

## Summer School of MIKROBIOKOSMOS 2022

“The role of microbiome in ecosystem functioning, food security, human health and environmental protection”

4 July – 8 July 2022

Venue: Conference and Cultural Centre in the old Monastery Paou, Argalasti Pelion Greece (<http://mpaou.uth.gr/en/> )

Website: <http://www.mikrobiokosmos.org/>

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## A few words about the 2nd Summer School of MIKROBIOKOSMOS

The Hellenic Scientific Society of MIKROBIOKOSMOS was founded in 2008 and it is now considered the podium and niche of environmental microbiologists, food microbiologists, bioengineers, environmental biotechnologists in Greece. Following up the 1<sup>st</sup> Summer School in 2018, we are now organizing the 2<sup>nd</sup> Summer School of the Society of Mikrobiokosmos in the frame of a series of Training Events devoted to the training of the young members of the Society. The title of the 2<sup>nd</sup> Summer School **"The role of microbiome in ecosystem functioning, food security, human health and environmental protection"** is a reflection of the major advances in our understanding of the key role of microbiome on different process enabling its application in various sectors.

**Venue:** The Summer School will be hosted in the Conference and Culture Centre of the Monastery Paou, Argalasti Pelion (<http://mpaou.uth.gr/en/>), which belongs to the University of Thessaly.

**Attendees:** The Summer School aims to attract PhD or MSc students who study the microbiome at different environmental matrices or the symbiome of different organisms (insects, animals, humans). The students attending the Summer School will be offered accommodation in the double bedrooms of the Monastery (include en-suite facilities). Lunch and coffee will be offered to the attendees and a social dinner will be organized for the participants in a local restaurant by the sea.

**Lectures and Presenters:** A list of top-class researchers from Greece and abroad working in academia and industry will present topics on food microbiome and impact on food safety and health, vine and wine microbiome, human and fish gut microbiome, metagenomics and amplicon sequencing approaches to study environmental microbiomes, plant-microbe interactions, and bioenergy production processes. In view of the increasing interest and use of bioinformatic tools in studying the microbiome, practicals on amplicon sequencing analysis will be offered to the attendees in three afternoon sessions. You can find the full programme below in the flyer.

**Registration Fees:** A fee of 100 € for members of the Society and 150 € for non-members applies.

**Contact:** Students interesting in attending should sent a CV and a brief cover letter to the following email [info@mikrobiokosmos.org](mailto:info@mikrobiokosmos.org) with a subject title "Summer School MIKROBIOKOSMOS". **Deadline for submission of expression of interest:** 30<sup>th</sup> May 2022.

**More information for the Summer School will be announced and communicated through the website <https://mikrobiokosmos.org/> and facebook page of the Society.**



## PROGRAM

### Monday 4.7.2022

14.00-18.00 Arrival of Attendees

### Tuesday 5.7.2022 Microbes and bioenergy production

10.00 -11.30 Presentations by the students

11.30-12.00 Coffee Break

12.00 – 13.00 “Deciphering the microbial "black box" of anaerobic digestion for bioenergy production” **Dr. Panagiotis Kougias**, Hellenic Agricultural Organisation DIMITRA, Thessaloniki, Greece

13.00 -14.30 Lunch break

14.30-17.30 Practical Bioinformatics - "Analysis of amplicon sequencing data-Background" **Dr. Alexandra Meziti, Dr. Sotirios Vasileiadis**

### Wednesday 6.7.2022 Microbiome and interactions with plant, insects & other organisms

9.30-10.30 "Deciphering plant-microbiome interactions in the rhizosphere" **Dr. Elisa Korenblum**, Agricultural Research Organization ARO, Israel

10.30-11.00 Coffee Break

11.00-12.00 “The Soil Microbiota Recovery in the Agroecosystem” **Dr. Alessandro Bergna**, Syngenta, Switzerland

12.00-14.00 Lunch Break

14.00-17.00 Practical Bioinformatics - "Analysis of amplicon sequencing data –Introduction to R" **Dr. Alexandra Meziti, Dr. Sotirios Vasileiadis**

### Thursday 7.7.2022 Microbiome and ecosystem functioning

9.30-10.30 “Potential drivers of the gut microbiome plasticity and persistence: lessons from the fish gut” **Dr. Fotini Kokou**, University of Wageningen, The Netherlands

10.30-11.00 Coffee Break

11.00-12.00 "Grape and wine microbial communities: structure, function and dynamics" **Dr. Aspasia Nisiotou**, Hellenic Agricultural Organisation DIMITRA, Greece

12.00-14.00 Lunch Break

14.00-17.00 Practical Bioinformatics - "Analysis of amplicon sequencing data-practical examples with R " **Dr. Alexandra Meziti, Dr. Sotirios Vasileiadis**

### Friday 8.7.2022 The role of microbiome in food and health

9.30-10.30 “Using modern technologies to understand and predict the behaviour of microbes with major impact on health. Lessons from understanding the microbial GAD system impacting on Food Safety and the Gut-Brain Axis” **Ass. Prof. Kimon-Andreas Karatzas**, Reading University UK

10.30-11.00 Coffee break

11.00-12.00 “The microbial species concept” **Prof. Kostas Konstantinidis**, Georgia Tech, USA

12.00 -13.00 “Risk-based food Safety Management” **Prof. Kostas Koutsoumanis**, Aristotle University of Thessaloniki, Greece

13.00-15.00 Lunch Break

**15.00 Closure of the Summer School**