

10th International Conference



mikroBIO kosmos



Divani Palace Larissa
Larissa, Greece

30 | 02
Nov | Dec
2023

All
microbes
for a
sustainable
future



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Final Program



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Welcome

Dear partners,

Microorganisms have endured and thrived through the beginning of life on our planet and this makes them the most resourceful biology “story-tellers” of all living beings. They play key roles in biogeochemical cycling at different environmental compartments, with reciprocal and cascading effects in agriculture, animal, human and plant health.

They are important for a sustainable agriculture, as microbial pesticides, biofertilisers or bioremediating agents, and mediate in environmental cleanup and biodepuration. They support life in lakes and oceans affecting all aquatic organism yields, and have an overall impact on the climate; they indeed regulate climate change. They contribute to food production, preservation and safety, and thus in animal and human health and nutrition. They constitute an invaluable source of cellular and molecular materials for exploitation in biotechnology and bioenergy production. Last but not least, they constitute an important and integral part of all other living organisms: the microbiome.

Thus, the role of the microbial world – ‘mikrobiokosmos’ in Greek – is considered more than ever crucial in the ‘One Health’ and ‘One Planet’ schools of thought; i.e., the emerging concepts advocating the intertwining of healthy global ecosystems with healthy living beings.

With a vision of the above, the Hellenic Scientific Society MIKROBIOKOSMOS invites its members and all those involved in research in the field of Microbiology, especially young researchers, to participate in the 10th International Conference of MIKROBIOKOSMOS which will be held in Larissa from 30 November to 2 December 2023. The aim of the conference is to bring together a multidisciplinary audience of leading academic scientists, researchers and research scholars to exchange and share their experiences and research results in the field of Microbiology.

The theme of the conference is “All microbes for a sustainable future” to highlight the significant role of microorganisms in the following fields/sessions: Agriculture/Fisheries/Aquaculture, One Health, Food/Nutrition, Environment, Bioengineering, Biotechnology/Bioenergy, thus ensuring the sustainability of our planet. Advances in Molecular mechanisms, Model organisms, Microbiome studies, Omics approaches and bioinformatics tools, mechanisms of action, host-microbe association and interaction, are also included.

Distinguished scientists from Greece and abroad have been invited as speakers at the conference, to present research developments in the above fields.

The conference will take place in the capital and the largest city of the Thessaly region in Greece, Larissa, at the Divani Larissa Hotel and we hope to attract a broad European, International and Mediterranean participation.

The project “FunShield4Med” (<https://funshield4med.eu/>) contributes in the conference organisation. This project is funded from the European Union’s Horizon Europe Research and Innovation Programme under Grant Agreement No 101079173 and is implemented by the Hellenic Agricultural Organisation DIMITRA.

The conference is supported by the Federation of European Microbiological Societies (FEMS) (<https://fems-microbiology.org/>)

On behalf of the Organizing & Scientific Committee

Dr. Chrysoula Tassou

President of Mikrobiokosmos

10th International Conference **mikrobiokosmos**

All microbes for a sustainable future



Organization

Organized by



Hellenic Scientific Society MIKROBIOKOSMOS

Email: info@mikrobiokosmos.org

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Conference Secretariat



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Member of :



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Doulgeraki Agapi, Assistant Researcher, Hellenic Agricultural Organization-DIMITRA, Institute of Technology of Agricultural Products, Greece

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Kormas Konstantinos, Professor, University of Thessaly, Greece

Meziti Alexandra, University of Thessaly, Greece

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Lagkouvardos Ilias, Microbial Ecology, Technical University of Munich, Germany

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About

mikrobio kosmos

Hellenic Scientific Society MIKROBIOKOSMOS

Mikrobiokosmos (microbial world in Greek) is an Hellenic Scientific Society established in 2007 with mission the research, exploration and exploitation of the microbial national resources. Its primary focus is to be the national forum for new knowledge and advanced research in the areas of environmental microbiology, microbial ecology of terrestrial and aquatic ecosystems, food microbiology, microbial biotechnology, synthetic biology and synthetic microbial ecology, host-microbiome interactions, bioenergy and cell factories for production of novel bioproducts but also addresses fundamental research in microbiology using model microorganisms. Mikrobiokosmos tries to bring together fundamental research on microbiome with applications in agriculture (plant microbiome), food production and safety, environmental clean up and biodepuration of effluents.

The Society of Mikrobiokosmos has more than 150 members and associated members from all Universities, all National Public Research Centers and main Industrial actors from Greece and Cyprus and it aspires to become an international hub for Microbiologists from the Balkan and Eastern Mediterranean Region.

The role of the Society is to facilitate the collaboration and exchange of ideas between its members, to inspire students and young professionals in microbiology, to support them with grants and to promote scientific actions through the organization of seminars, meetings, summer schools, workshops and its biannual international conference in Greece.

The Hellenic Scientific Society of Mikrobiokosmos is a member of the Federation of European Microbiological Societies (FEMS) and of the International Union of Microbiological Societies (IUMS) and its members act as national ambassadors for the International Society for Microbial Ecology (ISME) and the American Society of Microbiology (ASM).



TOPICS



**Agriculture /
Fisheries**



One Health



**Food /
Nutrition**



Environment



**Bioengineering /
Biotechnology**



**Systems
Biology**



**Emerging
approaches in
Microbiology**

INVITED SPEAKERS



Federico Aulenta
Senior Scientist, Water Research Institute (IRSA) of the Italian National Research Council (CNR), Principal Investigator, Laboratory for Microbial Bioprocesses, Italy



Prof. Angel Medina Vaya
Professor in Applied Mycology and Director of Environment and Agrifood, Cranfield University, UK



József Baranyi
Scientific Advisor, Institute of Nutrition, University of Debrecen, Hungary Doctor Honoris Causa and Private Professor, Hungarian University of Agriculture and Life Sciences, Budapest, Hungary



Prof. Kevin O'Connor
Full Professor School of Biomolecular and Biomedical Science, University College Dublin, IE



Angelique Gobet
Researcher in microbial ecology applied to aquaculture, France



Lisa Y Stein
Professor & Assoc. Chair Research, Climate Change Microbiology Editor in Chief, The ISME Journal, University of Alberta, Canada



Miguel Luis Rodriguez-R
Assistant Professor, Department of Microbiology and Digital Science Center (DiSC), Austria



Dr. Sharon E. Zytynska
Department of Evolution, Ecology, and Behaviour, Institute of Infection, Veterinary and Ecological Sciences, University of Liverpool, UK



Dr Jasmina Nikodinovic-Runic
Full Research Professor, Laboratory For Microbial Molecular Genetics And Ecology (Lmmge), Institute of Molecular Genetics and Genetic Engineering (IMGGE), University of Belgrade (UB), Serbia



Scientific

Program



13.30-14.30 **REGISTRATIONS**

14.30-15.00 **OPENING OF CONFERENCE**

15.00-17.00 **SESSION 1 | AGRICULTURE**
Chairs: Prof. D. Karpouzas (Univ. Thessaly) &
Ass. Prof. A. Karnaouri (Agric. Univ. Athens)

15.00-15.30 **PLENARY LECTURE**
Integrated View of Methane and Nitrogen Metabolism to Mitigate
Greenhouse Gas Efflux
Prof. Lisa Stein



15.30-15.45 Population dynamics of aerial and epiphytic ice-nucleating bacteria in lemon orchards in Aeghion, Greece
Khalil Geballa Koukoulas



15.45-16.00 The effects of the beneficial endophytic fungus *Fusarium solani* strain K in transcriptomic and metabolomic profile of tomato plant under drought
Maria Feka



16.00-16.15 Inoculation-induced modulation of bacterial communities in the rhizosphere of winter rye remains present following winter dormancy
Ioannis Kampouris



16.15-16.30 Exploring Endophytism of Entomopathogenic Fungi through Comparative Genomics: An In-Depth Study
Alexandra M. Kortsinoglou



16.30-16.45 *WITHDRAWN BY THE AUTHOR*

16.45-17.00 **FLASH TALKS**



Study and characterization of microbial diversity in fish farms using OMICS Technologies
Georgia Apostolopoulou



Gills and skin bacterial landscapes of five fish species from the Atlantic Ocean
Konstantinos Kormas



Seabass gut microbiome analysis fed with conventional and innovative diets
Alexandra Meziti



17.00 - 17.30 **COFFEE BREAK**

17.30-19.30 **SESSION 2 | ENVIRONMENT**
Chairs: Prof. G. Zervakis (Agricultural Univ. Athens) &
Ass. Prof. E. Papadopoulou (Univ. Thessaly)

17.30-18.00 **PLENARY LECTURE**
Making fungi travel through time to predict future mycotoxins
contamination in food commodities
Prof. Angel Medina Vaya



18.00- 18.15

WITHDRAWN BY THE AUTHOR



18.15- 18.30

Comparative genomics and transcriptomic analysis reveals why bacteria of the genus *Paenarthrobacter* are specialists in the degradation of the fungicide iprodione
Venetios Michelioudakis



18.30-18.45

Microbial and electrochemical synergy for sustainable groundwater remediation: combining pyrite-based denitrification and electrochlorination
Eleftheria Ntagia



18.45-19.00

The environmental fate and impact on the soil microbial community composition, resistome and mobilome of the veterinary antibiotics Sulfomethoxazole, Tiamulin and Tilmicosin
Eleni Katsivelou



19.00-19.15

Drivers of the composition of root-associated microbial communities in garrigue ecosystems
Georgios Leventis



19.15-19.30

From Micro to Macro - Defining Crete's Macroecology based on its soil Microbial Interactome
Savvas Paragkamian

19.30-20.30 **WELCOME RECEPTION**

Friday 1/12/2023



09.00-11.00 **SESSION 3 | BIOTECHNOLOGY**
Chairs: Prof. K. Kormas (Univ. Thessaly) & Prof. S. Ntougias (Univ. Thrace)



09.00 - 09.15 Exploitation of novel fungal oxidative biocatalysts for the sustainable production of valuable monomers from biobased furans
Evangelia-Loukia Giouroukou



09.15-09.30 Comparative Genomic Analysis of Enterobacter spp. Isolated from Fruit flies: New Insights into bacteria-host interactions
Naima Bel Mokhtar



09.30-09.45 Hydroxy Fatty Acid production by chemo-enzymatic conversion of Waste Cooking Oils, Oils
Antonio Caporusso



09.45-10.00 Effect of light wavelength on polysaccharides production by submerged cultivation of Pleurotus ostreatus
Georgios Bakratsas

10.00 -10.30 **PLENARY LECTURE**

The Bioeconomy – An economic social and environmental opportunity for Biorefineries
Prof. Kevin O'Connor



10.30-10.45 Optimization of a new industrial bioprocess on pilot-scale for 2,3-butanediol by Klebsiella oxytoca ACA-DC 1581 cultivated on biodiesel-derived glycerol
Dimitris Karayannis



10.45-11.00 Valorization of the organic fraction of municipal solid waste: Improving process efficiency via biomass refining and in bio-electrosynthesis of biodegradable plastics
Chrysanthi Pateraki

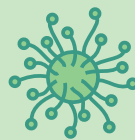
11.00-11.30 **COFFEE BREAK**

11.30-13.30 **SESSION 4 | ENVIRONMENT**
Chairs: Ass. Prof. S. Genitsaris (NKUA) & Dr. E. Smeti (ELKETHE)

11.30 - 12.00 **PLENARY LECTURE**
Exploring the limits of metabarcoding marine microbial communities
Dr. Angelique Gobet



12.00 -12.15 Genomic signatures of symbiotic lifestyle in sponge-associated bacteria
Jean-François Flot



12.15-12.30

The Role of Microbes in Mitigating Greenhouse Gas Emissions from a Toxic Cave
Chrats Melkonian



12.30-12.45

Are microbial communities resilient to heat waves in a shallow intertidal sediment?
Sokratis Papaspyrou



12.45-13.00

How vulnerable to hydraulic connectivity are phytoplankton assemblages across a salinity gradient?
Evangelia Smeti



13.00-13.15

The impact of temperature, acidity, and nutrient availability on marine bacteria-bacteriophage interactions
Polyxeni Papazoglou



13.15-13.30

Microbial diversity and sulfur cycling in a hypersaline marsh microbial mat community
Christina Pavloudi

13.30 - 14.30 **LUNCH BREAK**

14.30-16.35

SESSION 5 | BIOTECHNOLOGY

Chairs: Prof. E. Topakas (NTUA) & Prof. D. Venieri (Univ. Crete)

14.30-15.00

PLENARY LECTURE

Waste to value: From bugs to drugs
Dr. Jasmina Nikodinovic-Runic



15.00-15.15

Fungal copper radical oxidases as new bioatalysts for the green industry
Radka Koncitikova



15.15.-15.30

Implications of Polysaccharide Oxidative Degradation: Insights into Catalytic Activity and Substrate Specificity of Lytic Polysaccharide Monooxygenases from *Thermothelomyces thermophila*
Koar Chorozián



15.30-15.45

The isolation and characterization of novel pyrethroid hydrolases from biobeds using functional metagenomic approaches
Ioanna Georgia Gkoni



15.45-16.00

Discovery of antiaging compounds via the screening of Greek actinobacteria
Paris Laskaris



16.00-16.15

Physiology of *Yarrowia lipolytica* under different fermentation modes:
Development of a membrane bioreactor process for production of various biomolecules

Asimina Tsirigka



16.15-16.30

A proof-of-concept study for lactic acid solution purification employing a genetically modified *E.Coli* strain in a membrane bioreactor system

Alexandra Nastouli

16.30-17.00 **COFFEE BREAK**

17.00-19.00

SESSION 6 | AGRICULTURE/ INTOMED

Chairs: Prof. K. Papadopoulou (Univ. Thessaly) & Dr. A. Dalakouras (ELGO DIMITRA)

17.00-17.30

PLENARY LECTURE

Unravelling beneficial multi-species interactions for insect pest control:
from the soil to the leaf

Dr. Sharon Zytynska



17.30- 17.45

Innovative tools to combat key pests of tomato

Maria Pappas



17.45-18.15

Context dependency orchestrates the mechanisms behind Mycorrhiza-Induced Resistance

Victor Flors



18.15-18.30

RNAi in plant-microbe interactions

Athanasios Dalakouras



18.30-18.45

Biological control of *Botrytis cinerea* using commercial wine yeasts

Danai Gkizi

18.45-19.00

FLASH TALKS



Use of botanical extracts as potential suppressive agents against certain plant pathogens

Aikaterini Gropali



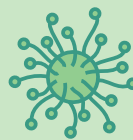
Characterisation of bacterial contaminants of aquatic plant sources

Myrsini Kakagianni



Endophytes from halophytes: a source of beneficial microbes for a sustainable agriculture

Christos Christakis



09.00-11.00

SESSION 7 | ONE HEALTH/OMICS

Chairs: Prof. P. Sarris (University of Crete) & Ass. Prof. S. Vasileiadis (Univ. Thessaly)



09.00 - 09.15

Implications of short- and long-term exposure of the microalga *Tetraselmis chuii* to H₂O₂-induced oxidative stress, as revealed by multi-omics analysis

Aikaterini Koletti



09.15-09.30

Effector ripe1 of *Ralstonia solanacearum* targets EXO70B1 and is recognized by the PTR1 immune receptor

Dimitra Tsakiri



09.30-09.45

Phylogenetic and evolutionary analysis of fungal mitogenomes using a novel bioinformatics pipeline

Antonios I Myridakis



09.45-10.00

Multi-omics analysis of a polyurethane-degrading *Fusarium oxysporum*

Romanos Siaperas



10.00-10.15

Waterborne parasitic zoonoses: a neglected public health threat?

Panagiota Ligda

10.15-10.30

FLASH TALKS



Impact of insect symbionts on parasitoid foraging behaviour

Eric Frago



The future of 16rRNA gene high throughput sequencing: A comparative analysis of new Illumina and Oxford Nanopore Technologies sequencing methods

Maria Malliarou

10.30 -11.00

PLENARY LECTURE

Studying Genomic Adaptations Under the Light of Microbial Ecology

Prof. Luis Miguel Rodriguez-R

11.00-11.30 **COFFEE BREAK**



11.30-13.30 **SESSION 8 | EMERGING APPROACHES**

Chairs: Prof. D. Chatzinikolaou (NKUA) &
Ass. Prof. A. Doulgeraki (Aristotle Univ. Thessaloniki)

11.30-12.00 **PLENARY LECTURE**

Electrobioremediation: a greener and sustainable approach for the cleanup of contaminated sites

Dr. Federico Aulenta

PRE RECORDED



12.00 -12.15

Isolation and characterization of a *Sphingomonas* strain able to degrade the pleuromutilin antibiotic tiamulin

Perruchon Chiara



12.15-12.30

Genome analysis of *Lactocaseibacillus paracasei* SRX10: An Indigenous Strain for Use as a Multi-Functional Adjunct Culture in Cheese Production

Kamarinou Christina



12.30-12.45

Tracking viral infection temporal dynamics after microbial resuscitation following seasonally dry soil rewetting using viromics and stable isotope metagenomics

Ella Sieradzki



12.45-13.00

Intergenerational memory of single cell division times in a growing microcolony

Styliani Dimitra Papagianeli



13.00-13.15

Bacteriophage selection alters antibiotic resistance in *Vibrio alginolyticus*

Tseperka

13.15-13.30 **FLASH TALKS**



Evaluation of meat spoilage markers for the development of on-package freshness sensors

Anthoula Argyri



An interactive online stochastic quantitative microbiology tool for risk-based decision support in the Food Industry applied to *Bacillus cereus* in milk

Constantine-Richard Stefanou

13.30 - 14.30 **LUNCH BREAK**



14.30-16.00 **SESSION 9 | FOOD-NUTRITION**

Chairs: Prof. P. Skandamis (Agric. Univ. Athens) &
Ass. Prof. F. Parlapani (Univ. Thessaly)

14.30 - 15.00 **PLENARY LECTURE**

"Big Data" methods, results, and their (mis-)use in food- and nutrition sciences
Prof. József Baranyi



15.00-15.15

Microbial inactivation: Setting the basis for a risk-based design in food processing
Kostas Koutsoumanis



15.15-15.30

Combination of spectral and NGS data for the microbiological quality assessment of shellfish
Anastasia Lytou



15.30-15.45

Vineyard-mediated factors are still operative in spontaneous and commercial fermentations shaping the vinification microbiome and affecting the antioxidant and anticancer properties of wines
Elena Papadopoulou



15.45-16.00

Where Greek cheeses belong within the global cheese microbial map: a comparative integrative analysis of cheeses' microbial signatures
Aikaterini Nelli



16.00-16.15

Monitoring the survival of probiotic bacteria during the shelf life of a novel Greek sheep traditional yogurt and following subsequent in vitro digestion
Ioanna Gkitsaki

16.15-16.30 **FLASH TALKS**



Microbial electrostimulation and electrocution using low intensity electric fields – A novel approach for selective control of microbial growth in vitro and in food matrices
Ioannis Giavasis



Listeria monocytogenes colony growth dynamics after exposure to acidic conditions and disinfectants
Marianna Arvaniti



Short-term effects of fruit juice enriched with probiotics on glyceimic responses: A randomized controlled clinical trial in healthy adults
Nikolaos Zacharodimos

16.30-17.00 **AWARDS & CLOSING CEREMONY**

Saturday 2/12/2023



Aristotelis B

09:00 - 11:00 WORKSHOP_BIOICEP - MICROBES AS A SOLUTION TO GLOBAL PLASTIC POLLUTION (WORKSHOP ORGANIZED BY BIOICEP PROJECT)

09:00 - 09:20 BioICEP
Dr. Margaret Brennan Fournet

09:30 - 09:50 MixUP
Dr. Hendrik Ballerstedt

10:00 - 10:20 Plastomics
Prof. Evangelos Topakas

10:30 - 10:45 Synthetic biology enabling plastics degradation and upcycling
Dr. Qingsheng Qi

10:45 - 11:00 Discovery, mechanism, and engineering of plastic-degrading enzyme from the gut bacteria of plastic-eating insects
Dr. Yu Yang

11:00 - 11:30 COFFEE BREAK

11:30 WORKSHOP_BIOICEP - MICROBES AS A SOLUTION TO GLOBAL PLASTIC POLLUTION (WORKSHOP ORGANIZED BY BIOICEP PROJECT): FLASH PRESENTATIONS

11:30 Bioconversion of plastics' building blocks into bacterial cellulose for circular economy
Caïta Gill

11:40 A novel PET hydrolase with high potential for degradation of crystalline plastics
Konstatinos Makryniotis

11:50 Plastic waste bio upcycling into high value bioproducts by a Rhodococcus strain
Ana Teresa Rebocho

12:00 Engineering the PET depolymerase for improved activity and thermostability
Zheng Yi

12:10 Concluding Remarks
Dr Margaret Brennan Fournet

12:30-14:30 SESSION ARISTO: ADVANCES IN THE ASSESSMENT OF THE TOXICITY OF AGROCHEMICALS ON THE SOIL MICROBIOTA



Aristotelis B

12:30 - 13:00 **PLENARY LECTURE**
Using microorganisms as biomarkers for assessing the toxicity of organic pollutants on the soil microbiota
Dimitrios Karpouzas (Univ. of Thessaly, Greece)

13:00 – 13:30 **FLASH PRESENTATIONS (15 min)**

W_OP01

In vitro assessment of pesticide toxicity on non-target soil nitrifying microorganisms: a novel tool for ecotoxicity risk assessment
Eleftheria Bachtsevani

W_OP02

In vitro assessment of the effect of six fungicides on spore germination of the arbuscular mycorrhizal fungus *Rhizophagus intraradices*
Marjan Roshanfekrrad

13:30 - 14:30 **LUNCH BREAK**

14:30 - 16:15 **FLASH PRESENTATIONS (15 min)**

W_OP03

Resistance and resilience of soil ammonia and nitrite oxidizing microorganisms to multiple stressors – effects of pesticide and drought exposure
Laura Johanna Müller

W_OP04

Influence of Arbuscular mycorrhizal fungi on Tembotrione and Pyraclostrobin degradation and soil phosphatase activity in maize planted soil
Anna Manukyan

W_OP05

Soil microbial community fragmentation reveals indirect effects of pesticide application mediated through biotic interactions between taxa
Cara Meyer

W_OP06

Effect of pesticides on microbial communities from soil: A food-web approach
Marta Eugenia Pérez-Villanueva

W_OP07

Impact of a Mixture of a Synthetic Organic and a Botanical Insecticide on Soil Microbial and Free-Living Nematode Communities
Camilla Drocco

W_OP08

Using Species Sensitivity Distributions (SSDs) and amplicon sequencing to determine the toxicity of bio-pesticides on the soil microbiota
Alexandre Pedrinho

W_OP09

Automatic Extraction of Optimized Reaction Patterns for the Prediction of Environmental Contaminant Biotransformation Pathways
Kunyang Zhang

16.15 - 16.30
Concluding Remarks
Prof. D. G. Karpouzas

Poster Presentations



AGRICULTURE

PP001 Mitochondrial Ef-Tu: a Trump Card in pathogenesis of *Verticillium dahliae*
Georgios Patsis¹, Dionysia Kalaitidou¹, Panagiotis Chanis², Aliko Tzima¹, Epaminondas Paplomatas¹
¹Agricultural University Of Athens, Laboratory of Plant Pathology, Athens, Greece, ²Laboratory of Cellular and Molecular Neurobiology, Hellenic Pasteur Institute, Athens, Greece

PP003 Mycoflora and mycotoxin characterisation of berries cultivated in Mediterranean farms
A Peppas¹, Eleni Kollia¹, D Kizis², P Natskoulis³, Vasilis Valamidis¹

¹National And Kapodistrian University Of Athens, , Greece, ²Benaki Phytopathological Institute, Greece, ³Institute of Technology of Agricultural Products ELGO - DIMITRA, Greece, ⁴University of Malta, ida, Greece

PP004 Impact of nitrification inhibitors on the soil microbial community after repeated exposure: a soil microcosm story.

Chiara Perruchon¹, Paraskevi Amanatidou¹, Chrysovalantou Moutzourelli², Dimitrios Karpouzaz², Euangelia Papadopoulou¹
¹University Of Thessaly, Department of Environmental Sciences, Larissa, Greece, ²University of Thessaly, Department of Biochemistry and Biotechnology, Larissa, Greece

PP005 Elimination of Olive Leaf Spot disease by Mg(OH)₂ Porous Microparticle treatments
Aggeliki Andreadelli¹, Arthur Pfau^{1,3}, Elisavet Papa¹, Antiopi Tsourek¹, Iliana Vagiota^{1,4}, Denise Kiamiloglou^{1,4}, Penelope Baltsoyoulou², Chrysa Pagkoura², George Karagiannakis², Spiros Petrakis¹, Antonios M. Makris¹

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PP006 Species-specific skin microbiome in gilthead seabream and European seabass is strongly influenced by the rearing location
Rafael Angelakopoulos¹, Aneas Tspourlianos¹, Alexia Fitsili¹, Themistoklis Giannoulis², Katerina A. Moutou¹
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PP007 Synergistic effects of combined use of microbial inocula and metabolites on the stress response of tomato plants under field conditions

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PP010 Phylotyping of vibrio harveyi strains isolated from diseased fish from greek aquaculture outbreaks

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PP011 New bio-based tools to control *Bactrocera oleae* (Diptera, Tephritidae) and elucidation of their mode of action

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PP012 Identifying the key determinants, cultivar or terroir units, of the carpospheric grapevine microbiome in the viticultural zone of Drama

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PP013 Gut bacterial diversity of insecticide-susceptible and -resistant strains of the mediterranean fruit fly *ceratitis capitata* and a possible relationship with insecticide resistance
Kamel Charaabi¹, Haytham Hamdene¹, Wafa Djobbi¹, Salma Fadhel¹, Mouldi Saidi¹, Meriem M'saad Guerfali¹

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Poster Presentations



PP014 Suppression of verticillium dahliae and promotion of plant growth in eggplants through combined application of compost tea and erwinia rhapontici

Vasilis Dimitrakas¹, Myrto Tsiknia², Eleni Minousi^{1,2}, Georgios Bekiaris³, Dimitrios Tsigonakis³, Io Kefalogianni³, Vasiliki Tsagou³, Ioannis Zafeiriou², Iordanis Chatzipavlidis³, Sotirios Tjamos¹, Constantinos Ehaliotis²

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PP015 Cross-talk of Abscisic acid and Ethylene-mediated pathways in the interaction of tomato plant with the beneficial fungus Fusarium solani strain K

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PP016 Three newly acquired mycophilic genomes elucidate the fungiculous secondary metabolism: a comparative study Anastasia Christinaki¹, Antonis I Myridakis¹, Vassili N Kouvelis¹

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PP017 Exploring the biochemical mode of action and spectrum of activity of synthetic and biological nitrification inhibitors

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PP018 Studies on the role of Bacillus subtilis cyclophilin in bacterial growth and development

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PP019 Oxytetracycline treatment led to persistent gut microbiome dysbiosis, the rise of parasites and growth impairment of European Sea Bass in open sea aquaculture.

Dimitris Rigas¹, Nikos Grivas¹, Elena Gata², Aikaterini Nelli², Evangelia Gouva², Ioannis Skoufos², Konstantinos Kormas^{3,4} Athina Tzora², and Ilias Lagkouvardos^{2,5,*}

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PP020 Forecasting and protecting fruit crops from frost damage: the EU/LIFE FrostDefend project

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PP022 Characterization and use of plant growth promoting bacteria from vineyard soils Ioannis Ioannides^{1,2}, Christiana Hadjimichael^{1,2}, Savvas Savvides³, Michalis Omirou^{1,2}

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Poster Presentations



PP024 Development of a fast-track/ high throughput screening assay on soil ammonia-oxidizing bacteria for the discovery of novel biological nitrification inhibitors

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PP025 Evaluation of biological and synthetic plant protection products against the pathogen *Taphrina deformans* causing peach leaf curl

Charikleia Kavroumatzi^{1,2}, Dimitrios Tsitsigiannis², Antonios Zambounis¹

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PP026 Preliminary results on the relative abundance of certain functional groups of microorganisms present in the rhizosphere of herbicide-resistant and non-resistant weeds *Io Kefalogianni*¹, Nikos Kaperdas¹, Ilias Travlos¹, Giorgos Zervakis¹

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PP027 Seasonal shifts in soil microbiome structure are associated with the cultivation of the local runner bean variety around the lake mikri prespa

Panagiotis Madesis^{1,2}, Evangelia Stavridou¹, Ioanna Karamichali¹, Georgios Lagiotis²

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PP028 The suppressive effect of bacterial strains isolated from halophytes against important plant pathogens

Stefanos Soultatos¹, Nikolaos Krasagakis¹, Grigorios Amourgis¹, Christos Christakis², Nikolaos Arapitsas^{2,3}, Ioannis Smirnakis⁴, Reveka Stefanidou⁴, Panagiotis Sarris^{2,3,5}, Emmanouil Markakis¹

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PP029 Evaluation of the impact of synthetic and biological nitrification inhibitors on the composition and activity of the soil microbial community and the emissions of greenhouse gases

Chrysovalantou Moutzourelli¹, Evangelia Papadopoulou², Christina Hazard³, Graeme Nicol³, Dimitrios Karpouzas¹

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PP030 Bacterial community structure and functioning in Cyprus vineyard ecosystem Michalis Omirou^{1,3}, Alexanos Phokas¹, Panagiota Pissaridou¹, Stefani Byrou¹, Christiana Hadjimichael^{1,3}, Savvas Savvides², Ioannis Ioannides^{1,3}

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PP031 Enhancement of production of pathogen suppressing volatiles by precursor molecules: towards sustainable control of soilborne diseases

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PP032 Combining *Rhizoglyphus irregularis* QS69 with systemin results in better control of tomato pests

Maria Pappas¹, Galini Koutsoula¹, George Broufias¹

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PP033 Using knowledge from wild relatives of plants to combat soilborne phytopathogens

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PP034 Do ammonia oxidizers adapt to nitrification inhibitors upon repeated exposure? First evidence from in vitro assessment.

Chiara Perruchon¹, Paraskevi Amanatidou¹, Dimitrios Karpouzas², Euangelia Papadopoulou¹

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PP035 Exploring the potential of plant-derived terpenoids as biological nitrification inhibitors

Hugo Ribeiro¹, Alexanos Kanellopoulos¹, Evangelia S. Papadopoulou², Kalliope K Papadopoulou¹, Dimitrios G Karpouzas¹

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PP038 Genomic analysis of Nontuberculous Mycobacteria (NTM) highlights the potential of reverse vaccinology in aquaculture.

Panagiota Stathopoulou¹, Elias Asimakis¹, George Tsiamis¹

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PP039 Assessment of population viability in compost enriched with nitrogen-fixing bacteria stored at ambient and low temperature

Vasiliki Tsagou¹, Io Kefalogianni¹, Myrto Tsiknia¹, Dimitrios Tsigonakis¹, Ioannis Zafeiriou¹, George Bekiaris¹, Constantinos Ehaliotis¹, Iordanis Chatzipavlidis¹

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PP040 Combined application of compost and plant growth promoting bacteria improves growth and nutrient uptake by lettuce plants grown under three different phosphorus sources.

Myrto Tsiknia¹, Konstantinos Gyparakis¹, Dimitrios Tsigonakis², Ioannis Zafeiriou¹, Io Kefalogianni², Vasiliki Tsagou², Georgios Bekiaris², Constantinos Ehaliotis¹, Iordanis Chatzipavlidis²

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PP041 Tripartite association between legumes, nitrogen-fixing rhizobia and arbuscular mycorrhizal fungi: deciphering the microbial interactions

Marios I. Valmas, Ilias S. Georgiadis, Aristotelis Koutsikos, Eleftheria Bazouli, Eleni Rafaela Lamprou, Daniela Tsikou

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PP042 Comparison of secondary metabolite biosynthetic clusters between pathogenic and non-pathogenic fungi: The case of the endophytic fungus *Fusarium solani* strain K. Olga Tsiouri¹, Sotirios Vasileadis¹, Vasiliki Skiada¹, Kalliope K Papadopoulou¹

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PP043 Characterization of *Colletotrichum* spp. from olive for growth under different temperatures and virulence on flowers

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PP044 Towards the development of a novel biostimulant for use in sustainable cultivation of horticultural crops.

Panagiotis Vletsos¹, Ilias Zournatzis², Vasiliki Skiada⁴, Myrsini Kakagianni^{1,3}, Constantinos Ehaliotis⁴, Kalliope K. Papadopoulou¹

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PP045 Development of multiplex *ssr* approaches and *hrm* markers for the accurate genotyping of *taphrina deformans* populations in greek peach orchards

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PP045_a Plant growth promoting rhizobacteria produce volatiles with potential activity against *Verticillium dahliae*

Aikaterini Triantafyllou¹, Nathalie Kamou¹, Katerina Karamanolis¹

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PP045_b Mycorrhiza-assisted phytoremediation potential of hemp: Preliminary results of a field experiment

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PP045_c Plant-mediated effects of beneficial soil microbes on herbivore populations in the greenhouse

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ENVIRONMENT

PP046 Combining culture-dependent and -independent approaches for identifying plastic-degrading bacteria and enzymes in soil samples

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PP047 Composition of prokaryotic and eukaryotic microbial communities across the water column of the Eastern Mediterranean Sea.

Georgia Charalampous^{1,2}, Evangelia Gontikaki¹, Konstantinos Kormas³, Nicolas Kalogerakis^{1,3}

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PP048 Preliminary data on the diversity of the genus agaricus section minores in greece

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PP049 Optimizing Bacterial Cellulose Production using Post-Consumed TPA as a Non-Nutritional Adjunct in Twin-Bioreactor System

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PP050 MicroGLO: Effect based bioassays for antibiotic detection

Tjalf De Boer¹, Muriel van Hamersveld¹, Sumeyye Sari¹, Bram Brouwer¹

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PP051 Exploring the enzymatic ability of strains isolated from plastic-polluted environments for enhancing synthetic and natural biopolymers' biodegradation

Diana Alicia Garza Herrera¹, Marija Mojicevic¹, Jasmina Nikodinovic-Runic², Margaret Brennan-Fournet¹, Chaitra Venkatesh¹

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PP052 Municipal wastewater treatment: assessment of ecotoxicity and dispersion of bacterial antibiotic resistance

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PP053 Removal of antibiotic-resistant Escherichia coli and antibiotic resistance genes in wastewater through wastewater chlorination

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PP054 SynComs in Microbial Ecotoxicology: Development and standardization of in vitro tests to assess the toxicity of pesticides on N microbial networks

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PP055 Effect of synthetic and biodegradable microplastics. Either alone or in the presence of pesticides or veterinary drugs on the soil microbiota

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PP056 Biocompatible Eco-plastic Blends with Enhanced Antimicrobial Activity by Addition of Essential Oils

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PP058 Biogas production using raw glycerol on a sunflower-seed-hulls-residues packed digester

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PP059 Utilization of *Mortierella ramanniana* lipid fermentation wastewater as maceration water for *Pleurotus* and *Ganoderma* cultivations

Eirini Maria Melanouri^{1,2}, Marianna Dedousi^{1,2}, Ilias Diamantis^{1,2}, Panagiota Diamantopoulou², Seraphim Papanikolaou¹

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PP060 Impact of different soil salinity levels on the concentration of the polysaccharide acemannan and Plant Associated Microbial Communities in *Aloe vera* (*Aloe Barbadensis* Miller) plants.

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PP061 Exploring the diversity and antimicrobial potential of *Streptomyces* strains in Greek environments.

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PP063 Bacterial and biochar-assisted phytoremediation of multi-metal contaminated soil using *crotalaria retusa*

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PP064 Establishment of synthetic microbial communities across trophic levels to assess pesticide soil microbial toxicity in an ecosystem relevant in vitro system.

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PP065 Evaluation of the toxicity of three fungicides on Arbuscular Mycorrhizal Fungi (DAOM, *Rhizophagus irregularis*) using an in-situ monoxenic sandwich system.

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PP066 In vitro assessment of the toxicity of anthelmintics on soil ammonia-oxidizing archaea and bacteria: Benchmarking the soil microbial toxicity of anthelmintic veterinary drugs

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PP067 Biodiversity study of rice commercial samples with RAPDS

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Poster Presentations



PP068 Antimicrobial and antibiofilm activities of three *Pseudoalteromonas* strains against fish pathogen *Tenacibaculum discolor* strain B487

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PP069 DIMITRA: an upcoming database on effects of pesticides on the soil microbiome and meta-analytic analysis

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PP070 Microbial populations on the surface of a marble monument in athens, greece

Panagiota Theodoropoulou^{1,2}, Diomi Mamma¹, Savvas Genitsaris², Maria Savvidou¹, Ekaterini T. Delegou³, Antonia Moropoulou³, Fragiskos Kolisis¹

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PP071 Protocatechuate 4,5-dioxygenase directed evolution: sometimes small changes are all that it takes.

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PP073 Characterizing the symbiotic profile of natural and laboratory populations of *Aedes albopictus*

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PP074 The linkage between boreal peatlands and greenhouse gases: A review of recent efforts to characterize the diversity and functionality of the *Sphagnum* microbiome.

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PP075 Municipal wastewater treatment by means of pilot scale constructed wetlands: elimination of microorganism and antibiotic resistance genes

Maria Antonia Aretaki¹, Konstantinos Stavroulakis¹, Iosifina Gounaki¹, Alexanos Stefanakis¹, Danae Venieri¹

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PP076 Study of the ecotoxicity and biodegradation of bioplastics

Konstantina Karakoula¹, Dimitra Morfogianni^{1*}, Giacomo Tedeschi², Iosifina Gounaki¹, Athanassia Athanassiou², Despina Fragouli², Danae Venieri^{1*}

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PP076_a The use of microbial cultures with microalgal species for the degradation of bioplastics (PHB and TPS)

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BIOTECHNOLOGY

PP077 Bioconversion of unrecyclable PET waste into biodegradable polyhydroxyalkanoates by a newly isolated *Delftia* sp. strain

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PP078 Antimicrobial and antioxidant activity of natural extracts of byproducts derived from the olive oil and winemaking processing

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PP079 Unchain the metabolic potential of plastics as carbon source for biotechnology

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PP080 Recycling mushroom's cultivation by-products to produce *Pleurotus ostreatus* new crops

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PP081 Exploring the fungal potential for natural and synthetic polymer degradation

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PP082 Accumulation of high-nutritional-value omega-3 fatty acids by the heterotrophic microalgae *Cryptocodinium cohnii* on organosolv fractionated agricultural residues from the flour milling industry

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PP084 Exposure to salinity stress conditions of an isolate from Kalloni solar saltworks on Lesvos island leads to biomass production with promising traits.

Archontoula Koskeridi¹, Aikaterini Koletti¹, Maria-Eleftheria Zografaki², Sofia Marka², Rodica-Catalina Efroze³, Emmanouil Flemetakis², George Tsirtsis¹, Chrysanthi Kalloniati¹

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PP085 Molecular classification of five microalgae strains isolated from Kalloni solar saltworks on Lesvos island

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PP086 Changes on nodule sulfate metabolism triggered upon carbon starvation induced by prolonged darkness

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PP087 Analysis of the bacterial and fungal microbiome of stone surfaces of monuments: towards the development of mitigation strategies for protection of cultural heritage

Konstantina Rousidou¹, Ioanna Gkoni¹, Venetios Michelioudakis¹, Panagiota Theodoropoulou³, Aristotelis Chatziioannou^{4,5}, Savvas Genitsaris², Ekaterini T. Delegou³, Eleftherios Pilalis³, Fragiskos Kolisis³, Dimitrios Karpouzias¹, Panagiotis Karas¹

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PP088 Exploitation of novel fungal oxidative biocatalysts for the sustainable production of valuable monomers from biobased furans

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PP089 Assessing growth kinetics and accumulation of high-value metabolites in freshwater and marine microalgae using crude glycerol as a carbon source

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PP090 Biotechnological production of bacterial pigment prodigiosin and bioactive properties of its metal complexes with Cu(II) AND Zn(II)

Jelena Lazic¹, Jelena Milovanovic¹, Tina P. Anejević², Darko P. Ašanin³, Tatjana Ilic-Tomic¹, Biljana Đ. Glišić², Jasmina Nikodinovic-Runic¹

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PP091 Enzyme-assisted extraction of bioactive compounds from the rosehips of *Rosa Canina* L. applying a box-behnken experimental design

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PP092 Assessment of the biofilm-forming ability of marine microalgae and cyanobacteria

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PP093 Characterization of isolated microalgae stains for hyponic wastewater bioremediation

Sofia Marka¹, Maria-Eleftheria Zografaki¹, Alexanos Ntzouvaras¹, Aikaterini Koletti¹, Ioannis Karavidas², Gabriel Vasilakis³, Chrysanthi Kalloniati⁴, George Tsiirtsis⁴, Georgia Ntatsi², Emmanouil Flemetakis¹

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PP094 Effects of culture and bioprocess conditions on the mycelium growth and production of bioactive substances of *ganoderma lucidum* and *monascus purpureus* *Chrysanthi Mitsagga*¹, *Ioannis Giavasis*¹

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PP095 Symbiotic interactions in the model legume *Lotus japonicus*: Mutation analysis of the SHAGGY-like *LJLSK1* kinase gene and phenotypic analysis of nodulation

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PP096 Spent mushroom substrates from *Pleurotus ostreatus* and *Pleurotus eryngii*: a potential source of exopolysaccharides and enzymes

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PP097 Investigating the role of triterpene biosynthetic genes in *I. Japonicus* during colonization by an endophytic fungus

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PP098 A novel CE16 exo-deacetylase from *Thermothelomyces thermophilus* with biotechnological potential

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PP099 Conversion of mixed plastic waste containing PET into biopolymer bacterial nanocellulose

Marijana Ponjavic¹, Sanja Jeremic¹, Ivana Malagurski¹, Ramesh P. Babu^{2,3}, Divya Rajasekaran^{2,3}, Evangelos Topakas⁴, Jasmina Nikodinovic-Runic¹

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PP100 Characterization of a novel cyclofructan transferase from *Janthinobacterium* BJB-304

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PP101 Parameters optimization of glycerol's bioconversion into gamma-linolenic acid by fungus *Cunninghamella elegans* cultivated in shake-flask and batch-bioreactor experiments

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PP102 Isolation and characterization of the multi-component carbazole dioxygenase driving the transformation of thiabendazole by a soil bacterial consortium

Konstantina Rousidou¹, Sotirios Vasileiadis¹, Chiara Perruchon¹, Christina Drakou², Anastasia Kantsadi², George Stravdimos², Dimitrios Karpouzas¹

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PP103 Secretome analysis of *Pleurotus citrinopileatus* grown on different lignocellulosic substrates

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PP104 Enzymatic treatment of extracts derived from natural sources for the enhancement of their biological activities

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PP105 The enzymatic machinery of the white-rot basidiomycete *Abortiporus biennis* can cause significant modifications to polystyrene structure

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PP106 Sustainable Exploitation of Bio-Based Compounds Revealed and Engineered from Natural Sources

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PP107 Novel *Yarrowia lipolytica* strains obtained through adaptive laboratory evolution and targeted genetic modifications for single-cell-oil production

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PP108 Enhancing Heterologous Protein Secretion in Yeasts: Combining Secretory Peptides and Genetic Modifications

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PP109 Lignocellulosic biomass to biogas: A biotechnological approach for Spent Mushroom Substrate valorization

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PP110 Extraction, characterization and potential applications of microalgal bioactive polysaccharides of strains isolated from Greek coastal lagoons

Gabriel - Gavriil Vasilakis¹, Sofia Marka¹, Alexanos Ntzouvaras², Aikaterini Koletti¹, Maria - Eleftheria Zografaki¹, Niki Papageorgiou¹, Xanthi Chantzistroutsou², Ioannis-Dimosthenis Adamakis², Amerssa Tsirigoti², Ioannis Tzovenis², Emmanouil Fletmetakis¹, Athena Economou-Amilli², Seraphim Papanikolaou¹

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PP111 A fungal transformation validation workflow for CRISPR/CAS9 mediated RNAi mutants

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PP112 Evaluation of in vitro protective effect against oxidative stress on human colon cells of microalgae extracts derived from hyponic effluents

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PP113 Enhancement of Desulfurization via Targeted Genetic Engineering in the Model Biocatalyst *Rhodococcus qingshengii* IGTS8

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PP113_a Advancing Sustainable Bioplastics through Microbial Upcycling for Novel Biopolymer Production

Maciej Guzik, Justyna Prajsnar, Ewelina Cichoń, Robert Karcz, Joanna Kryściak-Czerwenka, Jerzy Haber Institute of Catalysis and Surface Chemistry Polish Academy of Sciences, ul. Niezapominajek 8, 30-239 Krakow, Poland



PP113_b Insights into a bifunctional catalase-phenol oxidase from a marine-derived *Cladosporium* species

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PP113_c Exploiting the Greek microbial diversity for the discovery and development of novel antiangiogenic molecules

Konstantinos Gaitanis¹, Nikolaos Tsfantakis¹, Eirini Gkogkou², Despoina D. Gianniou², Stavroula Kaili³, Paris Laskaris³, Georgia Ntroupogianni³, Evangelia Tsiokanos¹, Dimitris Hatzinikolaou³, Ioannis P. Trougakos², Amalia Karagouni-Kyrtsou³, Nikolas Fokialakis¹

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PP113_d Catabolic Sphe3 genes: gears in an *E. coli* cis, cis-muconic acid producing apparatus

Stamatia Asimakoula¹, Styliani Timotheatou¹, Ioanna Kosma², Anastasia Badeka², Anna-Irini Koukkou¹

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ONE HEALTH/OMICS

PP114 Utilization of real-time monitoring technologies in a food Risk Assessment framework

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PP116 The co-evolution of mitochondrial and nuclear genes encoding proteins implicated in the cellular respiration of fungi

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PP117 Food waste management for the production of animal feed

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PP118 Incorporation of pomegranate juice and its concentrate in sodium alginate for the production of "Smart" edible packaging for chicken minced meat

Stavroula Letsiou¹, Eirini Papadimitriou², Vasiliki Kontogianni G.¹, Loulouda Bosnea¹

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PP119 The complex GH32 orchestra from *Priestia* spp. holds the key to better discriminate sucrose and fructan metabolism in bacteria

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PP120 Less Is More: Design Of A Minimal *Zymomonas Mobilis* Genome by Generating Targeted Deletions in Strain ATCC 29191

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PP121 A beneficial fungal endophyte triggers RNA silencing to an intronless but not to an intron-containing host reporter gene

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PP122 *Laurus nobilis* and *rosa canina* plant extracts as potent functional regulators of food microbiome

Grigoria Mitropoulou¹, Vasiliki Kompoura¹, Ioanna Karapantou¹, Vasileios K. Gkalpinos², Vasiliki A. Anagnostou², Stauroula G. Kyrkou², Aneas G. Tzakos², Yiannis Kourkoutas¹

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PP123 Medium chain length polyhydroxyalkanoates (mcl-PHA) model compounds for the discovery of novel PHA depolymerases

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PP124 Elucidating the evolution of early diverging fungi: the role of the mitochondrial genome

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PP127 Speed up Mosquito Control: Innovative Approaches to Identify Invasive Species and Detect Vector-Borne Viruses

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PP128 Evaluating the effects of novel probiotic strains in healthy mice

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PP129 Novel Greek Streptomyces strain with antimicrobial activity against multi-drug resistant pathogens

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PP130 Understanding the formation and inactivation of biofilms of the pathogenic microorganism Legionella pneumophila

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PP131_a A panoramic view of the genomic landscape of the genus Streptomyces

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EMERGING APPROACHES

PP132 Evaluation of biofilm formation on oenological surfaces by new isolated Brettanomyces bruxellensis strains

Aikaterini Tzamourani¹, Nikolaos Mourdoukoutas¹, Ioannis Paraskevopoulos¹, Maria Dimopoulou¹

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PP133 Endometrial microbiota and in vitro fertilization

Kleopatra Gravani¹, Gedeon Loules¹, Iliana Boura², Stamatia Liarmakopoulou³, Michael Pelekanos³, Aristeidis Eliopoulos⁴, Anastasios Germenis¹, Despoina Sanoudou⁴, Maria Zamanakou¹

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PP135 Genomic analysis, probiotic properties and antagonistic activity of lactic acid bacteria isolated from raw sheep milk against mastitis-causing agents

Theodora Skarlatoudi¹, Kornilia Vatavali¹, Agathi Giannouli¹, Myrto-Glykeria Anagnostou¹, Maria Kousta¹, Stamatina Asimakoula¹, Epaminondas Tsagkogiannis¹, Anastasios Vasiliadis¹, Ilias Apostolakos¹, Loulouda Bosnea¹, Marios Mataragas¹

¹Elgo-Dimitra / Dairy Research Department, Ioannina, Greece

PP137 Investigation of the biological actions of selected probiotics on breast cancer cells in vitro

Panagiotis Panagopoulos¹, Ioanna Zikopoulou¹, Anastasia Kougioumtzi¹, Alexanos Savvidis², Dimitris Hatzinikolaou², Aggeliki Magklara^{1,3}

¹Biomedical Research Institute-FORTH, Ioannina, Greece, ²Department of Biology, National and Kapodistrian University of Athens, Athens, Greece, ³Department of Clinical Chemistry, Faculty of Medicine, University of Ioannina, Ioannina, Greece

PP138 Modification of tomato hormonal pathways during a tripartite plant-microbe-arthropod interaction

Olga Tsiouri¹, Dimitra Aggelopoulou¹, Panagiotis Vletsos¹, Konstantinos Samaras², Paraskevi Ntalia², Marianna Avramidou¹, Maria Feka¹, George D. Broufas², Maria L. Pappas², Kallioppe Papadopoulou¹

¹University Of Thessaly, Larissa, Greece, ²Democritus University of Thrace, Orestiada, Greece

PP140 Development and validation of a stochastic model for the effect of temperature on the growth kinetics of *Bacillus cereus* strains in pasteurized milk

Fotios Zarras¹, Ourania Misiou¹, Kostantinos Koutsoumanis¹

¹Laboratory of Food Microbiology and Hygiene, Department of Food Science and Technology, School of Agriculture, Faculty of Agriculture, Forestry and Natural Environment, Aristotle University of Thessaloniki, Thessaloniki, Greece

PP140_a Developing a new yeast selection method for wine fermentation starters

Aikaterini Tzamourani¹, Vasiliki Mazonaki¹, Ioannis Paraskevopoulos¹, Maria Dimopoulou¹

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PP140_b Progressing Ultragreen, Energy-Efficient Biobased Depolymerization of Poly(ethylene terephthalate) via Microwave-Assisted Green Deep Eutectic Solvent and Enzymatic Treatment

Muhammad Azeem, Olivia Adly Attallah, Efstratios Nikolaivits, Evangelos Topakas, Margaret Brennan Fournet

Tus Athlone, Ireland

FOOD NUTRITION

PP141 Effect of storage temperature on the production of volatile metabolites in chicken meat of similar microbiological quality, based on the microbial counts

Anastasia Lytou¹, Lemonia- Christina Fengou¹, Pengchemg Dong², Yimin Zhang²,

Nikos Chorianopoulos¹, George Nychas¹

¹Laboratory of Microbiology and Biotechnology of Foods, Department of Food Science and Human Nutrition, Agricultural University of Athens, Athens, Greece, ²College of Food Science and Engineering, Shandong Agricultural University, Shandong, China

PP142 Inactivation behavior of salmonella under acidic food preservation stress: individual cell heterogeneity and population dynamics (hetero - inactivation)

Zafeiro Aspidou¹, Anagnostis Argyriou¹, Konstantinos Koutsoumanis²

¹inab Certh, Thermi, Greece, ²lab Of Food Microbiology And Hygiene, Dep Of Food Science And Technology, School Of Agriculture, Aristotle University Of Thessaloniki, Thessaloniki,

PP144 Microbial stability of home-made dried fruits and vegetables

Maria - Parthena Kiosi¹, Evaggelia Bolia¹, Ioanna Mantzourani², Stavros Plessas², Olga Pagonopoulou³, Athanasios Alexopoulos¹

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Poster Presentations



PP145 Determination, characterization and bioprotective properties of the microflora of naturally fermented traditional greek yogurt from sheep and cow milk of different artisanal dairy producers

Paraskevi Bouki¹, Christina Tsadila², Chrysanthi Mitsagga¹, Ioannis Giavasis¹, Dimitris Mossialos²

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PP146 Effect of 12-week probiotic consumption immobilized on oat flakes on blood and urine biomarkers and human microbiome

Panoraia Bousdouni¹, Aikaterini Kandyliari^{1,2}, Panagiota Potsaki¹, Olga Papagianni¹, Marilena Stylianou¹, Ioanna Prapa³, Chrysoula Pavlatou³, Grigoria Mitropoulou³, Yiannis Kourkoutas³, Ioanna Farmakioti⁴, Electra Stylianopoulou⁴, Giorgos Skavdis⁴, Marirena Grigoriou⁴, Antonis E. Koutelidakis¹

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PP147 Multispectral Imaging (MSI) for the discrimination of different microorganisms forming biofilms on stainless steel surfaces

Aikaterini Psarfti¹, Anastasia Lytou¹, LEMONIA-CHRISTINA FENGOU¹, George-John Nychas¹, Nikos Chorianopoulos¹

¹Agricultural University Of Athens, Department Of Food Science And Human Nutrition, Athens, Greece

PP148 Physicochemical and microbiological characteristics of yogurts fortified with apple pulp

Despoina Christodoulakou¹, Ana Bako¹, Mariangela Giatra¹, Constantina Pappa¹, Eleni Sakadani¹, Panagiotis Kandyliis¹, Dimitra Dimitrellou¹

¹Department of Food Science and Technology, Ionian University, Argostoli, Greece

PP149 Application of ATR-FTIR spectroscopy as a PAT tool for discriminating among Tuber species, their origin and maturity status

Georgios Bekiaris¹, Vassileios Daskalopoulos¹, Nick Kalogeropoulos², Georgios I. Zervakis¹, Elias Polemis¹

¹Laboratory of General and Agricultural Microbiology, Agricultural University of Athens, Iera Odos 75, 11855 Athens, Greece, ² Department of Nutrition and Dietetics, School of Health Science and Education, Harokopio University of Athens, 176 76 Athens, Greece

PP150 Directed fermentation of black olives cv. Konservolia by functional cultures in lab and industrial scale

Athena Grounta¹, Dimitra Dourou¹, Nefeli Lampoglou¹, Agapi Doulgeraki¹, Anthoula Argyri¹, Chrysoula Tassou¹

¹Institute Of Technology Of Agricultural Products/Hellenic Agricultural Organization - Dimitra, Lykovrissi, Greece

PP151 Effect of organic herbs on the quality and safety of chicken broth

Agapi Doulgeraki¹, Vasiliki Bikouli¹, Anthoula Argyri¹, Polyxeni Chrysanthou¹, Eleni Lambrinea¹, Chrysoula Tassou¹, Antonios Manolitsakis²

¹Institute of Technology of Agricultural Products/Hellenic Agricultural Organization - DIMITRA, Lykovrissi, Greece, ²Agroklitima Kritis, Rethymno, Greece

PP152 Microbiological quality and safety assessment of various chicken meat products as influenced by manual processing operations

Dimitra Dourou¹, Athena Grounta¹, Agapi Doulgeraki¹, Anthoula Argyri¹, Nikos Chorianopoulos^{1,2}, Pengchemg Dong³, Yimin Zhang³, George-John Nychas², Chrysoula Tassou¹

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PP153 Survey: Microbiological quality of fish from retail

Lemonia-Christina Fengou¹, Anastasia Lytou¹, Anastasios Stamatiou¹, George-John Nychas¹

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PP154 Occurrence and contamination levels of ochratoxin A and aflatoxins in corn-based products from markets in Greece

George Froutis^{1,2}, Dimitra Dourou¹, Anthoula Argyri¹, Agapi Doulgeraki¹, Marinos Chronopoulos², George - John Nychas², Chrysoula Tassou¹

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PP155 Evaluation of the greek pdo anevato cheese with metagenomics and volatolomics

Maria Govari^{1,2}, Marina Papadelli², Dimitra Tsoliakou^{1,2}, Maria Gkerekou^{1,2}, Panagiotis Skandamis¹, John Kapolis², Konstantinos Papadimitriou¹

¹Agricultural University Of Athens, Athens, Greece, ²University of the Peloponnese, Antikalamos, Greece

PP156 Assessment of the microbiota of industrial dry sourdoughs through MALDI-TOF and metagenomics

Maria-Chrysanthi Kafentzi¹, Marina Papadelli¹, John Kapolis¹, Konstantinos Papadimitriou²

¹Department Of Food Science And Technology, University Of Peloponnese, Antikalamos, Kalamata, Greece, ²Agricultural University of Athens, Department of Food Science & Human Nutrition, Laboratory of Food Quality Control and Hygiene, Iera Odos 75, 11855, Greece, Greece

PP157 Development of novel biomarkers as time-temperature indicators of freshness or spoilage of fresh, vacuum-packed prawns and squid

Myrsini Kakagianni¹, Athina Griangelou¹, Ioannis Giavasis¹

¹University Of Thessaly, Karditsa, Ελλάδα

PP158 Cytotoxic effect of selected cell-free probiotic supernatants on colon cancer cell lines

Ioanna Kokkinopoulou¹, Aniana Diakoumi¹, Christos Velesiotis¹, Alexanos Savvidis², Dimitris G Hatzinikolaou², Amalia D Karagouni², Paraskevi Moutsatsou¹

¹Department of Clinical Biochemistry, Medical School, National and Kapodistrian University of Athens, University General Hospital "ATTIKON", Athens, Greece, ²Department of Botany, Faculty of Biology, National and Kapodistrian University of Athens, Athens, Greece

PP159 Evaluation of different encapsulation methods of lactobacillus plantarum 2035 to enhance its viability in beer environment

Maria Liakou¹, Panagiotis Kandyliis

¹Aristotle University Of Thessaloniki, Thessaloniki, Greece

PP160 Application of alternative preservation methods for fruits and production of novel highly preservable products

Pantelis Natskoulis¹, Panagiotis Theodoropoulos², Athanasios Tsiotinas³

¹ELGO-DIMITRA / Institute Of Technology Of Agricultural Products, Greece, ²Federation of Professionals, Craftsmen, and Merchants of Arcadia (OEBEA), Tripoli, Greece, ³Agricultural & Livestock Cooperative of Arcadia - AKSA "The Union", Tripoli, Greece

PP161 Production of wine with enhanced varietal aroma from cv. "Moschofilero"

Aspasia Nisiotou¹, Panagiotis Theodoropoulos², Athanasios Tsiotinas³, Evangelos Kalogris⁴

¹ELGO "DIMITRA", Lykovrysi, Greece, ²OEBEA, Tripoli, Greece, ³AKSA "ENOSI", Tripoli, Greece, ⁴Ktima Kalogri, Kapsia, Arcadia, Greece

PP162 Fungal mycobiota isolated from Kefalonian cheeses

Konstantina Ntonti¹, Sotiria Milla¹, Panagiotis Kandyliis¹, Dimitra Dimitrellou¹

¹Department of Food Science and Technology, Ionian University, Argostoli, Greece

PP164 Bacterial communities of fresh mussels stored at 2 and 4°C

Dimitrios Anagnostopoulos¹, Anastasia Lytou², Lemonia Fengou², Foteini Parlapani¹, George Nychas², Ioannis Boziaris¹

¹Laboratory of Marketing and Technology of Aquatic Products and Foods, Department of Ichthyology and Aquatic Environment, School of Agricultural Sciences, University of Thessaly, Phytoko Street, 38446 Volos, Greece, Volos, Greece, ²Laboratory of Microbiology and Biotechnology of Foods, Department of Food Science and Human Nutrition, School of Food and Nutritional Sciences, Agricultural University of Athens, Iera Odos 75, Athens, Greece

PP165 Developing stable functional ingredients for the food industry containing immobilized cells of a wild-type plant-based presumptive probiotic strain on high-fiber content supports

Chrysoula Pavlatou¹, Ioanna Prapa¹, Yiannis Kourkoutas¹

¹Laboratory of Applied Microbiology and Biotechnology, Department of Molecular Biology and Genetics, Democritus University of Thrace, Alexanoupoli, Greece

Poster Presentations



PP166 Effectiveness of probiotic immobilized on lyophilized banana powder on patients with Irritable Bowel Syndrome

Panoraia Bousdouni¹, Panagiota Potsaki¹, Aikaterini Kandyliari^{1,2}, Olga Papagianni¹, Ioanna Prapa³, Chrysoula Pavlatou³, Grigoria Mitropoulou³, Yiannis Kourkoutas³, Ioanna Farmakioti⁴, Electra Stylianopoulou⁴, Giorgos Skavdis⁴, Marena Grigoriou⁴, Antonis E. Koutelidakis¹

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PP167 Discrimination of biofilm cells from planktonic and of different microbial groups using FT-IR

Aikaterini Psarafti¹, Lemonia-Christina Fengou¹, Anastasia Lytou¹, George-John Nychas¹, Nikos Chorianopoulos¹

¹Agricultural University Of Athens, Athens, Greece

PP168 Tracking of Salmonella in sesame edible seeds imported in Greece

Patra Sourri¹, Mitre Elissavet¹, Georgia Charvourou¹, Aphrodite Smpiraki², Anthoula Argyri¹, Agapi Doulgeraki¹, Chrysoula Tassou¹

¹Institute Of Technology Of Agricultural Products, Hellenic Agricultural Organization – Dimitra, Lykovrissi, Greece, ²Hellenic Ministry of Rural Development and Food - Veterinary Laboratory of Chalkida, NRL for Salmonella, Chalkida, Greece

PP169 Volatile metabolites analysis coupled with machine learning for the rapid quality assessment of chicken meat

Maria Konstantina Spyratou¹, Anastasia Lytou¹, Eirini Lariou¹, Athanasios Mallouchos¹, Anastasios Stamatou¹, Nikolaos Chorianopoulos¹, George-John Nychas¹

¹Agricultural University Of Athens, , Greece

PP170 Bioprotective effect of probiotic lactic acid bacteria against Salmonella enterica in orange juice

Stamatia Vitsou Anastasiou^{1,2}, Olga Papadopoulou², Anastasios Stamatou¹, Nikos Chorianopoulos¹, Emilia Papakonstantinou³, George-John Nychas¹, Chrysoula Tassou²

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PP172 Potential of Fourier transform infrared spectroscopy for the rapid monitoring of ochratoxin A and aflatoxin B1 in foods

George Froutis¹, Dimitra Dourou¹, Anthoula Argyri¹, Agapi Doulgeraki¹, Nikos Chorianopoulos², George-John Nychas², Chrysoula Tassou¹

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PP173 Predicting the survival of probiotic Lactiplantibacillus plantarum in fruit juice as a function of pH and storage temperature

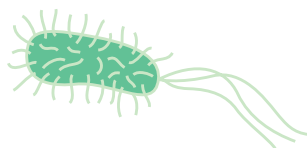
Sofia Tsaloumi¹, Stamatia Vitsou-Anastasiou², Konstantina Stasinou¹, Chrysoula Tassou², Konstantinos Koutsoumanis¹

¹Laboratory of Food Microbiology and Hygiene, Department of Food Science and Technology, School of Agriculture, Aristotle University Of Thessaloniki, Greece, ²Institute of Technology of Agricultural Products, Hellenic Agricultural Organization DIMITRA, Greece

PP175 Comparative genomics of Bacillus cereus isolates responsible for sweet curdling of milk

George Tsiolas¹, Maria Kyritsi¹, Vasiliki Schoretaniti³, Maria Gougouli³, Sofia Michailidou¹, Anagnostis Argiriou^{1,2}

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PP177 Modeling the survival of two probiotic strains encapsulated in a whey protein isolate - gum arabic coacervate matrix under harsh conditions

Stamatia Vitsou Anastasiou^{1,2}, Olga S. Papadopoulou¹, Agapi I. Doulgeraki¹, Anthoula A. Argyri¹, George-John E. Nychas², Chrysoula C. Tassou¹

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PP178 Survival of Lactic acid bacteria and pathogens in a fermented product made from soy beverage during cold storage

Anastasios Aktypis¹, Ekaterini Papaioannou², Helen Stamati³, Eugenia Manolopoulou⁴

¹Dairy Laboratory, Department of Food Science and Human Nutrition, Agricultural University of Athens, Athens, Greece, ²Laboratory of Animal Breeding and Husbandry, Faculty of Animal Science and Agriculture, Agricultural University of Athens, Athens, Greece, ³Dairy Laboratory, Department of Food Science and Human Nutrition, Agricultural University of Athens, Athens, Greece, ⁴Dairy Laboratory, Department of Food Science and Human Nutrition, Agricultural University of Athens, Athens, Greece

PP178_a Design and development of functional strained yoghurt with probiotic cultures encapsulated in prebiotic matrices

Christiana Tsirimiagkou^{1,2}, Vasiliki Giatrakou¹, Athina Geronikou^{1,2}, Katerina Velivasaki², Evangelia Kristalli¹, Evita Katsorida², Katerina Pissaridi^{1,2}

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PP178_b Fate of Salmonella enterica in orange juice and in consequent simulated human gastrointestinal system in the presence of free or encapsulated probiotic lactic acid bacteria

Stamatia Vitsou Anastasiou^{1,2}, Olga S. Papadopoulou¹, Ismini-Maria Patsopoulou¹, Aikaterini Frantzi², Nikos Choriantopoulos², George-John E. Nychas², Chrysoula C. Tassou¹

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PP178_c Natural Fruit Juices Enriched With Probiotic Bacteria And Other Biofunctional Constituents In Encapsulated Form

Olga S. Papadopoulou¹, Agapi I. Doulgeraki³, Thomas Moschakis³, Anthoula A. Argyri¹, George-John E. Nychas², Aimilia Papakonstantinou², Konstantinos P. Koutsoumanis³, Chrysoula C. Tassou¹

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PP178_d Effect of microencapsulation on the survival of probiotic bacteria in model food and in orange juice during heat treatment

Stamatia Vitsou Anastasiou^{1,2}, Olga S. Papadopoulou¹, Ismini-Maria Patsopoulou¹, Agapi I. Doulgeraki³, Anthoula A. Argyri¹, George-John E. Nychas², Kostas Koutsoumanis³ and Chrysoula C. Tassou^{1*}

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PP178_e Application of novel olive fruit processing methods and technologies for the high-efficiency production of olive oil and olive paste with improved quality and nutritional characteristics

A. Argyri¹, C. Tassou¹, P. Gotsiou², S. Grigorakis², S. Tzanakakis³, I. Sofios³, A. Monachogios⁴, A. Koutalas⁵, G. Pastras⁶, D. Kompis⁷, I. Stathopoulos⁸

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GENERAL INFORMATION



Congress Dates

30 November - 2 December



Venue

Divani Palace Larissa

Papanastasiou 19, 412 22, Larissa, Thessaly Greece



Secretariat Opening Hours

The Conference Secretariat will be operating in the Conference venue according to the following time schedule for the provision of support to Participants, Speakers and Sponsors.

Thursday, 30 November 2023 → 13.30 - 20.30

Friday, 1 December 2023 → 08.30 - 20.30

Saturday, 2 December 2023 → 08.30 - 17.00



Official Language

The official language of the Conference is English. No interpretation will be provided.



Scientific Program Sessions

For the smooth flow of the scientific program, it is kindly requested that: Speakers limit their lecture within the predetermined duration and abstract presenters (oral presentations) within 15 minutes in total. Moderators adhere to the time frame of the session they are chairing, ensuring the necessary time for discussion, and encouraging questions from the audience.



Social Activities

WELCOME RECEPTION

Date: Thursday 30 November 2023

Time: 19.30-20.30



Speakers Preview Desk

All Speakers are kindly requested to have their presentations available in electronic format (USB sticks). The use of personal computers and tablets is not allowed. All presentations will be delivered at least two (2) hours before the start of the session to the authorized personnel that staffs the Speakers Preview Desk, which will be located at the Conference Venue for the whole duration of the Conference.

GENERAL INFORMATION



Smoking Policy

Smoking is not allowed at the venue; the meeting is a non-smoking event!



Certificates

Certificates of attendance will be shared electronically to all registered participants after the completion of the evaluation form.



Badges

Badges will be provided to all registered participants by the Conference Secretariat. Conference badges are mandatory for admission and access to the meeting hall and exhibition, as well as all congress functions. Please wear your badge visibly at all times.



Disclaimer

The Organizing Committee and the PCO, AFEA Travel & Congress Services accept no liability for any personal injury, loss or damage of property or additional expenses incurred to congress participants either during the congress or as a result of delays, strikes or any other circumstances. In addition, they accept no liability for illness (including death) from infectious diseases, including but not limited to COVID-19 during or after the Congress dates. Participants are requested to make their own arrangements with respect to health and travel insurance.



Currency – Credit Cards

Greece is a member of the eurozone, the group of EU countries that use Euro (€). No other currency is accepted.

Major cities of Greece, as Larissa, are cash-free to a great extent and the use of debit and credit cards is very widespread. All major credit cards are accepted in almost all hotels, shops and restaurants. Stickers in the front windows will advise you as to which cards are accepted.

Banks are open from Monday to Thursday, 8:00-14:30 hrs and on Friday, 8:00-14:00 hrs; on Saturdays and Sundays they are closed.

Using an ATM is most probably the best way to get some cash in euro while you are traveling in Greece.

There are no set rules when it comes to tipping in Greece. It is recommended to leave a small tip for each service.

GENERAL INFORMATION

About the host city

Larissa is a very youthful and vibrant city, with many cafes, restaurants, and taverns, situated, by the most part, in the pedestrian area of the city center.

The city of Larissa has a history of 8000 years, with two ancient theaters within its urban structure, while it also has an important cultural history and several museums, such as the Ancient Theaters, Diachronic Museum, Municipal Art Gallery Folklore Museum, Basilica of St Achilles, Bezesteni and the Mill of Pappas.

Legend has it that Achilles was born here. Hippocrates, the “Father of Medicine”, died here. Today, Larissa is an important commercial, transportation, educational, agricultural, and industrial center of Greece.

The area also provides several agricultural products of excellent quality, including many products with designation of origin (PDO) – Feta, Tsipouro (e.g., Tirnavou), lamb, many wines (e.g., Tsantali Rapsani) to name a few – as well as vegetables, legumes, grain, herbs, fruits, local traditional pasta (trachanas, chylopites), etc. Furthermore, during the year there are many product festivals (feta cheese festival, wine festival, chestnut festival, cherry festival, etc.) exhibiting local gastronomy and culture.



Apart from the city’s cultural activities and events you will be able to enjoy various sports activities, such as Canyoning, Trekking and Hiking but also sites definitely worth adding to your bucket list. The river Pinios runs through the north part of the city, and it is a meeting point for people who enjoy nature, walking and biking.

Larissa is in close proximity of many interesting destinations in the region suitable for daily trips.





thank you for attending

10th International Conference

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