

Katsoula Athanasia



PERSONAL INFORMATION:

Date of Birth: 12th of May 1987
Place of Birth: Thessaloniki
Address: Pampouki 11, Ippokratis, Larissa
Work address: Department of Biochemistry & Biotechnology,
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EDUCATION:

- 11/2014–present: PhD student of Biochemistry and Biotechnology Department, Plant and Environmental Biotechnology Laboratory, University of Thessaly, Larissa, Greece.
PhD thesis: “Study of the function and diversity of the microbial community in plant phyllosphere and rhizosphere and interactions with the environment”
Supervisor: Professor in Environmental Microbiology and Biotechnology D.G. Karpouzas.
- 10/2011–11/2013: MSc in Biotechnology – Nutrition & Environment, Department of Biochemistry & Biotechnology, University of Thessaly, Larissa, Greece.
Master thesis project: “Study of the symbiotic microbial community of the flower of *Brassica Oleracea*”.
Supervisor: Associate Professor in Plant Biotechnology K. K. Papadopoulou.
- 09/2005–3/2011: BSc degree and integrated Master of the Department of Agriculture Crop Production and Rural Environment, School of Agricultural Sciences, University of Thessaly, Volos, Greece.
Bachelor thesis project: “Study of the microclimate distribution in a greenhouse with artificial fog as a cooling system”
Supervisor: Associate Professor Agricultural Constructions & Environmental Control N. Katsoulas

WORK EXPERIENCE:

- 11–12/2014: Participation in the scientific research “Analysis of soil samples as to quantify the population of the main soilborn fungal plant pathogens.” led by Dr. D. G. Karpouzas of University of Thessaly (UTH), funded by K+N EUTHYMIADIS S.A.
- 01-21/12/2014: Guest researcher of Helmholtz Centre for Environmental Research - UFZ, Leipzig, Germany. Research on Environmental microbiology, within the project ISOPED, which is funded by IKY-DAAD. Training on plasmid extraction and TRFLP method.
- 2/2015-7/2015: Participation in the scientific program “ESEPMINENT” led by Dr. D. Vokou of Aristotle University of Thessaloniki (AUTH), titled “Essential-oil mediated plant-microbe interactions in the Mediterranean environment: in search of a role and novel applications.”
- 7/2016-4/2017: PhD scholarship from the IAPP-FP7-MC project “LOVE-TO-HATE: Pesticides - Felicity or Curse for the soil microbial community” provided by the General Secretariat of Research and Technology
- 5/2017-3/2019: PhD scholarship from the State Scholarship Foundation of Greece with resources of the EP “Development of Human Resources, Education and Life-long Learning 2014-2020” and co-funded by the European Social Fund and the Greek State.

1/2020-5/2021: Post-Doctoral researcher to NITRIC project founded by the Hellenic Foundation for Research and Innovation (ELIDEK) to investigate the in vitro and in situ activity of new potential nitrification inhibitors and identify the mechanisms driving their activity towards nitrifying organisms.

PERSONAL SKILLS AND COMPETENCES:

Technical skills: *Classical Microbiology:* Culture Media Preparation, Media Inoculation, Isolation of Pure Cultures, Optical Microscopy.
Molecular Techniques: RNA/DNA Extraction, Polymerase Chain Reaction (PCR, RT-PCR, q-PCR), Agarose Gel Electrophoresis, DNA Cleanup from PCR, Ligation Reaction, Transformation of Bacterial Cells, Restriction Enzyme Digestion, Isolation of Plasmid DNA from Bacteria, Denaturing Gradient Gel Electrophoresis, Construction of Clone library.
Analytical Techniques: HPLC, GC-MS

Computer skills: Basic knowledge of Bioinformatics and Analysis of Illumina DNA Sequencing Data, Adequate user of R, Familiar with Ubuntu operating system Microsoft Office operation (Word, Excel, PowerPoint).

Foreign Languages: Greek: Native
English: Fluent

PUBLICATIONS IN PEER-REVIEWED JOURNALS:

Papazlatani C, Rousidou C, Katsoula A, Kolyvas M, Genitsaris S, Papadopoulou KK, Karpouzas DG. Assessment of the impact of the fumigant dimethyl disulfide on the dynamics of major fungal plant pathogens in greenhouse soils. *European Journal of Plant Pathology*. 2016;146(2):391–400.

Lagos S, Perruchon C, Katsoula A, Karpouzas DG. Isolation and characterization of soil bacteria able to rapidly degrade the organophosphorus nematicide fosthiazate. *Letters in Applied Microbiology*. 2019;68(2):149–155.

Katsoula A, Vasileiadis S, Sapountzi M, Karpouzas DG. The response of soil and phyllosphere microbial communities to repeated application of the fungicide iprodione: Accelerated biodegradation or toxicity? *FEMS Microbiology Ecology*. 2020;96(6):1-14.

A. Katsoula, S. Vasileiadis, K. Karamanoli, D. Vokou, D. G. Karpouzas. Factors Structuring the Epiphytic Archaeal and Fungal Communities in a Semi-arid Mediterranean Ecosystem. *Microbial Ecology*. 2021; 1-14

ABSTRACTS IN CONFERENCE PROCEEDINGS:

- Karpouzas D.G., Katsoula A., Karamanoli K., Vokou D. Microbial communities in soil, on plants, and in the air from a typical Mediterranean ecosystem, 6th National Mikrobiokosmos Conference, Athens, Greece (3-5/4/2015).
- Katsoula A., Papazlatani C., Papadimitriou A., Rousidou C., Papadopoulou K. K., Karpouzas D. G. Estimation of the population levels of soil-born fungal plant pathogens in soils from greenhouses in Western Greece via q-PCR, 6th National Mikrobiokosmos Conference, Athens, Greece (3-5/4/2015).
- Karamanoli K., Karpouzas D.G., Katsoula A., Sainis I., Voggoli D., Monokrousos N., Halley J.M., Yadav R.K.P., Constantinidou H.-I.A., Damialis A, Vokou D. Exploring the leaf, airborne, and soil microbial communities in a Mediterranean ecosystem, 10th International Symposium on Phyllosphere Microbiology, 19-23/07/2016, Monte Verità, Ascona, Switzerland

- Katsoula A, Karamanoli K, Ainalidou A, Chalkos D, Vokou D, Karpouzas DG, Soil amendment with aromatic plant material influences the structure and function of the soil microbial community, 8th Congress of the Hellenic Ecological Society, Thessaloniki, Greece (20-23/11/2016)
- Katsoula A, Karamanoli K, Monokrousos N, Vokou D, Karpouzas DG, Which factors drive the composition of the microbial community in the phyllosphere of the plants of a Mediterranean ecosystem? 8th Conference of the Hellenic Ecological Society, Thessaloniki, Greece (20-23/11/2016)
- Katsoula A, Karagiozi E, Karamanoli K, Vokou D, Karpouzas DG, The diversity of phyllospheric Crenarchaea and fungi in a Mediterranean ecosystem: the impact of season and plant hosts. 7th Conference of Microbiokosmos, 10 years of Microbial communities in Action, Athens, Greece (7-9/04/2017).
- Katsoula A., Vasileiadis S., Karpouzas D.G., Rhizosphere and phyllosphere response to repeated application of the fungicide iprodione: Selection for biodegradation or toxicity? 17th International Society of Microbial Ecology (ISME), Leipzig, Germany (12-17/08/2018).
- Katsoula A., Vasileiadis S., Sapountzi M., Karpouzas D.G., The response of the soil and phyllosphere microbial community to repeated application of the fungicide iprodione: Selection for biodegradation or toxicity? 8th Conference of Microbiokosmos, Microbial Communities as Growth Engines from Greece, Patra, Greece (18-20/04/2019).
- Papazlatani V.C., Perucchon C., Katsoula A., Lagos S., Papadopoulou E.S., Vasileiadis S., Karas P.A. and Karpouzas G.D., Isolating bacteria able to rapidly degrade fungicides used in fruit packaging industry: Tailored made inocula for the treatment of relevant agro-industrial effluents. 8th Conference of Microbiokosmos, Microbial Communities as Growth Engines from Greece, Patra, Greece (18-20/04/2019).
- Mitsagga C., Giavasis I., Katsoula A., Vasileiadis S., Karpouzas D. and Papadopoulou K., Characterization, Identification and Physiological Studies of a Pigment-producing Tentative Pseudomonas spp. with Antifungal Properties. 8th Conference of Microbiokosmos, Microbial Communities as Growth Engines from Greece, Patra, Greece (18-20/04/2019).

SEMINAR ATTENDANCE:

24/09/2015: Writing & Publication of Scientific Papers, University of Thessaly, Volos

19-23/09/2016: Attendance to Summer School of “Pesticides and Soil Microbes in the Era of Omics: Technological Advances and New Challenges for the Industry and the Academia”, organized within the frame of LOVE TO HATE project (IAPP Marie Curie Action FP7) of University of Thessaly, in collaboration with Patras University, INRA – Dijon-France, ENOVEO sp και AEIFORIA srl., Paou Monastery, Magnissia, Greece.

7-9/04/2017: 7th National Mikrobiokosmos Conference, “10 years of Microbial communities in Action”, Athens, Greece.

14-15/06/2017: Short course on meta-omics and their application on environmental microbiology. Organized by American Society of Microbiology, Paou Monastery, Magnissia, Greece.

24-28/06/2018: 1st Summer School of Mikrobiokosmos 2018, “The role of microbiome in ecosystem functioning, food security, human health and environmental protection”, Paou Monastery, Magnissia, Greece.

SOCIAL CONTRIBUTION

2019/2014: Volunteering to the project Researcher’s Night. A European volunteering project, that aims to inform the public about a researcher’s work.

2015/2016: Volunteering in the project “Microbes go kindergarten”. A volunteering project, visiting kindergarten schools to educate students about a researcher’s job.

2018: Volunteering to the project Thessaly Science Festival. A festival that presents local scientific work and explains science to public.