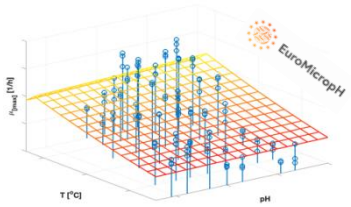
EuroMicropH

Training School

Modelling the effects of low pH and other stresses on food-borne micro-organisms to improve food and drink quality

June 28 – 30, 2023



Description

EuroMicropH and the Department of Chemistry of the National and Kapodistrian University of Athens (Athens, Greece) are organizing a 3 days-long training school on "Modelling the effects of low pH and other stresses on food-borne micro-organisms to improve food and drink quality". The training school will bring together teaching and industrial staff currently working on different aspects of modelling for simulation and optimisation of the quality, safety of food products with special focus on high acid products. The theoretical lectures will cover all the fundamentals and basic principles of predictive modelling. The practical activities will include the use of pedagogical tools for Project-Based Learning (PBL) in which trainees will work in groups to solve realistic multifaceted problems with the use of computer programming software. These problems will include the construction of experimental designs, model development, regression analysis, sensitivity analysis, and safety risk scenarios.

Output

The main learning outcomes of this training school will be the understanding of the substantial body of applied modelling, statistics, and its recent developments in the field of Food Science. Furthermore, the principle concepts in the theory and practice of empirical and theoretical modelling for quantifying responses in food acidic environments will be identified and applied. The students are expected to learn about existing available software packages and modelling practices. Students will learn from the transversal competences of the participating teachers to develop autonomous initiatives in problem-based studies of complex food systems and learn to criticize the broader implication of Predictive Modelling. All these activities are expected to enrich their current studies in the field and further support communication of results and innovations of research to peers.

Application procedure and deadline

If you are interested in applying for this Training School, please fill out this form

Deadline for application: 31st March 2023

Successful applicants will be informed by 20th April 2023

cost EUROPEAN COOPERATION IN SCIENCE & TECHNOLOGY

Funded by the European Union

EuroMicropH

Training School Program

Date	Session	Lecture Title	Lecturer	Affiliation
28 June	09:00-9:15	Welcome by the hosts	Charalampos Proestos Vasilis Valdramidis	National and Kapodistrian University of Athens (Athens, Greece)
	09:15-10:30	Impact of pH on behavior of foodborne bacteria	Agapi Doulgeraki	Institute of Technology of Agricultural Products, Hellenic Agricultural Organisation-DIMITRA (Athens, Greece)
	10:30-11:00	Break		
	11:00-12:30	EFSA Scientific opinion on date marking and impact on low pH foods	Sara Bover-Cid	Instiute of Agrifood Research and Tehcnology (Barcelona, Spain)
	12:30-14:00	Lunch break + tour in the premises		
	14:00-16:30	Hands-on activity on date marking identification	Sara Bover-Cid Vasilis Valdramidis Agapi Doulgeraki Alberto Garre Pérez	Instiute of Agrifood Research and Tehcnology - National and Kapodistrian University of Athens - Universidad Politécnica de Cartagena
29 June	09:15-10:30	Biokinetic models with Lux-reporters at low pH environments for food industry applications	Nick Johnson	Nestlé R&D (Konolfingen, Switzerland)
	10:30-11:00	Break		
	11:00-12:30	Impact of pH on spore-formers and modelling approaches	Louis Corollel	Université de Bretagne Occidentale (Quimper, France)
	13:00-14:00	Lunch break		
	14:00-16:30	Hands-on modelling activities with software tools	Louis Corollel Vasilis Valdramidis	Université de Bretagne Occidentale (Quimper, France) - National and Kapodistrian University of Athens (Athens, Greece)
30 June	09:15-10:30	Kinetic modelling at dynamic conditions: the case of low pH products	Alberto Garre Pérez	Universidad Politécnica de Cartagena (Cartagena, Spain)
	10:30-11:00	Break		
	11:00-12:30	Hands-on on biokinetic modelling software applications	Alberto Garre Pérez	Universidad Politécnica de Cartagena (Cartagena, Spain)
	13:00-14:00	Lunch break		
	14:00-16:30	Work with your own data	All trainers	-

COST Action financial support to trainees

As approved by the COST Action CA18113 Management Committee and according to the Action Work and Budget Plan for GP4, for the whole duration of the Training School we will support each accepted trainee with a **Daily Allowance** of **150 EUR** per day (or proportionally for parts of days) for accommodation and meals, and will cover **travel expenses** up to a **maximum** of **400 EUR**. In accordance with the COST Annotated Rules, claims for reimbursement may be sent via e-Cost at the end of the TS.

Practical information

The Training School will take place at the Department of Chemistry, Laboratory of Food Chemistry, in collaboration with the Laboratory of Environmental Chemistry, at the University campus, Zografou, 157 71 Athens, Greece. Participants will need to **bring their own laptops** as some (freeware) software will be used for the hands-on activities.

For further information, please do not hesitate to contact: valdram@uoa.gr