

ORAL PRESENTATIONS

Sunday		23.4.2023	
15:00-19:00	Registration		
19:00	Welcome party		
Monday		24.4.2023	
8:30-9:00	Opening ceremony (M. Horvat, N. Ogrinc)		
	Moderators: N. Ogrinc, D. Heath		
9:00-9:45	A. Cifuentes	Foodomics study on the activity of bioactive compounds from plants, algae and Agrifood by-products against Alzheimer disease	
9:45-10:30	S. Kelly	Food authentication using synthetic transformations coupled with Isotope Ratio Mass Spectrometry (FAST-IRMS)	
10:30-11:00	Coffee break		
FOOD AUTHENTICITY AND TRACEABILITY		Moderator: S. Kelly, T. Zuliani	QUALITY AND SOURCES OF WATER
		Moderator: H.A.J. Meijer, E. Heath	
11:00-11:30	R. Frew	Implementing food origin verification systems	11:00-11:30 J. Vidmar The potential of single particle inductively coupled plasma mass spectrometry for studying micro- and nanoscale particles in water and food
11:30-12:00	L. Bontempo	Compound-specific analysis for the verification of food authenticity	11:30-12:00 F. Scandellari The signal of water: stable isotopes from rain to table
12:00-12:15	L. Strojnik	The authenticity of food flavourings and geographical traceability of food crops using a stable isotope methodology: synthesis of approach	12:00-12:15 H. Heinzen Chemical safety of freshwater for human consumption and aquatic life which also is food
12:15-12:30	B. Torres-Cobos	Nuts about authentication: using a handful of isotopic tools to crack the hazelnut origin mystery	12:15-12:30 K. Anagnostopoulou HRMS strategies for the target analysis and suspect screening of persistent and mobile substances in drinking, ground and surface water of Greece
12:30-12:45	S. Pianezze	GC-C-IRMS on single fatty acids and EA-IRMS on bulk lipid to study the fractionation processes in bovine organism and to detect differences in four matrices of Simmental cows fed on C3 and C4 diets	12:30-12:45 J. Moreno Rojas Origin, implications, and management strategies for nitrate pollution in vulnerable zones in Andalusia
12:45-13:00	M. Horacek	Control of geographic origin of saffron using stable isotope analysis (IRMS)	12:45-13:00 P. Vreča SLONIP – A Slovenian web-based interactive research platform on the water isotopes in precipitation
13:00-14:00	Lunch		13:00-14:00 Lunch
FOOD AUTHENTICITY AND TRACEABILITY		Moderators: L. Bontempo, R. Frew	FOODOMICS, NUTRITION & HEALTH
		Moderators: A. Cifuentes, U. Vrhovšek	
14:00-14:30	O. Donard	Novel analytical strategies using non-traditional isotopic and multi-isotopic dilution signatures for enhanced geographical food traceabilities	14:00-14:30 D. Lambropoulou SMA®t-EVOO-tools: providing insights into Greek extra virgin olive oil authenticity and geographical origin
14:30-14:45	M. Nikezić	Linking multi-elemental and Sr isotopic data of milk, cheese, water, soil and forage	14:30-14:45 B. Butinar “Olive oil polyphenols contribute to the protection of blood lipids from oxidative stress” and the fate of EC Reg. 432/2012: are the basic terms and the figures any clearer now?
14:45-15:00	T. Zuliani	Analytical challenges in determining the origin of olive oil using ⁸⁷ Sr/ ⁸⁶ Sr isotope ratios	14:45-15:00 J. Masten Rutar Fermented and non-fermented spirulina water and ethanol extracts antioxidant activity <i>in vitro</i> and at the cellular and proteome level
15:00-15:15	V. Vacchina	Geographical origin discrimination of wines by a new multi-isotopic dilution method	15:00-15:15 P. Starič Cold plasma pre-treatment and grain priming: Zinc enhancement in buckwheat grains and sprouts
15:15-15:30	H. A.J. Meijer	Age verification of 10-yr and 20-yr matured port wines using radiocarbon	15:15-15:30 J. Andersen Supplementing cheese with polyphenol rich fruits to increase content of beneficial bioactive polyphenols
15:30-15:45	M. Tuthorn	The next generation LC-IRMS for honey authenticity investigation	15:30-15:45 N. Poklar Ulrih The possibility of using olive leaves as a source of polyphenols in the light of circular economy
15:45-16:15	Coffee break		15:45-16:15 Coffee break
FOOD DATABASE AND SEMANTICS		Moderators: N. Ogrinc, D. Heath	
16:15-16:45	T. Eftimov	Towards AI-driven food and nutrition science and society: opportunities and challenges	
16:45-17:15	A. Lobnik	Optical sensors for food freshness and pesticides detection	
17:15-17:30	Đ. Čanadi Knežević	Fully automated official AOAC methods for determination of dietary fibers (IDF, SDF, TDF) by ANKOM technologies	
17:30 - 19:00	Poster session		

Tuesday		25.4.2023
FOOD QUALITY AND SAFETY		Moderator: M. Horvat, L. Kourimska
9:00-9:30	Z. Pedrero Zayas	Hg And Se fate and interaction in fish: new insights and potential valorization of tuna by-products on sustainable aquafeeds
9:30-9:45	S. Petromelidou	A preliminary survey of PFAS in farmed marine shellfish in Greece. Do PFAS pose a threat to marine biota and human health?
9:45-10:00	M. Malý	Transfer of phytocannabinoids from dried plant to aqueous infusions: Is cannabis 'tea' safe?
10:00-10:15	P. Pongrac	Biofortifying sprouts with zinc by seed priming
10:15-10:30	A. Vehar	Quality characteristics of treated wastewater irrigated tomatoes
10:30-10:45	E. Andreasidou	Uptake of chemicals of emerging concerns in tomatoes irrigated with treated wastewater
10:45-14:00	Coffee break & Degustation	
14:00-15:30	MERFISH Science Café	
	M. Horvat	Mercury exposure and health effects: do we know enough about what is safe?
	J. Snoj Tratnik	Mercury exposure in prenatal life and neurodevelopment: findings from the Northern Adriatic birth cohort study
FOOD QUALITY AND SAFETY		Moderators: U. Blaznik, D. Lambropoulou
15:30-15:45	M. Veronica Cesio	Decontamination studies on ready-to-eat- strawberries
15:45--16:00	A. Bogažalec Košir	Quantification goes digital – 10+ years of dPCR developments in GMO diagnostics
NEW ALTERNATIVE FOOD SOURCES		
16:00-16:15	L. Kourimska	Selected non-protein nitrogen compounds in insects for food and feed purposes
16:15-16:30	M. Kulma	Descriptive sensory analysis of edible insects in Czechia: tasty or nasty? and does size really matter?
16:30-16:45	L. Koronaiou	Multiresidue determination of current-used pesticides in edible insects by orbitrap HRMS target, suspect and non-target approaches
16:45-17:00	A. Macan Schönleben	Stable Isotope Ratio Analysis of H, C, N and S in edible insect samples from Europe, Asia and Africa
19:00	Dinner	

Wednesday		26.4.2023
FOOD DATABASE AND SEMANTICS		Moderators: A. Schimmelmann, D. Kocman
9:00-9:45	N. Pirrone	Future perspectives in using earth observation data technologies for a sustainable agriculture in Europe: the HE partnership on agriculture of data
9:45-10:15	C. Zoani	Integrated Research Infrastructures' initiatives in support to food quality and safety and sustainability of agrifood systems
10:15-10:45	Coffee break	
RISK ASSESSMENT & MANAGEMENT		Moderators: C. Zoani, F. Scandellari
10:45-11:15	A. Schimmelmann	Can ionizing radiation cause isotopic fractionation of organic compounds?
11:15-11:45	U. Blaznik	National representative food consumption data (SI.Menu study) in dietary exposure and intake assessments
11:45-12:00	N. Waegeneers	Unravelling the exposure and risk to free glutamate form food additive and non-additive sources in Belgium
12:00-12:15	A. Alilovič	Total mercury and methylmercury levels in hair, blood, and urine of individuals following controlled intake of tuna fish
12:15-12:30	Closing ceremony	

POSTER PRESENTATIONS

TOPIC	PRESENTING AUTHOR	TITLE
Session 1: FOOD AUTHENTICITY AND TRACEABILITY	A. Roncone	PROMEDLIFE: Novel food products for the PROMotion of MEDiterranean LIFEstyle and healthy diet
	B. Pavlovič	Authentication and traceability of fish and seafood using stable isotope and multi-elemental approach
	C. Terro	Foodtrack – Stable Isotope tool for determination of authenticity and traceability of food
	C. Paraskevi	Oxygen and hydrogen isotopes in milk and cheese casein from DPO cheese products in Greece
	D. Kocman	An integrated toolbox for improved verification and prevention of adulterations and non-compliances in organic and geographical indications food supply chain – THEROS project
	H. Abderrazak	Stable isotope ratios and multi-element analysis for food authenticity and traceability in the framework of the TUNTWIN project
	J. Masten Rutar	Combined isotopic and elemental composition analysis for the assessment of Spirulina food supplements authenticity
	J. Siira	Strontium isotope ratios of Finnish strawberries and agricultural soils
	K. Babič	Characterization of Slovenian pork meat based on stable isotope ratio, multi-elemental analysis and multivariate modelling approaches
	L. Jelenko	Effects of storage conditions on carbon isotopic composition of volatile organic compounds
	M. Tuthorn	Isotope fingerprints: addressing authenticity of fish oils by GC-MS-IRMS
	M. Perini	Authentication and geographical characterisation of Italian grape musts through glucose and fructose carbon isotopic ratios determined by LC-IRMS
	M. Kolar	Differentiation of the mineral content of Slovenian honeys by botanical origin using principal component analysis
	N. Šibanc	The potential of stable isotope technique and microbiome characterisation in determining truffle aroma formation and the authentication of truffles
	R. Skipityte	Stable isotope and fatty acid composition of organically and conventionally produced Lithuanian milk
	S. Berail	Isotopic signatures of «non-traditional» elements for authenticity and geographical assessments of food and beverages
T. Zuliani	Characterisation of Slovenian honey	
Session 2: FOOD SAFETY AND QUALITY	D. Kočar	Determination of 5-hydroxymethylfurfural in honey by high-performance liquid chromatography
	E. Heath	Chemicals migrating from beer cans: non-targeted and suspect analysis
	H. Chakroun	Heavy metal content in crops grown near former metal mining sites and potential risk to the local population
	L. Fras Zemljič	Functionalization of PLA foils using chitosan and plant extracts as a bilayer coating
	L. Martello	A newly synthesized chitosan derivative as a promising sorbent for fungicides enrichment from wine samples
	M. Viltres Portales	Selenium biofortification of wheat plants by foliar application of liposomes: selenium speciation by synchrotron radiation techniques.
	M. Sterniša	The importance of experimental design for the evaluation of polymer nanocomposites as antimicrobial coatings on food contact surfaces
	M. Sterniša	Simultaneous detection of antimicrobial and anti-Biofilm activity of novel compounds using salmonella infantis – improving data analytics through machine learning
	S. Smole Možina	Effects of lavender essential oil and pure phenolic compounds on invasion mechanisms and protein profile of <i>Campylobacter jejuni</i>
	S. Marković	Cr speciation in wine and beer using HPLC-ICP-MS and enriched stable isotopic tracers of ⁵⁰ Cr(VI) and ⁵³ Cr(III)
	T. Haifa Tlil	The risk of plants contamination by potentially toxic elements near mining sites
	U. Gradišar Centa	Thermal and rheological properties of nut butters as a tool for assessing butter quality
	Z. Giannioti	Determination of regulated and emerging mycotoxins in organic and conventional gluten-free flours by LC-MS/MS
	Ž. Kolenc	Microbial communities on microplastics from nearshore seawater and Mediterranean mussels <i>Mytilus galloprovincialis</i> in Slovenia
Ž. Kolenc	Evaluation of naturally adhered bacteria on lettuce (<i>Lactuca sativa</i>) leaves	

Session 3: NEW ALTERNATIVE FOOD SOURCES	Nayyer Rehman	Motivation and barriers to the adoption of new alternative foods among European consumers
Session 4: NANOMATERIALS & NANOTECHNOLOGIES	D. Lambropoulou	Design of novel molecularly imprinted polymers as effective extraction media for selective determination of triazole fungicides in juice samples
	M. Dekleva	Optimization of experimental parameters for electrochemical detection of neonicotinoids in honey with modified screen-printed carbon electrodes
	M. Kolar	Bio-active nanofibrous nonwovens as in-situ producers of hexanal
	P. Leban	Studying the uptake and distribution of metal-doped nanoplastics in hydroponically grown tomato plants
	R. Singh Chouhan	Two-dimensional magnetic nanomaterial: versatility and detection performance capabilities for toxic metal ions
	U Gradišar Centa	Antimicrobial active polymer nanocomposite PVDF-HFP/PVP/MoO ₃ as nanostructured coating for potential application on food contact surfaces
Session 5: FOODOMICS	A. Kovačič	Characterization of the neuroactive compound profile in organic, conventional and processed tomatoes
	M. Škrjanc	NMR profiling of Slovenian honey and wine
Session 7: NUTRITION & HEALTH	U. Kastelic Kovačič	Cave bear diet revealed by stable isotopes analysis
Session 8: RISK ASSESSMENT & MANAGEMENT	P. Klemenčič	HUMAN BIOMONITORING: Dietary cadmium exposure in Slovenian population of children and adolescents
Session 9: METROLOGY IN FOOD	D. Potočnik	Metrology for stable isotope ratio measurements
	E. Heath	Aerobic degradation of bisphenol A alternatives with activated sludge: kinetics and biotransformation products
	H. A.J. Meijer	Combining Optical Spectroscopy and IRMS for the Measurement of $\delta^{18}\text{O}$ and $\delta^2\text{H}$ of Water and Ethanol directly in Wine
	S. Berail	Geographical origin of mineral waters by Sr isotope ratio MC-ICP-MS: long-term stability of the signatures obtained by different purification procedures
Session 10: QUALITY AND SOURCES OF WATER	K. Žagar	$\delta^{18}\text{O}$ and $\delta^2\text{H}$ fingerprinting of tap water
	M. Sánchez-Parra	Incidence of nitrate contamination and origin in two water systems of southern Spain