenolab, NOI TechPark, Italy; ⁴Faculty of Agricultural, Environmental and Food Sciences, Free University of Bolzano, Italy; felix.bacher@laimburg.it

Optimized Grape Seed Protein Extraction for Wine Fining

Shuyan Liu, Simone Vincenzi

Interdepartmental Centre for Research in Viticulture and Enology, University of Padova, Conegliano (TV) 31015, Italy; shuyan.liu@unipd.it

Integrated approach to grape stalks valorization: Sustainable recovery of bioactive compounds and biofuel production

Edoardo Longo¹, Sara D'Aronco¹, Francesco Patuzzi², Giacomo Zuccon¹, Alberto Ceccon³, Marco Baratieri², Emanuele Boselli^{1,4}

¹Faculty of Agricultural, Environmental and Food Sciences, Free University of Bozen-Bolzano, Piazza Università 1, 39100 Bolzano, Italy; ²Faculty of Engineering, Free University of Bozen-Bolzano, Piazza Università 1, 39100 Bolzano, Italy; ³Laimburg Research Centre, Laimburg 6 - Pfatten (Vadena), 39040 Auer (Ora), BZ, Italy; ⁴International Competence Center for Food Fermentations, Free University of Bozen-Bolzano, Piazza Università 5, 39100 Bolzano, Italy; sara.daronco@unibz.it

Sorption of aroma compounds by commercial specific yeast derivatives and the influence of polyphenols

Laurie Favieres^{1,2}, Céline Poncet-Legrand¹, Aude Vernhet², Nathalie Sieczkowski², Peggy Rigou¹

¹INRAE, France; ²Lallemand SAS, 19 rue des briquetiers, 31702 Blagnac Cedex, France; laurie.favieres@supagro.fr

The use of pulsed fluorescence detector to quantify free SO₂ in wines via the headspace.

Charles Jean-Francois Chappuis, Liming Zeng, Arnaud Pernet, Eric Grand, Benoit Bach

Changins Viticulture and Enology College, University of Applied Sciences and Arts of Western Switzerland (HES-SO), Switzerland; charles.chappuis@changins.ch

Photodegradation of Retsina Wine: Does Pine Resin Protect Against Light-Induced Changes?

Georgios Polymeros¹, Silvia Carlin², Francesco Reale², Evangelos Nikolou¹, Urska Vrhovsek², Vasileios Nikolou¹, Panagiotis Arapitsas^{1,2}

¹University of West Attica, Greece; ²Fondazione Edmund Mach, Italy; parapitsas@uniwa.gr

Mannoproteins from oenological by-products as tartaric stabilization and color agents in white and red wines

Diana M. Bosch-Crespo, Elvira Manjón, Rebeca Ferreras-Charro, María Teresa Escribano-Bailón, Montserrat Dueñas

Department of Analytical Chemistry, Nutrition and Food Science, Universidad de Salamanca, Salamanca, E 37007, Spain; dbosch@usal.es

Assessing the potential of fermentative skin contact in white winemaking on phenolic, colour, and sensory traits

Lorenzo Ferrero¹, Marco Lagori¹, Anastasiia Kasianova¹, Micaela Boido¹, Giorgia Botta¹, Beatrice Cordero¹, Maria Alessandra Paissoni^{1,2}, Susana Río Segade^{1,2}, Luca Rolle^{1,2}, Simone Giacosa^{1,2}

¹Università degli Studi di Torino, Dipartimento di Scienze Agrarie, Forestali e Alimentari. Corso Enotria 2/C, 12051 Alba, Italy; ²Centro Interdipartimentale di Ricerca sulla Filiera Viticoltura e Vino (CONViVi), Università degli Studi di Torino, Corso Enotria 2/C, 12051 Alba (CN), Italy; lor.ferrero@unito.it

Quantification of quercetin and quercetin-3-glucoside in Nebbiolo red wines

Lorenzo Ferrero¹, Maria Alessandra Paissoni^{1,2}, Susana Río Segade^{1,2}, Luca Rolle^{1,2}, Simone Giacosa^{1,2}



MACROWINE 2025 Conference Program Bolzano, Italy, 24–27 June 2025

¹Dipartimento di Scienze Agrarie, Forestali e Alimentari, Università degli Studi di Torino, Corso Enotria 2/C, 12051 Alba (CN), Italy;
²Centro Interdipartimentale di Ricerca sulla Filiera Viticoltura e Vino (CONViVi), Università degli Studi di Torino, Corso Enotria 2/C, 12051 Alba (CN), Italy; simone.giacosa@unito.it

Photo-oxidative stress and light-struck defect in Corvina rosé wines: influence of yeast nutritional strategies

Olga Melis¹, Marco Papuzzi¹, Leonardo Vanzo¹, Giovanni Luzzini¹, Arnaud Massot², Virginie Moine², Maurizio Ugliano¹

¹Università degli studi di Verona, Italy; ²Biolauffort, France; olga.melis@univr.it

Chemical characterization of distinctive aroma profiles of Valpolicella and Amarone wines

Petra Piva, Giacomo Cristanelli, Giovanni Luzzini, Davide Slaghenaufi, Maurizio Ugliano

Department of Biotechnology, University of Verona, 37039, San Pietro in Cariano (VR) Italy; petra.piva@univr.it

Kegged Wine as a Sustainable Alternative: Impact on Conservation and Sensory Quality

PIERRICK REBENAQUE-MARTINEZ¹, MARC SARRAZIN², BENOIT BACH¹

¹CHANGINS, Viticulture and Enology, HES-SO University of Applied Sciences and Arts Western Switzerland, Nyon, Switzerland;

²BIBARIUM S, C/O Hôtel Management Corporation SA, Route de Lausanne 301, 1293 Bellevue, Switzerland;
pierrick.rebenaque@changins.ch

Exploring non-Saccharomyces wine yeasts native from Castilla-La Mancha (Spain) to enhance bioprotection and quality of wines

José Pérez-Navarro^{1,2}, Tania Paniagua-Martínez^{1,3}, Vanesa Mancebo-Campos^{1,3}, Sergio Gómez-Alonso^{1,3}, Mónica Fernández-González^{1,2}

¹University of Castilla-La Mancha, Regional Institute for Applied Scientific Research (IRICA), Avda. Camilo José Cela, 1, 13071, Ciudad Real, Spain; ²University of Castilla-La Mancha, Higher Technical School of Agronomic Engineering. Ronda de Calatrava, 7, 13071, Ciudad Real, Spain; ³University of Castilla-La Mancha, Faculty of Chemical Sciences and Technologies. Avda. Camilo José Cela, 10, 13071, Ciudad Real, Spain; jose.pnavarro@uclm.es

Discrimination of South Tyrol's wines by their cultivation practices: A detailed mass spectrometric approach

Nahikari PREVOST^{1,2,3}, Edoardo LONGO^{1,2}, Emanuele BOSELLI^{1,2}, Matteo SCAMPICCHIO², Peter ROBATSCHER⁴, Josep VALLS-FONAYET^{3,5}

¹Oenolab, NOI TechPark Alto Adige/Südtirol, Via A. Volta 13B, 39100 Bolzano, Italy; ²Faculty of Agricultural, Environmental and Food Sciences, Free University of Bozen-Bolzano, Piazza Università 5, 39100 Bolzano, Italy; ³UMR 1366 Œnologie; Université de Bordeaux, INRAE, OENO, Bordeaux INP, Bordeaux Sciences Agro, 33140, Villenave d'Ornon, France; ⁴Laimburg Research Centre, 39040 Ora, Provincia Autonoma di Bolzano – Südtirol, Italy; ⁵Bordeaux Metabolome, MetaboHUB, PHENOME-EMPHASIS; Villenave d'Ornon, 33140, France; nahikari.prevost.pro@gmail.com

Exploring typicity in Nebbiolo wines across different areas through chemical analysis

Ana Catarina Cunha¹, Maria Alessandra Paissoni^{1,2}, Micaela Boido¹, Giulia Scalzini¹, Susana Río Segade^{1,2}, Luca Rolle^{1,2}, Vincenzo Gerbi^{1,2}, Simone Giacosa^{1,2}

¹Department of Agricultural, Forest, and Food Sciences, University of Torino, Corso Enotria 2/C, 12051 Alba, Italy;

²Interdepartmental Centre for Grapevines and Wine Sciences, University of Torino, Corso Enotria 2/C, 12051 Alba, Italy;
anacatarina.cabralvaledacunha@unito.it

Validating a portable ad-hoc fluorescence spectrometer for monitoring phenolic compounds during wine fermentation

Daniel Schorn-García¹, Wessel du Toit¹, Gurthwin Bosman^{2,3}, Jose Luis Aleixandre-Tudó⁴

¹South African Grape and Wine Research Institute, Department of Viticulture and Oenology, Stellenbosch University, 7600, South Africa; ²Stellenbosch Photonics Institute, Physics Department, Stellenbosch University, Stellenbosch, South Africa; ³National Institute for Theoretical and Computational Sciences (NITheCS), Stellenbosch, South Africa; ⁴Instituto de Ingeniería de Alimentos (Food-UPV), Departamento de Tecnología de Alimentos (DTA), Universitat Politècnica de Valencia (UPV), Valencia, Spain;
dschorn@sun.ac.za

Sensory and Consumer Perceptions, and Consumption Barriers of Low and No-alcohol Wines in Trentino/Alto Adige

Wasim Akhtar^{1,2}, Edoardo Longo^{1,2}, Emanuele Boselli^{1,2,3}



MACROWINE 2025 Conference Program Bolzano, Italy, 24–27 June 2025

¹Oenolab, NOI TechPark Alto Adige/Südtirol, Via A. Volta 13A, 39100 Bolzano, Italy; ²Faculty of Agricultural, Environmental and Food Sciences, Free University of Bozen-Bolzano, Piazza Università 5, 39100 Bolzano, Italy; ³International Competence Center on Food Fermentations, Faculty of Agricultural, Environmental and Food Sciences, Free University of Bozen-Bolzano, Italy; wakhtar@unibz.it

Portable NIR Spectroscopy for Nutrient Profiling in Rootstock and Scion Material: Enhancing Decision-Making in the Grafting Industry

Daniel Schorn-García¹, Erna Blancquaert¹, Jose Luis Aleixandre-Tudo^{1,2}

¹South African Grape and Wine Research Institute, Department of Viticulture and Oenology, Stellenbosch University, 7600, South Africa; ²Instituto de Ingeniería de Alimentos (Food-UPV), Departamento de Tecnología de Alimentos (DTA), Universitat Politècnica de Valencia (UPV), Valencia, Spain; dschorn@sun.ac.za

Effect of ozone treatments in wine production on colour traits, volatile composition, and sensory characteristics of young and short-term aged white wines

Giorgia Botta¹, Beatrice Cordero¹, Micaela Boido¹, Negin Seif Zadeh¹, Maria Alessandra Paissoni^{1,2}, Gianmarco Alfieri³, Simone Giacosa^{1,2}, Luca Rolle^{1,2}, Francesca Borghini⁴, Stefano Ferrari⁴, Andrea Bellincontro³, Susana Río Segade^{1,2}

¹Department of Agricultural, Forest and Food Sciences, University of Turin, Corso Enotria 2/C, 12051 Alba, Italy; ²Interdepartmental Centre for Grapevines and Wine Sciences, University of Turin, Corso Enotria 2/C, 12051 Alba, Italy; ³Department of Biological AgroFood and Forest Systems, University of Tuscia, Via De Lellis, 01100 Viterbo, Italy; ⁴ISVEA, Via Basilicata 1/3/5, 53036 Poggibonsi, Italy; giorgia.botta@unito.it

Effects of fast dehydration at low temperature and relative humidity on the phenolic composition of Nebbiolo grapes

Beatrice Cordero¹, Negin Seif Zadeh¹, Alessandro Biglia¹, Maria Alessandra Paissoni^{1,2}, Simone Giacosa^{1,2}, Davide Riccauda Aimonino¹, Luca Rolle^{1,2}, Susana Río Segade^{1,2}

¹Department of Agricultural, Forest and Food Sciences, University of Turin, Largo Paolo Braccini 2, 10095 Grugliasco, Italy;

²Interdepartmental Centre for Grapevines and Wine Sciences, University of Turin, Corso Enotria 2/C, 12051 Alba, Italy; beatrice.cordero@unito.it

Consumer Perception and Preferences Regarding Grape Varieties Resilient to Climate Change.

Alejandro Suárez¹, Natalia Santamaría-López¹, Anna Claret², Luis Guerrero², Anna Gomis-Bellmunt³, Joan-Miquel Canals⁴, Enric Nart¹

¹VITEC – Centre Tecnològic del Vi, Crtra. De Porrera, km. 1, 43730, Falset, Spain; ²IRTA-Food Quality and Technology, Finca Camps i Armet s/n, Monells, Girona, E-17121, Spain; ³INCAVI - Institut Català de la Vinya i el Vi, Plaça Àgora, 2., 08720 Vilafranca del Penedès, Spain; ⁴Departament de Bioquímica i Biotecnologia, Facultat d'Enologia, Universitat Rovira i Virgili, C/Marcel·lí Domingo, 1, 43007, Tarragona, Spain; alejandro.suarez@vitec.wine

Chemical and sensory evolution of total and partial dealcoholized wine in a can

Inés Horcajo¹, Alejandro Suárez¹, Victoria Castillo¹, Rubén Pedregosa², Enrico Bocca^{2,3}, Anna Brull^{2,3}, Miquel Puxeu¹

¹VITEC – Centre Tecnològic del Vi, Crtra. De Porrera, km. 1, 43730, Falset, Tarragona, Spain; ²Celler Castelo de Pedregosa, BP-2151, Km 10, 08770 Sant Sadurní d'Anoia, Barcelona, Spain; ³Vason Ibérica, Travesia Don Quijote, nave 13, 13700, Tomelloso, Spain; alejandro.suarez@vitec.wine

Effect of pre-fermentative addition of oenological tannins on the volatile composition and colour characteristics of white wines

Negin Seif zadeh¹, Maria Alessandra Paissoni^{1,2}, Micaela Boido¹, Giorgia Botta¹, Domen Škrab¹, Carlo Montanini³, Simone Giacosa^{1,2}, Luca Rolle^{1,2}, Susana Río Segade^{1,2}

¹Department of Agricultural, Forest and Food Sciences, University of Turin, Corso Enotria 2/C, 12051 Alba, Italy; ²Interdepartmental Centre for Grapevines and Wine Sciences, University of Turin, Corso Enotria 2/C, 12051 Alba, Italy; ³AEB S.p.A., Via Vittorio Arici 104, 25134 Brescia, Italy; negin.seifzadeh@unito.it

Evaluation of the hydroxyethyl radical formation kinetic and Strecker aldehydes distribution for assessing the oxidative susceptibility of Chardonnay wines

Pei HAN^{1,2}, Alexandre PONS^{1,2,3}

¹Univ. Bordeaux, Bordeaux INP, INRAE, OENO, UMR 1366, ISVV, F-33140 Villenave d'Ornon, France; ²Bordeaux Sciences Agro, Bordeaux INP, INRAE, OENO, UMR 1366, ISVV, F-33170 Gradignan, France; ³Seguin Moreau France, Z.I. Merpins, BP 94, 16103 Cognac, France; pei.han@u-bordeaux.fr



MACROWINE 2025 Conference Program Bolzano, Italy, 24–27 June 2025

Quantitative Assessment of Must Composition Using Benchtop NMR Spectroscopy: Comparative Evaluation with FTIR and Validation by Reference

Julian Felix Dirk Lueck^{1,2}, Billy Salgado^{3,4}, Patrick Nickolaus^{1,2}, Fabian Jirasek^{3,4}, Erik von Harbou⁵, Ulrich Fischer^{1,2,6}, Jörg Fahrer⁶, Kerstin Münnemann⁶, Lena Keller^{1,2,7}

¹Wein-campus Neustadt, Germany; ²Institute for Viticulture and Oenology, Dienstleistungszentrum Ländlicher Raum Rheinpfalz (DLR Rheinpfalz), Germany; ³Laboratory of Engineering Thermodynamics (LTD), University of Kaiserslautern-Landau (RPTU), Germany; ⁴Laboratory of Advanced Spin Engineering - Magnetic Resonance (LASE-MR), University of Kaiserslautern-Landau (RPTU), Germany; ⁵Laboratory of Reaction and Fluid Process Engineering (LRF), University of Kaiserslautern-Landau (RPTU), Germany; ⁶Division of Food Chemistry and Toxicology, Department of Chemistry, University of Kaiserslautern-Landau (RPTU), Germany; ⁷Department of Applied Logistics and Polymer Sciences, Kaiserslautern University of Applied Sciences, Germany; julian.lueck@dlr.rlp.de

Modulation of Huntingtin protein aggregation by (+)-catechin: an NMR study on kinetic mechanisms

Giacomo Zuccon^{1,2}, Edoardo Longo¹, Emanuele Boselli^{1,3}, Alberto Ceccon²

¹Free University of Bozen-Bolzano, Italy/ Oenolab, NOI TechPark Alto Adige/Südtirol; ²Laimburg Research Centre, Laimburg 6 - Pfatten (Vadena), 39040 Auer (Ora), BZ, Italy.; ³International Competence Center for Food Fermentations, Free University of Bozen-Bolzano, Piazza Università 5, 39100 Bolzano, Italy; giacomo.zuccon@student.unibz.it

Chardonnay white wine bottled with different oenological tannins: effect on colour traits, volatile composition and sensory attributes during shelf-life

Susana Río Segade^{1,2}, Micaela Boido¹, Beatrice Cordero¹, Maria Alessandra Paissoni^{1,2}, Mar Vilanova³, Simone Giacosa^{1,2}, Carlo Montanini⁴, Luca Rolle^{1,2}

¹Department of Agricultural, Forest and Food Sciences, University of Turin, Corso Enotria 2/C, 12051 Alba, Italy; ²Interdepartmental Centre for Grapevines and Wine Sciences, University of Turin, Corso Enotria 2/C, 12051 Alba, Italy; ³Instituto de Ciencias de la Vid y del Vino (ICVV-CSIC), Carretera de Burgos Km. 6, Finca La Grajera, 26007 Logroño, Spain; ⁴AEB S.p.A., Via Vittorio Arici 104, 25134 Brescia, Italy; susana.riosegade@unito.it

Comparison between non-Saccharomyces yeasts for the production of Nero d'Avola wine

Denis Allieri¹, Iklima Odabaşı¹, Carmen Cris De Oliveira Nobre Bezerra², Nicholas Bonacina², Stefano Ferrari³, Francesca Borghini³, Ileana Vigentini², Daniela Fracassetti¹

¹Department of Food, Environmental and Nutritional Sciences (DeFENS), Università degli Studi di Milano, Italy; ²Department of Biomedical, Surgical and Dental Sciences (DSBCO), Università degli Studi di Milano, Italy; ³ISVEA S.r.l., Italy; denis.allieri@unimi.it

Towards Faultless Grenache Wines: Impact of Climate and Maturity

Mónica Bueno¹, María Buñuel-Escudero¹, Roberto Serrano-Notivol², Cristina Peña¹, Ignacio Arias-Pérez³, María-Pilar Sáenz-Navajas³, Purificación Fernández-Zurbano³, Carolina Castillo Río³, Ana Escudero¹, Elisabeth Carlier⁴, Olivier Geffroy⁴, Ignacio Ontañón¹

¹Laboratorio de Análisis del Aroma y Enología (LAAE). Department of Analytical Chemistry, Universidad de Zaragoza, Instituto Agroalimentario de Aragón (IA2) (UNIZAR-CITA), Spain; ²Departamento de Geografía y Ordenación del Territorio, Instituto Universitario de Ciencias Ambientales (IUCA), University of Zaragoza, Zaragoza, Spain; ³Department of Enology, Instituto de Ciencias de la Vid y del Vino (UR-CSIC-GR), Logroño, Spain; ⁴PPGV – Physiologie, Pathologie et Génétique Végétale, Toulouse INP-Purpan, 31076 Toulouse, France; mobueno@unizar.es

Isolation, biofilm formation and control of the wine spoilage yeast *Brettanomyces bruxellensis*

Aikaterini Tzamourani, Nikolaos Mourdoukoutas, **Maria Dimopoulou**

Department of Wine, Vine and Beverage Sciences, School of Food Science, University of West Attica, 28 Agiou Spiridonos Str., 12243 Egaleo, Greece; mdimopoulou@uniwa.gr

Profiling and evaluating wine lees by-products from various yeast strains against grapevine pathogens

Maria Dimopoulou¹, Alexandra Evangelou¹, Gkizi Danaï¹, Aikaterini Tzamourani¹, Kasioura Angeliki¹, Tsioka Artemis¹, Ntourtoglou George¹, Vrhovsek Urška², Arapitsas Panagiotis¹

¹Department of Wine, Vine and Beverage Sciences, School of Food Science, University of West Attica, 28 Ag. Spyridonos St., 12243 Egaleo, Greece; ²Metabolomic Unit, Edmund Mach Foundation, San Michele all Adige, Italy; mdimopoulou@uniwa.gr

Predicting oxygen consumption rate in wine through Linear Sweep Voltammetry and Machine Learning models.



MACROWINE 2025 Conference Program Bolzano, Italy, 24–27 June 2025

Rosario Pascale, Davide Slaghenaufi, Maurizio Ugliano
Università di Verona, Italy; rosario.pascale@univr.it

Rationalising the impact of time, light, temperature, and oxygen on the evolution of rosé wines by means of a Response Surface Methodology approach

Leonardo Vanzo, Margherita Diella, Davide Slaghenaufi, Maurizio Ugliano
Department of Biotechnology, University of Verona, Italy; leonardo.vanzo@univr.it

Grapes aminoacidic profile: Impact of Abiotic Factors in a Climate Change Scenario

M. Esperanza Valdés Sánchez¹, M. Victoria Alarcón Sánchez², Laura Martín Blanco³, M. del Mar Alguacil García⁴
¹CICYTEX, Spain; ²CICYTEX, Spain; ³CICYTEX, Spain; ⁴CSIC-CEBAS, Spain; esperanza.valdes@juntaex.es

Impact of dried stems in winemaking on Veneto passito wines

Naïssa Prévide Bernardo, Giovanni Luzzini, Loris Colognato, Leonardo Vanzo, Jessica Anahi Samaniego Solis, Rosario Pascale, Beatrice Perina, Giacomo Cristanelli, Maurizio Ugliano, **Davide Slaghenaufi**
Department of Biotechnology, University of Verona, Villa Lebrecht, via della Pieve 70, 37029 San Pietro in Cariano (VR), Italy; slaghenaufi.davide@univr.it

Sensory Analysis in Oenology: The Role of Methodological Differences in Expert Panel Evaluations

Natalia Santamaría-López, **Alejandro Suárez**, Enric Nart
VITEC – Centre Tecnològic del Vi, Crtra. De Porrera, km. 1, 43730, Falset, Tarragona, Spain; alejandro.suarez@vitec.wine

Evaluation of Consumer Behaviour, Acceptance and Willingness to return of Faulty Wines

Alejandro Suárez¹, **Natalia Santamaría-López**¹, Anna Claret², Luis Guerrero², Anna Gomis-Bellmunt³, Joan-Miquel Canals⁴, Enric Nart¹
¹VITEC – Centre Tecnològic del Vi, Crtra. De Porrera, km. 1, 43730, Falset, Tarragona, Spain; ²IRTA-Food Quality and Technology, Finca Camps i Armet s/n, Monells, Girona, E-17121, Spain; ³INCAVI - Institut Català de la Vinya i el Vi. Plaça Àgora, 2., 08720 Vilafranca del Penedès, Spain; ⁴Departament de Bioquímica i Biotecnologia, Facultat d'Enologia, Universitat Rovira i Virgili, C/Marcel·lí Domingo, 1, 43007, Tarragona, Spain; alejandro.suarez@vitec.wine

Effect of maceration conditions during the winemaking of withered Corvina grapes on wine polyphenols and anthocyanins

Naïssa Prévide Bernardo¹, Jessica Anahi Samaniego Solis¹, Marta Baviera², Micaela Boido³, Giulio Staffieri², Daniela Fracassetti², Simone Giacosa³, **Davide Slaghenaufi**¹
¹Department of Biotechnology, University of Verona, Villa Lebrecht, via della Pieve 70, 37029 San Pietro in Cariano (VR), Italy; ²Department of Food, Environmental and Nutritional Sciences, Università degli Studi di Milano, Via G. Celoria 2, Milan 20133, Italy; ³Department of Agricultural, Forest and Food Sciences, Università degli Studi di Torino, Corso Enotria 2/C, 12051 Alba (CN), Italy; naissa.previdebernardo@univr.it

Comparison of the aroma profile in total and partial dealcoholisation of white and red wines by reverse osmosis

Luís Moreira, Juliana Milheiro, Sandrine S. Ferreira, Fernanda Cosme, Fernando M. Nunes
Food and Wine Chemistry Lab, Chemistry Research Centre – Vila Real, University of Trás-os-Montes and Alto Douro, Portugal; luismoreira@utad.pt

Impact of GoLo technology on the aroma profile of red and white wines after total and partial dealcoholisation

Juliana Milheiro, Luís Moreira, Sandrine S. Ferreira, Fernanda Cosme, Fernando M. Nunes
Food and Wine Chemistry Lab., Chemistry Research Centre - Vila Real, University of Trás-os-Montes and Alto Douro, Portugal; julianaf@utad.pt

Sensory changes in wines associated with the ripening of Grenache grapes from vineyards in different climatic zones



MACROWINE 2025 Conference Program Bolzano, Italy, 24–27 June 2025

Ignacio Arias-Perez¹, Carolina Castillo¹, María-Pilar Sáenz-Navajas¹, Purificación Fernández-Zurbano¹, María Buñuel-Escudero², Cristina Peña², Roberto Serrano-Notivol³, Olivier Geffroy⁴, Elisabeth Carlier⁴, Ana Escudero², Mónica Bueno², Ignacio Ontañón²

¹Instituto de Ciencias de la Vid y el Vino (ICVV), Spain; ²Laboratorio de Análisis del Aroma y Enología (LAAE). Department of Analytical Chemistry, Universidad de Zaragoza, Instituto Agroalimentario de Aragón (IA2) (UNIZAR-CITA); ³Departamento de Geografía y Ordenación del Territorio, Universidad de Zaragoza, 50009 Zaragoza, Spain; ⁴PPGV – Physiologie, Pathologie et Génétique Végétale, Toulouse INP-Purpan, 31076 Toulouse, France; ignacio.arias@icvv.es

The Economic Impact of Drones on Viticultural Processes

Sofia Kalakou, Maria Monteiro

Iscte- Business School, Portugal; mgvdc@gmail.com

Flavonol and anthocyanin potential of Spanish minority grapes and its relationship with wine colour.

Cristina Alcalde-Eon¹, Rebeca Ferreras-Charro¹, Eva Cuesta-Sánchez¹, Alberto Martín-Baz^{1,2}, María-Teresa Escribano-Bailón¹, Ignacio García-Estévez¹

¹University of Salamanca, Spain; ²Instituto Tecnológico Agrario de Castilla y León (ITACyL), Valladolid, Spain; crisalcaldedeon@usal.es

Exploring microbial interactions between *Saccharomyces cerevisiae* and non-*Saccharomyces* yeast starters in vinification

Aikaterini Tzamourani, Panagiotis Arapitsas, Angeliki Kasioura, Artemis Tsioka, George Ntourtoglou, Danai Gkizi, Alexandra Evangelou, Maria Dimopoulou

Department of Wine, Vine and Beverage Sciences, School of Food Science, University of West Attica, 28 Ag. Spyridonos St., 12243 Egaleo, Greece; ktzamourani@uniwa.gr

Oenological Potential of cv. Tortojona: A Minority Grape Variety from Extremadura, Southwest Spain

M. Esperanza Valdés Sánchez¹, Belén Nuñez García², Raquel Pavo Rico³, Balbina Palacios Santiago⁴, Daniel Moreno Cardona⁵

¹CICYTEX, Spain; ²CICYTEX, Spain; ³CICYTEX, Spain; ⁴CICYTEX, Spain; ⁵CICYTEX, Spain; esperanza.valdes@juntaex.es

Peptidomics in the Wine Industry: Literature Perspectives on Functional Importance and Analytical Methods

Pol Gimenez-Gil¹, Alexandra Evangelou¹, Maria Dimopoulou¹, Danai Gkizi¹, Aikaterini Tzamourani¹, Artemis Tsioka¹, George Ntourtoglou¹, Aggeliki Kassioura¹, Urska Vrhovsek², Panagiotis Arapitsas^{1,2}

¹Department of Wine, Vine and Beverage Sciences, School of Food Science, University of West Attica, 12243 Athens, Greece;

²Research and Innovation Centre, Fondazione Edmund Mach, 38010 Trento, Italy; fst24684137@uniwa.gr

Development of an analytical method for the quantification of compounds responsible for the green character of wines: influence of ripeness on their levels.

Ignacio Ontañón, María Buñuel, Vicente Ferreira, Mónica Bueno

Laboratorio de Análisis del Aroma y Enología. Departamento de Química Analítica. Facultad de Ciencias. Instituto Agroalimentario de Aragón –IA2- (Universidad de Zaragoza-CITA). C/ Pedro Cerbuna, 12. 50009. Zaragoza, Spain.; ionta@unizar.es

Evaluating the Effectiveness of Alginate Acid, Sodium Carboxymethylcellulose, and Potassium Polyaspartate in Preventing Calcium Tartrate Instability in Wines

Fernanda Cosme¹, Luís Filipe-Ribeiro², Ana Coixão³, Mario Bezerra⁴, Fernando M. Nunes⁵

¹Biology and Environment Department, School of Life Sciences and Environment, University of Trás-os-Montes and Alto Douro, 5000-801 Vila Real, Portugal; ²Chemistry Research Centre-Vila Real (CQ-VR), Food and Wine Chemistry Laboratory, University of Trás-os-Montes and Alto Douro, 5000-801 Vila Real, Portugal; ³Chemistry Research Centre-Vila Real (CQ-VR), Food and Wine Chemistry Laboratory, University of Trás-os-Montes and Alto Douro, 5000-801 Vila Real, Portugal; ⁴Chemistry Research Centre-Vila Real (CQ-VR), Food and Wine Chemistry Laboratory, University of Trás-os-Montes and Alto Douro, 5000-801 Vila Real, Portugal; ⁵Chemistry Department, School of Life Sciences and Environment, University of Trás-os-Montes and Alto Douro, 5000-801 Vila Real, Portugal; fcosme@utad.pt

Eliminating *Brettanomyces* and lactic acid bacteria in wine: the potential of Ultra-High Pressure Homogenization (UHPH)

Anna Puig-Pujol¹, Gemma Roca-Domènech¹, Joan-Miquel Quevedo², Antonio-José Trujillo²



MACROWINE 2025 Conference Program **Bolzano, Italy, 24–27 June 2025**

¹IRTA-INCAVI. Institute of Agrifood Research and Technology - Catalan Institute of Vine and Wine. Plaça Àgora, 2. 08720 Vilafranca del Penedès, Barcelona, Spain; ²Servei Planta Pilot de Tecnologia dels Aliments and Centre d'Innovació, Recerca i Transferència en Tecnologia dels Aliments (CIRTA), CERTA-TECNIO, MALTA-Consolider, Departament de Ciència Animal i dels Aliments, Facultat de Veterinària, Universitat Autònoma de Barcelona, 08193 Bellaterra, Barcelona, Spain; anna.puig@irta.cat

Effect of ozone treatments in wine production of young and short-term aged white wines: destructive and non-destructive evaluation of main quality attributes

Andrea Bellincontro, Gianmarco Alfieri

University of Tuscia, Italy; gian.alfieri@unitus.it

SmartVitiNet: transforming viticulture through precision agriculture and advanced technologies

Emma Tsai

Future Needs, Cyprus; emma@futureneeds.eu



MACROWINE 2025 Conference Program
Bolzano, Italy, 24–27 June 2025

Plenary 2: Keynote lecture 2

Time: Wednesday, 25/June/2025: 9:00am - 9:30am · *Location:* Seminar room 1

Session Chair: Luca Rolle, University of Turin

Session Chair: Maria João Cabrita, MED, Évora University

Composition and biological potential of grape and wine phenolic compounds

Pierre-Louis Teissedre

Université de Bordeaux, ISVV, UMR 1366 OENOLOGIE, 33140 Villenave-d'Ornon, France, France; pierre-louis.teissedre@u-bordeaux.fr



MACROWINE 2025 Conference Program Bolzano, Italy, 24–27 June 2025

Parallel SES-02: Innovations in Resistant Grape Varieties

Time: Wednesday, 25/June/2025: 9:35am - 10:55am · Location: Seminar room 1

Session Chair: Carlo Andreotti, Facoltà di Scienze agrarie, ambientali e alimentari, Libera Università di Bolzano, piazza Università 5, 39100 Bolzano (Italy)

Session Chair: Rocio Gil-Muñoz, IMIDA

9:35am - 9:55am

Characterization of resistant varieties produced in the context of a search for regional typicality

Marie-Amélie ALAYRAC¹, Cécile Thibon¹, Soizic Lacampagne¹, Bernard Lafargue², Sandra Vanbrabant¹, Tiana Daher¹, C Arsens², Pascaline Redon¹, Sixtine Blandeau¹, Eric Castant², Romain Courrèges², Guillaume Arnold³, Laurent Audeguin⁴, Loïc Le Cunff Le Cunff⁴, K Avia⁴, Laurent Charlier⁵, Laurent Delière², Yann Raineau^{6,7}, Philippe Darriet¹

¹Université Bordeaux, Bordeaux Sciences Agro, Bordeaux INP, INRAE, OENO, UMR 1366, ISVV, 33140 Villenave d'Ornon, France; ²INRAE, UE Vigne Bordeaux, 33140 Villenave d'Ornon, France; ³INRAE, UR 1131 SVQV, Colmar, France; ⁴IFV, UMT Genovigne, France; ⁵CIVB? 1 cour du XXX Juillet, 33075 Bordeaux cedex, France; ⁶INRAE, UR ETTIS, 50 avenue de Verdun Gazinet, 33612 Cestas cedex, France; ⁷Université Bordeaux, CNRS, BSE, UMR 6060, INRAE, 33600 Pessac, France; marie-amelie.alayrac@u-bordeaux.fr

9:55am - 10:15am

Early development of potential wine styles for PIWI varieties in grapevine breeding

Maria Maglione¹, Armin Shüttler², Ulrich Fischer², Oliver Trapp¹, Florian Schwander¹

¹Institute for Grapevine Breeding, Geilweilerhof, Julius Kühn Institut, Siebelingen, Germany; ²Dienstleistungszentrum, Ländlicher Raum (DLR) Rheinpfalz, Institute for Viticulture and Oenology, Breitenweg 71, Neustadt an der Weinstraße, Germany; maria.maglione@julius-kuehn.de

10:15am - 10:35am

METAPIWI: unveiling the role of microbial communities in PIWI grapes for sustainable winemaking

Mattia Cesana¹, Nicola Mangieri¹, Elisa Clagnan¹, Marco Stefanini², Alessio Altomare¹, Marta Baviera¹, Giulio Staffieri¹, Diego Mora¹, Pasquale Russo¹, Daniela Fracassetti¹, Giorgio Gargari¹

¹Università degli Studi di Milano, Italy; ²Edmund Mach Foundation, Trento; giorgio.gargari@unimi.it

10:35am - 10:40am

Exploring aromatic profiles and environmental influences on berry chemistry of *V. vinifera* Riesling and *Vitis* sp. L'Acadie blanc in Quebec and Nova Scotia, Canada

Pamela Nicolle, Karine Pedneault

UQO ISFORT, Canada; karine.pedneault@uqo.ca

10:40am - 10:45am

Investigating Biotic and Abiotic Stress Responses in Grafted Grapevine Cultivars: A Comparative Study of Cabernet Sauvignon and Cabernet Volos on M4 Rootstock

Roberto Fattorini¹, Talita De Oliveira Caretta¹, Fadwa Benyahia¹, Monica Yorlady Alzate Zuluaga¹, Sonia Monterisi¹, Carlo Andreotti¹, Oscar Giovannini², Ilaria Pertot^{2,3}, Stefano Cesco¹, Pii Youry¹

¹Faculty of Agricultural, Environmental and Food Sciences, Free University of Bozen-Bolzano, Piazza Università 5, 39100 Bolzano, Italy; ²Research and Innovation Centre, Fondazione Edmund Mach, 38098 San Michele all'Adige, Italy; ³Centre Agriculture Food Environment (C3A), University of Trento, 38098 San Michele all'Adige, Trento, Italy; 9robbyfattorini6@gmail.com

10:45am - 10:50am

Unraveling the Role of Grape Cell Wall in Shaping the fermentation rate, the Polyphenolic Profile and Quality of Red Wines from Disease-Resistant and Drought-Tolerant Grapes in Occitanie varietal selection

Andrea Cesson^{1,2}, Thierry Doco¹, Bodil Jørgensen³, Lene Grønne Pedersen³, Stéphanie Carrillo¹, Damien Flores^{1,4}, Frédéric Mabilie¹, Emmanuelle Meudec^{1,4}, Stéphanie Roi¹, Amélie Roy², Juliette Simon², Lucas Suc¹, Frédéric Vêran¹, Jean-Roch Mouret¹, Marie-Agnès Ducasse², Céline Poncet-Legrand¹

¹SPO, Univ Montpellier, INRAE, Institut Agro, Montpellier, France.; ²French Vine and Wine Institute, IFV, Domaine de Pech Rouge, Gruissan, France.; ³Department of Plant and Environmental Sciences, University of Copenhagen, 1870 Frederiksberg, Denmark.;

⁴INRAE, PROBE Research Infrastructure, Polyphenol Analytical Facility, Montpellier, France.; andrea.cession@inrae.fr



MACROWINE 2025 Conference Program Bolzano, Italy, 24–27 June 2025

Parallel SES-03: Analytical Advances in Wine Research

Time: Wednesday, 25/June/2025: 9:35am - 10:55am · Location: Seminar room 2

Session Chair: Pierre-Louis Teissedre, Université de Bordeaux, ISVV, UMR 1366 OENOLOGIE, 33140 Villenave-d'Ornon, France

Session Chair: Stéphane Arbault, CNRS - LabCom REDOXWINE

9:35am - 9:55am

HPLC-Based Quantification of Elemental Sulfur in Grape Juice

Sukhpreet Kaur Gill¹, Bruno Fedrizzi¹, Rebecca Deed¹, Rebecca Jelley¹, Tanya Rutan², Ngarita Warden²

¹The University of Auckland, New Zealand; ²Bragato Research Institute, Blenheim, New Zealand; rebecca.jelley@auckland.ac.nz

9:55am - 10:15am

Insight on Lugana flavor with a new LC-MS method for the detection of polyfunctional thiols

Giorgio Zanoni¹, Luca Giglini Tassotti², Urska Vrhovsek¹, Silvia Carlin¹

¹Centre Research and Innovation, Edmund Mach Foundation; ²Centre Agriculture Food Environment (C3A), University of Trento; giorgio.zanoni@fmach.it

10:15am - 10:35am

α -Terpinyl ethyl ether: stereoselective GCxGC confirmation and identification of its precursors in wine

Aakriti Darnal^{1,2,3}, Alberto Ceccon³, Martina Magni³, Peter Robatscher³, Simone Poggesi⁴, Emanuele Boselli^{1,2}, Edoardo Longo^{1,2}

¹Oenolab, NOI TechPark Alto Adige/Südtirol, Italy; ²Faculty of Agricultural, Environmental and Food Sciences, Free University of Bozen-Bolzano, Italy; ³Laimburg Research Centre, Italy; ⁴Food Experience and Sensory Testing (Feast) Lab, Massey University, Palmerston North, New Zealand; Edoardo.Longo@unibz.it

10:35am - 10:55am

Untargeted Metabolomics Reveals the Impact of Cork Oxygen Transfer on Non-Volatile Compounds During Red Wine Ageing

Luca Garcia¹, Emmanuelle Meudec^{1,2}, Nicolas Sommerer^{1,2}, François Garcia¹, Cédric Saucier¹

¹SPO, Univ Montpellier, INRAE, Institut Agro, Montpellier, France; ²INRAE, PROBE Research Infrastructure, PFP Polyphenols Analytical Facility, Montpellier, France; luca.garcia@u-bordeaux.fr

Parallel SES-04: Quality of Wines from Resistant Grape Varieties

Time: Wednesday, 25/June/2025: 11:25am - 1:05pm · *Location:* Seminar room 1

Session Chair: Álvaro Peña-Neira, Departamento de Agroindustria y Enología. Facultad de Ciencias Agronómicas, Universidad de Chile

Session Chair: Encarna Gomez-Plaza, University of Murcia

11:25am - 11:45am

Oenological performances of new white grape varieties

Aécio Luís de Sousa Dias^{1,2}, Charlie Guittin-Leignadier¹, Amélie Roy³, Somaya Sachot¹, Faïza Maçna¹, Damien Flores^{1,2}, Emmanuelle Meudec^{1,2}, Jean-Claude Boulet^{1,2}, Nicolas Sommerer^{1,2}, Aurélié Roland¹, Marie-Agnès Ducasse³, Jean-Roch Mouret¹

¹SPO, Univ Montpellier, INRAE, Institut Agro, Montpellier, France.; ²INRAE, PROBE Research Infrastructure, PFP Polyphenols Analysis Facility, 34070 Montpellier, France.; ³Institut Français de la Vigne et du Vin, Domaine de Pech Rouge, France.;

Aurelie.Roland@inrae.fr

11:45am - 12:05pm

Single plant oenotyping: a novel approach to better understand the impact of drought on red wine quality in *Vitis x Muscadinia* genotypes

Cécile Leborgne¹, Luciana Wilhelm de Almeida², Amélie Roy⁴, Mélanie Veyret¹, Juliette Simon⁴, Centina Pinier¹, Nicolas Saurin¹, Anne Pellegrino², Hernan Ojeda¹, Aurélié Roland³, Laurent Torregrosa², Marie-Agnès Ducasse⁴

¹UE PR, INRAE, Domaine de Pech Rouge, Gruissan, France; ²UMR LEPSE, Montpellier Uni, CIRAD, INRAE, Institut Agro, Place P. Viala, Montpellier, France; ³SPO, INRAE, Univ Montpellier, Institut Agro, Place P. Viala, Montpellier, France; ⁴IFV, Domaine de Pech Rouge, Gruissan, France; cecile.leborgne@inrae.fr

12:05pm - 12:25pm

Sensory Quality of wines as a trait in MAS grape vine breeding – Sensory insights from multiple vintages in a F1 breeding population

Armin Schüttler¹, Jörg Gottmann¹, Jochen Vestner¹, Annemarie Siebert¹, Martha Wicks-Müller¹, Sandra Klink¹, Tom Heinkamp², Maria Maglione², Florian Schwander², Stefan Wanke^{3,4}, Reinhard Töpfer², Ulrich Fischer¹

¹Dienstleistungszentrum ländlicher Raum (DLR) Rheinpfalz, Institute of Viticulture & Enology, Breitenweg 71, 67435 Neustadt an der Weinstraße, Germany; ²Julius Kühn Institut (JKI), Federal Research Centre for Cultivated Plants, Institute for Grapevine Breeding, Geilweilerhof, 76833 Siebeldingen, Germany; ³Technische Universität Dresden (TUD), Institute of Botany, Zellescher Weg 20b, 01217 Dresden, Germany; ⁴Goethe-University Frankfurt & Senckenberg Research Institute, Botany and Molecular Evolution, Mertonstraße 17-21, 60325 Frankfurt am Main, Germany; armin.schuetzler@dlr.rlp.de

12:25pm - 12:45pm

Understanding Novel Germplasm Solutions: Sensory, Chemical and Preliminary Hedonic Insights of Wines Made from Australian First-Generation Mildew Resistant Cultivars

Jacob A. Long¹, Paul K. Boss², Armando M. Corsi³, Susan E.P. Bastian¹

¹Department of Wine Science, School of Agriculture, Food and Wine, Waite Research Institute, The University of Adelaide, PMB 1, Glen Osmond, South Australia 5064; ²CSIRO Agriculture and Food, PO Box 200, Glenside, South Australia 5065; ³Adelaide Business School, The University of Adelaide, South Australia, 5005; jacob.long@adelaide.edu.au

12:45pm - 1:05pm

Investigating winemaking techniques for resistant varieties: The impact of prefermentative steps on must quality

Sara Nisi Cerioni¹, Paméla Nicolle¹, Aurélié Roland², Karine Pedneault¹

¹Institut des sciences de la forêt tempérée, Université du Québec en Outaouais, Québec, Canada; ²Institut AgroMontpellier, Montpellier, France; karine.pedneault@uqo.ca

Parallel SES-05: Stability of Wine Components

Time: Wednesday, 25/June/2025: 11:25am - 1:05pm · *Location:* Seminar room 2

Session Chair: Felipe Laurie, Universidad de Talca

Session Chair: Cristina Alcalde-Eon, University of Salamanca

11:25am - 11:45am

Impact of yeast strain and aging time on the secondary metabolites, macromolecule composition, and sensory attributes of sparkling wines elaborated by the traditional method

Despina Lola^{1,2}, Jordi Gombau², Pol Giménez², Joan M. Canals², Fernando Zamora², Yorgos Kotseridis¹

¹Laboratory of Enology and Alcoholic Drinks, Agricultural University of Athens, 75 Iera Odos, 11855, Athens, Greece; ²Departament de Bioquímica i Biotecnologia, Facultat d'Enologia de Tarragona, Universitat Rovira i Virgili, C/Marcel·lí Domingo 1, 43007 Tarragona, Spain; despinalola@gmail.com

11:45am - 12:05pm

Evolution of acetaldehyde concentration during wine alcoholic fermentation: online monitoring for production balances

Charlie GUITTIN¹, Faïza MACNA¹, Marc PEREZ¹, Adeline BARREAU², Xavier POITOU², Jean-Roch MOURET¹, Vincent FARINES¹

¹SPO, Univ Montpellier, INRAE, Institut Agro, Montpellier, France; ²R&D department, JAS Hennessy & Co, Cognac;; vincent.farines@inrae.fr

12:05pm - 12:25pm

Influence of Protective Colloids on tartrate stability, polysaccharide contents and volatile compound profile of a white wine.

Mariona Gil i Cortiella¹, Daniel A Mella Pino², Alvaro Peña-Neira²

¹Universidad Autónoma de Chile, Chile; ²Universidad de Chile, Chile; mariona.gil@uautonoma.cl

12:25pm - 12:45pm

Closure permeability: a key parameter for modulating the aroma of monovarietal white wines during bottle ageing

Maria Tiziana Lisanti, Angelita Gambuti, Luigi Picariello, Luigi Moio

Università degli Studi di Napoli Federico II, Italy; mariatiziana.lisanti@unina.it

12:45pm - 1:05pm

Highlighting a link between the structure of mannoproteins and their foaming properties in sparkling wines

Zoé Grolier^{1,2,3}, Raphaël Vallon¹, Florian Lecasse¹, Clément Jacquemin¹, Frédéric Polak¹, Arnaud Massot², Virginie Moine², Stéphanie Marchand-Marion³, Gérard Liger-Belair¹, Clara Cilindre¹

¹Université de Reims Champagne-Ardenne, Equipe Effervescence & Champagne (GSMA), UMR CNRS 7331, Reims Cedex 251687, France; ²Biolaffort, 11 Rue Aristide Berges, 33270 Floirac, France; ³Université de Bordeaux, Bordeaux INP, Bordeaux Sciences Agro, INRAE, UMR OENO 1366, ISVV, 33140 Villenave d'Ornon, France; zoe.grolier@laffort.com



MACROWINE 2025 Conference Program Bolzano, Italy, 24–27 June 2025

Plenary 3: Keynote lecture 3

Time: Wednesday, 25/June/2025: 1:50pm - 2:20pm · *Location:* Seminar room 1

Session Chair: Andrea Curioni, DAFNAE, Università di Padova

Session Chair: Karine Pedneault, UQO

Taking advantages of innovative chemometric tools to unveil vineyard ecosystem dynamics: look across volatile secondary metabolites

Rocha Sílvia M.

Chemistry Department, LAQV – REQUIMTE, University of Aveiro, Campus Universitário de Santiago, Aveiro 3810-193, Portugal, Portugal; smrocha@ua.pt



MACROWINE 2025 Conference Program Bolzano, Italy, 24–27 June 2025

SES-06: Flash talks 1 - Precision Winemaking

Time: Wednesday, 25/June/2025: 2:25pm - 3:45pm · Location: Seminar room 1

Session Chair: Panagiotis Arapitsas, University of West Attica

Session Chair: Maria Tiziana Lisanti, Università degli Studi di Napoli Federico II

2:25pm - 2:30pm

An alternative for reducing calcium in wine and lowering the risk of insoluble salt formation

V. Felipe Laurie¹, Bárbara Hormazabal-Moya¹, Ricardo I. Castro²

¹Universidad de Talca, Chile; ²Universidad Autónoma de Chile, Chile; flaurie@utalca.cl

2:30pm - 2:35pm

Characterization of a Unique Mannan from *Starmerella bacillaris* for Protein Stabilization in White Wine

Zeno Molinelli¹, Chiara Nadai¹, Simone Vincenzi¹, Alessio Giacomini¹, Paolo Antoniali², Daniele Pizzinato³, Céline Sparrow³, Cristina De Castro⁴, Antonio Molinaro⁴, Viviana Corich¹

¹Department of Agronomy Food Natural Resources Animal and Environment (DAFNAE), University of Padova, Viale dell'Università, 16, 35020 Legnaro, Italy; ²Italiana Biotecnologie S.r.l., Via Vigazzolo, 112, 36054 Montebello Vicentino, Italy; ³Sofralab SAS, 79 Avenue A.A., Av. Alfred Anatole Thevenet, 51530, Magenta, France; ⁴Department of Agricultural Sciences, University of Napoli Federico II, Reggia di Portici - Piazza Carlo di Borbone, 1, 80055, Portici, Italy; zeno.molinelli@unipd.it

2:35pm - 2:40pm

Effect of must temperature and aspergillopepsin-I supplementation on the PR-protein derived peptides

Adelaide Gallo^{1,2}, Remi Schneider¹, Emilio Celotti³, Andrea Natolino³, Nicola Cappello², Tomas Roman²

¹Oenobrand SAS, Parc Agropolis II-Bât 5 2196 Bd de la Lironde-34980 Montferrier-sur-Lez, France; ²Fondazione Edmund Mach—Technology Transfer Center, via Edmund Mach 1, 38098 San Michele all'Adige, Italy; ³Università degli Studi di Udine—Dipartimento di Scienze Agroalimentari, Ambientali e Animali. Via delle Scienze 206 – Udine, Italy; adelaide.gallo@oenobrand.com

2:40pm - 2:45pm

Exploring the impact of different closures on tannin evolutions by using metabolomic approach

Lantomalala Elsa Razafindrabenja^{1,2,3}, Lucas Suc¹, Frederic Veran¹, Arnaud Verbaere^{1,2}, Emmanuelle Meudec^{1,2}, Soline Cailliet¹, Nicolas Galy³, Dimitri Tixador³, Christophe Loisel³, Nicolas Sommerer^{1,2}, Laetitia Moulis¹

¹SPO, University of Montpellier, INRAE, Institut Agro, Montpellier, France; ²INRAE, PROBE Research Infrastructure, PFP Polyphenol Analysis Facility, Montpellier, France; ³Diam Bouchage, Céret, France; lantomalala.razafindrabenja@supagro.fr

2:45pm - 2:50pm

New use of natural silk fiber as a fining agent in wines

Lucía Osete Alcaraz¹, Encarna Gomez Plaza¹, Antonio Abel Lozano Perez², Jose Oliva Ortiz³, Miguel Angel Camara Botia³, Ana Belen Bautista Ortin¹

¹Departamento de Tecnología de Alimentos, Facultad de Veterinaria, Universidad de Murcia, 30071, Murcia, España.; ²Departamento de Biotecnología Genómica y Mejora Vegetal, Instituto Murciano de Investigación y Desarrollo Agrario y Medioambiental, 30150 Murcia, España.; ³Departamento de Química Agrícola, Facultad de Química, Universidad de Murcia, Murcia, España.; lucia.osetea@um.es

2:50pm - 2:55pm

Prototype development for the recovery of wine aromas from fermentation gases

Jürgen Neisius^{1,2}, Jean-Pierre Feuillet^{2,4}, Elke Lieb^{2,3}

¹Ministerium für Bildung und Kultur, Saarbrücken, Germany; ²Incubateur Bernard Magrez Start-Up Win, Strasbourg, France; ³Bridge Incubator GmbH, Saarbrücken, Germany; ⁴OFINAC, Narbonne, France; juergen.neisius@t-online.de

2:55pm - 3:00pm

Unveiling *Metschnikowia* spp.: Mechanisms and Impacts of Bioprotection in Winemaking

Julie ARAGNO¹, Angèle THIRIET^{1,2}, Lucas SUC¹, Cécile GRONDIN^{1,2}, Aurélie ROLAND¹, Jean-Luc LEGRAS^{1,2}, Carole CAMARASA¹, Audrey BLOEM¹

¹SPO, Univ Montpellier, INRAE, Institut Agro, 34060 Montpellier, France; ²Microbial Research Infrastructure, 4710-057 Braga, Portugal; aurelie.roland@supagro.fr



MACROWINE 2025 Conference Program Bolzano, Italy, 24–27 June 2025

3:00pm - 3:05pm

Unveiling the fungal diversity of Falanghina grapes and the role of autochthonous *Saccharomyces* and non-*Saccharomyces* yeasts in wine fermentation

Ernesto Petruzzello¹, Maria Carmela Colandrea¹, Vincenzo Valentino², Elisabetta Pittari¹, Francesca De Filippis², Paola Piombino¹, Giuseppe Blaiotta¹

¹Department of Agricultural Sciences, Division of Vine and Wine Sciences, University of Naples Federico II, 83100 Avellino, Italy;

²Task Force on Microbiome Studies, University of Naples Federico II, Via Cinthia, 80126 Naples, Italy; ernesto.petruzzello@unina.it

3:05pm - 3:10pm

Wine tartaric stability based on hydrogel application

Tania Paniagua-Martínez^{1,2}, Carlos M. Andreu^{1,2}, Vanesa Mancebo-Campos^{1,2}, Armando Carrasquero Durán^{1,2}, Mónica Fernández-González^{2,3}, Sergio Gómez-Alonso^{1,2}, Viviana Jehová González^{1,2}, José Pérez-Navarro^{2,3}

¹University of Castilla-La Mancha, Facultad de Ciencias y Tecnologías Químicas, Avda. Camilo José Cela, 10, 13071, Ciudad Real, España.; ²University of Castilla-La Mancha, Regional Institute for Applied Scientific Research (IRICA), Avda. Camilo José Cela, 10, 13005, Ciudad Real, España.; ³Universidad de Castilla-La Mancha, Higher Technical School of Agronomic Engineering, Ronda de Calatrava, 7, 13071, Ciudad Real, España.; Tania.Paniagua@uclm.es

3:10pm - 3:15pm

Effect of pre-fermentative cold soaking and use of different enzymes on the chemical and sensory properties of Catarratto wines

Clara Vitaggio, **Matteo Pollon**, Manuel Schnitter, Valentina Caraci, Luciano Cinquanta, Onofrio Corona

Department of Agricultural, Food and Forestry Sciences, University of Palermo, Viale delle Scienze 13, 90128 Palermo, Italy; matteo.pollon@unipa.it

3:15pm - 3:20pm

Exploiting the diversity in spent yeast for its valorisation towards producing yeast-derived processing aids.

Dries Croonen, Esther De Groof, Charlotte F. De Schepper, An Bautil, Kristof Brijs, Christophe M. Courtin

Laboratory of Food Chemistry and Biochemistry (LFCB) and Leuven Food Science and Nutrition Research Centre (LFoRCe), KU Leuven, Kasteelpark Arenberg 20, 3001 Leuven, Belgium; dries.croonen@kuleuven.be

3:20pm - 3:25pm

Dimethyl Sulfide Transfer Through Wine Closures During Bottle Aging: Implications for Wine Aroma Management

Rémi DE LA BURGADE¹, Lucas SUC¹, Somaya SACHOT¹, Nicolas GALY², Dimitri TIXADOR², Christophe LOISEL², Nicolas SOMMERER¹, **Aurélien ROLAND¹**

¹SPO, INRAE, Univ Montpellier, Institut Agro, Place P. Viala, Montpellier, France; ²DIAM Bouchage, 3 Rue des Salines, 66400 Céret, France; aurelie.roland@institut-agro.fr

3:25pm - 3:30pm

Effects of Non-Grape Materials on Wine Quercetin Composition: Insights from Synthetic and Merlot Grape Juice Fermentation

Shuyan Liu, Luca Boschian, Andrea Culetic, Simone Vincenzi

Centro Interdipartimentale per la Ricerca in Viticoltura ed Enologia (CIRVE), Padova University, via dell'Università 16, 35020 Legnaro (PD), Italy; shuyan.liu@unipd.it

3:30pm - 3:35pm

Exploring the inhibitor effect of different commercial chitosan-based preparations on malolactic fermentation in rosé wine

Lucía Osete Alcaraz¹, Francisco Lopez Galvez¹, Encarna Gomez Plaza¹, Ricardo Jurado Fuentes², Ana Belen Bautista Ortin¹

¹Departamento de Tecnología de Alimentos, Facultad de Veterinaria, Universidad de Murcia, 30071, Murcia, España.; ²Agrovin S.A., Avenida de los Vinos s/n, 13600 Alcázar de San Juan, Ciudad Real, España; lucia.osetea@um.es

3:35pm - 3:40pm

Experiments with the use of stems in Pinot noir winemaking



MACROWINE 2025 Conference Program
Bolzano, Italy, 24–27 June 2025

Danila Chiotti, Ulrich Pedri, Eva Überegger
Laimburg, Italy; danila.chiotti@laimburg.it

SES-07: Flash talks 2 - Instrumental Analysis and Profiling

Time: Wednesday, 25/June/2025: 4:10pm - 5:10pm · *Location:* Seminar room 1

Session Chair: Aurélie Roland, Institut Agro Montpellier

Session Chair: Peter Robatscher, Laimburg Research Centre

4:10pm - 4:15pm

Chemical composition of press and free-run wines from three vintages and Bordeaux grape varieties. A Comprehensive Analysis.

Margot Larose^{1,2}, Vincent Decup², Michael Jourdes¹, Stéphanie Marchand¹

¹Université de Bordeaux, INRAE, Bordeaux INP, Bordeaux Sciences Agro, UMR 1366, OENO, ISVV, F-33882 Villenave d'Ornon, France; ²Château Montrose, Saint-Estèphe, France; margot.larose@u-bordeaux.fr

4:15pm - 4:20pm

Classification of "Valpolicella Superiore" wines in relation to aromatic composition: influence of geographical origin, vintage and aging

Benedetta Melloni, Giacomo Cristanelli, Giovanni Luzzini, Davide Slaghenauhi, Maurizio Ugliano

Università di Verona, Italy; benedetta.melloni@univr.it

4:20pm - 4:25pm

Elucidating white wines peptides: An Analytical Breakthrough

Julie Gisquet^{1,3}, Florian Bahut^{1,2}, Nathalie Sieczkowski², Régis Gougeon¹, Maria Nikolantonaki¹

¹PAM, UMR 1517 INRAE, Université Bourgogne Europe, L'institut Agro, Institut Universitaire de la Vigne et du Vin – Jules Guyot, Rue Claude Ladrey, F-21000 Dijon, France; ²Lallemand, 19 Rue Briquetiers, 31700 Blagnac, France; ³Institut Œnologique de Champagne, ZI de Mardeuil Cumières, 51201 EPERNAY Cedex, France; julie.gisquet@orange.fr

4:25pm - 4:30pm

Identification of novel aromatic precursors in winemaking grapes using an optimized fractionation and UHPLC-MS analysis

Belén González-Martínez, Arancha de-la-Fuente-Blanco, Vicente Ferreira

Laboratorio de Análisis del Aroma y Enología (LAAE), Department of Analytical Chemistry, Universidad de Zaragoza, Instituto Agroalimentario de Aragón (IA2) (UNIZAR-CITA), Associate unit to Instituto de las Ciencias de la Vid y el Vino (ICVV) (UR-CSIC-GR), c/ Pedro Cerbuna 12, 50009 Zaragoza, Spain; b.gonzalez@unizar.es

4:30pm - 4:35pm

Metabolomic fingerprint changes during the alcoholic fermentation at industrial level of Muscat of Alexandria grape must

Maria Marinaki^{1,2,3}, Panagiotis Arapitsas^{4,5}, Christina Virgiliou^{2,3,6}, Georgios Theodoridis^{1,2,3}

¹Laboratory of Analytical Chemistry, School of Chemistry, Aristotle University of Thessaloniki, 54124 Thessaloniki, Greece; ²BiomicAUTH, Center for Interdisciplinary Research and Innovation (CIRI-AUTH), 57001 Thessaloniki, Greece; ³FoodOmicsGR Research Infrastructure, AUTH Node, Center for Interdisciplinary Research and Innovation (CIRI-AUTH), 57001 Thessaloniki, Greece; ⁴Department of Wine, Vine and Beverage Sciences, School of Food Science, University of West Attica, 12243 Athens, Greece; ⁵Research and Innovation Centre, Fondazione Edmund Mach, 38010 Trento, Italy; ⁶School of Chemical Engineering, Aristotle University of Thessaloniki, 54636, Thessaloniki, Greece; parapitsas@uniwa.gr

4:35pm - 4:40pm

Novel insights into Passito wines aroma typicality. Rationalizing the markers of varietal and geographical origin of Amarone D.O.C.G.

Giovanni Luzzini¹, Davide Slaghenauhi¹, Jessica Anahi Samaniego Solis¹, Giacomo Cristanelli¹, Alessia Ercolini¹, Riccardo Tedeschi², Aldo Neil Mendoza¹, Maurizio Ugliano¹

¹Verona University, Italy; ²Azienda Agricola F.lli Tedeschi; giovanni.luzzini@univr.it

4:40pm - 4:45pm

New insights of translocation of smoke-related volatile phenols in vivo grapevines

Ignacio Arias-Perez^{1,2}, Wen Yan^{1,3}, Andrew Misialek¹, Guillermo Zamora-García¹, Anita Oberholster¹

¹Department of Viticulture and Enology, University of California Davis, Davis, 95616, CA, USA; ²Instituto de Ciencias de la Vid y el Vino (ICVV), Spain; ³Desert Research Institute (DRI), 2215 Raggio Pkwy, Reno, NV 89512; ignacio.arias@icvv.es

4:45pm - 4:50pm

On the impact of preformed α -dicarbonyls in the production of Strecker aldehydes. Exploring the addition of sacrificial amino acids as a tool to reduce Strecker aldehydes production

Mónica Bueno¹, Ángel Manuel Aragón-Capone², María José Gómez-Cruz¹, David Marzo-Méndez¹, Laura D. Aguerri-Fernández¹, Ana Escudero¹, Vicente Ferreira¹

¹Laboratorio de Analisis del Aroma y Enología (LAAE). Department of Analytical Chemistry, Universidad de Zaragoza, Instituto Agroalimentario de Aragón (IA2) (UNIZAR-CITA), Spain; ²Instituto de Ciencias de la Vid y el Vino (ICVV) (UR-CSIC-GR), Departamento de Enología, Logroño, La Rioja, Spain; mobueno@unizar.es

4:50pm - 4:55pm

Separation and elucidation of ethylidene-bridged catechin oligomers using preparative-HPLC and NMR

Ezekiel R. Warren, Ryan J. Elias, Misha T. Kwasniewski

Department of Food Science, The Pennsylvania State University, United States of America; erw5235@psu.edu

4:55pm - 5:00pm

Study of Malvasia di Candia Aromatica shelf-life: effect of time and temperature on aroma compounds through an HS-SPME GCxGC-MS approach

Leonardo D'Intino¹, Matteo Gatti², Andrea Bassani¹, Milena Lambri¹, Mario Gabrielli¹

¹DiSTAS, Department for Sustainable Food Process, Università Cattolica del Sacro Cuore, Via Emilia Parmense 84, 29122 Piacenza, Italy; ²DiProVeS, Department of Sustainable Crop Production, Università Cattolica del Sacro Cuore, Via Emilia Parmense 84, 20122 Piacenza, Italy; mario.gabrielli@unicatt.it

5:00pm - 5:05pm

Characterisation of Sicilian Nero d'Avola grape and wine: a preliminary study

Iklima Odabaşı¹, Carmen Cris De Oliveira Nobre Bezerra², Denis Allieri¹, Alessio Altomare¹, Giulio Staffieri¹, Marta Baviera¹, Gvantsa Shanshiashvili¹, Nicholas Bonacina², Stefano Ferrari³, Francesca Borghini³, Ileana Vigentini², Daniela Fracassetti¹

¹Department of Food, Environmental and Nutritional Sciences (DeFENS), Università degli Studi di Milano, Italy; ²Department of Biomedical, Surgical and Dental Sciences (DSBCO), Università degli Studi di Milano, Italy; ³ISVEA S.r.l., Italy; daniela.fracassetti@unimi.it

5:05pm - 5:10pm

Revisiting esters hydrolysis in young white wines

Diana Alexandra Martin Rojas¹, Tatjana Radovanović Vukajlović¹, Martin Šala², Vid Selih², Ahmad Hosseini¹, Melita Sternad Lemut¹, Guillaume Antalick¹

¹University of Nova Gorica, Wine Research Centre, Lanthieri Palace, Glavni trg 8, SI-5271 Vipava, Slovenia; ²National Institute of Chemistry, Hajdrihova 19, 1000, Ljubljana, Slovenia; diana.martin@ung.si



MACROWINE 2025 Conference Program Bolzano, Italy, 24–27 June 2025

Plenary 4: Keynote lecture 4

Time: Thursday, 26/June/2025: 9:15am - 9:45am · *Location:* Seminar room 1

Session Chair: Ryan John Elias, The Pennsylvania State University

Session Chair: Sílvia M. Rocha, Chemistry Department, LAQV – REQUIMTE, University of Aveiro, Campus Universitário de Santiago, Aveiro 3810-193, Portugal

9:15am - 9:45am

Exploring the presence of oligopeptides in wines into identify possible compounds with umami or kokumi properties

Fulvio Mattivi¹, Perenzoni Daniele¹, Dellafiora Luca², Perugino Florinda^{2,3}, Vrhovsek Urska¹, Galaverna Gianni², Piombino Paola⁴, Guzzon Raffaele¹, Pittari Elisabetta⁴

¹Fondazione Edmund Mach, Via Edmund Mach, 1, 38098 San Michele all'Adige TN, Italy; ²University of Parma, Parco Area delle Scienze 27/A, 43124 Parma, Italy; ³University of Naples Federico II, Via Cinthia, 80126 Naples, Italy.; ⁴University of Naples Federico II, Avellino, Italy; fulvio.mattivi@fmach.it

SES-08: Wine Aroma Diversity: Origins, Challenges and Sensory Expression

Time: Thursday, 26/June/2025: 9:50am - 11:10am · *Location:* Seminar room 1

Session Chair: Fulvio Mattivi, Fondazione Edmund Mach, Via Edmund Mach, 1, 38098 San Michele all'Adige TN

Session Chair: Daniela Fracassetti, Università degli Studi di Milano

9:50am - 10:10am

Study of the fruity aroma of red wines through perceptual interactions among volatile compounds in the context of climate change for the Bordeaux vineyard

Justine GARBAY, Sophie TEMPERE, Lisa BALLET, Laurent RIQUIER, Margaux CAMELEYRE, Nicolas LE MENN, Jean-Christophe BARBE, Georgia LYTRA

Univ. Bordeaux, INRAE, Bordeaux INP, Bordeaux Sciences Agro, UMR 1366, OENO, ISVV, F-33882 Villenave d'Ornon, France; georgia.lytra@agro-bordeaux.fr

10:10am - 10:30am

Revealing the aroma profile of Greek wines from indigenous grape cultivars

Nanou Evangelia¹, Metafa Maria², Bastian Susan E.P.³, Tempère Sophie⁴, George Kotseridis¹

¹LEAD (Laboratory of Enology & Alcoholic Drinks), Food Science and Human Nutrition Dept., Agricultural University Athens, Iera Odos 75, 11855 Athens, Greece; ²Institute of Technology of Agricultural Products, Hellenic Agricultural Organization—DIMITRA, 1 Sofokli Venizelou, 14123 Lycovrisi, Greece; ³Discipline of Wine Science, School of Agriculture, Food and Wine, Waite Campus, University of Adelaide, Urrbrae, South Australia, 5064, Australia; ⁴Unité de Recherche Œnologie, ISVV, Université de Bordeaux, EA 4577, USC 1366 INRAE, F33882 Villenave d'Ornon, France; ykotseridis@aia.gr

10:30am - 10:50am

The impact of ethyl esters, monoterpenes and volatile thiols to the perception of tropical fruit aromas in white wines

Camilla Sartori, Angelica Iobbi, Elizabeth Tomasino

Oregon State University, United States of America; camilla.sartori@oregonstate.edu

10:50am - 11:10am

Smoke exposure effects on red wines: How much is too much?

Annegret Cantu¹, Francesco Maioli¹, Bainian Chen¹, Chen Liang¹, Ron C Runnebaum¹, Hildegard Heymann¹, Arran Rumbaugh²

¹Department of Viticulture & Enology, University of California Davis, One Shields Avenue, Davis, CA 95616, USA; ²United States Department of Agriculture, Agricultural Research Service, Davis, CA 95616; acantu@ucdavis.edu



MACROWINE 2025 Conference Program Bolzano, Italy, 24–27 June 2025

SES-09: No- and Low-Alcohol wines

Time: Thursday, 26/June/2025: 11:30am - 12:30pm · *Location:* Seminar room 1

Session Chair: Simone Vincenzi, Università di Padova

Session Chair: Angelita Gambuti, University of Naples Federico II

11:30am - 11:50am

Comparison of the principal production methods for dealcoholized wine based on analytical parameters

Lorenzo Italiano¹, Yogesh Kumar², Matthias Schmitt¹, Christmann Monika¹

¹Institut of Oenologie, Hochschule Geisenheim University, Von-Lade-Str. 1, 65366 Geisenheim, Germany; ²Department of Agricultural and Food Sciences, University of Bologna, Piazza Goidanich 60, 47521, Cesena, FC, Italy; lorenzo.italiano@hs-gm.de

11:50am - 12:10pm

Understanding Aroma Loss During Partial Wine Dealcoholization by Vacuum Distillation

Marion Breniaux, Rémy Ghidossi

Univ. Bordeaux, Bordeaux INP, Bordeaux Sciences Agro, INRAE, OENO, UMR 1366, ISVV, France; marion.breniaux@u-bordeaux.fr

12:10pm - 12:30pm

Quality assessment of partially dealcoholized and dealcoholized red, rosé, and white wines:

Physicochemical, color, volatile, and sensory insights

Yogesh Kumar¹, Lorenzo Italiano², Matthias Schmitt², Arianna Ricci¹, Giuseppina Paola Parpinello¹, Andrea Versari¹

¹Department of Agricultural and Food Sciences, University of Bologna, Piazza Goidanich 60, 47521, Cesena, FC, Italy; ²Institut of Oenologie, Hochschule Geisenheim University, Von-Lade-Str. 1, 65366 Geisenheim, Germany; yogesh.kumar3@unibo.it

SES-10: Flash talks 3 - Sensory Profiles and Consumer Acceptance

Time: Thursday, 26/June/2025: 1:35pm - 2:35pm · *Location:* Seminar room 1

Session Chair: Simone Giacosa, Università degli Studi di Torino

Session Chair: Edoardo Longo, Free University of Bozen/Bolzano

1:35pm - 1:40pm

Investigating kokumi flavour oligopeptides in wine

Paola Piombino¹, Elisabetta Pittari¹, Daniele Perenzoni², Urska Vrhovsek², Raffaele Guzzon², Luca Dellaflora³, Florinda Perugini³, Gianni Galaverna³, Luigi Moio¹, Fulvio Mattivi²

¹Università di Napoli Federico II, Italy; ²Fondazione Edmund Mach, Italy; ³Università di Parma, Italy; paola.piombino@unina.it

1:40pm - 1:45pm

Consumer Perception of Wine Bottle Weight and Its Impact on Sustainability

Natalia Santamaría-López¹, Alejandro Suárez¹, Anna Claret², Luis Guerrero², Anna Gomis-Bellmunt³, Joan-Miquel Canals⁴, Enric Nart¹

¹VITEC – Centre Tecnològic del Vi, Crtra. De Porrera, km. 1, 43730, Falset, Tarragona, Spain; ²IRTA-Food Quality and Technology, Finca Camps i Armet s/n, Monells, Girona, E-17121, Spain; ³INCAVI - Institut Català de la Vinya i el Vi. Plaça Àgora, 2., 08720 Vilafranca del Penedès, Spain; ⁴Departament de Bioquímica i Biotecnologia, Facultat d'Enologia, Universitat Rovira i Virgili, C/Marcel·lí Domingo, 1, 43007, Tarragona, Spain; natalia.santamaria@vitec.wine

1:45pm - 1:50pm

Convergence and Divergence in Chemical and Sensory Profiles of Disease-Resistant and Vitis vinifera White Wines from South Tyrol: Addressing strategies for Market Adoption

Gavin Duley, Adriana Teresa Ceci, Edoardo Longo, Aakriti Darnal, Emanuele Boselli

Free University of Bozen-Bolzano, Italy; gavin.duley@unibz.it

1:50pm - 1:55pm

Enhancing Sustainability in Winemaking: The Role of PIWI in South Tyrol

Emanuele Boselli^{1,2}, Federica Viganò³, Guido Orzes⁴, Stefano Cesco¹, Edoardo Longo¹, Pasqualina Sacco¹, Gavin Duley¹, Alessandra Piccoli³

¹Faculty of Agricultural, Environmental and Food Sciences, Free University of Bozen-Bolzano, Piazza Università 5, 39100 Bolzano, Italy; ²International Competence Center for Food Fermentations, Free University of Bozen-Bolzano, Piazza Università 5, 39100 Bolzano, Italy; ³Faculty of Education, Free University of Bozen-Bolzano, Piazza Università 5, 39100 Bolzano, Italy; ⁴Faculty of Engineering, Free University of Bozen-Bolzano, Piazza Università 5, 39100 Bolzano, Italy; emanuele.boselli@unibz.it

1:55pm - 2:00pm

Influence of harvest time and withering length combination on reinforced Nebbiolo wines: phenolic composition, colour traits, and sensory profile

Camilla De Paolis, Giulia Scalzini, Maria Alessandra Paisonni, Susana Río Segade, Gaetano Pio Liscio, Domen Škrab, Lorenzo Pizzini, Simone Giacosa, Vincenzo Gerbi, Luca Rolle

University of Turin, Italy; camilla.depaolis@unito.it

2:00pm - 2:05pm

Market analysis of Chilean Pinot Noir, Carménère, and Cabernet Sauvignon wines: A comparative study of chemical parameters across low, medium, and high price segments

Cristobal Silva, Karinna Estay, Álvaro Peña-Neira, Mariona Gil i Cortiella

Departamento de Agroindustria y Enología. Facultad de Ciencias Agronómicas, Universidad de Chile, Chile; apena@uchile.cl

2:05pm - 2:10pm

Sensory patterns observed towards the oxidation of white, rosé and sparkling wines: an exploratory study

Ángel Manuel Aragón Capone¹, Arancha de la Fuente Blanco², Vicente Ferreira², Mónica Bueno²

¹Instituto de Ciencias de la Vid y el Vino - ICVV; ²LAAE - Universidad de Zaragoza, Spain; angel-manuel.aragon@unirioja.es

2:10pm - 2:15pm

How can yeast modulate Divona's aromatic profile?



MACROWINE 2025 Conference Program Bolzano, Italy, 24–27 June 2025

Marie Blackford^{1,2}, Ágnes Dienes Nagy¹, Andreas Bühlmann³, Thierry Wins³, Marilyn Cléroux², Kathleen Mackie-Haas³, Gilles Bourdin¹

¹Agroscope, 1260 Nyon, Switzerland; ²Changins, HES-SO University of Applied Sciences and Arts Western Switzerland, College for Viticulture and Enology, Nyon, Switzerland; ³Agroscope, 8820 Wädenswil, Switzerland; agnes.dienes-nagy@agroscope.admin.ch

2:15pm - 2:20pm

Solid Rectified Concentrated grape Must (SRCM) in sparkling wines production: studying the sensory impact of an innovative sugar substrate

Paola Piombino¹, Elisabetta Pittari¹, Luigi Moio¹, Maurizio Cambrea², Veronica Vallini²

¹Università di Napoli Federico II, Italy; ²Naturalia Ingredients srl; paola.piombino@unina.it

2:20pm - 2:25pm

The impact of selected odorant combinations in wine oxidative aroma and their interactive role on the olfactory perception

Ángel Manuel Aragón Capone¹, Noëlle Béno², José Antonio Piornos², Thierry Thomas-Danguin², Vicente Ferreira³, Mónica Bueno³

¹Instituto de Ciencias de la Vid y el Vino (ICVV) (UR-CSIC-GR), Departamento de Enología, Logroño, La Rioja, Spain; ²Centre des Sciences du Goût et de l'Alimentation, INRAE, CNRS, Institut Agro, Université de Bourgogne, Dijon, France; ³Laboratorio de Análisis del Aroma y Enología (LAAE), Departamento de Química Analítica, Universidad de Zaragoza, Instituto Agroalimentario de Aragón (IA2) (UNIZAR-CITA), c/Pedro Cerbuna 12, 50009 Zaragoza, Spain.; angel-manuel.aragon@unirioja.es

2:25pm - 2:30pm

Cross analytical and sensory differentiation of monovarietal white wines from 4 autochthonous grape varieties: focus on macromolecules

Auriane FIGUE¹, Frédéric VIOLLEAU², Marianne GOSSET³

¹Plateforme TFFFC, Université de Toulouse, INP-PURPAN, Toulouse, France; ²Laboratoire de Chimie Agro-industrielle, LCA, Université de Toulouse, INRA, Toulouse, France; ³Département sciences de l'agroalimentaire et de la nutrition, Université de Toulouse, INP-PURPAN, Toulouse, France * Corresponding author.; marianne.gosset@purpan.fr



MACROWINE 2025 Conference Program Bolzano, Italy, 24–27 June 2025

Plenary 5: Keynote lecture 5

Time: Friday, 27/June/2025: 9:00am - 9:30am · *Location:* Seminar room 1

Session Chair: Josep Valls Fonayet, University of Bordeaux, INRAE, Bordeaux INP, Bordeaux Sciences Agro, UMR 1366, OENO, ISVV, Villenave d'Ornon, F-33140, France

Session Chair: Susana Río Segade, University of Turin

9:00am - 9:30am

Crafting Wine's Signature: Exploring Volatile Compounds from Terroir to Aging

Silvia Carlin¹, Panagiotis Arapitsas^{1,2}, Urska Vrhovsek¹, Fulvio Mattivi¹

¹Research and Innovation Center, Fondazione Edmund Mach, 38010 San Michele all'Adige, Italy; ²Department of Wine, Vine, and Beverage Sciences, School of Food Science, University of West Attica, 12243 Athens, Greece; silvia.carlin@fmach.it



MACROWINE 2025 Conference Program Bolzano, Italy, 24–27 June 2025

SES-11: Advanced Profiling of Wine Precursors and Macromolecular Complexity

Time: Friday, 27/June/2025: 9:35am - 10:35am · Location: Seminar room 1

Session Chair: Mariona Gil i Cortiella, Universidad Autónoma de Chile

Session Chair: Davide Slaghenauhi, University of Verona

9:35am - 9:55am

First large-scale study of thiol precursor distribution in red grape berry compartments and implications for thiol-type red wine production

Andrea Cesson^{1,2}, Somaya Sachot¹, Marie-Agnès Ducasse², Amélie Roy², Juliette Simon², Mélanie Veyret³, Isabelle Sanchez⁴, Jean-Roch Mouret¹, Céline Poncet-Legrand¹, Aurélie Roland¹

¹SPO, Univ Montpellier, INRAE, Institut Agro, Montpellier, France.; ²Institut Français de la Vigne et du Vin, Domaine de Pech Rouge, Gruissan, France.; ³Pech Rouge Experimental Unit, INRAE, Gruissan, France.; ⁴MISTEA, INRAE, Institut Agro, 34060 Montpellier, France.; andrea.cesson@inrae.fr

9:55am - 10:15am

First disclosure of eugenol precursors in Vitis genus: analytical development and quantification

Xavier Hastoy¹, Céline Franc¹, Josep Valls-Fonayet^{1,2}, Maria Tiziana Lisanti³, Laurent Riquier¹, Marie-Claude Ségur⁴, Marc Fermaud⁵, Gilles de Revel¹

¹Univ. Bordeaux, INRAE, Bordeaux INP, Bordeaux Sciences Agro, UMR 1366, OENO, ISVV, Villenave d'Ornon, F-33140, France; ²Bordeaux Metabolome, MetaboHUB, F-33140, Villenave d'Ornon, France; ³Università degli Studi di Napoli Federico II, Dipartimento di Agraria, Sezione di Scienze Della Vigna e del Vino, viale Italia 60, 83100 Avellino, Italy; ⁴Bureau National Interprofessionnel de l'Armagnac (BNIA), Eauze, 32800, France; ⁵INRAE, UMR SAVE, Bordeaux Sciences Agro, ISVV, F-33882, Villenave d'Ornon, France; xavier.hastoy@u-bordeaux.fr

10:15am - 10:35am

Evolution of oak barrels C-glucosidic ellagitannins in model wine solution

Julia Hernandez^{1,2}, Pierre-Louis Teissedre¹, Kléopatra Chira^{1,2}

¹Université de Bordeaux, INRAE, Bordeaux INP Institut des Sciences de la Vigne et du Vin, France; ²Tonnellerie Nadalie, 99 rue Lafont - LUDON MEDOC - 33 295 Blanquefort Cédex; julia.hernandez@u-bordeaux.fr

SES-12: Sustainable Strategies for Wine Stability and Resource Optimization

Time: Friday, 27/June/2025: 10:55am - 11:55am · *Location:* Seminar room 1

Session Chair: Anna Puig-Pujol, IRTA - INCAVI

Session Chair: Bin Tian, Lincoln University

10:55am - 11:15am

Circular economy strategies to reintegrate grape pomace from cv. Lagrein into the food chain

Andrea Pichler¹, Gaetano Cardone², Martina Magni¹, Veronica Marin², Peter Robatscher¹, Ombretta Polenghi², Virna Cerne², Silvano Ciani², Michael Oberhuber¹

¹Laimburg Research Centre, Laimburg 6, Auer-Ora, 39040, Italy; ²Dr. Schär Research & Development Department, Trieste, 34139; Italy; andrea.pichler@laimburg.it

11:15am - 11:35am

Evaluation of shelf life of white wines in aluminium bottle: a modelling approach

Matteo Pollon¹, Clara Vitaggio¹, Manuel Schnitter¹, Valentina Caraci¹, Valeria Guarrasi², Angelita Gambuti³, Donatella Albanese⁴, Diego Planeta¹, Luciano Cinquanta¹, Onofrio Corona¹

¹Department of Agricultural, Food and Forestry Sciences, University of Palermo, Viale delle Scienze 13, 90128 Palermo, Italy;

²Institute of Biophysics, National Research Council (CNR), Via Ugo La Malfa 153, 90146 Palermo, Italy.; ³Food Science Department, University of Naples, Via Università 100, 80055 Portici (NA), Italy.; ⁴Department of Industrial Engineering, University of Salerno, Via Ponte Don Melillo, 84084 Fisciano (SA), Italy; matteo.pollon@unipa.it

11:35am - 11:55am

Screening of Italian Red Wines for Quercetin Precipitation Risk Index

Alessandra Luciano, Luigi Picariello, Luigi Moio, Angelita Gambuti

Department of Agricultural Sciences, Section of Vine and Wine Sciences, University of Napoli "Federico II", Viale Italia, Avellino 83100, Italy; alessandra.luciano2@unina.it