Dr. Erminta Tsouko (MSc, PhD)

Assistant Professor

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Dr. Erminta Tsouko is an Assistant Professor at the Department of Biology (Division of Genetics and Biotechnology), NKUA, specializing in Biotechnology. She graduated from the Department of Food Science and Human Nutrition (DFSHN), Agricultural University of Athens (AUA, 2011) and holds a Master's degree in Food Bioprocesses & Biorefineries (AUA, 2014) as well as a Ph.D. in Agricultural Sciences and Engineering (AUA, 2019). Her doctoral research focused on the development of microbial and enzymatic processes for the valorization of industrial side streams for the production of microbial lipids and esters.

Dr. Tsouko conducted postdoctoral research at DFSHN, AUA (2019–2022), contributing to five national and European research projects. From 2023 to 2025, she served as the Principal Investigator of the SUSTNANOCELL project ("Sustainable production of bacterial cellulose and its nanoscalar modification for incorporation into food-related matrices"), funded by the Hellenic Foundation for Research and Innovation (HFRI) and hosted by the National Hellenic Research Foundation.

Since April 2025, Dr. Tsouko has been a faculty member at NKUA, teaching undergraduate and MSc courses in the Department of Biology. She has authored 39 peer-reviewed publications, 7 book chapters, and 39 conference presentations (h-index: 19; citations: 1,412, *Scopus, 11/2025*).

Research Interests

- Valorization of agro-industrial side streams via physical, chemical, and biological methods
- Integrated biorefinery development and microbial conversion to produce value-added products (e.g., polyphenols, proteins, pectins, polymers, microbial oils, bacterial cellulose, fatty acid esters, multi-enzymes)
- Batch, fed-batch, and solid-state fermentation processes
- Development of bio-based food packaging materials and applications in food systems
- Modification of biopolymers to nanostructures

- Oleogelation and emulsions for food-related systems

Google Scholar: https://scholar.google.gr/citations?user=cDlU5bAAAAAJ&hl=el