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Research Interests

Use of metagenomics to investigate antimicrobial resistance along the food chain. Antimicrobial activity of nanomaterials, nanoceramics and innovative substances and their use to increase the shelf life of foods as packaging materials. Inhibition of food pathogens in ready-to-eat vegetables. Essential oils as antimicrobial additives to cleaning solutions. Isolation and characterization of lactic acid bacteria with potential probiotic activity from fermented foods. Investigation of oligosaccharides isolated from food waste as potential prebiotics. Antimicrobial activity of novel putative probiotics, prebiotics and synbiotics against common foodborne pathogens and development of novel food products.

Qualifications

Doctor of Philosophy (Ph.D.): Title of Thesis: ‘Development of synbiotics with antimicrobial activity as functional food ingredients for the elderly’, School of Food Biosciences, Faculty of Life Sciences, University of Reading, UK, 2004 (British Library EThOS ID: 754081).

Degree: B.Sc. Food Technology, Alexander Technological Educational Institute of Thessaloniki, 2000.

Employment History

2008–present Professor (upgrade November 2023), Associate Professor (upgrade February 2019), Assistant Professor (upgrade December 2014), Lecturer (February 2008), Laboratory of Food Microbiology, Department of Food Science and Technology, School of Geosciences, International Hellenic University.

Teaching laboratory and theory classes in General Microbiology, Food Microbiology and Epidemiology-Microbiological Food Safety-Public Health. Teaching of the class ‘Microbiological examination of foodstuff using rapid analytical methods’ and ‘Microbiological Food Safety and Antimicrobial Techniques’ for the Master of Science course offered by the Department of Food Science and Technology «Master of Science in Quality Management and Production Organization Systems for the Food Industry» 2010-2021.

Scientific responsible for the Microbiological Analysis of water of Alexander Campus, IHU.

2017-2018 One year on Sabbatical as a Fellow of the European Food Risk Assessment Fellowship Programme (EU-FORA) of the European Food Safety Authority (EFSA, Parma, Italy) conducting research on ‘Risk Assessment of antimicrobial resistance along the food chain through culture-independent methodologies’. The research project was undertaken in the Veterinary Medicine School, Department of Food Technology and Hygiene at the University of León in Spain. During the research project at the hosting site, training modules on risk assessment in food safety were attended: 3 weeks in EFSA in Parma, Italy, 1 week at the Austrian Agency for Health and Food Safety (AGES) in Vienna, Austria, 1 week at the German Federal Institute for Risk Assessment (BfR) in Berlin, Germany and 1 week at the Hellenic Food Authority (EFET) in Athens, Greece. Results from the research project were published in international peer reviewed scientific journals and presented at the international conference of EFSA 2018 in Parma, Italy.

2006-2007 Postdoctoral Scientist, Institute of Applied Biosciences, Centre for Research and Technology Hellas, Thessaloniki. Main interests: Carried out research into the acetylation of histones of different barley varieties and tested known phytochemicals from foods that act as inhibitors of deacetylation.

2004-2005 Postdoctoral Scientist, Department of Retrovirology (World Health Organization Collaborating Centre for AIDS/UNAIDS), National Institute of Biological Standards and Control, UK. Main interests: Conducted research into genetic sequence changes of Simian Human Immunodeficiency Viruses (integrated with the human envelope gene) when inoculated into vaccinated animal models.

2001-2004 Research Scientist, School of Food Biosciences, University of Reading, UK. Main interests: Conducted research into the inhibitory activities of probiotic *Lactobacillus* and *Bifidobacterium* and prebiotic oligosaccharides against pathogenic strains of *Escherichia coli* using batch and chemostat culture (gut models). Supervised practical classes on internal M.Sc. Introductory Microbiology and M.Sc. Genetic Engineering courses.

1999-2001 Research Scientist, Division of Food Microbiology, Consulting and Research Group, Leatherhead Food International, UK. Main interests: Responsible for research projects for industry and other customers, including antibiotic resistance studies, rapid method assessments, survival of *Salmonella* in chocolate, probiotic stability in yoghurt and shelf-life determinations. Prepared reports and presentations for external clients.

Research Projects

2020-2023 Scientific collaborator of project: «Starch Based Active Biodegradable Food Packaging» implemented under the framework of the Call funded «Special Actions» - «Aquaculture» - «Industrial Materials» - «Open Innovation in Culture» National Strategic Reference Framework – 2014-2020, «Competitiveness Entrepreneurship and Innovation 2014-2020», General Secretariat for Research and Technology, budget 594.557 € (IHU budget 241.047 €).

2019 Scientific collaborator of project: «Microbiological Challenge Testing of Plastic Packaging with Antimicrobial Activity», funded by Thrace Plastics Pack S.A.

2015-2017 Scientific coordinator of project: «Shelf life of various vegetarian cheese products after inoculation with yeasts and moulds and different incubation conditions», funded by ARIVIA A.V.E.E.

2011-2012 Scientific coordinator of project: «Chemical characteristics and thermal treatment of ready to eat potato mash with emphasis on the microbial safety of the product», funded by the General Secretariat for Research and Technology, research vouchers for SME's, National Strategic Reference Framework – 2007-2013, Competitiveness and Entrepreneurship (OPCE II).

2016 Scientific collaborator of project: «Microbiological testing of black pig-Effect of feed on the phenolic content of the meat of black pig», funded by Fotiadis Farm A.V.E.E.

2013-2015 Scientific collaborator of project: «Isolation, characterization and application of hydrocolloids extracted from olive and grape waste by-products» funded by «Cooperation 2011 – Partnerships of production and Research Institutions in focused research and technology sectors», National Strategic Reference Framework – 2007-2013, Competitiveness and Entrepreneurship (OPCE II).

2013-2015 Scientific collaborator of project: «Integrated treatment of highly concentrated wastewater of molasses to recover high added value products and reducing the pollution loads», funded by «Cooperation 2011 – Partnerships of production and Research Institutions in focused research and technology sectors», National Strategic Reference Framework – 2007-2013, Competitiveness and Entrepreneurship (OPCE II).

2014 Scientific collaborator of project: «Isolation and Characterization of Polysaccharides and Oligosaccharides from Okra (*Abelmoschus esculentus*)» funded by ARCHIMEDES III, National Strategic Reference Framework – 2007-2013, Competitiveness and Entrepreneurship (OPCE II).

2010-2011 Scientific collaborator of project: «Development of oregano and other Greek herbs distillation for the amelioration of their antiseptic properties» funded by the General Secretariat for Research and Technology, research vouchers for SME's, National Strategic Reference Framework – 2007-2013, Competitiveness and Entrepreneurship (OPCE II).

2006-2007 Postdoctoral Scientist of project: «INA-GENOME (MIS 99879) Development of genomics technology in INA: Exploiting research results of the plant-model genomics in the study and improvement of important crop and food production and standardisation» funded by Competitiveness and Entrepreneurship (OPCE II).

2004-2005 Postdoctoral Scientist of project: «The characterisation of vaccine protection: models of AIDS vaccine development» funded by «AIDS Strategic Programme Medical Research Council (MRC G9025730)».

2001-2004 Research Scientist of project: «CROWNALIFE-PROEUHEALTH, Functional Foods, Gut Microflora and Healthy Ageing» funded by CORDIS «Quality of life and Management of Living Resources FP5 European Commission QLK1-CT-2000-00067».

Ph.D. theses-Master of Science and Undergraduate dissertations

Ph.D. thesis

- Member of the three-member advisory committee for the supervision of PhD candidate Bompou Emmanuela (2023) with PhD thesis title "Study of the environmental DNA and microbiome of the cultivated mussel (*Mytilus galloprovincialis*) and other native bivalves in coastal zones of Greece, using third generation sequencing techniques", Department of Fisheries and Aquaculture, University of Patras.
- Member of the three-member advisory committee for the supervision of the PhD candidate Olga Groztidou (2021) with PhD thesis title "Utilization of the polysaccharide kefiran for enhancing the texture in products undergoing freezing process and for the preparation of edible films as well as the study of factors affecting their properties", Department of Food Science and Technology, International Hellenic University.
- Member of the three-member advisory committee for the supervision of the PhD candidate Theofilos Fragopoulos (2021) with PhD thesis title "Development of a biodegradable innovative active packaging material based on film from cheap raw material (starch from rice and legume by-products) with desirable food protection properties and antioxidant/antimicrobial properties due to molecularly encapsulated antioxidants/antimicrobial substances", Department of Food Science and Technology, International Hellenic University.
- Member of the examining committee of Doctoral Thesis of Ekaterine Gabashvili (2022) "Antibiotic Resistance in Black Sea Microbial Populations and the Impact of Bacteriophages on Horizontal Transfer of Antibiotic Resistance Genes", Ph.D. in Biochemistry and Molecular Biotechnology, Faculty of Natural Sciences and Medicine, Ilia State University, Tbilisi, Georgia.
- Member of the examining committee of Doctoral Thesis of Ilaria Carafa (2016) "*In vitro* and *in vivo* activities of lactic acid bacteria from Italian mountain cheese and their exploitation in dairy production", PhD School of Sciences, Thesis for the Doctor Europaeus title, Università Politecnica delle Marche, Ancona & Fondazione Edmund Mach, Italy.

Supervisor of the following Master of Science theses

1. Antimicrobial properties of substances for use in packaging materials (2022). Under the Master of Science course 'Quality Management and Production Organization systems for the Food Industry', Department of Food Science & Technology, International Hellenic University.

2. Antimicrobial activity of novel substances in food packaging materials (2021). Under the Master of Science course ‘Quality Management and Production Organization systems for the Food Industry’, Department of Food Science & Technology, International Hellenic University.
3. Isolation and characterisation of bacteria isolated from Greek Protected Designation of Origin (P.D.O.) soft cheeses (2016). Under the Master of Science course ‘Quality Management and Production Organization systems for the Food Industry’, Department of Food Technology, ATEI of Thessaloniki.
4. Study of probiotic properties of *Lactobacillus kefir* isolated from kefir grains and development of antimicrobial synbiotics (2012). Under the Master of Science course ‘Quality Management and Production Organization systems for the Food Industry’, Department of Food Technology, ATEI of Thessaloniki.
5. Effect of various factors affecting the survival of *Listeria monocytogenes* in ready to eat vegetables (2010). Inter-Departmental Master of Science course ‘Food Science & Nutrition’, Department of Chemistry, University of Ioannina, Department of Nutrition & Dietetics, ATEI of Thessaloniki, Department of Food Technology, ATEI of Thessaloniki and Department of Food Technology, ATEI of Athens.
6. Effect of temperature and relative humidity on the survival of *Listeria monocytogenes* in ready to eat vegetables [(2010), the thesis was not submitted due to personal circumstances]. Inter-Departmental Master of Science course ‘Food Science & Nutrition’, Department of Chemistry, University of Ioannina, Department of Nutrition & Dietetics, ATEI of Thessaloniki, Department of Food Technology, ATEI of Thessaloniki and Department of Food Technology, ATEI of Athens.

Supervisor of the following undergraduate dissertations

1. Microbial analysis of water from different mussel cultivation sites of Northern Greece (2023).
2. Microbial analysis of mussels from different mussel cultivation sites of Northern Greece (2023).
3. Antimicrobial activity of common preservatives used in food, integrated in starch based biodegradable packaging applied to minced meat under refrigeration (2023).
4. Oligotrophic bacteria in potable and environmental waters (2022).
5. Antimicrobial activity of nanoceramics incorporated into food-grade packaging membranes (2021).

6. Antimicrobial activity of novel substances incorporated into food-grade packaging membranes (2021).
7. Epidemiological data of foodborne disease in Greece, Europe and United States of America (2021).
8. Kefir, useful microorganisms and possible use as probiotics in foods (2021).
9. Antimicrobial activity of bioactive nanoceramics under different physiological conditions (2019)
10. Antimicrobial activity of novel chemical substances and nanomaterials (2019)
11. Microbial examination of foods and a dietary food supplement containing spirulina (2019)
12. Antimicrobial activity of bioactive nanoceramics (2018)
13. Microbial examination of spirulina in a food supplement and food containing spirulina (2018)
14. Microbiological characteristics of lactic acid bacteria isolated from soft Greek PDO cheeses (2016)
15. Study and characterization of *Lactobacillus reuteri* from commercial supplements (2015)
16. Factors affecting the growth and antimicrobial activity of *L. kefir* strains with various prebiotics (2015)
17. Development of kefir products with the addition of synbiotics in different types of milk (2015)
18. Growth and antimicrobial activity of *L. kefir* strains using polysaccharides and oligosaccharides (2014)
19. Probiotic activity of *Lactobacillus kefir* strains isolated from kefir grains (2012)
20. Study of storage temperature on the survival of *Escherichia coli* in ready to eat vegetables (2011)
21. Study of storage temperature on the survival of *Salmonella* in ready to eat vegetables (2011)
22. Antimicrobial activity of wipes against common foodborne pathogens and study of detergents with oregano essential oil as additive for the decontamination of stainless steel surfaces (2011)
23. Study of detergents with oregano essential oil as additive for the decontamination of hands and plastic/wooden surfaces (2011)
24. Study of the effect of relative humidity on the survival of *Listeria monocytogenes* in ready to eat vegetables (2011)
25. Behavioral characteristics of *Staphylococcus aureus* during kefir production (2010)
26. Study of the survival of *Listeria monocytogenes* in lettuces (2008)

Publications

1. Frangopoulos T., Marinopoulou A., Goulas A., Likotrafiti E., Rhoades J., Petridis D., Kannidou E., Stamelos A., Theodoridou M., Arampatzidou A., Tosounidou A., Tsekmes L., Tsihlakis K., Gkikas G., Tourasanidis E and Karageorgiou V.(2023). Optimizing the Functional Properties of Starch-Based Biodegradable Films. *Foods* 12(14), 2812 <https://doi.org/10.3390/foods12142812> (**Impact Factor 5.2**).
2. Rhoades J., Fitiadou S., Paschalidou G., Papadimitriou T., Alvarez-Ordóñez A., Kormas K., Vardaka E. and *Likotrafiti E (2023). Microbiota and Cyanotoxin Content of Retail Spirulina Supplements and Spirulina Supplemented Foods. *Microorganisms* 11(5), 1175 <https://doi.org/10.3390/microorganisms11051175> (*Corresponding Author, **Impact Factor 4.926**).
3. Rhoades J., Katsouda V., Matsia S., Rogkotis K., Taousani S., Kiriiazidi N., Salifoglou A. and *Likotrafiti E (2022). Antimicrobial activity of Cobalt(II)-Citrate against common foodborne pathogens and its potential for incorporation into food packaging material. *Applied Sciences*, 12 (21), 10855 <https://doi.org/10.3390/app122110855> (*Corresponding Author, **Impact Factor 2.838**).
4. Rogkotis K., Matsia S., Likotrafiti E., Rhoades J., Kountouras D.T., Katakalos K., Pavlidou E., Ritzoulis C. and Salifoglou A. (2022). Selective antimicrobial food packaging of composite poly(lactic acid) cobalt-citrate films. *Food Packaging and Shelf Life*, 34, 100959. <https://doi.org/10.1016/j.fpsl.2022.100959> (**Impact Factor 8.749**).
5. Kazeli, K., Tsamesidis, I., Theocharidou, A., Malletzidou, L., Rhoades, J., Pouroutzidou, G.K., Likotrafiti, E., Chrissafis, K., Lialiaris, T., Papadopoulou, L., Kontonasaki, E. & Lymperaki, E. (2021). Synthesis and characterization of novel calcium-silicate nanobioceramics with magnesium: Effect of heat treatment on biological, physical and chemical properties. *Ceramics*, 4 (4), 628-651. <https://doi.org/10.3390/ceramics4040045>.
6. Cobo-Díaz, J.F., Alvarez-Molina A., Alexa E.A., Walsh, C.J., Mencía-Ares, O., Puente-Gómez, P., Likotrafiti, E., Fernández-Gómez, P., Prieto, B., Crispie, F., Ruiz, L., González-Raurich, M., López, M., Prieto, M., Cotter, P. & Alvarez-Ordóñez A. (2021). Microbial colonization and resistome dynamics in food processing environments of a newly opened pork cutting industry during 1.5 years of activity. *Microbiome* 9, 204. <https://doi.org/10.1186/s40168-021-01131-9> (**2 year Impact Factor 14.65, 5 year Impact Factor 15.677**).
7. Rhoades J., Anastasiou I., Michailidou S., Koinidis A., Doulgerakis C., Alexa E.A., Alvarez-Ordóñez A., Argiriou A. and Likotrafiti E. (2021). Microbiological analysis of Greek Protected Designation of Origin cheeses and characterization of the isolated lactic acid bacteria. *International Dairy Journal*, 123, 105183. <https://doi.org/10.1016/j.idairyj.2021.105183> (Corresponding Author, **Impact Factor 3.032**).

8. Michailidou S., Pavlou E., Pasentsis K., Rhoades J., Likotrafiti E. and Argiriou A. (2021). Microbial profiles of Greek PDO cheeses assessed with amplicon metabarcoding. *Food Microbiology*, 99, 103836. <https://doi.org/10.1016/j.fm.2021.103836> (**Impact Factor 5.277**).
9. Omar A.A., Mahgoub S., Salama A., Likotrafiti E., Rhoades J., Christakis C. and Samaras P. (2021). Evaluation of *Lactobacillus kefir* and manganese peroxidase-producing bacteria for decolorization of melanoidins and reduction of chemical oxygen demand. *Water and Environment Journal* 35 (2), 704-714 <https://doi.org/10.1111/wej.12663> (**Impact Factor 1.426**).
10. Alexa (Oniciuc) E.A., Likotrafiti E., Garre A., Ruiz L., Prieto M. and Alvarez-Ordóñez A. (2019). A European questionnaire-based study on population awareness and risk perception of antimicrobial resistance. *FEMS Microbiology Letters*, 366, Issue 17, <https://doi.org/10.1093/femsle/fnz221> (**Impact Factor 1.994**).
11. Pouroutzidou, G.K., Theodorou, G.S., Kontonasaki, E., Tsamesidis, I., Pantaleo, A., Patsiaoura, D., Papadopoulou, L., Rhoades, J., Likotrafiti, E., Lioutas, C.B., Chrissafis, K., Paraskevopoulos, K.M. (2019). Effect of ethanol/TEOS ratios and amount of ammonia on the properties of copper-doped calcium silicate nanoceramics. *Journal of Materials Science: Materials in Medicine* 30 (9), article number 98. <https://doi.org/10.1007/s10856-019-6297-8> (**Impact Factor 2.467**).
12. Oniciuc E.A.†, Likotrafiti E.†, Alvarez-Molina A., Prieto M., López M. and Alvarez-Ordóñez A., (2019). Food processing as a risk factor for antimicrobial resistance spread along the food chain. *Current Opinion in Food Science* 30, 21-26 (<https://doi.org/10.1016/j.cofs.2018.09.002>). († These authors contributed equally to this work, **Impact Factor 3.734**).
13. Likotrafiti E., Oniciuc E.A., Prieto M., Santos J.A., López S. and Alvarez-Ordóñez A. (2018). Risk assessment of antimicrobial resistance along the food chain through culture-independent methodologies. *EFSA Journal* 2018; 16 (S1):e160811. <https://doi.org/10.2903/j.efsa.2018.e160811>.
14. Oniciuc E.A.†, Likotrafiti E.†, Alvarez-Molina-Molina A., Prieto M., Santos J.A. and Alvarez-Ordóñez A. (2018). The Present and Future of Whole Genome Sequencing (WGS) and Whole Metagenome Sequencing (WMS) for Surveillance of Antimicrobial Resistant Microorganisms and Antimicrobial Resistance Genes across the Food Chain. *Genes* 9(5), 268. <https://doi.org/10.3390/genes9050268> († These authors contributed equally to this work, **Impact Factor 3.6**).
15. *Likotrafiti E., Tuohy K.M., Gibson G.R. and Rastall R.A. (2016). Antimicrobial activity of selected synbiotics targeted for the elderly against pathogenic *Escherichia coli* strains. *International*

<https://doi.org/10.3109/09637486.2015.1134444> (*Corresponding Author, **Impact Factor 1.2**).

16. *Likotrafiti E., Valavani P., Argiriou A., Rhoades J. (2015). *In vitro* evaluation of potential antimicrobial synbiotics using *Lactobacillus kefir* isolated from kefir cocci. *International Dairy Journal* 45, 23-30. <https://doi.org/10.1016/j.idairyj.2015.01.013> (*Corresponding Author, **Impact Factor 2.3**).

17. Mahgoub S., Tsiopstias K., Likotrafiti E. and Samaras P. (2014). Removal of melanoidins by potential manganese peroxidase producing bacteria isolated from molasses effluent. *Proceedings from Symbiosis International Conference*, pages 1-15.

18. *Likotrafiti E., Tuohy K.M., Gibson G.R. and Rastall R.A. (2014). An *in vitro* study of the effect of probiotics, prebiotics and synbiotics on the elderly faecal microbiota. *Anaerobe* 27, 50-55. <https://doi.org/10.1016/j.anaerobe.2014.03.009> (*Corresponding Author, **Impact Factor 2.4**).

19. *Likotrafiti E., Anagnou M., Lampiri P. and Rhoades J. (2014). Effect of storage temperature on the behaviour of *Escherichia coli* O157:H7 and *Salmonella enterica* serotype Typhimurium on salad vegetables. *Journal of Food Research* 3 (2), 1-8. [10.5539/jfr.v3n2p1](https://doi.org/10.5539/jfr.v3n2p1). (*Corresponding Author, Open Access).

20. *Likotrafiti E., Smirniotis P., Nastou A and Rhoades J. (2013). Effect of relative humidity and storage temperature on the behaviour of *Listeria monocytogenes* on fresh vegetables. *Journal of Food Safety* 33 (4), 545-551. <https://doi.org/10.1111/jfs.12087> (*Corresponding Author, **Impact Factor 1.275**).

21. Rhoades J., Gialagkolidou K., Gogou M., Mavridou O., Blatsiotis N., Ritzoulis C. and *Likotrafiti E. (2013) Oregano essential oil as an antimicrobial additive to detergent for hand washing and food contact surface cleaning. *Journal of Applied Microbiology* 115 (4), 987-994. <https://doi.org/10.1111/jam.12302> (*Corresponding Author, **Impact Factor 2.3**).

22. *Likotrafiti E., Tuohy K.M., Gibson G.R. and Rastall R.A. (2013). Development of antimicrobial synbiotics using potentially-probiotic faecal isolates of *Lactobacillus fermentum* and *Bifidobacterium longum*. *Anaerobe* 20, 5-13. <https://doi.org/10.1016/j.anaerobe.2013.01.002> (*Corresponding Author, **Impact Factor 2.4**).

23. Nastou A., Rhoades J., Smirniotis P., Makri I., Kontominas M. and *Likotrafiti E. (2012). Efficacy of household washing treatments for the control of *Listeria monocytogenes* on salad vegetables. *International Journal of Food Microbiology* 159, 247-253. <https://doi.org/10.1016/j.ijfoodmicro.2012.09.003> (*Corresponding Author, **Impact Factor 3.4**).

24. Papaefthimiou D., Likotrafiti E., Kapazoglou A., Bladenopoulos K., Tsaftaris A. (2010). Epigenetic chromatin modifiers in barley: III. Isolation and characterization of the barley GNAT-

MYST family of histone acetyltransferases and responses to exogenous ABA. *Plant physiology and biochemistry* **48**, (2-3), 98-107. <https://doi.org/10.1016/j.plaphy.2010.01.002> (**Impact Factor: 2.8**).

25. Likotrafiti E., Manderson K.S., Fava F., Tuohy K.M., Gibson G.R. and Rastall R.A. (2004). Molecular identification and antipathogenic activities of putative probiotic bacteria isolated from faeces of healthy elderly individuals. *Microbial Ecology in Health and Disease* **16**, 105-112. <https://doi.org/10.1080/08910600410032376>.

Book chapters

1. Likotrafiti E. and Rhoades J. (2015). Probiotics, Prebiotics, Synbiotics and Foodborne Illness pp. 469-476. *In: Probiotics, Prebiotics and Synbiotics: Bioactive Foods in Health Promotion 2nd Edition*. Watson R.R. and Preedy V.R. (Eds.), Elsevier Inc., Cambridge, MA, USA.
2. Tuohy K.M., Likotrafiti E., Manderson K., Gibson G.R. and Rastall R.A. (2004). Improving gut health in the elderly pp. 394-415. *In: Functional Foods, Ageing and Degenerative Disease*. Remacle C. and Reusens B. (Eds.), Woodhead Publishing Limited, Cambridge, UK.

Monograph

Ph.D. Thesis (2004) 'Development of synbiotics with antimicrobial activity as functional food ingredients for the elderly', School of Food Biosciences, Faculty of Life Sciences, University of Reading, UK.

Citations

According to Scopus (including secondary documents): 533 citations, h-index: 14 (last accessed 06/12/2023).

According to Google scholar: 778 citations, h-index: 15, i10-index: 16 (last accessed 06/12/2023).

Orchid Author ID: <http://orcid.org/0000-0002-8977-1308> Scopus Author ID: 8121429100.

International conference papers and posters

1. Ioannou M.E., Pouroutzidou G.K., Tsamesidis I., Chatzimentor I., Likotrafiti E., Rhoades J. & Kontonasaki E. (2022). Synthesis and characterization of cerium oxide nanoparticles for surface coating of Titanium implants. 32st Annual Conference of the European Society for Biomaterials, ESB2022, Bordeaux, France, 4-8 September 2022.

2. Likotrafiti E., Rasinger J.D., Assunção R., Anastasi E., Fechner C., Iulietto M.F., Raclariu-Manolica A.C., Valanou E., Alonso Andicoberry C. & Koulouris S. (2022). Foundation and activities of the EU-FORA Alumni: an evolving network of scientists who successfully completed EFSA's European Food Risk Assessment Fellowship Programme. ONE-Health, Environment, Society-EU Conference 2022, Brussels, Belgium, 21-24 June 2022.
3. Tsamesidis, I., Gkiliopoulos, D., Pouroutzidou, G.K., Lymperaki, E., Likotrafiti, E., Rhoades, J., Kontonasaki, E., Paraskevopoulos, K.M. & Theocharidou, A. (2021). Bioactive and biocompatible cerium-doped mesoporous nanoparticles. 31st Conference of the European Society for Biomaterials, ESB2021, Porto, Portugal, 5-9 September 2021.
4. Rhoades, J., Katsouda, V., Taousani, S., Matsia, S., Kiriazidi, N., Salifoglou, A. & Likotrafiti, E. (2021). Antimicrobial activity of cobalt-citrate against common foodborne pathogens and its potential for incorporation into food packaging material. 6th International ISEKI-Food Conference, Sustainable Development Goals in Food Systems: Challenges and Opportunities for the Future. 23-25 June, online.
5. Pasxalidou, G., Fitiadou, S., Vardaka, E., 1. Rhoades, J. & Likotrafiti, E. (2021). Microbiological safety assessment of cyanobacterial food supplements and food products. 6th International ISEKI-Food Conference, Sustainable Development Goals in Food Systems: Challenges and Opportunities for the Future. 23-25 June, online.
6. Sidiropoulos, S., Matsia, S., Rogkotis, K., Salifoglou, A. & Likotrafiti, E. (2021). Enriched PLA films with antimicrobial factors for coatings and food packaging. CYSENI, Kaunas, Lithuania, 24-28 May, online.
7. Rhoades, J., Michailidou, S., Anastasiou, I., Argiriou, A. & Likotrafiti, E. (2019). Putative probiotic lactic acid bacteria isolated from Greek protected designation of origin cheeses using traditional and metagenomic microbiological analysis. 10th Probiotics, Prebiotics & New Foods, Nutraceuticals and Botanicals for Nutrition & Human Microbiota Health, Rome, Italy, 8-10 September 2019. *Journal of Clinical Gastroenterology* (2020), 54, p S1, Eds. Lippincott Williams & Wilkins.
8. Pouroutzidou, G.K., Likotrafiti, E., Rhoades, J., Tsamesidis, I., Theodorou, G.S., Paraskevopoulos, K. M. & Kontonasaki, E. Apatite forming ability, antibacterial properties and hemolytic activity of silica-based nanobioceramics. 30th Annual Conference of the European Society for Biomaterials, ESB2019, Dresden, Germany, 9-13 September 2019.
9. Pouroutzidou, G.K., Tsamesidis, I., Theodorou, G.S., Likotrafiti, E., Rhoades, J., Pappa C., Triantafyllidis K.S., Kontonasaki, E. Paraskevopoulos, K.M. (2019). The effect of different CTAB-assisted sol-gel derived silica-based mesoporous nanoparticles on structure, antibacterial properties

and hemolytic activity. 30th Annual Conference of the European Society for Biomaterials, ESB2019, Dresden, Germany, 9-13 September 2019.

10. Elena-Alexandra Oniciuc (Alexa), Eleni Likotrafiti, Alberto Garre, Lorena Ruiz, Miguel Prieto, Avelino Alvarez-Ordóñez (2019). Questionnaire-based exercise based on population awareness and risk perception of antimicrobial resistance. 8th Congress of European Microbiologists, Glasgow, Scotland, 7-11 July 2019. PT140, p853.

11. Likotrafiti E, Oniciuc EA, Prieto M, Alvarez-Ordóñez A. Consumer awareness in Greece of issues of antibiotic use and the risk of antimicrobial resistance in bacteria. EFSA Conference 2018, Science, Food, Society, Parma, Italy, 18-21 September 2018.

12. Oniciuc EA, Likotrafiti E, Prieto M, Alvarez-Ordóñez A. Lessons learned from a pan-European questionnaire on consumers' awareness and risk perception of antimicrobial resistance. EFSA Conference 2018, Science, Food, Society, Parma, Italy, 18-21 September 2018.

13. Anastasiou I, Michailidou S, Argiriou A, Rhoades J & Likotrafiti E. Study of the microbiota of Greek P.D.O. soft cheeses and characterisation of isolated lactic acid bacteria. 6th International Congress on Food Technology, Athens, Greece, 18-19 March 2017.

14. Manavi M, Dimitreli G & Likotrafiti E. Study of kefir-type products using goat's milk from two different breeds with the addition of pro-, pre- and synbiotics. 6th International Congress on Food Technology, Athens, Greece, 18-19 March 2017.

15. Mahgoub S., Tsiptsias K., Likotrafiti E. and Samaras P. Decolonisation of synthetic and real melanoidins by *Lactobacillus kefir* and manganese peroxidase producing bacteria isolated from molasses effluent. 5th International Conference on Environmental Management, Engineering, Planning and Economics (CEMEPE) & SECOTOX Conference, Mykonos, Greece, 14-18 June 2015.

16. Harron S, Likotrafiti E, Duffy L, Alden J, Sethi M, Sangster R & Almond N. The application of SHIVS to characterize protection by HIV-1 envelope. NIBSC, UK, 2005.

17. Likotrafiti E, Manderson K, Tuohy KM, Gibson GR & Rastall RA. Screening of probiotic strains isolated from the elderly for antimicrobial activity against gastrointestinal pathogens. The Food, GI-tract Functionality and Human Health Cluster, PROEUHEALTH, 3rd Workshop, Sitges, Spain, 15-17 March 2004.

18. Tuohy KM, Likotrafiti E, Manderson K, Fava F, Gibson GR & Rastall RA. Generation of a novel synbiotic specifically designed for the elderly population. The Food, GI-tract Functionality and Human Health Cluster, PROEUHEALTH, 3rd Workshop, Sitges, Spain, 15-17 March 2004.

19. Saunier K, Tuohy KM, Likotrafiti E, Sutren M, Rastall RA, Silvi S, Cresci A & Dore J. Culture independent molecular analysis of the elderly fecal microflora reveals an extreme

complexity. The Food, GI-tract Functionality and Human Health Cluster, PROEUHEALTH, 3rd Workshop, Sitges, Spain, 15-17 March 2004.

20. Saunier K, Tuohy KM, Likotrafiti E, Rastall RA, Sutren M, Cresci A & Dore J. Species diversity analysis of the elderly gut microflora through cloning of whole community 16S rRNA. Society for General Microbiology, 153rd Meeting-UMIST, Manchester, UK, 8-11 September 2003.

21. Likotrafiti E, Tuohy KM, Gibson GR & Rastall RA. Properties of potential probiotic strains isolated from the elderly: acid tolerance, bile tolerance and oligosaccharide fermentation profile. Society for General Microbiology, 152th Meeting, University of Edinburgh, UK, 7-11 April 2003.

22. Likotrafiti E, Tuohy KM, Silvi S, Verdenelli MC, Casciano R, Orpianesi C, Cresci A, Gibson GR & Rastall RA. Molecular taxonomy of probiotic strains isolated from the elderly gut microflora. The Food, GI-tract Functionality and Human Health Cluster, PROEUHEALTH, 2nd Workshop, Taormina, Italy, 3-5 March 2003.

23. Likotrafiti E, Manderson K, Tuohy KM, Gibson GR & Rastall RA. Screening of probiotic strains isolated from the elderly for antimicrobial activity against gastrointestinal pathogens. The Food, GI-tract Functionality and Human Health Cluster, PROEUHEALTH, 2nd Workshop, Taormina, Italy, 3-5 March 2003.

24. Likotrafiti E, Gibbs PA & Knight A. Evaluation of the new Oxoid S.P.R.I.N.T. *Salmonella* system and the reference ISO method in chocolate. Society for Applied Microbiology, University of Swansea, UK, 9-12 July 2001.

Posters in Greek conferences

25. Σιδηρόπουλος, Σ., Μάτσια, Σ., Ρογκώτης, Κ., Λυκοτραφίτη, Ε. & Σαλίφογλου Α. (2021). Παραγωγή υμενίων πολυγαλακτικού οξέος (PLA) και εμπλουτισμός με αντιμικροβιακούς παράγοντες για χρήση σε συσκευασίες τροφίμων. 1^ο Διαδικτυακό Συμπόσιο Νέων Επιστημόνων με θέμα «Ορυκτοί Πόροι-Περιβάλλον-Χημική Μηχανική», Πανεπιστήμιο Δυτικής Μακεδονίας, 26-28 Φεβρουαρίου 2021.

26. Ρογκώτης, Κ., Μάτσια, Σ., Λυκοτραφίτη, Ε. & Σαλίφογλου Α. (2019). Σύνθετα μεταλλοπολυμερικά υλικά στην ανάπτυξη αντιβακτηριακών υμενίων. 13^ο Συνέδριο Χημείας Κύπρου-Ελλάδας. Λευκωσία, Κύπρος, 31/10-3/11/2019.

27. Nastou A, Makri I, Rhoades JR, Kontominas M and Likotrafiti E. Παράγοντες που επηρεάζουν την αποτελεσματικότητα μεθόδων απολύμανσης για την αφαίρεση της *Listeria monocytogenes* από την επιφάνεια φρέσκων έτοιμων προς κατανάλωση λαχανικών. 4^ο Πανελλήνιο Συνέδριο Κτηνιατρικής, Θεσσαλονίκη, Ελλάδα, 11-13 Νοεμβρίου 2011.

Other interests and activities

Reviewer for the following International Scientific Journals:

- International Journal of Food Microbiology
- Microorganisms
- Genes
- Pathogens
- Foods
- Anaerobe
- International Journal of Food Sciences and Nutrition
- African Journal of Microbiology Research
- Journal of Food Research
- Journal of Probiotics and Health
- International Journal of Environmental Research and Public Health
- European Journal of Clinical Microbiology & Infectious Diseases
- Molecular Nutrition and Food Research
- Journal of Microbiological Methods
- Journal of Functional Foods
- Food Control

Member of International Scientific Organizations

- Member of the EUFORA Alumni Board of European Food Safety Authority-EFSA, Parma, Italy (2018-2022). The EUFORA Alumni Board has presented a strategic plan during the 69th Advisory Forum & Focal Points meeting in EFSA headquarters in Parma, Italy on the 18th September 2018 and has already launched its own website <https://www.eufora-alumni.eu/> with funding provided by EFSA.
- Promotion of the activities of the EU-FORA Program of the European Food Safety Authority-EFSA, through a TV interview and video promotion from EFSA's online channels at EFSA Conference 2018 (Parma, Italy) and EFSA conference 2022 (Brussels, Belgium).
- Selected EFSA candidate for providing scientific and technical assistance in subjects relating to Microbiological Food Risk Assessment.
- Member of the Evidence for Health Claims workgroup at the second meeting of the International Scientific Association for Prebiotics and Probiotics (ISAPP, Henley on Thames, July 2003, www.isapp.net).

- Member of ISEKI-Food Association-European Association for Integrating Food Science and Engineering Knowledge into the Food Chain.
- Program Evaluator EDBM34 'Researcher support with an emphasis on young researchers' of the Human Resource Development, Education and Lifelong Learning (EYD EP ANAD EDBM).
- Examiner/evaluator of the "Food Microbiology" course for the postgraduate scholarship programs of the State Scholarship Foundation (IKY).
- Member of the Scientific Committee, 13th Congress of Nutrition and Dietetics, September 25-27, 2020, online (<http://msd2020.org/committees/>).

Achievements-Awards

Fellow of the EU-FORA programme (European Food Risk Assessment), 2017-2018. This competitive fellowship is offered by the European Food Safety Authority (EFSA, Parma, Italy). It offered 12 month hands on experience in food safety risk assessment in a country outside the country of origin. The research project was undertaken in the Veterinary Medicine School, Department of Food Technology and Hygiene at the University of León in Spain.

Training courses-Seminars

19-26 January 2020, Leon, Spain. Training on the MALDI Biotyper, to identify microorganisms using MALDI-TOF Mass Spectrometry, by determining their unique proteomic fingerprint at Universidad de León, under the programme Erasmus+.

23-25 May 2018, Leon, Spain. Seminar Title: 'Taller practico de aplicaciones genomicas y metagenomicas en el ambito de la Microbiologia de los alimentos y la Microbiologia veterinaria'- Practical computer based seminar on genomic and metagenomic applications in Food Microbiology and Veterinary Microbiology. Organisers: Universidad de León, Veterinary Medicine School.

11-15 June 2018, Athens, Greece. 'Module 3 training of the European Food Risk Assessment Fellowship Programme'. **Curriculum:** Identification of Emerging Risks, Nanomaterials and areas of application, Adverse Outcome Pathway (AOP), Mode of Action (MoA) and the IATA approach, OMICs in Risk Assessment, Risk Ranking.

5-9 March 2018, Berlin, Germany. 'Module 2 training of the European Food Risk Assessment Fellowship Programme'. **Curriculum:** Risk communication concepts, approaches underlying theory, Crisis communication, Risk perception, Survey Methodology, Areas for Risk Communication in scientific opinions, Media Training.

27 November-1 December 2017, Vienna, Austria. 'Module 1 training of the European Food Risk Assessment Fellowship Programme'. **Curriculum:** Overview of GMO Assessment, Overview of Animal Health and Animal Welfare Risk Assessment, Overview of Plant Health and Pesticides Risk

Assessment, Overview of Nutritional Risk Assessment, Overview of Environmental Risk Assessment.

4-22 September 2017, Parma, Italy. ‘Induction training of the European Food Risk Assessment Fellowship Programme’. **Curriculum:** Week 1 - Introduction to the course, Historical Overview of the E.U. Food Safety System and main E.U. Food Safety legislation, Basic Scientific Concepts of Food Safety, Background and Principles of Food Risk Assessment, Statistical Concepts, Data collection and processing. Week 2 - Introduction to chemical risk assessment (CRA), Hazard Identification, Hazard characterization, Exposure assessment, Risk characterization. Week 3 – Introduction to microbiological risk assessment (MRA), Hazard identification and characterization of pathogens in food and water, MRA methodology, Exposure assessment and risk characterization of MRA (Part I), Exposure assessment and risk characterization of MRA (Part II), Advanced concepts in quantitative MRA.

Invited speaker-Participation in international conferences-Outreach activities

- Invited by the Hellenic Food Authority (EFET) at the EFSA-EFET conference entitled ‘Food Safety a key pillar of One Health approach’, 7-8 November 2023, Athens, Greece.
- Presentation of the Department of Food Science and Technology, International Hellenic University, at staff members of the Institute of Marine Research, Bergen, Norway, under the programme Erasmus+, 04-08 September 2023.
- Presentation of the Department of Food Science and Technology, International Hellenic University, at students and staff members of Maribor University, Maribor, Slovenia, under the programme Erasmus+, 19-23 June 2023.
- Invited by the European Food Safety Authority (EFSA) at the International Conference 2nd EU Risk Assessment Research Assembly (RARA) 2022, December 6-7, Berlin, Germany.
- Invited speaker by the European Food Safety Authority in order to present the strategic growth plan of the EU-FORA Alumni and to present the programme to the New Fellows of Series III- 2019-2020, (in Parma, Italy 4-6 September 2019), Series IV- 2020-2021 (19-10-2021, online), Series V- 2021-2022 (02-09-2022, online), EU-FORA Virtual Summer Workshop.
- Presentation of the Department of Food Science and Technology, International Hellenic University, at students and staff members of Kazimierz Pulaski University of Technology and Humanities in Radom, Poland, under the programme Erasmus+, 6-9 September 2022.

- Presentation of the Department of Food Science and Technology, International Hellenic University, at staff members of the Research Institute INRAE-IATE, Montpellier, France, under the programme Erasmus+, 23-25 May 2022.
- Presentation of the Department of Food Science and Technology, International Hellenic University, at students and staff members of University of Agricultural Sciences and Veterinary Medicine of Bucharest, Romania, under the programme Erasmus+, 23-25 27/03-01/04 2022.
- Presentation of the Department of Food Science and Technology, International Hellenic University, at students and staff members of Universitat Politecnica De Valencia, Spain, under the programme Erasmus+, 6-9 September 2021.
- Presentation of the Department of Food Science and Technology, International Hellenic University, at students and staff members of Ghent University, Ghent, Belgium, under the programme Erasmus+, 17-20 February 2020.
- Invited talk on ‘Putative probiotic lactic acid bacteria isolated from Greek protected designation of origin cheeses using traditional and metagenomic microbiological analysis’. 10th Probiotics, Prebiotics & New Foods, Nutraceuticals and Botanicals for Nutrition & Human Microbiota Health, Rome, Italy, 8-10 September 2019.
- Presentation ‘Good Practices in Teaching’ at 3rd International Week, Alexander Technological Educational Institute of Thessaloniki, Thessaloniki, Greece, 13-17 May 2019.
- Presentation/Lecture at students and staff members of Universidad de León, Leon, Spain ‘Probiotics, Prebiotics, Synbiotics and Gastrointestinal Tract-a gut feeling’ and European Food Risk Assessment Fellowship (EUFORA), under the programme Erasmus+, 18-20 February 2019.
- Presentation of the Department of Food Technology, ATEI to students and staff members of the University of Leon, Department of Food Hygiene and Technology and the Institute of Food Science and Technology (ICTAL), Leon, Spain October 16, 2017.
- Open University, Municipality of Thessaloniki, Nutrition, Science, Civilization, and Financial Growth. Thematic Session: New Nutritional Trends, Thessaloniki 09/02/2015.
- Presentation/Lecture at students of the M.Sc. course Nutritional Medicine, School of Biomedical and Life Sciences, University of Surrey 2004 titled ‘Effect of pro-, pre- and synbiotics on gut microbiota as a result of clinical trials’.
- National Collaboration for Ageing Research, London, (ncAr), ‘Molecular Taxonomy of Probiotic strains isolated from the elderly gut microflora’, UK, 28-30 July 2003.
- AGEnet, Workshop, ‘Nutrition & Ageing: You are what you eat’, Diet & Gut Health, Reading, UK, 30 April 2002.

- Presentation of results of the EU programme CROWNALIFE to the partners, University of Ulster (Coleraine, UK), German Institute of Human Nutrition [(Dife), Berlin, Germany)] and University of Reading 2001-2004.

Representation and promotion of department activities

17 March 2023 Organization of a visit of students of the 3rd High School of Themi to the Food Microbiology Laboratory within the framework of the e-twinning program 'The Art in the Microscope'. The use of the microscopes was demonstrated to the students with observation of bacteria and a tour of the Department's laboratories with parallel information on Food Safety, March 17, 2023, Sindos.

8 December 2020, Thessaloniki, Greece. Organized webinar 'The role, structure and mode of operation of the European Food Safety Authority (EFSA)' for members of staff and students of the Department of Food Science and Technology, International Hellenic University, with Stylianos Koulouris, Scientific Cooperation Officer, EFSA, Parma, Italy.

29 November 2019, Thessaloniki, Greece. Organised webinar 'Unlocking the microbiome' for members of staff and students of the Department of Food Science and Technology, International Hellenic University, with Mo Langhi from company CosmosID, London UK.

21-22 May 2014 Oral presentation in a networking meeting 'Nutrition Policy Strategies' at the Institute of Applied Biosciences, EKETA in the presence of researchers (INEB, ITHID), professors (Department of Food Technology ATEITH, Departments of Agriculture, Veterinary Medicine, Medicine AUTH, American Agricultural School), industrial bodies (PELOPAK SA, Bellas) of Central Macedonia and the General Secretariat of Research and Technology (Artemis Simopoulou-member of ESET, Mr. Hatjinikolou). Presentation of the Department and research interests and strengthening of research collaborations. Tour of participants in our Department.

November 2012 Participation in a round table meeting with research and production organizations of Central Macedonia within the framework of the RAF REGIONS-Bringing the benefits of Research to AgroFood SMEs FP7 Program.

February 2009 Live interview on TV100 about food preservation during DETROP and interview about food safety in MACEDONIA TV.

Administrative and academic activities

2023- present Institutional coordinator for the incorporation of International Hellenic University in Article 36 of the Statute of the European Food Safety Authority (EFSA).

2020-present Member of the Erasmus+ committee and Erasmus+ Week of Alexander Campus, International Hellenic University

2018- present Departmental Academic Coordinator of Erasmus+ Programme. Within the framework of the Erasmus+ Program, >50 bilateral agreements (Inter-Institutional Agreement) have been signed with Universities and Research Institutes abroad, to enhance the mobility of students and staff of the Department of Food Science and Technology. In addition, from September 2018 until today, 37 faculty members and 34 students of the Department of Food Science and Technology moved to institutions abroad, while 25 academic staff members and 24 students from other institutions abroad moved to the Department of Food Science and Technology.

2009-present Supervisor of the Microbiological Water Quality Control of Alexander Campus, International Hellenic University.

2020-2022 Departmental Responsible for the management of COVID-19 cases. Management of more than 250 cases of the Department, preparation of protocols for face-to-face teaching, examination, graduation ceremonies and disinfection of premises.

2008-present Member and Substitute Member of Electoral Bodies, Member of a Three-Member Advisory Committee as Coordinator of Electoral Bodies, Member and Substitute Member of the Department's Procurement and Reception of Consumables Committees, Member of the Department's Master's Theses and Graduate Theses Examination Committees, Member and Substitute Member of the Evaluation Committees for hourly-paid Scientific Associates and Academic Scholars.

2022-2023 Supply and Services Committee of School of Geosciences.

2022-2023 Student Internship Committee of the Department of Food Science and Technology, School of Geosciences.

2021-2022 Committee for monitoring tender contracts, in Sindos including the project of immediate delivery and receipt of premises where the contracts have expired.

2019 Three-member electoral committee for the election of President and Deputy President of the Department of Food Science & Technology.

2012-present Member of the Course Rankings and Equivalence Committee of the Department of Food Science and Technology.

2012-present Member of the Transcripts Committee of the Department of Food Science and Technology.

2009-2010 Institutional coordinator of ATEI Thessaloniki for the acquisition of research/laboratory equipment funded by the Regional Operational Program of Macedonia-Thrace – Educational Infrastructure, National Strategic Reference Framework (NSRF) – 2008-2014, approximate budget ~5.000.000 Euros.

2008-2009 Departmental representative of a two day introduction of the Department of Food Technology to graduate students of general lyceum and technical vocational schools.

2013- present Responsible of the Laboratory of Food Microbiology of the Department of Food Science and Technology of International Hellenic University. The Laboratory of Food Microbiology was equipped with the following research/laboratory equipment via funding by the Regional Operational Program of Macedonia-Thrace – Educational Infrastructure, National Strategic Reference Framework (NSRF) – 2008-2014 and NSRF 2014-2020, approximate budget ~150.000 Euros:

<https://www.food.ihu.gr/en/microbiology-lab/>

Knowledge of Computer Handling

Excellent knowledge of PC operation in a Windows environment, word processing software (Word), spreadsheets (Excel), presentations (PowerPoint) and internet services (Internet Explorer, Mozilla Firefox, Google Chrome).

Good knowledge of numerical data management and statistical analysis software.

Excellent knowledge of Pathogen Modeling Program (PMP), ComBase Predictor and Food Spoilage and Safety Predictor (FSSP) microbiology predictive software.

Foreign language skills

English (University of Cambridge and University of Oxford), French (DELF/DALF & Sorbonne I) and basic knowledge of Italian.