Abstracts

FOR

5th International Symposium on

Phytochemicals in Medicine and Food

(5-ISPMF)

AUGUST 25 – SEPTEMBER 01 2021, NANCHANG, CHINA

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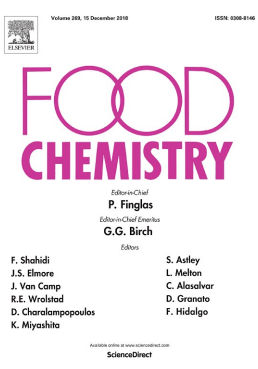

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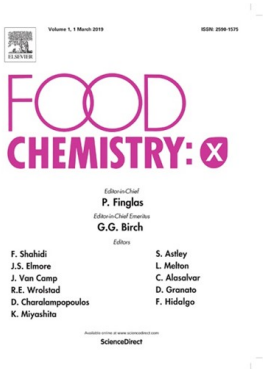

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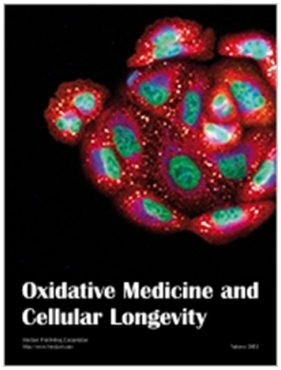

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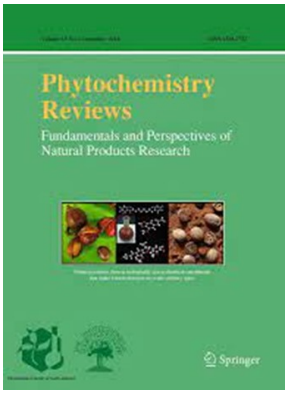

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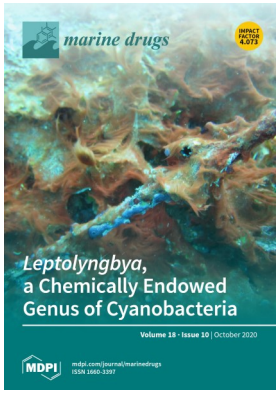

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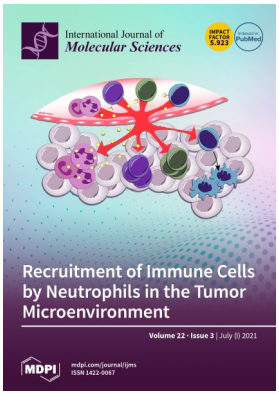

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Welcome Address

It is our great pleasure to welcome you to the 5th International Symposium on Phytochemicals in Medicine and Food (5-ISPMF), which is organized by the International Association of Dietetic Nutrition and Safety (IADNS), Phytochemical Society of Europe (PSE), Physiological Society of Japan, and Phytochemical Society of Asia (PSA). 5-ISPMF is jointly organized by Northwest University and Shaanxi Normal University. Over 800 scientists from 66 counties have registered to attend this conference. More than 400 scienitists 5-ISPMF also has obtained the supports form several international journals including Food Chemistry Marine Drugs, International Journal of Molecular Sciences, Food Chemistry: X, Oxidative Medicine and Cellular Longevity, Phytochemsitry Reviews, and so on. The international organizing committee and scientific committee board of 5-ISPMF assembled an exciting and diverse program, featuring 16 plenary lectures, 82 invited lectures, 142 oral presentation, a graduate student forum consisting of 70 short lecture, and more than 90 posters, which dedicate to creating a stage for exchanging the update research results in the phytochemicals for food and human health.

Prof. Shaoping Nie
Nanchang University, China
Executive Chairman

Jesus Simal-Gandara
University of Vigo, Spain
Co-Chairman

Program online

Beijing time	25 August
15:20-15:45	**Opening Address (Jianbo Xiao)** **Shaoping Nie, Nanchang University, China** **Jesus Simal-Gandara, University of Vigo, Spain** **Franz Bucar, University of Graz, Austria** **Yoshinori Asakawa, Tokushima Bunri University, Japan**
	Plenary lecture 1 **(Shaoping Nie)**
15:45-16:15	**PL1: Yoshinori Asakawa, Tokushima Bunri University, Japan** Distribution of bibenzyls, prenyl bibenzyls, bis-bibenzyls and terpenoids in the liverwort Genus Radula: Structures and biological activity
16:15-16:45	**PL2: Franz Bucar, University of Graz, Austria** Resistance modulation in bacteria by coumarins
16:45-17:15	**PL3: Young-Joon Surh, Seoul National University, South Korea** Role of chemopreventive dietary and medicinal phytochemicals in NRF2-mediated redox homeostasis
	Session 1 **Bioactivity of natural products (I)** **(Yoshinori Asakawa, Hang Xiao)**
17:30-17:55	**IL1: Suowen Xu, University of Science and Technology of China, China** Phytochemicals in cardiovascular disease prevention: challenges and opportunities
17:55-18:20	**IL2: Wen-Chin Yang, Agricultural Biotechnology Research Center, Taiwan, China** Anti-metabolic function and mechanism of *B. pilosa* (Asteraceae) and its bioactive molecules
18:20-18:35	**OL1: Adriana Trifan, Grigore T. Popa University of Medicine and Pharmacy Iasi, Romania** Natural compounds as boosters of terbinafine activity against dermatophytes
18:35-18:50	**OL2: Ardiansyah, Universitas Bakrie, Indonesia** The bioactivity of Indonesian fermented rice bran
18:50-19:05	**OL3: Patricia M. de Farias, Federal University of Ceará, Brazil** Protective effect of *Opuntia ficus*-indica encapsulated extract on ethanol-induced gastric injury
19:05-19:20	**OL4: Amanda Leite Bastos-Pereira, University of the Santa Catarina State, Brazil** Antinociceptive activity of three *Galianthe palustris* extracts.
	Session 2 **Flavonoids in food and medicine** **(Esra Capanoglu, Chongde Sun)**
19:40-20:05	**IL3: Hang Xiao, University of Massachusetts, USA** The role of gut microbiota on the biotransformation and biofunction of citrus flavonoid polymethoxyflavones
20:05-20:30	**IL4: Pradeep K. Sengupta, University of Calcutta, India** Interactions of bioactive plant flavonoids with human hemoglobin: spectroscopic and molecular modelling studies
20:30-20:55	**IL5: Ali Rashidinejad, Massey University, New Zealand** Flavonoid delivery systems and their incorporation into medicinal food products
20:55-21:10	**OL5: Marcella Denaro, University of Messina, Italy** Citrus flavanones: strong COX-2 inhibitors potentially useful in inflammatory bowel diseases
21:10-21:25	**OL6: Davide Barreca, University of Messina, Italy** Biotechnological and health promoting properties of flavonols: an update view
	Session 3 **Functional Foods (I)** **(Avi Shpigelman, Chao Zhao)**
21:40-22:05	**IL6: Hui-Min David Wang, National Chung Hsing University, Taiwan, China** A new method on (3S,3'S) astaxanthin preparation for damage tissue repair and against metastatic melanoma
22:05-22:30	**IL7: Alejandro G. Marangoni, University of Guelph, Canada** Lipase-catalyzed glycerolysis transforms oils into structural fats with diverse functionalities
22:30-22:55	**IL8: Fai-Chu Wong, Universiti Tunku Abdul Rahman, Malaysia** Functional and structural characterization of laccase-catalyzed, ferulic acid-mediated, fennel seed protein crosslinking conjugate
22:55-23:20	**IL9: Moklesur Rahman Sarker, State University of Bangladesh, Bangladesh** Immunomodulating activities of a novel nutraceutical formulation (Super-Boost) in immune-compromised Swiss Albino rats: a prospective supplement for the prevention of COVID-19

23:20-23:35	**OL7: Mohamed Elashal, Menoufia University, Egypt** Recent insights into chemical and pharmacological studies of bee bread
23:35-23:50	**OL8: Paz Otero, University of Vigo, Spain** New toxic microalgae metabolites and their presence in marine food products
23:50-00:05	**OL9: Eduardo Bruno Macêdo Viana, State University of Southwestern Bahia, Brazil** Functional potential of palm juice (*Nopalea cochenillifera* L. Salm-Dyck) flavored with pineapple
	26 August **Session 4** **Polyphenols and health (I)** **(Elwira Sieniawska, Baiyi Lu)**
00:15-00:45	**PL4: Li-Shu Wang, Medical College of Wisconsin, USA** A food-based approach for cancer immunoprevention
00:45-01:10	**IL10: Esra Capanoglu, Istanbul Technical University, Turkey** Bioaccessibility and bioavailability of cranberrybush (*Viburnum opulus*) polyphenols using a combined assay of simulated in vitro digestion and Caco-2 cell model: effects of food matrix and non-thermal treatments
01:10-01:35	**IL11: Ana Clara Aprotosoaie, Grigore T. Popa University of Medicine and Pharmacy Iasi, Romania** Modulatory effects of plant polyphenols on genomic damage and their clinical relevance
01:35-01:50	**OL10: Filipa Mandim, Universidad de Salamanca, Spain** How does the maturation state of cardoon bracts influence its phenolic composition and bioactivity?
01:50-02:05	**OL11: Sümeyra Gültekin, Biotechnology Research Center of Ministry of Agriculture and Forestry, Turkey** Recent developments of dietary supplements and polyphenols on immune system: mechanism of action and clinical implications
02:05-02:20	**OL12: Jianbo Xiao, University of Vigo, Spain** Stability of quercetin in cell culture
	Session 5 **Natural products resources (I)** **(Aline Priscilla Gomes da Silva, Lijun You)**
02:30-02:55	**IL12: Adam Matkowski, Wroclaw Medical University, Poland** Making friends with foes – remarks on utilizing invasive plants as medicinal herbs
02:55-03:20	**IL13: Thilahgavani Nagappan, Universiti Malaysia Terengganu, Malaysia** Bioprospecting the potential of *Murraya koenigii* and *Murraya paniculata* from Terengganu, Malaysia
03:20-03:45	**IL14: Amir Reza Jassbi, Shiraz University of Medical Sciences, Iran** Cytotoxic constituents of sponges associated bacteria from the Persian Gulf
03:45-04:00	**OL13: Eslam Shedid, Menoufia University, Egypt** Cyanobacteria - from the oceans to the potential biotechnological and biomedical applications
04:00-04:15	**OL14: Dimas Rahadian Aji Muhammad, Universitas Sebelas Maret, Indonesia** Phytochemicals and bioactivity potency of Indonesian culinary herbs and spices
04:15-04:30	**OL15: Yit-Lai Chow, Universiti Tunku Abdul Rahman, Malaysia** Caenorhabditis elegans, a versatile screener for phytochemical bioactivities
04:30-04:45	**OL16: Shivraj Hariram Nile, Zhejiang Chinese Medical University, China** Food waste to health- Bioactive compounds from food biowaste as an antioxidant, anticancer and enzyme inhibitors
	Plenary lecture 2 **(Jianbo Xiao)**
14:00-14:30	**PL5: Maurizio Battino, Polytechnic University of Marche, Italy** Unraveling the molecular mechanisms underlying the healthy effects elicited by honey bioactive compounds
14:30-15:00	**PL6: Yoshinori Marunaka, Kyoto Industrial Health Association, Japan** Stimulatory mechanisms of mice airway ciliary beating by Hochu-ekki-to (TJ-41) via elevation of intracellular Ca^{2+} concentration mediated through enhancement of TRPV4 expression
15:00-15:30	**PL7: Lillian Barros, Instituto Politécnico de Bragança, Portugal** Food additives from natural origin: extraction, stabilization and application
	Session 6 **Anti-obesity natural products** **(Thomas Efferth, Elwira Sieniawska)**
15:55-16:25	**PL8: Milen I. Georgiev, Center of Plant Systems Biology and Biotechnology, Bulgaria** Obesity management potential of plant extracts and their active principles
16:25-16:40	**OL17: Luigi Milella, University of Basilicata, Italy** *Hura crepitans* L. extract as source of bioactive phytochemicals delivered in liposomal formulation
16:40-16:55	**OL18: Saioa Gomez-Zorita, University of the Basque Country, Spain** Compartive effects of resveratrol and its analog pterostilbene on obesity and non-alcoholic fatty liver disease
16:55-17:10	**OL19: Garcia-Diaz DF, Universidad de Chile, Chile** Calafate, a Chilean native fruit, a potential double hit against obesity and its co-morbidities

17:10-17:25	**OL20: Sofia Parrasia, University of Padua, Italy** Obesity and brain autophagy: preventive effects of chronic pterostilbene administration in a murine model of HFD-induced obesity
17:25-17:40	**OL21: Stefano Dall'Acqua, University of Padova, Italy** Food as source of hypocholesterolemic agents: isolation of *Citrus bergamia* compounds with LDLR and PCSK9 modulation properties
	Session 7 **Bioactives and gut microbiota** **(Alejandro G. Marangoni, Fang Chen)**
18:00-18:25	**IL15: Takao Nagano, Ishikawa Prefectural University, Japan** Impact of dietary soyasaponins on contact hypersensitivity and gut microbiota in mice
18:25-18:50	**IL16: Quancai Sun, Jiangsu University, China** Permethrin promoted adipogenesis via disrupting intestinal microbiota in C57BL6J mice
18:50-19:05	**IL17: Sonia G. Sáyago-Ayerdi, Tecnológico Nacional de México, Mexico** Relevance of evaluate gastrointestinal digestion & colonic fermentation in food technology: Metabolites and bioconversion of bioactive compounds
19:05-19:20	**OL22: Jianhui Liu, Nanjing University of Finance & Economics, China** Metagenomic analysis of gut microbiota in high-fat diet-induced obese C57BL/6J mice fed with polyphenol-rich green tea, oolong tea, and black tea
19:20-19:35	**OL23: Ting Li, Shaanxi Normal University, China** The molecular mechanism of stachyose reshaping the gut microbiota via small intestinal epithelial cells-secreted miRNA in mice
19:35-19:50	**OL24: Pan Wang, Beijing Academy of Agriculture and Forestry Sciences, China** Resveratrol reduces obesity in high-fat diet-fed mice via modulating the composition and metabolic function of the gut microbiota
19:50-20:05	**OL25: Zhi Xiang Ng, University of Nottingham - Malaysia campus, Malaysia** Role of fermentation and drying in valorizing shiny bush (*Peperomia pellucida* (L.) Kunth) as herbal tea: a perspective from phytochemicals, functional activity and sensory quality
	Session 8 **Natural Antimicrobials** **(Sonia G. Sáyago-Ayerdi, Hesham R. El-Seedi)**
20:30-20:55	**IL18: Céline Rivière, University of Lille, France** Antimicrobials in human and plant health:what place for specialized plant metabolites?
20:55-21:20	**IL19: David Touboul, Université Paris-Saclay, France** Dereplication, annotation, and characterization of 74 potential antimicrobial metabolites from Penicillium sclerotiorum using t-SNE molecular networks
21:20-21:45	**IL20: Elwira Sieniawska, Medical University of Lublin, Poland** Targeting mycobacteria metabolic regulation by natural products
21:45-22:10	**IL21: Baojun Xu, Beijing Normal University–Hong Kong Baptist University United International College, China** Wound healing effects of sea bass (*Lateolabrax maculatus*) and their molecular mechanisms
22:10-22:25	**OL26: Anil Kumar Chauhan, The Ohio State University, USA** Therapeutic potential of isorhamnetin against *E. coli* induced Sepsis
22:25-22:40	**OL27: María Cecilia Carpinella, Universidad Católica de Córdoba, Argentina** Compounds from the flora of Argentina and their synthetic derivatives in the battle against resistant microorganisms
22:40-22:55	**OL28: Anita Suri, Jenderal Soedirman University, Indonesia** Analysis GC-MS and antibacteria of polar components lemongrass extract using solvent multi-step extraction with microwave-assisted extraction (MAE)
	Session 9 **Natural products biotechnology** **(Tatiana V. Matveeva, Guoyin Kai)**
23:15-23:40	**IL22: Jutta Ludwig-Müller, Technische Universität Dresden, Germany** Interaction of the endophytic fungus *Cyanodermella asteris* with a non-natural host plant and its potential to produce bioactive compounds
23:40-00:05	**IL23: Tatiana V. Matveeva, 1 St. Petersburg State University, Russia** CT-DNAs of naturally transgenic plants and their possible functions
00:05-00:30	**IL24: Pan Liao, Purdue University, USA** Discovery of thymohydroquinone biosynthesis in Lamiaceae
00:30-00:55	**IL25: Katalin Patonay, Eszterházy Károly University, Hungary** Experimental cultivation of Hungarian *Mentha longifolia* (L.) L.– Genotype-dependent features in the antioxidant

	profile
00:55-01:10	**OL29: Luigi Lucini, Università Cattolica del Sacro Cuore, Italy** Elicitors: a sustainable approach to modulate phenolic profile and functional traits in plants
	27 August **Session 10** **Phytochemical profile (I)** **(Dunja Šamec, Mingquan Guo)**
01:30-01:55	**IL26: Aline Priscilla Gomes da Silva, Michigan State University, USA** Does early leaf removal enhance the anthocyanins and proanthocyanidins profile in grapes (*Vitis vinifera* L.)?
01:55-02:20	**IL27: Gokhan Zengin, Selcuk University, Turkey** Chemical characterization, biopharmaceutical effects of *Epilobium hirsutum* extracts: From lab bench to functional applications
02:20-02:35	**OL30: Hassan Rezadoost, Shahid Beheshti University, Iran** A comprehensive study on chemical profiling of *Cichorium intybus* L. distillate: a quality control case study
02:35-02:50	**OL31: Ying Jin, Taylor's University, Malaysia** Characterization of chemical properties and in vivo serum cholesterol level of refined red palm-pressed Mesocarp Olein
02:50-03:05	**OL32: Sena Bakir, Recep Tayyip Erdogan University, Turkey** Evaluation of changes at bioactive compounds in elderberry added dairy products by days
03:05-03:20	**OL33: Desislava I. Mantovska, Sofia University, Bulgaria** Biological activity and NMR-fingerprinting of Balkan endemic species *Stachys thracica* Davidov
03:20-03:35	**OL34: Beatriz H. Paschoalinotto, Instituto Politécnico de Bragança, Portugal** The influence of lemon thyme in the phenolic composition and bioactive properties of medicinal and aromatic plants tisanes
03:35-03:50	**OL35: Kaviya Mohandass, Bharathiar University, India** Analysis and identification of the phytoconstituents of *Boerhavia diffusa*
	Session 11 **Natural anti-cancer agents (I)** **(Young-Joon Surh, Sevgi Gezici)**
14:00-14:30	**PL9: Marc Diederich, South Korea** Natural compounds induce immunogenic cell death in cancer
14:30-14:55	**IL28: Hye-Kyung Na, Sungshin Women's University, South Korea** A catechol isoquinoline salsolinol suppresses the growth of liver cancer by heme oxygenase-1 expression
14:55-15:10	**OL36: Fui Fui Lem, Hospital Queen Elizabeth, Malaysia** Withanolides, The hidden Gem in *Physalis minima*: A mini review on their anti-inflammatory, anti-neuroinflammatory and anti-cancer effect
15:10-15:25	**OL37: Florensia Irena Napitupulu, Indonesia International Institute for Life Sciences, Indonesia** Inhibition of colon cancer cells proliferation by Andaliman (*Zanthoxylum acanthopodium* DC.) fruit extract
15:25-15:40	**OL38: Jiaqiao Li, Xi'an Jiaotong University, China** Epigallocatechin gallate targets FTO and stimulates autophagy and apoptosis in an mRNA m6A-dependent manner in non-small-cell lung cancer A549 cells
15:40-16:05	**IL29: Maria-José U. Ferreira, Universidade de Lisboa, Portugal** Overcoming multidrug resistance in cancer by natural compounds and hemi-synthetic derivatives
	Session 12 **Functional foods (II)** **(Krystyna Skalicka-Woźniak, Xinwei Jiang)**
16:30-16:55	**IL30: Maria Daglia, University of Napoli Federico II, Italy** Brown propolis: new evidence for an old remedy
16:55-17:20	**IL31: Tsun-Thai Chai, Universiti Tunku Abdul Rahman, Malaysia** Discovery of bioactive peptides from food and non-food sources
17:20-17:45	**IL32: Incinur Hasbay, TUBITAK Marmara Research Center, Turkey** Resistant starch: Health effects and applications in functional bakery products
17:45-18:10	**IL33: Alessandro Di Minno, University of Napoli Federico II, Italy** *Aloe vera* (L.) Burm. f. gel: correlation between hydroxyanthracene derivative contamination and genotoxicity
18:10-18:25	**OL39: Daniel Asfaw Kitessa, Wollega University, Ethiopia** Characterization of Shameta: Traditional fermented porridge to improve nutritional status of lactating mothers
18:25-18:40	**OL40: Giovanni Caprioli, University of Camerino, Italy** Spent coffee ground and silverskin: two coffee by-products as promising source of nutraceuticals
18:40-18:55	**OL41: Łukasz Woźniak, Institute of Agricultural and Food Biotechnology, Poland** Galactolipids - biological activity and extraction from waste products

	Session 13 **Food processing technology** **(Paula Bourke, Lu Li)**
18:50-19:15	**IL34: Tarun Belwal, Zhejiang University, China** Innovative hybrid techniques in food science and processing: changing food chemistry and functionality
19:15-19:30	**OL42: Mohsen Gavahian, National Pingtung University of Science and Technology, Taiwan, China** Ohmic heating for extraction of phytochemicals from food processing by-products: enhancing the resource efficiency to achieve sustainable development goals
19:30-19:45	**OL43: Pei Lou Wong, Universiti Putra Malaysia, Malaysia** Metabolomics analysis discover the bioactive phytochemicals of *Ardisia elliptica*
19:45-20:00	**OL44: Amritpreet Kaur Minhas, The Energy and Resources Institute, India** Processing biotechnological interventions for developing fortified algal food products as health food
20:00-20:15	**OL45: Anurag Singh, National Institute of Food Technology Entrepreneurship and Management (NIFTEM), India** Processing of Bael (*Aegle marmelos*): A fruit rich in phytochemicals
	Session 14 **Bioactivity of natural products (II)** **(Mohamed A. Farag, Lingjun Ma)**
20:40-21:05	**IL35: Chwan-Li (Leslie) Shen, Texas Tech University Health Sciences Center, USA** Bioactive compounds for neuropathic pain: findings from preclinical studies
21:35-22:00	**IL36: Pharkphoom Panichayupakaranant, Prince of Songkla University, Thailand** Effects of standardized [6]-gingerol extracts and [6]-gingerol on isolated ileum and lower esophageal sphincter contractions in mice
22:00-22:15	**OL46: Georgiana Damian, "Victor Babeş" University of Medicine and Pharmacy, Romania** Effects of coenzyme Q10 supplementation on cardiovascular health
22:15-22:30	**OL47: G. Akilandeswari, Bharathiar University, India** In vitro antioxidant efficacy of *Andrographis paniculate* and *Rhinacanthus nasutus* leaf extracts
22:30-22:45	**OL48: Gamze Toydemir, Alanya Alaaddin Keykubat University, Turkey** Role of AhR in health and disease: Effects of dietary regulators
22:45-23:00	**OL49: P. Garcia-Perez, University of Vigo, Spain** Phenolic profiling and in vitro biological activities of different Asteraceae medicinal plants
	Session 15 **Bioaccessibility and bioavailability of polyphenols** **(Esra Capanoglu, Jianbo Xiao)**
23:20-23:50	**PL10: Randolph RJ Arroo, De-Montfort University, UK** Pharmacokinetics and pharmacology of simple phenolics
23:50-00:15	**IL37: Maria H. Ribeiro, Universidade de Lisboa, Portugal** Exploring biotechnology to improve the bioavailability and bioactivity of polyphenols glycosides
00:15-00:40 (28 August)	**IL38: Zoriţa Diaconeasa, University of Agricultural Science and Veterinary Medicine, Romania** Novel delivery systems of anthocyanins *in vitro*
00:40-00:55 (28 August)	**OL50: Ibrahim Khalifa, Benha University, Egypt** Mono- and di-glucoside anthocyanins promoted β-Lg-digestion: Effect of the noncovalent and covalent binding on the protein digestibility
00:55-01:10 (28 August)	**OL51: Senem Kamiloglu, Bursa Uludag University, Turkey** Effect of milk, sugar or sweetener addition on the bioaccessibility of Terebinth coffee polyphenols
01:10-01:25 (28 August)	**OL52: Merve Tomas, Istanbul Sabahattin Zaim University, Turkey** Effect of protein (sodium caseinate) addition on phenolics and *in vitro* bioaccessibility of sour cherry puree
	28 August **Session 16** **Essential Oils** **(Sonia G. Sáyago-Ayerdi, Mauricio Ariel Rostagno)**
01:40-02:05	**IL39: Paula Bourke, University College Dublin, Irland** Combining plant essential oils in a cold plasma functionalised edible coating for Modified atmosphere packaged fresh poultry shelf-life extension
02:05-02:20	**OL53: Paula Kusiakiewicz, Wroclaw Medical University, Poland** Chemistry, oxidative stability and bioactivity of cold pressed prickly pear, pomegranate and blackcurrant seed oil
02:20-02:35	**OL54: Yamini Tak, Agriculture University, India** Coriander essential oil: A promising source of bioactive and nutraceuticals
02:35-02:50	**OL55: Akinleye S. Akinrinde, University of Ibadan, Nigeria** The protective effect of Nigella sativa oil against cadmium-induced intestinal toxicity is associated with promotion

	of anti-inflammatory mechanisms, mucin expression and microbiota integrity
02:50-03:05	**OL56: N. Riada, University Blida 1, Algeria** Surfactant assisted hydrodistillation performance of the essential oil of the brown alga *Dictyopteris polypodioides*
	Session 17 **Hepatoprotective effects of phytochemicals** **(Maria Daglia)**
03:20-03:45	**IL40: Haroon Khan, Abdul Wali Khan University Mardan, Pakistan** Evaluation of hepatoprotective effects of crude methanolic extract of Datura metel L. in mice
03:45-04:00	**OL57: Mahendra Pal Singh, Mayo Clinic-Rochester, USA** PARP-1 Regulates autophagy activation and sensitizes hepatoma cells against cisplatin in combination of morin hydrate
04:00-04:15	**OL58: G Durai Muthu Mani, SRM Arts and Science College, India** Hepatoprotective effect of *Euphorbia thymifolia* and *Euphorbia hirta* leaves on the carbon tetrachloride-induced rats
04:15-04:30	**OL59: Iñaki Milton-Laskíbar, University of the Basque Country, Spain** Role of gut microbiota composition and intestinal permeability in the hepatoprotective effects of pterostilbene and resveratrol in rats featuring high-fat high-fructose feeding induced hepatic steatosis
	Session 18 **Natural anti-cancer agents (II)** **(Nataša Poklar Ulrih, Xiumin Chen)**
14:00-14:30	**PL11: Thomas Efferth, Johannes Gutenberg University, Germany** Cancer therapy with artemisinin derivatives: state of the art
14:30-14:55	**IL41: Yun Suk Huh, Inha University, South Korea** Antiproliferative activity of methanolic extract of *Basella alba* against colorectal cancer cell lines
14:55-15:20	**IL42: Francesca Giampieri, Polytechnic University of Marche, Italy** Anticancer effects of dietary bioactive compounds
15:20-15:45	**IL43: Sevgi Gezici, Kilis 7 Aralik University, Turkey** Olive stone: A new source of nervonic acid for plant-based drug discovery of neurodegenerative diseases
15:45-16:00	**OL60: Arti Nile, Konkuk University, South Korea** Erythrodiol and uvaol induce apoptosis and autophagy via the ROS-mediated mitochondrial depolarization and MAPK activation in colorectal cancer cell line
16:00-16:15	**OL61: Mohd Adzim Khalili Rohin, Universiti Sultan Zainal Abidin, Malaysia.** Anti-proliferative properties of new variety organic rice MRQ74 extracts against colon cancer cell lines
16:15-16:20	**OL62: Gloria Y. Gutierrez-Silerio, Universidad Autónoma de Querétaro, Mexico** Methanolic extracts of avocado (*Persea americana* var. Hass) mesocarp reduce cell viability of colon cancer cells.
	Session 19 **Natural enzyme inhibitors** **(Nilufar Z. Mamadalieva, Yuchen Zhu)**
16:40-17:05	**IL44: Ilkay Erdogan Orhan, Gazi University, Turkey** Emboldening natural products with enzyme inhibitory capacity: A thrilling hunting in the Lab
17:05-17:30	**IL45: Siau Hui Mah, Taylor's University, Malaysia** Xanthones with acetylcholinesterase inhibitory activities
17:30-17:55	**IL46: Nataša Poklar Ulrih, University of Ljubljana, Slovenia** Inhibition of 3-chymotrypsin like protease (3CLpro) of SARS-CoV-2 by selected plant polyphenols
17:55-18:10	**OL63: Magdalena Maciejewska-Turska, Medical University of Lublin, Poland** Preliminary acetylcholinoesterase inhibitory activity of polyphenolic constituents from red clover and their identification using LC/PDA/ESI-QTOF-MS/MS method
18:10-18:25	**OL64: Lijun Sun, Northwest A & F University, China** Caffeoyl moiety decreased the binding and inhibitory activity of quinic acid against α-amylase: The reason why chlorogenic acid is a weak enzyme inhibitor
	Session 20 **Analytical technology** **(Amir Reza Jassbi, Xiaojun Huang)**
21:00-21:25	**IL47: Mauricio Ariel Rostagno, University of Campinas, Brazil** 2D PLE-SPE×HPLC-PDA for comprehensive analysis of phenolic compounds from natural products
21:25-21:50	**IL48: Nilufar Z. Mamadalieva, the Academy Sciences of Uzbekistan, Uzbekistan** Analysis of differentiated chemical components between 20 Astragalus species by UHPLC-MS/MS combined with chemometrics

21:50-22:15	**IL49: Jiyong Shi, Jiangsu University, China** Study on nondestructive determination of two-dimensional distribution map of quality index in food/agricultural product
22:15-22:30	**OL65: Santhosh Chinnaraj, Periyar University, India** Green synthesis of silver nanoparticle using goniothalamus wightii on graphene oxide nanocomposite for effective voltammetric determination of metronidazole
22:30-22:45	**OL66: Fatma Gül Coşgunçelebi, Gazi University, Turkey** Conservative management of endometriosis with *Malva neglecta* Wall. and determined the chemical profile by LC-MS/MS
22:45-23:00	**OL67: Dabing Ren, Kunming University of Science and Technology, China** Chemical profiling of Yunnan tea during manufacturing and brewing by mass spectrometry and chemometrics
23:00-23:15	**OL68: Mulate Zerihun, University of Queensland, Australia** Predication of Quality Parameters for *Different Sorghum* Varieties Based on Near-infrared Spectroscopy
23:15-23:30	**OL69: Daniela Andrea Ramirez, Universidad Nacional de Cuyo, Argentina** Organosulfur compounds permeability across several biological barriers employing immobilized artificial membrane chromatography.
	29 August **Section 21** **Natural products resources (II)** **(Elwira Sieniawska, Jiyong Shi)**
00:00-00:25	**IL50: Carlos L. Cespedes-Acuña, University of Bio-Bío, Chile** *Aristotelia chilensis* (Mol) Stunz, "Maqui" a new source of bioactive molecules?
00:25-00:50	**IL51: Shaden A. M. Khalifa, Stockholm University, Sweden** An overview of bee products and their biological activities
00:50-01:15	**IL52: Simona Dragan, University of Medicine and Pharmacy Victor Babes Timisoara, Romania** Biofunctionality and cardiovascular health benefits of cocoa – an update
01:15-01:30	**OL70: Devesh Tewari, Lovely Professional University, India** Kumaun Himalaya: A treasure for natural products drug discovery
01:30-01:45	**OL71: Olufunke Ajeigbe, Federal University of Technology, Nigeria** The modulatory effects of *Ficus exasperata* and *Ficus asperifolia* enriched biscuits on erectile function in L-NAME induced hypertensive rats
01:45-02:00	**OL72: Nélida Nina, Universidad de Talca, Chile** Saponins from Chilean bean landraces
02:00-02:15	**OL73: Eleonora Spinozzi, University of Camerino, Italy** *Carlina acaulis*: from its use in food supplements to promising insecticidal applications
	Section 22 **Bioactivity of natural products (III)** **(Zorița Diaconeasa, Hu Hou)**
02:30-02:55	**IL53: Thomas Netticadan, Canadian Centre for Agri-Food Research in Health and Medicine, Canada** Oat beta-glucan limits the development of severe hypertension and cardiac dysfunction in an animal model of hypertension.
02:55-03:20	**IL54: Mohammad Hosein Farzaei, Kermanshah University of Medical Sciences, Iran** Polyphenols: Promising natural compounds for the treatment of SARS-CoV-2-induced lung damages
03:20-03:35	**OL74: Kalaiarasan Vijayakumar, Sri Meenakshi Vidiyal Arts and Science College, India** Effect of *Psidium guajava* extract and their fraction to the HepG2 cell lines against the carbon tetrachloride-induced cytotoxicity
03:35-03:50	**OL75: Dongdong Wang, University of Vienna, Austria** Soraphen A enhances macrophage cholesterol efflux via indirect LXR activation and ABCA1 upregulation
03:50-04:05	**OL76: Shahid Ali Rajput, South China Agricultural University, China** Ginsenoside Rb1 prevents deoxynivalenol-induced immune injury via alleviating oxidative stress and apoptosis in mice
04:05-04:20	**OL77: Mamata Panthi, Tribhuvan University, Kathmandu, Nepal** Bioactivity evaluations of leaf extract fractions from young barley grass and correlation with their phytochemical profiles
	Section 23 **Ethnomedicine and ethnopharmcology** **(Salah Akkal, Nilufar Z. Mamadalieva)**
13:30-14:00	**PL12: Hesham R. El-Seedi, Uppsala University, Sweden** Food and traditional natural products as alternative medicine in contemporary time between facts and fictions
14:00-14:25	**IL55: Bunleu Sungthong, Mahasarakham University, Thailand**

	Ethnomedicinal plant utilization of certified folk healers on therapeutic purposes in Buriram Province, Thailand
14:25-14:50	**IL56: Nazim Sekeroglu, Kilis 7 Aralik University, Turkey** Herbal coffees: Healthy & functional beverages
14:50-15:15	**IL57: Ipek Suntar, Gazi University, Turkey** The role of medicinal plants on pseudopregnancy
15:15-15:30	**OL78: Erna Karalija, University of Sarajevo, Bosnia and Herzegovina** Potential of *Salix retusa* as a natural source of catechins in traditional medicine
15:30-15:45	**OL79: José Pinela, Instituto Politécnico de Bragança, Portugal** From wild edible plants to contemporary foods: Nutritional and phytochemical studies with vegetables and spices
15:45-16:00	**OL80: Tuguldur Altangerel, Institute of Traditional Medicine and Technology, Mongolia** Biological activity study of the traditional drug medicine naru-3
16:00-16:15	**OL81: Ramón Marcos Soto-Hernández, Colegio de Posgraduados, México** Metabolites for therapeutic and nutraceutical use in genotypes of Sechium spp.
16:15-16:30	**OL82: João Victor Dutra Gomes, University of Brasilia, Brazil** Brazilian native plants as source of herbal medicines
	Session 24 **Metabolomics analysis** **(Ipek Süntar, Jiaoyan Ren)**
16:50-17:20	**PL13: Mohamed Ali Farag, American University in Cairo, Egypt** Metabolomics gateway for milestone discoveries in the prehistoric and post genomic era
17:20-17:50	**PL14: Jesus Simal-Gandara, University of Vigo, Spain** Metabolomics in understanding food function
17:50-18:15	**IL58: Nokwanda P. Makunga, Stellenbosch University, South Africa** Through the looking glass: exploratory metabolomics of the medicinal South African
18:15-18:40	**IL59: Jian-Lin Wu, Macau University of Science and Technology, Macau, China** Microbiota drive insoluble polysaccharides utilization via microbiome-metabolome interplay during Pu-erh tea fermentation
18:40-18:55	**IL60: Hongshun Yang, National University of Singapore, Singapore** Effect of energy metabolism on the nutritive accumulation during the germination of organic mung bean
18:55-19:10	**OL83: Faridah Abas, Universiti Putra Malaysia, Malaysia** NMR-based metabolomics approach for quality control of selected medicinal plants
19:10-19:25	**OL84: Ahmed Mediani, Universiti Kebangsaan Malaysia, Malaysia** In vitro anticancer activity of some plants used in Algerian traditional medicine and chemical markers of the active plants using metabolomics approach
	Session 25 **Polyphenols and health (II)** **(Niranjan Koirala, Xiumin Chen)**
19:40-20:05	**IL61: Lamuela –Raventós RM, University of Barcelona, Spain** Biomarkers of polyphenols intake
20:05-20:20	**OL85: Ziba Guley, Alanya Alaaddin Keykubat University, Turkey** Dietary polyphenols as potential prebiotics
20:20-20:35	**OL86: Małgorzata Wronkowska, Polish Academy of Sciences, Poland** The glycation inhibitory activity of herbs from the Labiatae family and cookies with their contribution depends on phenolic and flavonoid compounds composition
20:35-20:50	**OL87: Hu Hou, Ocean University of China, China** Non-enzymatic degradation of ready-to-eat sea cucumber and plant polyphenols interventional pathway
20:50-21:05	**OL88: E. Sanmuga Priya, Anna University BIT Campus, India** Antiarthritic potential of hydrolysable tannin fraction isolated from *Terminalia chebula* fruits in collagen induced BALB/c mice
21:05-21:20	**OL89: Goutham V. Ganesh, SRM Institute of Science & Technology, India** PTS alleviates macrophage dysregulation and cellular stress response under hyperglycemic micro-environment with heme
	Session 26: **Natural anti-inflammatory agents** **(José L. Quiles, Jing Wang)**
21:35-22:00	**IL62: Andrea Beltrán-Noboa, Universidad de Las Américas, Ecuador** Chemical and computational analysis for the identification of the anti-inflammatory mechanisms of the traditional plants *Ocimum Basilicum* and *Ocimoum Tenuiflorum*
22:00-22:25	**IL63: Domenico Trombetta, University of Messina, Italy** Targeting intestinal inflammation: betalains vs betalain-rich prickly pear extracts

22:25-22:40	**OL90: Büşra Karpuz, Gazi University, Turkey** Malva nicaeensis All. prevents the onset of inflammation on acetic acid-induced ulcerative colitis in rats
22:40-22:55	**OL91: Nguyen Phan Khoi Le, University of Freiburg, Germany** *In vitro* inflammation inhibition and drug-drug interaction potential of *Salix pentandra* extract using the SARS-CoV-2 peptide and bacterial LPS challenge in human cells
22:55-23:10	**OL92: Claudio Ferrante, Università degli Studi "Gabriele d'Annunzio", Italy** Unravelling the phytochemical composition and the pharma-cological properties of an optimized extract from *Prunus mahaleb* L. fruit: From traditional liqueur market to the pharmacy shelf Anti-inflammatory natural products
23:10-23:25	**OL93: Paolo Magni, Università degli Studi di Milano, Italy** Cameroonian spice extracts modulate glucose uptake and inflammation in SW872 human liposarcoma cells
	30 August **Session 27** **Future stars in phytochemicals for medicine and foods** **(Li-Shu Wang, Francesca Giampieri)**
23:30-23:45	**OL94: Athena Dong, Medical College of Wisconsin, USA** Black raspberries and their microbial metabolites inhibit adenoma development and alter gut microbiome profiles in ApcMin/+ mice
23:45-00:00	**OL95: Carla Echeveste, Medical College of Wisconsin, USA** Transplanting fecal material from wild-type mice fed black raspberries alters the immune system of recipient mice
00:00-00:15	**OL96: Massimiliano Gasparrini, Polytechnic University of Marche, Italy** The efficacy of srawberry against LPS mediated-inflammatory disorders: a focus on the molecular mechanisms and the involved pathways
00:15-00:30 (August 30)	**OL97: Luca Mazzoni, Università Politecnica delle Marche, Italy** The strawberry pathway: from the fruit quality toward the breast cancer preventive effect
00:30-00:45 (August 30)	**OL98: Silvia Sabbadini, Marche Polytechnic University, Italy** Improved nutritional quality in fruit tree species through biotechnological approaches
00:45-01:00 (August 30)	**OL99: Stephanie May, The Beatson Institute for Cancer Research, UK** Impact of black raspberries on the normal and malignant Apc deficient murine gut microbiome
01:00-01:15 (August 30)	**OL100: Laura Lavefve, University of Arkansas, USA** Potential anti-inflammatory properties of berry volatiles
01:15-01:30 (August 30)	**OL101: Kevser Taban Akça, Gazi University, Turkey** Flavonoids as potential aromatase inhibitors
	Session 28 **Extraction and isolation technology** **(Avi Shpigelman, Mohsen Gavahian)**
01:40-02:05	**IL64: Krystyna Skalicka-Woźniak, Medical University of Lublin, Poland** Phytochemicals in medicine and food - challenges and opportunities in their isolation
02:05-02:30	**IL65: Celia B. Vargas-De-La-Cruz, Universidad Nacional Mayor de San Marcos, Peru** Extraction and characterization of andean legumes from Peru using eco-friendly techniques with supercritical CO_2 (SFE) and accelerated solvents (ASE)
02:30-02:55	**IL66: Edna Regina Amante, Federal University of Pará, Brazil** Amazonian raw material integral valorization by cleaner production concepts
02:55-03:10	**OL102: Xiaodan Shi, Nanchang University, China** Characterization of polysaccharide from *Pachyrhizus erosus* roots: Optimization of extraction condition, functional properties, and rheological properties
03:10-03:25	**OL103: Bo Eng Cheong, Universiti Malaysia Sabah, Malaysia** Isolation of lupeol from the roots of Sabah Snake Grass aided by metabolic profiling
03:25-03:40	**OL104: Simon Vlad Luca, Technical University of Munich, Germany** Trapping multiple dual mode liquid-liquid chromatography: Separation of minor cannabinoids from hemp extracts
03:40-03:55	**OL105: Maryam Alborz, Shiraz University of Medical Sciences, Iran** Isolation and purification of bacterial flora, cytotoxic bioassay and chemical analyses of Axinella sponge-associated bacteria of the Persian Gulf
03:55-04:10	**OL106: Aida A. Abd El-Wahed, Uppsala University, Sweden** Unravelling the beehive air volatiles profile as analysed via solid-phase micro-extraction (SPME) and chemometrics
04:10-04:25	**OL107: Mohsen Gozari, Iranian Fisheries Science Research Institute (IFSRI), Iran** Cytotoxic screening of marine Streptomyces species isolated from the sponge Dysidea sp. from Kish Island, Persian Gulf, Iran

	Session 29 **Natural antidiabetic agents** **(Ilkay Erdogan Orhan, Suowen Xu)**
14:00-14:25	**IL67: Jelena B. Popović-Djordjević, University of Belgrade, Serbia** Antioxidant and antidiabetic potential of medlar fruits (Mespilus germanica L.) originated from Serbia
14:25-14:50	**IL68: W.S. Cheang, University of Macau, Macau, China** Protection against endothelial dysfunction in diabetic and obesity: *Panax Notoginseng* saponins vs ethanolic extract
14:50-15:05	**OL108: Hammad Ullah, Department of Pharmacy, University of Naples Federico II, Italy** Plum based diet as a preventive strategy against metabolic syndrome: An in vitro approach
15:05-15:20	**OL109: Manikandan Ramasamy, M.I.E.T. Arts and Science College, India** Impact of Psidium guajava leaves extract on the streptozotocin-induced diabetic rats
	Session 30 **Innovative technology in Drug Discovery** **(Hesham R. El-Seedi, Lijun You)**
15:40-16:10	**PL15: R. Verpoorte, Leiden University, Netherland** Natural deep eutectic solvents, nothing new under the sun
16:10-16:35	**IL69: Hidayat Hussain, Leibniz Institute of Plant Biochemistry, Germany** Innovative chemical diversity: A potential path to drug discovery
16:35-17:00	**IL70: Georgi Georgiev Antov, Bulgarian Academy of Sciences, Bulgaria** Nutrigenetics - a keystone of disease prevention and therapy
17:00-17:25	**IL71: Onur Bender, Ankara University, Turkey** The impact of real-time cell analysis as an important part of phytochemicals-based systems biotechnology
17:25-17:50	**IL72: Freitas LAP, Universidade de São Paulo, Brazil** The contribution of new technologies for phytochemicals in medicine
17:50-18:05	**OL110: Junfu Ji, China Agricultural University, China** The in-vitro digestion behaviors of milk proteins acting as wall materials in powder encapsulation: Effects on the release of loaded blueberry anthocyanins
18:05-18:20	**OL111: Mahmoud Swilam, Menoufia University, Egypt** Beyond the Pandemic: COVID-19 Pandemic changed the face of life
	Session 31 **Natural antioxidants** **(Niranjan Koirala, Jelena B. Popović-Djordjević)**
18:35-19:00	**IL73: Avi Shpigelman, Israel Institute of Technology, Israel** Flavonoid plant-protein interactions: The impact of flavonoid structure and implications on antioxidant capacity during shelf life.
19:00-19:15	**OL112: M. Jerline, Bharathiar University, India** Free radical scavenging and antioxidant activities leaf and bark extracts of *Peltophorum pterocarpum* (DC.) Baker ex K Heyne
19:15-19:30	**OL113: Tilahun Abera Teka, Jimma University, Ethiopia** Phytochemical profiles and antioxidant capacity of improved cowpea varieties and landraces grown in Ethiopia
19:30-19:45	**OL114: Nishant Kumar, National Institute of Food Technology Entrepreneurship and Management (NIFTEM), India** Effects of antioxidant rich edible coating on the postharvest shelf-life of mango fruits
19:45-20:00	**OL115: Fadime Eryılmaz Pehlivan, University of Istanbul, Turkey** Free radical scavenging and metal chelating activities of bitter melon (*Momordica charantia* L.)
20:00-20:15	**OL116: Irina Boksha, Mental Health Research Centre, Russia** Succinate-containing antioxidant Mexidol as adjunctive therapy to antipsychotics in late onset schizophrenia
	Session 32 **Natural products resources (III)** **(Hidayat Hussain, Yit-Lai Chow)**
20:30-20:55	**IL74: Antonella Smeriglio, University of Messina, Italy** Multidisciplinary approach to evaluate micromorphological, chemical and bilogical geatures of *Citrus lumia* seeds
20:55-21:20	**IL75: Vivek K. Bajpai, Dongguk University-Seoul, South Korea** *Metasequoia glyptostroboides* as a potential source of diterpenoids with significant food and biomedical potential
21:20-21:35	**OL117: Sangeetha Thangavelu, Bharathiar University, India** *Coriandrum sativum* and *Petroselinum crispum* – As a source of herbal medicine
21:35-21:50	**OL118: Panneerselvam Punniyakotti, Kanchi Shri Krishna College of Arts & Science, Inida** Evaluation of cardioprotective potential of some indigenous medicinal plants
21:50-22:05	**OL119: Xiumin Chen, Jiangsu University, China** The changes in the chemical composition, enzyme activity, bioactivity, and the organoleptic characteristics of coffee leaves during different tea processing procedures

	Session 33 **Computational Biology and bioinformatics** **(Lin Shi)**
22:20-22:45	**IL76: Didem Şöhretoğlu, Hacettepe University, Turkey** Alpha-glucosidase inhibitory properties of flavonoids: Mechanistic approaches merged with enzyme kinetics and molecular modelling
22:45-23:00	**OL120: B. Varalakshmi, Shrimati Indira Gandhi College, India** In silico analysis and in vitro antibiofilm activity of *Cnnamomum zeylanicum* bark extract against biofilm-forming microbes
23:00-23:15	**OL121: Rajeev K Singla, Sichuan University, China** Natural products for the treatment and management of dementia: current trends in 2016-2021 with aid of artificial intelligence and deep machine learning
23:15-23:30	**OL122: Kayode Azeez Abideen Abolanle, Babcock University, Nigeria** Molecular docking studies on the effect of selected bioactive compounds from *Phyllanthus niruri* on some biomarkers of asthma and pneumonia
23:30-23:45	**OL123: M.P. Ngoepe, University of South Africa, South Africa** In-silico analysis of the sars-cov-2 main protease inhibition by selected bioactive compounds of *Phyllanthus niruri* and *Xylopia aethiopica*
	31 August **Session 34** **Nanotechnology and biomaterials (I)** **(Ana Sanches Silva, Lei Chen)**
00:00-00:25	**IL77: Seid Mahdi Jafari, Gorgan University of Agricultural Sciences and Natural Resources, Iran** Development of phytochemical-loaded nanocarriers for the application in medicine and food
00:25-00:50	**IL78: Shruti Shukla, The Energy and Resources Institute, India** Plant assisted Phyto-biomaterials as an advanced -Biocompatible tool for food delivery & diagnostic system
00:50-01:05	**OL124: K. Chandhirasekar, Periyar University, India** Biosynthesis of selenium nanoparticles using mosquito larval extract for mosquitocidal activity
01:05-01:20	**OL125: Nermeen Yosri, Jiangsu University, China & Menoufia University, Egypt** Venom of insects: current biochemical applications, nanotechnological interventions and future trends
01:20-01:35	**OL126: Charmaine G. Dias, Goa University, India** Biogenic synthesis of zinc oxide nanoparticles using *Cordyceps militaris*: characterization and therapeutic investigation
	Session 35 **Phytochemical profile (II)** **(Onur Bender, Shaden A. M. Khalifa)**
01:50-02:15	**IL79: Dunja Šamec, University North, Croatia** Bioactive compounds in cruciferous vegetables: a role for plant survival in a changing environment and a benefit for human health
02:15-02:30	**OL127: Niranjan Koirala, Research Institute for Biotechnology and Biodiversity, Nepal** Phytochemical screening and the effect of *Trichosanthes dioica* in high-fat diet-induced Atherosclerosis in Wistar Rats
02:30-02:45	**OL128: Kathirvel Bharathi, Bharathiar University, India** Study on phytochemical constituents of *Oleaeur opaea* (Olives)
02:45-03:00	**OL129: Rahmouni N, Université des Frères Mentouri Constantine1, Algeria** Phytochemistry and GC-MS analysis of *Scabiosa stellata* L. n-hexane extract
03:00-03:15	**OL130: Carla Pereira, Instituto Politécnico de Bragança, Portugal** Chemical and bioactive profile of *Cochlospermum angolensis* Welw. formulations
03:15-03:30	**OL131: Somayeh Zare, Shiraz University of Medical Sciences, Iran** Further oleanane and ursane type triterpenoids from *Salvia grossheimii*
03:30-03:45	**OL132: Mulate Zerihun, Melkassa Agricultural Research Center, Ethiopia** Chemical investigation of *Prosopis juliflora* and its insecticidal activity against cotton and groundnut aphids
03:45-04:00	**OL133: Filip Nowaczyński, Medical University of Lublin, Poland** Application of statistical modelling to develop new herbal composition possessing antioxidant properties
04:00-04:15	**OL134: Etil Guzelmeric, Yeditepe University, Turkey** Phytochemical characterization, antioxidant, anticancer, and anti-mutagenic activities of buds, flowers, leaves and fruits of *Myrtus communis* L.

	Session 36 **Neuropharmacology of natural products** **(Vivek K. Bajpai, Quancai Sun)**
14:00-14:30	**PL16: Alexander Panossian, EuroPharma USA Inc., USA** Ginsenoside Rg5 differently regulates genes expression of neuronal cells in physiological and sub-physiological concentrations suggesting a potential soft acting beneficial effect in aging
14:30-14:55	**IL80: José L. Quiles, University of Granada, Spain** Molecular mechanisms under the anti-Alzheimer properties of strawberries in vivo
14:55-15:20	**IL81: Noureddine Djebli, University of Mostaganem, Algeria** Neuroprotective effect against the development of Alzheimer's disease of bioglucumin
15:20-15:35	**OL135: Razvan Stefan Boiangiu, Alexandru Ioan Cuza University of Iasi, Romania** Ameliorative effects of cotinine and 6-hydroxy-L-nicotine in a scopolamine-induced zebrafish model of Alzheimer's disease
15:35-15:50	**OL136: Lucian Hritcu, Alexandru Ioan Cuza University of Iasi, Romania** Baicalein 5,6-dimethyl ether prevents memory deficits in the scopolamine zebrafish model by regulating cholinergic and antioxidant systems
	Session 37 **Nanotechnology and biomaterials (II)** **(Shruti Shukla, Ningyang Li)**
16:10-16:35	**IL82: Ana Sanches Silva, National Institute for Agricultural and Veterinary Research, Portugal** Exploring new frontiers of active food packaging
16:35-16:50	**OL137: Ekta Jagtiani, Institute of Chemical Technology, India** Advancements in nanotechnology for food science and industry
16:50-17:05	**OL138: Lee Wing Hin, Universiti Kuala Lumpur, Malaysia** Enhanced lung cancer treatment using pulmonary delivery of curcumin and quercetion nanoparticles
17:05-17:20	**OL139: Shailendra Gurav, Goa University, India** Fabrication, characterization and biological evaluation of naturosomal nanocarriers of Boswellic acids for improved anti-arthritic activity
17:20-17:35	**OL140: Sharvari Dessai, Goa University, India** Bioflavonoid based phytosynthesis of titanium dioxide nanoparticles, characterization and biological evaluation
17:35-17:50	**OL141: Qingbin Guo, Tianjin University of Science and Technology, China** Synthesis of arabinoxylan-catechin and ferulic acid conjugates: Structure, conformation characterization and bioactive potential
17:50-18:05	**OL142: Sina Siavash Moghaddam, Urmia University, Iran** Green silver nanoparticles ameliorate yield and essential oil composition of garden thyme (*Thymus vulgaris* L.) exposed to UV-B stress
	Workshop
18:20-19:30	**Prof. Dr. Mohamed Ali Farag, American University in Cairo, Egypt** How to build a successful academic career? And tips for better scientific writing.

PhD student forum

31 August

Beijing time		**Session 1** **Mentor: Ana Clara Aprotosoaie, Milen I. Georgiev, Celia B. Vargas-De-La-Cruz**
19:30-19:40	GL1	**Omar M. Khattab, Uppsala University, Sweden** Identification and synthesis of bioactive royalisin derived from royal jelly
19:40-19:50	GL2	**Jun Hu, Jinan University, China** Development and application of glutamate/aspartate chemoselective probes
19:50-20:00	GL3	**Meenatai G. Kamble, National Institute of Food Technology Entrepreneurship and Management (NIFTEM), India** Encapsulation of *Lactobacillus rhamnosus* GG in spray dried green banana powder and its phytochemical and antioxidant characterization
20:00-20:10	GL4	**Yaping Huang, Fujian Agriculture and Forestry University** Research of structural changes of lotus seed resistant starch on proliferation promoting to bifidobacterium breve
20:10-20:20	GL5	**Joana P. B. Rodrigues, Instituto Politécnico de Bragança, Portugal** Bioactive properties of *Ruscus aculeatus* L.: an underexploited subshrub
20:20-20:30	GL6	**Xiaolu Zhou, China Agricultural University, China** Qiong bamboo shoots (QBS) reduces obesity in HFD mice by modulating the composition of the gut microbiota
20:30-20:40	GL7	**William Gustavo Sganzerla, University of Campinas, Brazil** Recovery of phenolic compounds from subcritical water hydrolysis of brewer's spent grains
20:40—20:50	GL8	**Mengshi Xiao, China Ocean University, China** Gene prediction of bacteriophage-borne glycanase and its application in the preparation of fucosyl-oligosaccharides
20:50-21:00	GL9	**Izamara de Oliveira, Instituto Politécnico de Bragança, Portugal** Chemical and bioactive characterization of *Melissa officinalis* L. subjected to sustainable cultivation: comparison between different extraction methods
21:00-21:10	GL10	**Haolin Zhang, University of Macau, Macau, China** Stability and metabolite profiling of dihydromyricetin in Dulbecco's Modified Eagle's Medium in competence with HepG2 cells
21:10-21:20	GL11	**Anu Altangerel, Mongolian National University of Medical Sciences, Mongolia** Effect of Marchin-13 on L-NAME induced hypertensive in rats
21:20-21:30	GL12	**Yan Liu, Zhejiang University, China** *Osmanthus fragrans* extracts and acteoside ameliorate chemically induced-murine colitis by regulating gut microbiota
21:30-21:40	GL13	**Tsogzol Munkhtuul, International School of Mongolian Medicine, Mongolia** The effect of drug Sapparin on the hemostasis system
21:40-21:50	GL14	**Hui Liu, Shandong Agricultural University, China** Quercetin mitigates brain insulin resistance and cognitive impairment in high-fat-high-fructose diet-induced obese mice
21:50-22:00	GL15	**Anton Soria-Lopez, University of Vigo, Spain** Combination of active packaging, nanoencapsulation of essential oils, and biosensors as a possible technology to increase food shelf-life and safety
22:00-22:10	GL16	**Akinsipo B. Oyesolape, Tai Solarin University of Education, Nigeria** Targeting the insulin receptor with silver nanoparticles synthesized with dioscorea bulbifera extract for the treatment of type II diabetes mellitus
22:10-22:20	GL17	**Chen Jing, Guangdong Ocean University, China** Preparation, structural features and antithrombotic activity of heparinoids from shrimp head
22:20-22:30	GL18	**Jayasuriya Ravichandran, SRM Institute of Science and Technology, India** Role of mangiferin in ameliorating angiogenesis under hyperglycemic condition through Nrf2 signaling
22:30-22:40	GL19	**Song Li, Nanchang University, China** Utilization of four galactans by *Bacteroides thetaiotaomicron* A4 based on transcriptome
22:40-22:50	GL20	**Justyna Szczepańska, Prof. Wacław Dąbrowski Institute of Agricultural and Food Biotechnology, Poland** High pressure cooling-assisted homogenization: effect on oxidoreductases activity, phenolic compounds profile and antioxidant potential of cloudy apple juice

		Session 2 **Mentor: Sonia G. Sáyago-Ayerdi, Mohsen Gavahian, Aline Priscilla Gomes da Silva**
23:05-23:15	GL21	**Yuan Liang, Jilin University, China** Interactions of ginsenosides with various target proteins and their biological functions
23:15-23:25	GL22	**Guoyu Sun, China Agricultural University, China** Simultaneous quantitation of acrylamide, 5-hydroxymethylfurfural, and 2-amino-1-methyl-6-phenylimidazo[4,5-b]pyridine using UPLC-MS/MS
23:25-23:35	GL23	**Tandokazi Pamela Magangana, Stellenbosch University, South African** To blanch or not to blanch? A simple blanching pre-treatment improves the extraction of valuable polyphenols in 'Wonderful' pomegranate peel waste
23:35-23:45	GL24	**Hui Zhang, Chinese Academy of Sciences, China** Potential hypoglycemic and hypolipidemic bioactive components from *Nelumbo nucifera* leaves revealed by multi-target ultrafiltration HPLC-MS
23:45-23:55	GL25	**Rossana Veviana Centeio Cardoso, Instituto Politécnico De Bragança, Portugal** Cereal by-products from the milling industry: Source of nutrients and bioactive compounds
23:55-00:05	GL26	**Yifan Cui, China Agricultural University, China** Chinese yam alleviates DSS-induced mice colitisvia modulating gut microbiota
00:05-00:15	GL27	**Eleomar O. Pires Jr, Instituto Politécnico de Bragança, Portugal** Bioactive profile of the extract of the petals of *Impatiens walleriana* as a natural food coloring alternative
00:15-00:25	GL28	**Yimei Zheng, Fujian Agriculture and Forestry University, China** Molecular structure modification of ovalbumin through controlled glycosylation with dextran for its emulsibility improvement
00:25—00:35	GL29	**Qiao Yang, Central South University of Forestry and Technology, China** Phenolic acid profiling of *Lactarius hatsudake*, anti-cancer function and its molecular mechanisms
00:35-00:45	GL30	**Izamara de Oliveira, Centro de Investigação de Montanha, Portugal** Nutritional profile of papaya peels, pulp, and seeds (*Carica papaya* L.)
00-45-00:55	GL31	**Yu Sun, Jiangsu University, China** Investigation into the mechanism of γ-aminobutyric acid accumulation in coffee leaves under ultrasound stress through influencing the metabolites, microstructure, and enzyme activity
00:55-01:05	GL32	**Cláudia Novais, Instituto Politécnico de Bragança, Portugal** Bioactive potential of aromatic and medicinal plants traditionally used as condiments
01:05-01:15	GL33	**Fangwei Liu, Nanchang University, China** Gastrointestinal digestion and fermentation characteristics *in vitro* of breads incorporated with three different polysaccharides
01:15-01:25	GL34	**Rafael Mascoloti Spréa, Instituto Politécnico de Bragança, Portugal** Optimization of heat-assisted extraction of bioactive compounds from *Thymus vulgaris* L.
01:25-01:35	GL35	**Zhao Jiaying, Nanchang University, China** Comparison of nutritional compositions and antioxidant activities of different varieties of Mung beans
01:35-01:45	GL36	**Seymanur Ertosun, Instituto Politécnico de Bragança, Portugal** Extraction of bioactive compounds in bee pollen: A comparison study of green and conventional extraction techniques
01:45-01:55	GL37	**Shi-Kang Chen, Nanchang University, China** Comparative studies on structures of the polysaccharides from *Hericium erinaceus* of different regions
01:55-02:05	GL38	**Monalisa Sahoo, Indian Institute of Technology Delhi, India** Physicochemical, bioactive components and antioxidant activities of yam flours as affected by different drying methods
02:05-02:15	GL39	**Tao Hong, Nanchang University, China** Extraction, purification of water-soluble polysaccharide from green tea and structural characterization of HG type pectin fractions
02:15-02:25	GL40	**Reddy K, Stellenbosch University, South Africa** Metabolomics and molecular networking of wild populations of the genus Sceletium – an integrated approach
		September 1 **Session 3** **Mentor: Zorița Diaconeasa, Luigi Lucini, Nilufar Z. Mamadalieva**
14:40-14:50	GL41	**Krishnan Meenambigaia, Periyar University, India** Phytochemicals mediated Zinc Oxide nanoparticles using *Nilgirianthus ciliatus* for the control of dengue vector, *Aedes aegypti* and food borne pathogen, *Staphylococcus aureus*

14:50-15:00	GL42	**Haihua Ji, Nanchang University, China** *In vitro* gastrointestinal digestion and fermentation models and their applications in food carbohydrates
15:00-15:10	GL43	**Filipa A. Fernandes, Instituto Politécnico de Bragança, Portugal** Nutritional and chemical characterization of the fruit of Adansonia digitata L.
15:10-15:20	GL44	**Li Yang, University of Macau, China** The effect of high-carbohydrate diet on the bioavailability of polyphenols and its mechanism
15:20-15:30	GL45	**Mariana C. Pedrosa, Instituto Politécnico de Bragança, Portugal** Ultrasound-assisted extraction of leaves of the olive tree (*Olea europaea* L.): response surface analysis optimization approach
15:30-15:40	GL46	**Xin Qi, Yanbian University, China** Research progress on pharmacological components and pharmacological effects of Perilla
15:40-15:50	GL47	**Dhruv Thakur, National Institute of Food Technology Entrepreneurship and Management (NIFTEM), India** Oleogel as a frying medium for preparation of potato chips
15:50-16:00	GL48	**Ruifeng Wang, Huazhong Agricultural University, China** Anti-obesity activity of B-type proanthocyanidin dimers: a structure-activity relationship study
16:00-16:10	GL49	**Agnese Spadi, Instituto Politécnico de Bragança, Portugal** Chemical composition and bioactive properties of *Eucalyptus globulus* L. essential oil
16:10-16:20	GL50	**Yangyang Jia, Huazhong Agricultural University, China** Effect of persimmon tannins on the emulsification characteristics of persimmon pectin
16:20-16:30	GL51	**Myadagbadam Urtnasan, Institute of Traditional Medicine and Technology, Mongolia** The validation of HPLC method of piperine determination in *Haliforte capsule*
16:30-16:40	GL52	**Jinjin Liu, Nanchang University, China** Effect of different treatments on the anthraquinones of *Cassia obtusifolia* seeds polysaccharides and its chemical composition
16:40-16:50	GL53	**Jargalsaikhan Gombodorj, Mongolian National University of Medical Sciences, Mongolia** The effect of khurtsiin deed-6 on nitroglycerin induced migraine model in rat
16:50-17:00	GL54	**Lingchao Miao, University of Macau, Macau, China** Anti-diabetic potential of apigenin, luteolin, and baicalein via partially activating PI3K/Akt/Glut-4 signaling pathways in insulin-resistant HepG2 cells
17:00-17:10	GL55	**Iyanuoluwa Olubukola Ademola, Federal University of Technology, Nigeria** Anti-amnestic effect of caffeine, catechin and theobromine on scopolamine-induced cognitive and neurochemical impairments in Wistar albino rats
17:10-17:20	GL56	**Xin Li, Fujian Agriculture and Forestry University, China** Structural characteristics of butylated lotus seed starch and its impact on gut microbiota
		Session 4 **Mentor: Adriana Trifan, Saioa Gomez-Zorita, Elwira Sieniawska**
17:20-17:30	GL57	**Yuanyuan Liu, Fujian Agriculture and Forestry University, China** Anti-aging activities of green alga *Ulva lactuca* oligosaccharide via the brain-gut-microbiome axis in diabetic mice
17:30-17:40	GL58	**Tao Xu, Zhejiang University, China** Modulating the digestibility of cassava starch by esterification with phenolic acids
17:40-17:50	GL59	**Maria Carpena, University of Vigo, Spain** Microwave-assisted extraction from brown algae: the first step for their in-depth analysis
17:50-18:00	GL60	**Hongcong Song, Northwest A&F University, China** Profiling of terpene aroma glycosides in grapes by UPLC-Q-TOF/MS
18:00-18:10	GL61	**Ajay V. Chinchkar, National Institute of Food Technology Entrepreneurship and Management (NIFTEM), Inida** Effect of polyvinyl acetate (PVAc) coating on postharvest quality of lemon at ambient storage
18:10-18:20	GL62	**Suhuan Mei, Jiangsu University, China** Investigation into the anti-inflammatory mechanism of coffee leaf extract in LPS-induced Caco-2/U937 co-culture model through cytokines and NMR-based untargeted metabolomic analyses
18:20-18:30	GL63	**Xiaodan Lu, Fujian Agriculture and Forestry University, China** Inhibition effect of triglyceride accumulation by large yellow croaker Roe DHA-PC in HepG2 cells
18:30-18:40	GL64	**Paula Garcia-Oliveira, University of Vigo, Spain** Characterization of *in vitro* antioxidant, antitumor and anti-inflammatory properties of plant species from Rosaceae family
18:40-18:50	GL65	**Rili Hao, Shandong Agricultural University, China** Caffeic acid phenethyl ester against cadmium-induced spleen toxicity in mice: Role of miR-182-

		5p/TLR4 axis
18:50-19:00	GL66	**Xinyan Zong, Nanchang University, China** Purification, physicochemical properties and structural characteristics of polysaccharides from *Polygonatum odoratum*
19:00-19:10	GL67	**Ajay Yadav, National Institute of Food Technology Entrepreneurship and Management (NIFTEM), India** Development of functional mango kernel seed starch based edible coating by incorporating nano-emulsion of lemongrass essential oil on quality attributes of guava fruits
19:10-19:20	GL68	**Yadi Gao, Zhejiang Agriculture and Forestry University, China** New insights into the accumulation of vitamin B3 in Torreya grandis nuts via ethylene induced key gene expression
19:20-19:30	GL69	**Nishant Kumar, National Institute of Food Technology Entrepreneurship and Management (NIFTEM), India** Effects of antioxidant rich edible coating on the postharvest shelf-life of mango fruits
19:30-19:40	GL70	**Shiyuan Chang, South China University of Technology, China** Preparation and application of *Gracilaria chouae* polysaccharide-based composite Filn

GL43: Nutritional and chemical characterization of the fruit of *Adansonia digitata* L.

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Adansonia digitata L., also known as Baobab tree, is distributed throughout the African continent and has several traditional uses, including medicinal and food [1,2]. The edible parts of this tree include the pulp of the fruit (commonly known as mukua), which since 2008 has been approved as a food ingredient by the European Commission and the Food and Drug Administration [1]. Furthermore, it contains a high content of vitamins (including vitamin C), minerals, soluble and insoluble dietary fiber[3]. Therefore, the objective of this study was to carry out the nutritional and chemical characterization of the mukua pulp, to obtain a complete characterization of this much consumed fruit. The nutritional profile analysis, including proteins, crude fat, moisture, ash, carbohydrates, and energy were performed following the AOAC official methods [4]. Free sugars were identified by an HPLC-RI system, organic acids by UFLC-PDA and fatty acids by GC-FID. Regarding the obtained results, mukua pulp had a very low moisture content (11.9 + 0.3 g/100 g dw), with carbohydrates being the macronutrient present in the highest quantity (89.6 ± 0.2 g /100 g dw), followed by proteins (2.7 ± 0.3 g/100 g dw) and by crud fat (1.8 + 0.1 g/100 g dw), representing an energy value of 386 ± 1 kcal. Three sugars (fructose, glucose and sucrose) and three organic acids (oxalic, citric and succinic) were identified, with fructose (2.3 ± 0.2 g/100 g dw) and citric acid (8.73 ± 0.03 g/100 g dw) standing out, respectively. Twelve fatty acids were quantified with greater abundance of oleic (C18:1n9c – 81%) and palmitic (C16:0 – 10%) acids. As it can be seen, the fruits of *Adansonia digitata* L., are nutritionally interesting. Also, the high content of citric acid with scientifically proven preservative power and the high content of oleic acid with multiple pharmacological effects, increases the interest in the exploration of mukua. Therefore, a more complete study of this product is important, including all the beneficial effects that its consumption can bring to the consumer's health.

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