13th ICPMF

International Conference on Predictive Modelling in Food

ICPMF

International Committee on Predictive Modelling in Food

1-3 Sept. 2025

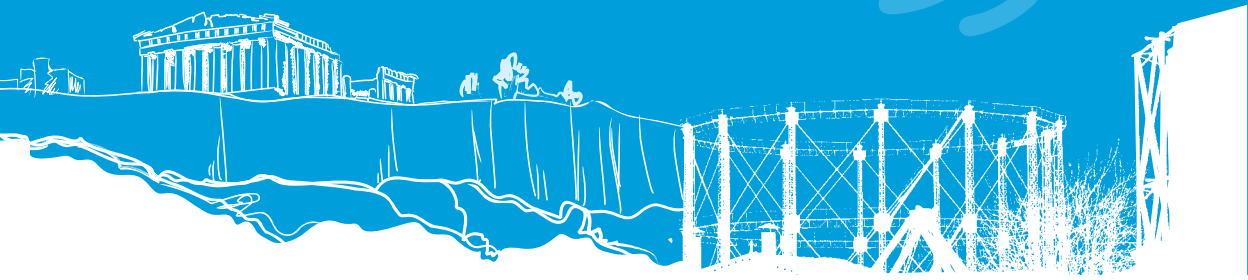
Technopolis City of Athens

Funded by the European Union

Final Program

ICPMF

International Committee on Predictive Modelling in Food



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Welcome

Dear Colleagues,

Here we are!

I would like to welcome you in the **13th International Conference of Predictive Modelling in Food!**

The motivation.

Over the last decades, Predictive Modelling Society has contributed significantly to the better understanding of Food Science. As "everything flows" ("τα πάντα ρεί...", acc. to Heraclitus), the preparedness and resilience of Food Supply Chain is probably the ultimate prerequisite for the agri-food industry in response to

(i) the current state of tremendous technological progress, where consumers' lifestyles and preferences are in a constant state of flux

(ii) the emerging issue of climate change and

(iii) OneHealth needs.

Food chain transparency and trust are drivers for food integrity control and for improvements in interventions' efficiency and economic growth. Similarly, the circular economy has great potential to reduce wastage and improve the efficiency of operations in multi-stakeholder ecosystems.

Throughout the supply chain, food commodities are exposed to multiple hazards, resulting in a variable likelihood of contamination. Such biological or chemical hazards may be naturally present at any stage of food production, whether accidentally introduced or fraudulently imposed, threatening consumers' health and compromising the trust of society to the food industry.

Expressing food safety and quality in quantitative terms via Predictive Modeling tools enabled assessment of compliance with standards, making of timely, risk-based decisions, cost-effective targeted recalls, and implementation of safety/quality-by-design, standardized processes. Predictive Modeling has also been the cornerstone of the transition from hazard to risk-based thinking.

Nowadays, a massive amount of data is generated across the food supply chain, not only from the next generation of food safety monitoring systems but also from Internet-of-things, advances in omics era, media, non-destructive sensors and hyper-automated analytical equipment. These data should be used for the benefit of society, and data science should be a vital player in helping to make come true. To convert laboratory data and multi-channel data (from various streams) into new insights, knowledge and ultimately, wisdom!

These new approaches must meet market demands and business operators' (producers, retailers, resellers) and regulators', needs i.e., develop, and apply structured quality and safety assurance systems based on thorough risk analysis and prevention, through monitoring, recording, and controlling of critical parameters covering the entire product's life cycle. However, the production, supply, and processing sectors of the food chain are fragmented and this lack of cohesion results in a failure to adopt new and innovative technologies, products, and processes.

The potential of using information technologies (e.g., data storage, communication, and cloud platforms) in tandem with data science (e.g., data mining, pattern recognition, uncertainty modelling, artificial intelligence, deep learning etc), throughout the food supply chain, including processing, retailers and consumers, will provide stakeholders with novel tools regarding the implementation of a more efficient food safety management.

The shift from Middle Age to Enlightment was triggered by philosophy and vision, forecasting that certain changes in people's mindset would bring a desirable cultural change. Six hundred years later, AI enables pattern recognition and mining of underlying trends out of theoretically unrelated data, or unexplained trends, with a capacity/speed at multitudes higher than human brain. As such, scientists need to harness the power they granted to the machines, for the benefit of humanity and for reducing the burden from climate changes and other contemporary global threats.

Bearing in mind the above, we believe that since the transformation of the unstructured body of modellers to a solid, strong, sustainable and life-learning scientific society has been achieved, it is time to meet another challenge quoted by Darvin "neither the smartest nor the strongest, but the most adaptable is the one who survives" and indirectly, it should be adopted in our case.

Thus, the vision of this international conference is to allow our scientific society to refresh, re-establish (or re-assess) the drivers of Predictive modelling in Food for the next 30 years, deploying "stochastic approaches", not with the sensu stricto mathematician terminology (random) but with its authentic Greek interpretation (i.e., I am pondering—try to guess).

To achieve this, **emerging cutting-edge disciplines** should be encouraged to contribute and join forces, with us, to empower our efforts for food safety and quality, which all of us are willing to serve.

The President of the Organizing Committee,

George - John NYCHAS ***BSc, PhD & DSc***

Distinguished Professor at Shandong Agricultural University, Tai'an, China

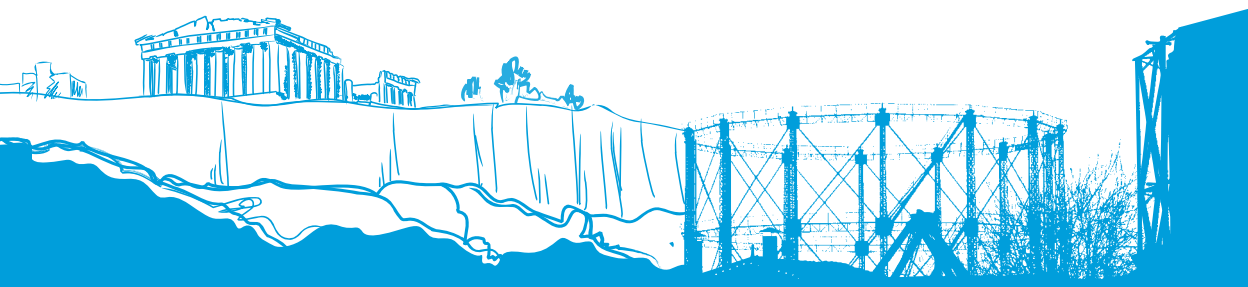
Emeritus Professor at Agricultural University of Athens, Greece

ORGANIZATION

ICPMF

International Committee on Predictive Modelling in Food

International Committee on Predictive Modelling in Food (ICPMF)



Congress Secretariat

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Co - Chairpersons

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P. Skandamis

C. Tassou

Members of the Organizing Committee

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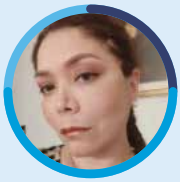
Dong, Q.

Ellouze, M.



Gonzales-Barron, U.

Koseki, S.

Lianou, A.

Mataragkas, M.

Nauta, M.

Pérez-Rodríguez, F.

Pouillot, R.

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Taoukis, P.

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Distinguished Professor and Extension Specialist

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ABOUT ICPMF

ICPMF

International Committee on Predictive Modelling in Food

International Committee on Predictive Modelling in Food (ICPMF)

The **International Committee on Predictive Modelling in Food (ICPMF)** was founded on 12 September 2011 in Dublin during the ICPMF-7 conference.

Since 2014, ICPMF is a subcommittee of The International Committee on Food Microbiology and Hygiene (ICFMH), and through this link, is now under the umbrella of the International Union of Microbiological Societies (IUMS).

topics

Part A: The Old Good Times

- ➜ Molecular Epidemiology, Predictive Microbiology, and Quantitative Microbial Risk Assessment (QMRA) in the Context of One Health
- ➜ Risk-Based Process and Product Design: Model and Validate vs Cook and Look. – Novel Food Preservation Processes: Modelling for Optimal Design

Part B: OMICS and Data Science

- ➜ Integrating OMICS in QMRA: Predicting Growth and Microbial Physiology through OMIC Data
- ➜ Making Sense of Data: The Use of Data Science, AI, Machine Learning, and Their Tools for Decision Making in the Food Sector
- ➜ Digital Twins in the Food Sector

Part C: Modelling Food Microbiome

- ➜ Systems Biology: Mapping the Quantitative Changes of Food Microbiome (Foods vs Gut)
- ➜ Individual Cell Modelling: From Single Cells to Microbial Population and Vice Versa

Part D: Back to Future Roots of PMF

- ➜ Food Safety by Design: Tools and Decision Support Systems
- ➜ The Role of the Unknowns (Uncertainty) in Decision Making and the Unknown Science Serving Predictive Modelling in Food Sector

Part E: Missing Topics

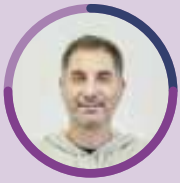
- ➜ Other

INVITED SPEAKERS

József Baranyi
ERA-Chair Holder, Aristotle University of Thessaloniki, Greece Doctor Honoris Causa and Honorary Professor, Hungarian University of Agriculture and Life Sciences, Budapest, Hungary

Fady Mohareb
Professor of Bioinformatics - Head of the Bioinformatics Group - Applied Bioinformatics MSc Course Director. School of Water, Energy and Environment, Cranfield University

Jan Van Impe
Division Head BioTeC+ / Course Director BiFTec-FOOD4S KU Leuven



Gianni Panagiotou
Professor of Microbiome Dynamics, Faculty of Biological Sciences, Friedrich Schiller University, Jena, Germany

Qingli Dong
Professor & Doctoral Supervisor, University of Shanghai, Science and Technology (USST), P. R. China

Scientific Program

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Monday, September 1, 2025

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Tuesday, September 2, 2025

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Wednesday, September 3, 2025

SCIENTIFIC PROGRAM

Monday, September 1, 2025

AMPHITHEATER | MAIN HALL

08:00 – 08:30	**REGISTRATIONS**
08:30 – 08:45	**OPENING CEREMONY** **Panagiotis Skandamis, George-John Nychas**
08:45 – 09:30	**PLENARY LECTURE** "Development of Predictive Modelling in Food Science. From Descriptive Statistics and Patterns to Predictive Models and Principles; From Data to AI" **Chair: Chrysoula Tassou** **Speaker: Jozsef Baranyi**
09:30 – 11:00	**ORAL SESSION 1** **Chairpersons: Fanny Tenenhaus-Aziza, Karin Beekmann-Metselaar**
09:30 – 09:45	OP01 Growth kinetics of bacterial spore-formers isolated from plant-based ingredients: Consequences for food safety and quality, **Karin Beekmann-Metselaar**
09:45 – 10:00	OP02 Incorporating Biochemical Composition into Predictive Growth Models for Plant-Based Milk products, **Maha Rockaya**
10:00 – 10:15	OP03 Modelling microbial inactivation of spoilage microorganisms as a tool to differentiate thermal and non-thermal effects during pulsed electric field processing of plant-based milk alternatives, **Vasilis Valdramidis**
10:15 – 10:30	OP04 Application of Cold Atmospheric Plasma (CAP) for fish fillets shelf-life extension: moving from laboratory scale to industrial environment, **George Katsaros**
10:30 – 10:40	OP05 Data-Driven Tools for Optimizing Microbiological Monitoring in Dairy Production with a Risk-Based Approach, **Fanny Tenenhaus-aziza**
10:40 – 10:50	OP06 Estimation of kinetic parameters during microbial growth under dynamic temperature conditions, **Vasileios Kousiaris**
10:50 – 11:00	OP07 Evaluation of Heat-Treated Lactic Acid Bacteria for Postbiotic Production in Food Biopreservation, **Evrim Güneş Altuntaş**

SCIENTIFIC PROGRAM

Monday, September 1, 2025

AMPHITHEATER | MAIN HALL

11:00 – 11:30	*COFFEE BREAK*
11.30 – 12.00	**PLENARY LECTURE** "From Insight to Impact: Real-World AI Applications in Food Quality and Safety" **Chair: Shige Koseki** **Speaker: Fady Mohareb**
12:00 – 13:30	**ORAL SESSION 2** **Chairpersons: Panagiotis Skandamis, Chrats Melkonian**
12:00 – 12:15	**OP08** Application of Machine learning with Food Import Risk Explorer Risk (FIRE) model to support risk-informed program design, **Ashwani Tiwari**
12:15 – 12:30	**OP09** "Multivariate Food Predictor": a tool for non-destructive assessment of microbial spoilage of Meat, Ready-To-Eat meat products, and Fresh-cut salads, **Panagiotis Skandamis**
12:30 – 12:45	**OP10** Microbial interactions between starter and adjunct cultures shape the metabolic potential and flavour formation of cheese ripening, **Chrats Melkonian**
12:45 – 13:00	**OP11** Multi-target prediction with deep neural networks in foodomics: a case study on Brochothrix thermosphacta to predict volatile organic compounds linked to fresh meat spoilage, **Linyun Chen**
13:00 – 13:10	**OP12** ResPathExplorer: A Python-Based Library for Pathway Analysis and Resistance Gene Mapping through KEGG and CARD Integration, **Laís Carvalho**
13:10 – 13:20	**OP13** Predictive Modelling of Escherichia coli and Lactic Acid Bacteria Growth in Fresh sheep Cheese, **Geoffrey Roudaut**
13:20 – 13:30	**OP14** Natural Antimicrobial Strategies for Cultivated Meat: Predicting Salmonella Inactivation Through Physiochemical and Formulation Parameters, **Youssef Ezzaky**
13:30 – 14:30	*LUNCH BREAK*

SCIENTIFIC PROGRAM

Monday, September 1, 2025

AMPHITHEATER | MAIN HALL

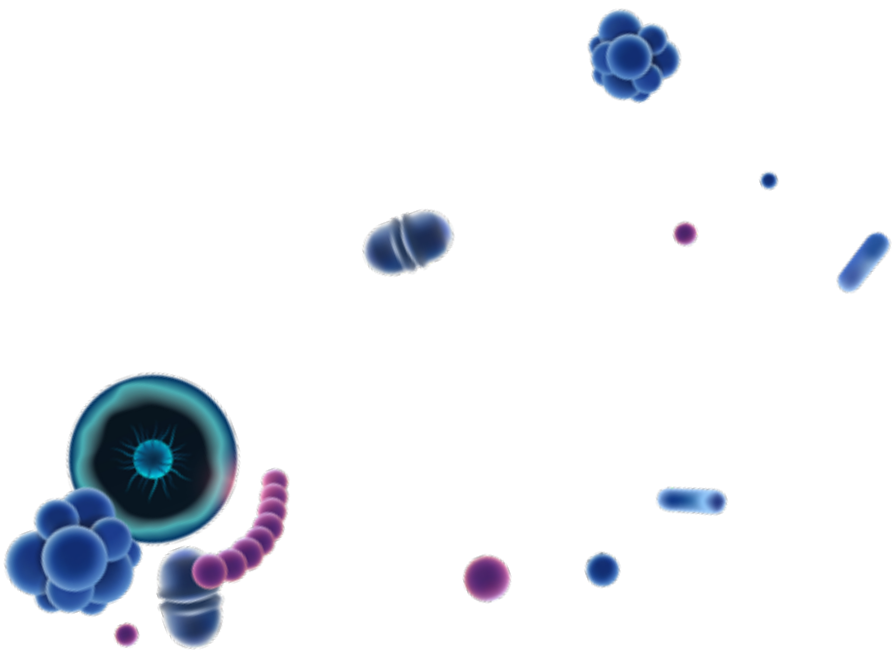
14:30 – 16:00	**SYMPOSIUM 1** **Geroge Pampoukis, Matthias Filter, Panagiotis Skandamis**
	Artificial intelligence tools to optimise information gathering from scientific literature for feeding predictive microbiology and risk assessment
16:00 – 16:30	*COFFEE BREAK*
12:00 – 13:30	**ORAL SESSION 3** **Chairpersons: Louis Coroller, Shige Koseki**
16:30 – 16:45	**OP15** A Decision Support Tool for Real time monitoring and Forecasting Fungal Growth in Grain Silos Based on Sensor Data and Climate Models, **Constantine Richard Stefanou**
16:45 – 17:00	**OP16** The recent work from JEMRA and FAO on microbiological risk assessment, **Kang Zhou**
17:00 – 17:15	**OP17** Smart fermentation with digital twins: a support decision tool for managing, optimising quality and energy performance, applied to the fermentation of plant-based products, **Louis Coroller**
17:15 – 17:30	**OP18** A Framework for Assessing Microbial Risks Related to Climate Change in Food Safety, **Christina Kamarinou**
17:30 – 17:40	**OP19** Modelling the growth and growth boundaries of Listeria monocytogenes: focus on strain variability and organic acids, **Yvan Le Marc**
17:40 – 17:50	**OP20** Inhibition of non-proteolytic Clostridium botulinum germination in chilled food: model development and application in food safety, **Louis Delaunay**
17:50 – 18:00	**OP21** Accelerated Shelf Life Testing implementation in predicting the stability of High Pressure processed meat products, **Giannakourou Maria**
18:30	**WELCOME RECEPTION**

SCIENTIFIC PROGRAM

Monday, September 1, 2025

InnovAthens | WORKSHOPS

09:30 – 11:00	**WORKSHOP 1** **Fady Mohareb**
	SorfML: A Blockchain-Enabled Platform for Real-Time Monitoring of Food Quality and Authenticity
14:30 – 16:00	**WORKSHOP 2** **József Baranyi**
	Efficient data-driven numerical techniques to aid decision making using ComBase
18.00-19.00	**ICPMF COMMITTEE MEETING**



SCIENTIFIC PROGRAM

Tuesday, September 2, 2025

AMPHITHEATER | MAIN HALL

08:00 – 08:30	**REGISTRATIONS**
08:30 – 09:00	**PLENARY LECTURE** "Could we predict the future: half a lifetime of predictive microbiology at KU Leuven/BioTeC+" **Chair: Vasilis Valdramidis** **Speaker: Jan Van Impe**
09:00 – 10:30	**ORAL SESSION 4** **Chairpersons: Alda Pires, Maarten Nauta**
09:00 – 09:15	**OP22** Multi-agent Quantitative Microbial Risk Assessment for raw milk cheese: A comprehensive modeling approach from farm to consumer, **Laurent Guillier**
09:15 – 09:30	**OP23** sQMRA-R: a flexible and user-friendly tool for Quantitative Microbiological Risk Assessment of foodborne pathogens, **Dante Spekken**
09:30 – 09:45	**OP24** Microbial Risk Assessment of Ready-to-Eat Fresh Produce, **Vaibhav Bhatia**
09:45 – 10:00	**OP25** Developing a user-friendly risk assessment tool to assess the food safety risks of fresh produce production and landscape use, **Alda Pires**
10:00 – 10:10	**OP26** Quantitative risk assessment of Bacillus cereus in roasted chicken combining predictive microbiology and real data from a major Spanish retailer, **Arícia Possas**
10:10- – 10:20	**OP27** Optimization of Conventional Hot-Air Drying of Peaches Using Ultrasonic Pretreatment: Modeling with MATLAB, **Dimitrios Fotiou**
10:20 – 10:30	**OP28** ZooNotify – An interactive data tool for searching and visualizing zoonoses monitoring results along the food chain in Germany, **Tasja Crease**
10:30 – 11:00	*COFFEE BREAK*

SCIENTIFIC PROGRAM

Tuesday, September 2, 2025

AMPHITHEATER | MAIN HALL

11.00-11.30	**PLENARY LECTURE** "Harnessing Diet to Engineer the Gut Microbiome: a two-way street" **Chair: Chryssoula Tassou** **Speaker: Gianni Panagiotou**
11:30 – 13:00	**ORAL SESSION 5** **Chairpersons: Clair Rossi, Mariem Ellouze**
11:30 – 11:45	**OP29** Thermal Resistance of Geobacillus spp. in Oat-Based Beverages: Predictive Modeling for Food Safety, **Alessandra Regina Da Silva**
11:45 – 12:00	**OP30** Longitudinal analysis of microbial diversity and dynamics during storage of chicken products – towards early warning of risks posed by foodborne pathogens, **Elisa Benincà**
12:00 – 12:15	**OP31** Dynamic modelling of Photobacterium iliopiscarium and Photobacterium phosphoreum growth in a modified atmosphere packaging seafood-food model as a function of dissolved gases and pH, **Kirk Dolan**
12:15 – 12:30	**OP32** Modelling the effects of food-intrinsic characteristics on the growth kinetics of escherichia coli, **Masaki Kato**
12:30 – 12:40	**OP42** Predictive Modeling of Curcuminoid Bioaccessibility in Complex Food Matrices via Machine Learning, **Claire Rossi**
12:40 – 12:50	**OP34** An in-silico prediction pipeline for data mining of antifungal peptides for potential applications as food preservativeS, **Selena Moirangthem**
12:50 – 13:00	**OP35** Leveraging AI for Advanced Querying and Visualization of Microbiological Data: The New Pathogens-in-Foods Database, **Lucas Ribeiro Silva**
13:00 – 14:00	*LUNCH BREAK*

SCIENTIFIC PROGRAM

Tuesday, September 2, 2025

AMPHITHEATER | MAIN HALL

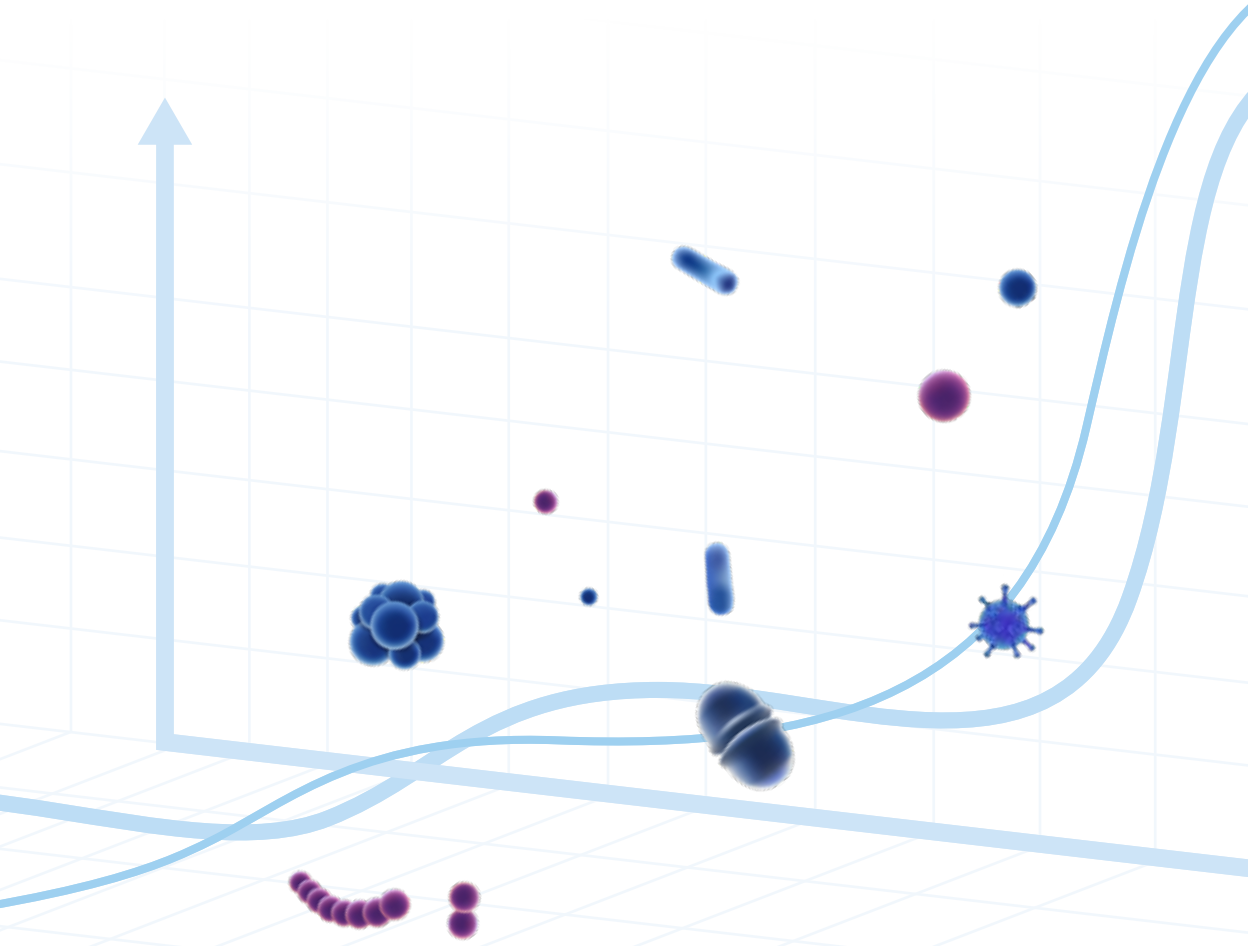
14:00 – 15:30	**SYMPOSIUM 2** **Marciane Magnani, Donald Schaffner, Sara Bover-Cid, Fernando Pérez-Rodríguezm, Sonia Marín** Learning Predictive modelling for modern and sustainable food system
15:30 – 16:00	*COFFEE BREAK*
16:00 – 17:30	**Y-ICPMF** **Ursula Gonzales-barron, Heidy den Besten**
16:00 – 16:15	**OP36** Fluorescence microscopy for directly tracking the proliferation of Escherichia coli in baby leaves of cultivated and wild lettuce, **Marianna Arvaniti**
16:15 – 16:30	**OP37** Structural Modeling of Antimicrobial Peptides from Lactic Acid Bacteria: Insights into Conserved Motifs and Functional Diversity, **Nathalia Fernandes**
16:30 – 16:45	**OP38** Preparing for the next generation QMRA, **Yangtai Liu**
16:45 – 17:00	**OP39** Modeling Bacillus subtilis Sporulation under dynamic pH and Assessing the Spore Properties for Food Safety and Quality Management, **Kaoutar Hafdane**
17:15 – 17:30	**OP40** A mathematical model to predict the effect of temperature and water activity on the growth of alternaria spp. In oats, **Dr. Jean Correia Costa**
17:30 – 17:45	**OP41** Sensitivity analysis methods for effective decision-making, **Cristina Serra-Castelló**
17:45 – 18:30	**Poster Session in Purifier Hall**
18:30	**Sounio Tour & Dinner**

SCIENTIFIC PROGRAM

Tuesday, September 2, 2025

InnovAthens | WORKSHOPS

09:30 – 11:00	**WORKSHOP 3** **Matthias Filter**
	Making Models Interoperable - Leveraging AI-assisted Tools to Adopt the Harmonised Model. Exchange Format FSKX in Food Science and Risk Assessment
14:30 – 16:00	**WORKSHOP 4** **Nicolas Nguyen Van Long**
	Standardization protocols and Predictive Microbiology: Unveiling the use of ISO 23691 to ensure Microbiological Food Safety



SCIENTIFIC PROGRAM

Wednesday, September 3, 2025

AMPHITHEATER | MAIN HALL

08:00 – 08:30	**REGISTRATIONS**
08:30 – 10:00	**ORAL SESSION 6** **Chairpersons: Fernando Perez-Rodriguez, Donald Schaffner**
08:30 – 08:45	**OP42** AI-Driven System for Microbiological Alerting and Pattern Detection in the Pathogens-in-Foods Database **Vasco Cadavez**
08:45 – 09:00	**OP43** How to create healthy aquatic food systems and safe seafood in the context of increasing global temperatures and extreme weather phenomena **Foteini Parlapani**
09:00 – 09:15	**OP44** Estimation of the size of foodborne outbreaks based on human genomic surveillance data **Maarten Nauta**
09:15 – 09:30	**OP45** Machine Learning-Based Analysis of Climate Trends and Foodborne Illness Risks in Europe **Leonardos Stathas**
09:30 – 09:40	**OP46** Quantitative approaches to evaluate the growth rate and acidification capacity of Lactic acid bacteria (LAB) isolated from sheep cheese **Muhammad Ahmed Ihsan**
09:40 – 09:50	**OP47** Wynergistic effect of lactic acid bacteria and initial ph of a milk model on the control of listeria monocytogenes during fermentation **Yara Loforte**
09:50 – 10:00	**OP48** Pilot study to predict the occurrence of foodborne pathogens in milk microbiome testing the animal sewage microbiome in a dairy cattle farm **Valentina Indio**
10:00 – 10:30	**PLENARY LECTURE** "Status and Future of Quantitative Microbial Risk Assessment in China" **Chair: George John Nychas** **Speaker: Qingli Dong**

SCIENTIFIC PROGRAM

Wednesday, September 3, 2025

AMPHITHEATER | MAIN HALL

10:30 – 11:00	*COFFEE BREAK*
11:00 – 12:00	**EU PROJECTS** *Funded by the European Union* **Chairpersons: Ioannis Boziaris, Pantelis Natskoulis**

- **FoodigIT:** Making sense of data in food science
  Richard Stefanou
- **SOSFOOD:** Sustainability Optimization for secure Food Systems
  Jesús Simal-Gandara
- **AMBROSIA:** Bridging Knowledge, Communication, and Action for Food Safety in a Changing Climate
  Leonardos Stathas
- **QUIPACK:** Food value chain intelligence and integrative designsustainability criteria
  Ioannis Boziaris
- **FUNSHIELD4Med:** Shielding food safety and security by enabling the foresight of fungal spoilage and mycotoxins threats in the Mediterranean region under climate change conditions
  Pantelis Natskoulis
- **FOODGUARD:** Microbiome applications and technological hubs as solutions to minimize food loss and waste
  George John Nychas
- **EXCEL4Med:** Advancing Sustainable Agri-Food Innovation in the Mediterranean
  Eirini Xaxiri

12:00 – 13:20	**ORAL SESSION 7** **Chairpersons: Ursula Gonzales-barron, Alexandra Fetsch**
12:00 – 12:15	**OP49** From raw to ready: Quantitative Microbiological Risk Assessment of spore-formers in plant-based milks and yogurts **Soundarya Karamcheti**
12:15 – 12:30	**OP50** Application of Microbial Modelling in Artisanal Food Production for Listeriosis Risk Prevention **Olga María Bonilla Luque**

SCIENTIFIC PROGRAM

Wednesday, September 3, 2025

AMPHITHEATER | MAIN HALL

12:30 – 12:45	**OP51** Machine learning-powered uropathogenic Escherichia coli (UPEC) growth model and microbial exposure assessment for evaluating the consumer risk of UPEC from ready-to-eat (RTE) pork in Taiwan **Liu-Yean Goh**
12:45 – 13:00	**OP52** Tackling One Health risks: How Large Language Models are leveraged for Risk Negotiation and Consensus-building **Alexandra Fetsch**
13:00 – 13:10	**OP53** Predictive Modeling of Salmonella Enteritidis Behavior in Sunflower Microgreens Cultivation and Storage **Veronica Ortiz Alvarenga**
13:10 – 13:20	**OP54** Growth of Listeria monocytogenes in goat's pasteurised milk cheese during maturation: Validating data from a milk model medium **Ursula Gonzales-Barron**
13:20 – 14:00	*LUNCH BREAK*
14:00 – 15:00	**ORAL SESSION 8** **Aline Metris, Shige Koseki**
14:00 – 14:15	**OP55** Non-invasive spoilage prediction of aerobically stored sea bream: A comparative study of machine learning models using multispectral imaging for real-time quality assessment **Angeliki Doukaki**
14:15 – 14:30	**OP56** A probability-based growth/non-growth boundary model for bacterial populations at single-cell level **Junpei Hosoe**
14:30 – 14:45	**OP57** Addressing metagenomic data compositionality and confounding factors in clinical studies for the safety assessment of human microbiome perturbations **Aline Metris**
14:45 – 15:00	**OP58** Application of Predictive Microbiological Models in Industry: A Fit for Purpose Approach for Food Safety Assessment **Ms. Judith Fernandez-Piquer**
15:00 – 16:00	**CLOSING CEREMONY**

Poster's Section

POSTERS

Part A – The old good times

PP02 **Quantitative Microbial Risk Assessment (QMRA): case study with zoonotic Anisakis parasite in fishery products in France in a global market context**

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PP03 **Modeling the Survival of Salmonella Enterica In Spaghetti-Like Carrot Strands As Influenced By Temperature And Relative Humidity**

Jerffeson de Lima Tavares[1], Veronica Alvarenga[2], Jiin Jung[3], Geany Targino de Souza Pedrosa[4], Clifton Baldwin[5], Donald Schaffner[6], Marciane Magnani[1]
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PP04 **Intraspecies Variability in Kinetic Growth Parameters of Alternaria Isolates from Oat and Apple**

Bianca Castro-Criado[1], Enric Llorens-Serentill[1], Antonio Javier Ramos[1], JCCP Costa[1], Sonia Marin[1]
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PP05 **Modelling Thermal Inactivation of Listeria monocytogenes in Ground Beef using Mexican Oregano Essential Oil**

Mariana Pimentel González[1,2], Aricia Possas[1], Sandra Castillo[2], José Rodríguez-Rodríguez[3], Antonio Valero[1]
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PP06 **Exploring the antimicrobial resistance profile of Staphylococcus aureus isolated from Portuguese fermented meat products**

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PP08 **Understanding Pseudomonas spp. to Minimise Economic Losses in Artisanal Cheese Production**

Olga María Bonilla Luque[1], Arícia Possas[1], Ángel Luis López Ruiz[2], Juan Carlos Aguilar Jurado[2], Fernando Pérez-Rodríguez[1], Araceli Bolívar Carrillo[1], Antonio Valero[1]
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Part A – The old good times

PP09 **Quinolone-resistance in Campylobacter isolates in Europe: systematic review and meta-analyses**

Tiina Mandel[1,2,3], Roberto Condoleo[2], Aya A. K. Zarea[2,4], Mihkel Mäesaar[3], Mati Roasto[3], Mari Reinik[1], Patricia Alba[4], Maria Francesca Iulietto[2]

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PP10 **Assessing the decontamination efficacy of photodynamic inactivation against Alicyclobacillus acidoterrestris spores on fresh orange surfaces: A kinetic study**

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PP11 **Understanding and Modeling Salmonella Single-Cell Behavior to Acid Stress in Food Preservation**

Zafiro Aspridou[1,2], Styliani Dimitra Papagianeli[3], Fotios Zarras[3], Anagnostis Argyriou[2], Kostas Koutsoumanis[3]

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PP12 **Development of a probabilistic mycotoxin (DON) exposure assessment in pita bread: a case study of Greece**

Myrsini Kakagianni[1], Emmanuella Magriplis[2], Antonis Zampelas[2,3], Sotiria Kotopoulou[3], Vasilis Valdramidis[4,5]

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PP14 **Estimating the Relative Risk Associated with Stress-Resistant Variants of Salmonella: UV-treated Orange Juice as a Case Study**

María Gutiérrez[1], Silvia Guillén[1], Pilar Mañas[1], Guillermo Cebrián[1]

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PP15 **Modeling and Optimization of Polyphenol Extraction from Fucus vesiculosus: A Comparative Study of HAE, UAE, and PLE**

María Carpena Rodríguez[1], Aurora Silva[2,1], Franklin Chamorro[1], Eduardo Rafael Nogueira[1], Ana Olivia S. Jorge[1,3], M. Beatriz P. P. Oliveira[3], Miguel A. Prieto[1]

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PP16 **Spectroscopy-based tools and their predictive capacity of raw ovine milk quality and hygiene**

Aikaterini-Artemis Agiomavriti[1,2], Thomas Bartzanas[1], Nikos Chorianopoulos[1], Anthoula A. Argyri[3], Athanasios I. Gelasakis[1]

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Part A – The old good times

PP17 **Modeling the temperature effect on the growth of uropathogenic Escherichia coli (UPEC) on roasted duck meat**

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PP18 **Assessment of the Variability in the Microbiological Quality of Four Batches of Raw Milk Cheese Produced from Milk Supplied by Two Different Farms in Italy**

Thomas Dalmonte[1], Valentina Indio[1], Gulnara Guluzade[1], Serena Giacomozzi[1], Yitagele Mekonnen[1], Andrea Serraino[1], Alessandra De Cesare[1]
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PP19 **Nitrite Reduction in Cooked Pork Ham: A Risk for Food Safety?**

Maria J.M. Nunes[1], Lúcia Noronha[2], Inês Cruz[3], Beatriz Silva[1], Fátima Carvalho[3], Paula Teixeira[1]
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PP20 **L. Monocytogenes Growth Simulation Based On Temperature Distribution Mapping Within A Beef Dry-Aging Chamber**

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PP21 **Molecular Identification and Genetic Diversity of Mycotoxigenic Fungi in Commercial Maize-Based Products from the Greek Market**

George Froutis[1,2], Olga Papadopoulou[1], Agapi Doulgeraki[3], Carol Verheecke-Vaessen[4], Carla Cervini[4], Angel Medina Vaya[4], Dimitra Dourou[1], Pantelis Natskoulis[1], Chrysoula Tassou[1], George-John Nychas[2], Anthoula Argyri[1]
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PP22 **Growth of two Listeria monocytogenes strains, persistent and non-persistent: effect of temperature**

Lubomir Valik[1], Jana Minarovičová[2], Ksenia Bohach[1], Eva Kaclíková[2]
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PP23 **Growth of Bacillus cereus and cereulide production in UHT plant-based milk alternatives**

Nathália Buss Da Silva[1], Enrico Chavez[1], Katia Rouzeau, Mariem Ellouze[1], Judith Fernández Piquer
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PP24 **Modeling of Mycotoxin Degradation in Foods by application of Cold Atmospheric Plasma: Case studies in wine and apple juice**

Sofia Chanioti[1], Varvara Andreou[1], Aikaterini Lambrou[1], Margaritis Tsirikas[2], Pantelis Natskoulis[1], Vasilis Valdramidis[2], George Katsaros[1]
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Part A – The old good times

PP25 **Simulation of cross-contamination and re-contamination of uropathogenic Escherichia coli (UPEC) in roasted duck meat during retailing**
Shao-Chi Lin[1], Liu-Yean Goh[2], Reuben Wang[1], Kuan-Hung Lu[3]
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PP26 **Characterization of a Listeria Monocytogenes Reference Strain In View of its use for Shelf-Life Predictions: Focus on Temperature-Dependent Growth and Cardinal Values**
Rubén Barcia Cruz[1], Hélène Bergis[1], Patricia Ng[1]
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PP27 **Effect of temperature on growth of four Aspergillus carbonarius isolates on a simulated maize-based medium**
Aikaterini Grigoropoulou[1,2], George Froutis[1,3], Anthoula Argyri[1], George-John Nychas[3], Anastasia Kapetanakou[1], Pantelis Natskoulis[1], Olga Papadopoulou[1]
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PP28 **Modelling of the Fermentation of a Substrate Based on Agro-Industrial Residues For Bioethanol Production**
Anastasios Kyriazis[1], George Aggelis[1], Alexandra Lianou[1]
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PP29 **A cardinal-type model with interaction to predict the growth and growth boundaries of Salmonella spp.**
Yvan Le Marc[1], Panagiotis Skandamis[2], Nicolas Nguyen Van Long[1]
[1] Adria, Quimper, France, [2] Agricultural University of Athens, Athens, Greece

PP30 **An innovative tool taking account cellular behaviour and phenol content for the quantitative exposure assessment of Listeria monocytogenes in smoked salmon**
Yvan Le Marc[1], Adrienne Lintz[2], Bernard Hézard[2], Nicolas Nguyen Van Long[1], Catherine Denis[3], Jean Christophe Augustin[4], Valérie Stah[2]
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PP31 **Validation of Existing Models for the Description of the Growth of Listeria Monocytogenes in Primo Sale Cheese**
Erica Tirloni[1], Simone Stella[1], Cristian Bernardi[1], Viviana Fusi[1], Per Sand Rosshaug[2]
[1] University of Milan, Department of Veterinary Medicine and Animal Sciences, Lodi, Italy, [2] Hofor, Copenhagen, Denmark

PP32 **Risk assessment of marine biotoxin poisoning arising from the consumption of Irish-produced shellfish**
Francis Butler[1], Xiyao Wang[1], Dave Clarke[2]
[1] University College Dublin, Dublin, Ireland, [2] Irish Marine Institute, Galway, Ireland

PP33 **A quantitative microbiological risk assessment model of Shiga toxin-producing Escherichia coli contamination for the beef steak supply chain in China**
Yimin Zhang[1], Xueqing Jiang[1], Xin Luo[1], George-John Nychas[2], Pengcheng Dong[1]
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Part B – OMICS and Data Science

PP34 **Quantification of the gastro-surveillance pyramid in The Netherlands: a Bayesian evidence synthesis approach**
Arno Swart[1], Elisa Benincà[1], Roan Pijnacker[1], Eelco Franz[1]
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PP36 **Machine Learning-Based Diagnostic Model for Sarcopenia in Korean Aged 65 and Older Using National Dietary Data**
Kyungmo Kang[1], Yookyung Kim[2]
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PP37 **Leveraging multi-omics data to predict chicken meat quality and enhance predictive modelling performance using the Multivariate Food Predictor platform**
Anastasia Lytou, Eirini Lariou, Athanasios Mallouchos, Panagiotis Skandamis, George-John Nychas[1]
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PP38 **Evaluation of a prototype sensor array for the rapid assessment of Beef Meat Spoilage**
Antonia Gounadaki[1], Maria-Eleni Rizou[2], Anastasia Andrioti[1], Kleio Gkoutzani[1], Ioannis Dionisopoulos[1], Violeta Pemaj[1,3], Konstantinos Papadimitriou[1], Maria Vasilopoulou[2], Panagiotis Skandamis[1]
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PP39 **Thermotolerance of Cronobacter sakazakii at elevated temperature in real powdered infant formula devoid of maillard reaction: Inactivation Kinetics, and comparative Genomics**
Peter Myintzaw[1], Fiona Ryan[1], Aidan Coffey[1], Michael Callanan[1]
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PP40 **Creating an innovative digital platform that combines climate models and food safety data to support risk management in response to climate change, using a multi-stakeholder approach**
Anastasia Kapetanakou[1], Chryssoula Tassou[1], Anthoula Argyri[1], Olga Papadopoulou[1], Agapi Doulgeraki[2], Leonardos Stathas[2], George Papadopoulos[3], Spyros Fountas[3], Fady Mohared[4], Christopher Brewster[5]
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PP41 **Identification of relevant genes for acidic resistance along the pangenome of S. Typhimuirium: a first step towards acid resistance prediction based on genomic data**
Silvia Calero[1], Pilar Mañas[1], Guillermo Cebrián[1]
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PP42 **Uncovering Organic Apple Juice Fraud: Analytical Insights from HPLC and FTIR Spectroscopy**
Christina Kamarinou[1], Ismini Patsopoulou[1], Olga Papadopoulou[1], Natasa Kapetanakou[1], Chrysoula Tassou[1], Anthoula Argyri[1]
[1] Institute of Technology of Agricultural Products, Hellenic Agricultural Organization–DIMITRA, Lycovrissi, Greece

PP43 **Sustainability Optimization for Secure Food Systems using the potential of data exploitation technologies and AI: the Athens use case**
George Taxeidis[1], Emmanouil Nychas[2], Chrysoula Tassou[2,3], Dimitris Ladikos[1], George-John Nychas[2,4]
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Part B – OMICS and Data Science

PP44 **Depicting the prevalence and assessment of colonization of Salmonella in fresh produce**

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PP45 **Impact of Environmental and Operational Factors on Kimchi Maturation in a Pilot-Scale Cold Storage Room: Validation of KFRI RAS - A Cloud-Based Analytical Platform for Data-Driven Food Research**

Seung Il Oh[1], Gi-taek An[1], Hye In Seo[1], Hyemi Shin[1]
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PP46 **Creating a Digital Shadow: Leveraging Data Science for Decision-Making in the Food Sector**

Rita Folcarelli[1], Juliana Lane Paixao dos Santos[1], Tushar Verma[1], Florence Postollec[1]
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PP47 **Assessing foodborne outbreak risk in Chinese households: A national survey analysis of pork handling practices**

Yibaina Wang[1,2], Yan Qi[2], Li Bai[2], Yeru Wang[2], Jing Xu[2], Yibaina Wang[2], Jing Wu[1]
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PP48 **FluoPath: Development of fluorescent biomarkers in two foodborne pathogens to better predict the impact of food processing on their survival and virulence in dairy products**

Stéphane Guyot[1], Eliana Akoury[1,2], Noémie Desriac[3], Bastien Delbreil[3,4], Sandrine Guillou[2], Karine Le Barillec[5], Yvan Le Marc[6], Lysiane Omhover[7], Sandrine Poncet[4], Valérie Stahl[7]
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PP49 **Predicting stress tolerance phenotype of Listeria monocytogenes using genome (omic) data and machine learning algorithms**

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PP50 **Database Development for the Integration of Kinetic and Probabilistic Models**

Valéria Lőrincz[1], Gabriella Kiskó[1], József Baranyi[2]
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PP50-a **Whole-Genome Characterization of Listeria monocytogenes to Inform Risk Models in Food Environments**

Jose Luis López Carmona[1], Elena Carrasco[1], Antonio Valero[2], Raquel Amaranta Nogueira[3], Marta López Cabo[3], Juan José Rodríguez Herrera[3], Jordi Tronchoni[4]
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Part C – Modelling Food Microbiome

PP51 **Predictive Modeling of Salmonella spp. Inactivation in Peanut Butter at Different pH and Aw and Process Establishment**

Alessandra Regina Da Silva [1], Izael Gressoni Junior[2], Pedro Xavier Rodriguez Massaguer[1], Pilar Rodriguez de Massaguer[1]

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PP52 **Temperature-Driven Growth Dynamics of Staphylococcus aureus in Artisanal cheese: Insights from Predictive Microbial Modeling**

Mariem Zanzan[1,2], Youssef Ezzaky[1], Kaoutar Boussif[1], Vasco Cadavez[2], Ursula Gonzales-Barron[2], Fouad Achemchem[1]

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PP53 **Evaluation of quality and safety of sea bream (Sparus aurata) using classic and rapid detection methods**

Stamatina Xenou[1], Fotoula Schoina[1], Aggeliki Doukaki[1], Panagiotis Skandamis[2], George-John Nychas[1], Nikos Chorianopoulos[1]

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PP54 **Intelligent food packaging in couple with Food Spoilage and Shelf-life Prediction Module for seafood distribution control**

Ioannis Boziaris[1], Dimitrios A. Anagnostopoulos[1], Panagiotis Tsakanikas[2], Stavroula Letsiou[1], Vlasis Tsezos[2], Evangelia A. Karamani[1], George-John Nychas[2,3,4], Foteini Parlapani[1]

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PP55 **A review of quantitative data for modelling transconjugation of Antibiotic Resistance Genes in the food chain**

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PP56 **Natto-InsPired bioPreservation Of plaNt food matrix (NIPPON) - A project from the French Ferments du Futur program**

Y. Dergham[1], M.-F. Noirot-Gros[1], J. Deschamps[1,2,6], M. Darsonval[1], L. Omhover[3], B. Hezard[3], A. Lintz[3], S. Cote[3], P. Bonnarme[4,6], M. Lemois[4,6], H. Zhour[4,6], Laurent Guillier[5], V. Stahl[3], R. Briandet[1,2,6]

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PP57 **Prediction of strain's evolution by thermal inactivation: random walk following between- and within-strain variabilities**

Hiroki Abe[1], Tomoya Yoshinari[1], Takahiro Ohnishi

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Part C – Modelling Food Microbiome

PP59 **Microbiome applications and technological hubs as solutions to minimize food loss and waste - FOODGUARD**

George - John Nychas[1]
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PP60 **A Probabilistic Assessment of Minimum Inhibitory Concentration (Mic) Using Extreme Value Theory And Single-Cell Analysis**

Styliani Dimitra Papagianeli[1], Marina-Efterpi Benvenuto[1], Leonardos Stathas[1], Zafeiro Aspridou[2], Konstantinos Koutsoumanis[1]
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PP61 **Mathematical Modeling of the Development of E. Coli and Staphylococcus Sp (Coagulase Positive) Inoculated in Meat Treated with Essential and Vegetable Oils**

Ana Julia Amasino[1], Irene Pena[1], Brenda Seif[1], Mariana Fernández Blanco[1], Gladys Laporte[1], Daniela Olivera[1], Fernanda Coll Cárdenas[1]
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PP62 **Development of a strawberry freshness prediction model with electronic nose**

Ji-young Kim[1]
[1] Korea Food Research Institute, Wanju-gun, South Korea

PP63 **NextFoodPack project: Integrated design and evaluation of new-generation packaging to protect perishable food products**

Thi-thanh-truc Phung[1], Emmanuelle Gastaldi[2], Felipe Buendia[3], Sandra Domenek[3], Jean Mario Julien[4], Olivier Couvert[5], Louis Coroller[5], Lysiane Omhover[6], Valérie Stahl[6], Yvan Chalamet[7], Alain Guinault[8], Yvan Le Marc[9], Benjamin Duqué[10], Thomas Karbowiak[1]
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PP64 **Machine learning for fish spoilage classification: A feasibility study using spectroscopic sensors**

Angeliki Doukaki[1], Stamatina Xenou[1], Fotoula Schoina[1], Chrysoula Tassou[2], George-John Nychas[1], Nikos Chorianopoulos[1]
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PP65 **Egg freshness prediction and monitoring using a sensor tag based smart distribution system**

Jong-hoon Kim[1]
[1] Korea Food Research Institute, Wanju-gun, South Korea

PP65-a **Development of Predictive Models for Microbiological Quality Assessment of Whole Sea Bream (Sparus aurata)**

Fotoula Schoina[1], Stamatina Xenou[1], Angeliki Doukaki[1], Olga Papadopoulou[2], Chrysoula Tassou[2], Panagiotis Skandamis[3], George-John Nychas[1], Nikos Chorianopoulos[1]
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Part C – Modelling Food Microbiome

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PP74 **AI-assisted Quality Assessment of Strawberries Using Deep Learning Models: A tool for food waste reduction applications**

Laura Rabasco-Vílchez[1], Francisco Jiménez Jiménez Francisco[1], Arícia Possas[1], Fatih Tarlak[2], Fernando Pérez-Rodríguez[2]
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PP66 **From Digestion to Bioactivity: In Silico Characterization of Osteopontin-Derived Peptides from Human, Bovine, and Caprine Milk**

Büşra Sevim[1], Evrim Güneş Altuntaş[1]
1Ankara University Biotechnology Institute, Kecioren, Ankara, Turkey

PP67 **Standardization of the Cardinal Values Determination and Use to Predict**

Part D – Back to Future Roots of PMF

Microbial Growth: The development of the ISO 23691 standard to strengthen Food Safety

Mariem Ellouze[1], Valérie Stahl[2], Marine Huart[3], Yvan Le Marc[4], Jeanne-Marie Membre[5], Rachel Binet[6], Thiemo Albert[7], Heidy M.W. den Besten[9], Jurgen Chardon[8], Aldo Evers[10], Paul in't Veld[11], Jiska Oostveen[12], Panagiotis Skandamis[13], Vasilis Valdramidis[14], Ursula Gonzales Barron[15], Vasco Cadavez[15], Alberto Garre[16], Fabio Zuccon[17], Ruben Barcia Cruz[18], Nathalia Buss da Silva[19], Nicolas Nguyen Van Long[4]
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PP68 **The impact of weak organic acid salts and water activity on the growth rate of lactic acid bacteria**

Gijs Lommerse[1], Eelco Heintz[1]
[1] Kerry, Wageningen, the Netherlands

PP69 **Modelling of heating profile, particle dynamics, and microbial lethality in radiofrequency treatment of vegetable and fish purees**

Berta Torrents-masoliver[1], Andrés

POSTERS

Part D – Back to Future Roots of PMF

Abea[2], Israel Muñoz[2], Albert Ribas-Agustí[1], Anna Jofré[1], Sara Bover-Cid[1]
[1] IRTA, Food Safety and Functionality, Monells, Spain, [2] IRTA, Food Processing and Engineering, Monells, Spain

PP70 **Data-Driven Decision Support Predictive Tools: The Industry Perspective**
Juliana Lane Paixao dos Santos[1], Tushar Verma[2], Rita Folcarelli[1], Florence Postollec[1]
[1] Corbion, Gorinchem, The Netherlands, [2] Corbion, Lenexa, USA

PP71 **Development of a decision support tool based on predictive models for the evaluation of alternative additives against foodborne pathogens and spoilage bacteria in cooked meats**
Amparo De Benito Armas[1], Alexandra Roijals[2], Monica Stephenson[2], Raquel Almarcha[1], Javier Gonzalez[2], Javier Garcia Pina[2]
[1] Ainia, Valencia, España, [2] CHEMITAL Food Techniques, Barcelona, España

PP72 **Mathematical evaluation of bioactive compounds recovery from Auxenochlorella pyrenoidosa: the effect of non thermal technologies**
Alexandros Katsimichas[1], George Dimopoulos[1], Maria Giannakourou[1], Petros Taoukis[1]
[1] Laboratory of Food Chemistry and Technology, School of Chemical Engineering, National Technical University of Athens, Athens, Greece

PP73 **A cold chain data based tool for shelf life determination and dynamic assessment**
Maria Giannakourou[1], Eleni Gogou[2], John Tzigounakis[1], Petros Taoukis[1]
[1] National Technical University of Athens, Zografou, Greece, [2] University of West Attica, Egaleo, Greece

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General Information

GENERAL INFORMATION

Conference Dates

1 September – 3 September 2025

Venue

Technopolis City of Athens
Pireos str. 100, 11854 - Gazi, Athens, 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.

Monday, 1 September 2025	**07.30 – 18.00**
Tuesday, 2 September 2025	**07.30 – 18.30**
Wednesday, 3 September 2025	**07.30 – 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 10 or 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

Monday, 1 September 2025

18:30

Technopolis City of Athens

SOUNIO EVENING TOUR & DINNER

Tuesday, 2 September 2025

18:30

Pick Up & Drop Off Point:
Technopolis City of Athens

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.

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 conference functions. Please wear your badge visibly at all times.

Disclaimer

The Organizing Committee and the PCO, AFEA Congress accept no liability for any personal injury, loss or damage of property or additional expenses incurred to conference participants either during the conference 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 Conference 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 Athens , 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, 8:00-14:00hrs; 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.

About the host city

Each year, more and more travelers are choosing Athens for their leisure and business travel all year round. There are several reasons; Athens offers a variety of things to see and do, and most of the times, under favorable weather conditions.

Athens is considered one of Europe's safest capitals; its transportation network is user-friendly. Athens is an ideal congress destination, combining state-of-the-art infrastructure, excellent conference facilities and easy access from all over the world with world-class cultural attractions, modern amenities, diverse entertainment and natural beauty.

Arts & Culture

The city's rich classical tradition and its geographical location - at the crossroads of cultures - have always lent it a formidable platform for artistic expression. That high regard for the arts continues today, with a mushrooming of modern innovations. Every year, the city's cultural calendar presents exhibits and festivals of international scope, original productions and notable artistic happenings.

Sightseeing

Athens takes the fuss out of sightseeing. It is a user-friendly town thanks to the pleasant demeanor of the English-speaking Athenians and the easy to use and manageable transportation system. The visitor can see a lot in one day. Archaeological Sites & Classical Greek Monuments, Byzantine Monuments & Ottoman Monuments, Museums, Art Galleries, street performances, festivals. Needless to say, The Acropolis remains a "must see"...

Getting around

A state-of-the-art metro system, wide avenues, an efficient public transportation system and a compact city center, all make moving around Athens easy and convenient. The Athens transportation network now includes new buses, pollution-free trolleys, tram and a revamped electric railway system that connects to two metro lines. Piraeus's port, in short distance from the Athens city center, serves national and international sea lines. The modern highways make driving to and from the city, a pleasant experience.

Gastronomy

Gourmet and traditional Greek cuisine, in the past decade, has become one of the most popular in the world as it has been proven to provide a flavourful healthy and balanced diet. Culinary aficionados are encouraged to delight in the myriad of sophisticated restaurants that boast tastes and interiors inspired from all parts of the world. The local and traditional outdoor seaside taverns and cafes are plentiful and a cultural mainstay.

Shopping

Shopping in Athens - a showcase for its traditional and modern culture and lifestyle - can be a fascinating and satisfying experience for all. Amidst the many well-known international name brand outposts and traditional Greek art and folklore shops, are hundreds of chic boutiques and specialty stores blossoming with great fashion finds for every taste and budget. Make sure to stop in at one of the many wonderful year-round outdoor cafés and restaurants to make your experience of shopping in the Athenian way, complete!

Weather

Athens is an ideal year-round destination with comfortable and favorable climate conditions for travel and sightseeing. Rainfall is minimal and the summers (June through August) are dry and hot with temperatures ranging, on average, from 78°F to 94°F or 20°C to 34°C.

The Mediterranean climate makes for mild winters and even milder autumns in low-lying areas, with the coldest temperatures reported in January at a very temperate 41°F to 55°F or 5°C to 13°C.

Shopping Hours

Major outlets:

Monday-Friday	**09:00–21:00**

Small shops:

Monday & Wednesday	**09:00–15:30**
Friday	**09:00–20:30**
Saturday	**09:00–15:30**

The airport

The newly renovated award winning Athens International Airport, Eleftherios Venizelos, serves 83 international destinations. Its close proximity to the city center, 30 minutes by car and 40 minutes by train, makes Athens easily accessible.

For more information, you may visit the official site of the Athens International Airport.

Transportation

Network includes new buses, pollution-free trolleys, tram and a revamped electric railway system that connects to the metro lines. Taxis are inexpensive by European standards.

Thank you for attending!