



# Michalis Koureas

Assistant Professor

*Instrumental Chemical Analysis and Food Safety*

**Curriculum Vitae**

May 2026

Department of Dietetics and Nutrition

School of Physical Education, Sport Science and Dietetics

University of Thessaly

Trikala, Greece

Email: mkoureas@uth.gr

Telephone: (+30) 24310 47120

Mobile: (+30) 6978539083

Date of Birth: 03/01/1979

## Research Interests

My research activity focuses on instrumental analysis, with emphasis on the application of chromatographic techniques, including gas and liquid chromatography, coupled with mass spectrometry, for the detection and quantification of pollutants, metabolites and pesticide residues in a range of matrices. I also have experience in the use of spectroscopic techniques combined with chemometric models for the evaluation of quality parameters, authenticity and adulteration detection in food and dairy products.

My research further extends to biomonitoring methods for assessing human exposure to chemical hazards and evaluating their impact on public health. In addition, my work focuses on environmental epidemiology, wastewater epidemiology, epidemiological surveillance, and the investigation of climate-change impacts on public health.

## Education

2014	<b>PhD</b> University of Thessaly, Faculty of Medicine, School of Health Sciences Assessment of pesticide exposure in the population of Thessaly and evaluation of health effects through the measurement of biological markers. Grade: Excellent	Larissa, Greece
2005	<b>Diploma in Environmental Engineering</b> Department of Environmental Engineering, Technical University of Crete Grade: Very Good	Chania, Greece

## Professional Experience

2026-	<b>Assistant Professor</b> Department of Dietetics and Nutrition School of Physical Education, Sport Science and Dietetics University of Thessaly Instrumental Chemical Analysis and Food Safety	Trikala, Greece
2021-2026 (April)	<b>Research Associate / Analyst</b> Laboratory of Hygiene and Epidemiology, Faculty of Medicine, University of Thessaly Participation in European and national research projects and actions, sampling, laboratory analyses and teaching support at the Laboratory of Hygiene and Epidemiology and in postgraduate study programs.	Larissa, Greece
2017-2020	<b>Postdoctoral Researcher</b> Stavros Niarchos Foundation - Laboratory of Hygiene and Epidemiology, University of Thessaly Development and application of a GC-MS methodology for the early diagnosis of lung cancer through the determination of biomarkers in exhaled breath, within the Stavros Niarchos Foundation program Restart & Empowerment of Young Researchers. Teaching support at the Laboratory of Hygiene and Epidemiology.	Larissa, Greece
2014-2016	<b>Research Associate / Analyst</b> Laboratory of Hygiene and Epidemiology, Faculty of Medicine, University of Thessaly Chemical analyses, assessment of environmental exposure to pollutants in relation to epidemiological data, water sampling, preparation of guidelines and participation in European and national research projects and actions.	Larissa, Greece
2008-2014	<b>Research Associate / Environmental Engineer</b> National School of Public Health - Laboratory of Hygiene, University of Thessaly Environmental engineering duties at the Thessaly Regional Public Health Laboratory, chemical analyses, sampling, participation in University of Thessaly research projects and teaching support at the Laboratory of Hygiene and Epidemiology.	Larissa, Greece
2006-2008	<b>Environmental Engineer / Environmental Management Officer</b> AKTOR ATE KYA construction company, Costa Navarino project Environmental management duties for the Navarino Resorts - Navarino Dunes / Costa Navarino project.	Romanos, Pylia, Messinia, Greece

## Research Output Summary

Peer-reviewed journal publications

45

First-author publications	<b>13</b>
Second-author publications	<b>11</b>
Scopus citations	<b>1,037</b>
Scopus h-index	<b>17</b>
Google Scholar citations	<b>1,539</b>
Google Scholar h-index	<b>20</b>
Book chapters	<b>3</b>
Conference presentations	<b>31</b>
Invited conference talks	<b>13</b>

## Monographs

Assessment of pesticide exposure in the population of Thessaly and evaluation of health effects through the measurement of biological markers	Doctoral dissertation
Development and application of a GC-MS methodology for the early diagnosis of lung cancer through the determination of biomarkers in exhaled breath	Extended review of postdoctoral research

## Peer-Reviewed Journal Publications

- (1) Alexandraki, M.; Maisoglou, I.; Koureas, M.; Kossyva, V.; Tzereme, A.; Meleti, E.; Vrontaki, M.; Manouras, V.; Dimitriou, L.; Malissiova, E. Physicochemical Properties and Antioxidant Profile of a Fermented Dairy Beverage Enriched with Coffee By-Products. *Beverages* 2025, 11 (4), 121.
- (2) Avakian, I.; Anagnostopoulos, L.; Rachiotis, G.; Fotiadis, K.; Mariolis, A.; Koureas, M.; Dadouli, K.; Papadopoulos, C.; Speletas, M.; Bakola, M. Prevalence and Predictors of COVID-19 Vaccination Acceptance among Greek Health Care Workers and Administrative Officers of Primary Health Care Centers: A Nationwide Study Indicating Aspects for a Role Model. *Vaccines* 2022, 10 (5), 765.
- (3) Bao, M.; Nobile, F.; Koureas, M.; Bottini, I.; Fomenko, E.; Brimicombe, C.; Tirado, V.; Mouchtouri, V.; Hadjichristodoulou, C.; Ljungman, P. Trimester-Specific Exposure to Multiple Heat Indicators and Adverse Birth Outcomes across Four European Countries. *Environ. Res.* 2026, 124092.
- (4) Bogogiannidou, Z.; Koureas, M.; Mouchtouri, V. A.; Dadouli, K.; Kyritsi, M. A.; Vontas, A.; Anagnostopoulos, L.; Mina, P.; Matziri, A.; Vachtsioli, E. Does Tourism Affect the Long Term Course of COVID-19 Pandemic in a Country of Destination? Evidence from a Popular Greek Island in 2020 Where Control Measures Were Implemented. *Front. Epidemiol.* 2023, 3, 1149706.
- (5) Bogogiannidou, Z.; Speletas, M.; Vontas, A.; Nikoulis, D. J.; Dadouli, K.; Kyritsi, M. A.; Mouchtouri, V. A.; Mina, P.; Anagnostopoulos, L.; Koureas, M. Repeated Leftover Serosurvey of SARS-CoV-2 IgG Antibodies in Greece, May to August 2020. *Vaccines* 2021, 9 (5), 504.
- (6) Brimicombe, C.; Jackson, D.; Mungatia, A.; Sulaiman, Z.; Monthaler, T.; Wieser, K.; Otto, I. M.; Luchters, S.; Chersich, M.; Maimela, G. The Influence of Heat Exposure on Birth and Neonatal Outcomes in Mombasa, Kenya: A Pooled Time Series Analysis. *J. Clim. Change Health* 2025, 22, 100409.

- (7) Charvalis, G.; Koureas, M.; Brimicombe, C.; Bogogiannidou, C.; Kalala, F.; Mouchtouri, V.; Hadjichristodoulou, C.; HIGH Horizons Study Group. Daily Time Series of 12 Human Thermal Stress Indices in Greece, Aggregated at Commune Level (1998-2022). *Data Brief* 2025, 58, 111264.
- (8) Chassalevris, T.; Chaintoutis, S. C.; Koureas, M.; Petala, M.; Moutou, E.; Beta, C.; Kyritsi, M.; Hadjichristodoulou, C.; Kostoglou, M.; Karapantsios, T. SARS-CoV-2 Wastewater Monitoring Using a Novel PCR-Based Method Rapidly Captured the Delta-to-Omicron BA.1 Transition Patterns in the Absence of Conventional Surveillance Evidence. *Sci. Total Environ.* 2022, 844, 156932.
- (9) Dadouli, K.; Hatziefthimiou, A.; Mouchtouri, V. A.; Ntellas, P.; Anagnostopoulos, L.; Koureas, M.; Bonotis, K.; Christodoulou, N.; Hadjichristodoulou, C. Geographical Variation in Mental Hospital Discharges in Greece: A Nationwide Study (1999-2012). *Psych* 2022, 4 (2), 200-214.
- (10) Dardiotis, E.; Aloizou, A.-M.; Sakalakis, E.; Siokas, V.; Koureas, M.; Xiromerisiou, G.; Petinaki, E.; Wilks, M.; Tsatsakis, A.; Hadjichristodoulou, C. Organochlorine Pesticide Levels in Greek Patients with Parkinson's Disease. *Toxicol. Rep.* 2020, 7, 596-601.
- (11) Diamanti, C.; Nousis, L.; Bozidis, P.; Koureas, M.; Kyritsi, M.; Markozannes, G.; Simantiris, N.; Panteli, E.; Koutsolioutsou, A.; Tsilidis, K. Wastewater Surveillance of SARS-CoV-2: A Comparison of Two Concentration Methods. *Viruses* 2024, 16 (9), 1398.
- (12) Dimitriou, L.; Koureas, M.; Kapageridou, S.; Pappas, C. S.; Manouras, A.; Malissiova, E. Meat Authenticity Predictive Classification by Implementing Fourier Transform Infrared Spectroscopy (FTIR) Combined with Chemometrics. *J. Food Compos. Anal.* 2025, 145, 107862.
- (13) Dimitriou, L.; Koureas, M.; Pappas, C.; Manouras, A.; Kantas, D.; Malissiova, E. Rapid Classification of Cow, Goat, and Sheep Milk Using ATR-FTIR and Multivariate Analysis. *Sci* 2025, 7 (3), 87.
- (14) Dimitriou, L.; Koureas, M.; Pappas, C. S.; Manouras, A.; Kantas, D.; Malissiova, E. Chemometric Classification of Feta Cheese Authenticity via ATR-FTIR Spectroscopy. *Appl. Sci.* 2025, 15 (15), 8272.
- (15) Fotiadis, K.; Dadouli, K.; Avakian, I.; Bogogiannidou, Z.; Mouchtouri, V. A.; Gogosis, K.; Speletas, M.; Koureas, M.; Lagoudaki, E.; Kokkini, S. Factors Associated with Healthcare Workers' (HCWs) Acceptance of COVID-19 Vaccinations and Indications of a Role Model towards Population Vaccinations from a Cross-Sectional Survey in Greece, May 2021. *Int. J. Environ. Res. Public Health* 2021, 18 (19), 10558.
- (16) Hatzianastasiou, S.; Mouchtouri, V. A.; Pavli, A.; Tseroni, M.; Sapounas, S.; Vasileiou, C.; Dadouli, K.; Kyritsi, M.; Koureas, M.; Prezerakos, P. COVID-19 Outbreak on a Passenger Ship and Assessment of Response Measures, Greece, 2020. *Emerg. Infect. Dis.* 2021, 27 (7), 1927.
- (17) Kokouva, M.; Koureas, M.; Dardiotis, E.; Alpanidou, P.; Kalogeraki, A.; Kyriakou, D.; Hadjigeorgiou, G. M.; Hadjichristodoulou, C. Relationship between the Paraoxonase 1 (PON1) M55L and Q192R Polymorphisms and Lymphohaematopoietic Cancers in a Greek Agricultural Population. *Toxicology* 2013, 307, 12-16.
- (18) Kossyva, V.; Vrontaki, M.; Manouras, V.; Tzereme, A.; Meleti, E.; Dimitriou, L.; Maisoglou, I.; Alexandraki, M.; Koureas, M.; Malissiova, E. From Waste to Worth: Utilizing Downgraded Greek Chestnuts in Gluten-Free Functional Biscuits. *Sci* 2025, 7 (3), 106.
- (19) Koureas, M.; Rousou, X.; Haftiki, H.; Mouchtouri, V.; Rachiotis, G.; Rakitski, V.; Tsakalof, A.; Hadjichristodoulou, C. Spatial and Temporal Distribution of p, P'-DDE (1-dichloro-2, 2-bis (P-chlorophenyl) Ethylene) Blood Levels across the Globe. A Systematic Review and Meta-Analysis. *Sci. Total Environ.* 2019, 686, 440-451.
- (20) Koureas, M.; Amoutzias, G. D.; Vontas, A.; Kyritsi, M.; Pinaka, O.; Papakonstantinou, A.; Dadouli, K.; Hatzinikou, M.; Koutsolioutsou, A.; Mouchtouri, V. A. Wastewater Monitoring as a Supplementary Surveillance Tool for Capturing SARS-COV-2 Community Spread. A Case Study in Two Greek Municipalities. *Environ. Res.* 2021, 200, 111749.

- (21) Koureas, M.; Bogogiannidou, Z.; Vontas, A.; Kyritsi, M. A.; Mouchtouri, V. A.; Dadouli, K.; Anagnostopoulos, L.; Mina, P.; Matziri, A.; Ntouska, M. SARS-CoV-2 Sero-Surveillance in Greece: Evolution over Time and Epidemiological Attributes during the Pre-Vaccination Pandemic Era. *Diagnostics* 2022, 12 (2), 295.
- (22) Koureas, M.; Kalompatsios, D.; Amoutzias, G. D.; Hadjichristodoulou, C.; Gourgoulisanis, K.; Tsakalof, A. Comparison of Targeted and Untargeted Approaches in Breath Analysis for the Discrimination of Lung Cancer from Benign Pulmonary Diseases and Healthy Persons. *Molecules* 2021, 26 (9), 2609.
- (23) Koureas, M.; Karagkouni, F.; Rakitskii, V.; Hadjichristodoulou, C.; Tsatsakis, A.; Tsakalof, A. Serum Levels of Organochlorine Pesticides in the General Population of Thessaly, Greece, Determined by HS-SPME GC-MS Method. *Environ. Res.* 2016, 148, 318-321.
- (24) Koureas, M.; Kirgou, P.; Amoutzias, G.; Hadjichristodoulou, C.; Gourgoulisanis, K.; Tsakalof, A. Target Analysis of Volatile Organic Compounds in Exhaled Breath for Lung Cancer Discrimination from Other Pulmonary Diseases and Healthy Persons. *Metabolites* 2020, 10 (8), 317.
- (25) Koureas, M.; Mellou, K.; Vontas, A.; Kyritsi, M.; Panagoulas, I.; Koutsolioutsou, A.; Mouchtouri, V. A.; Speletas, M.; Paraskevis, D.; Hadjichristodoulou, C. Wastewater Levels of Respiratory Syncytial Virus Associated with Influenza-like Illness Rates in Children—a Case Study in Larissa, Greece (October 2022–January 2023). *Int. J. Environ. Res. Public Health* 2023, 20 (6), 5219.
- (26) Koureas, M.; Nasika, A.; Lianos, A. G.; Vontas, A.; Kyritsi, M. A.; Voulgaridi, I.; Matziri, A.; Bogogiannidou, Z.; Kalala, F.; Mouchtouri, V. A. Seroprevalence of West Nile Virus, Greece, 2020. *Eurosurveillance* 2025, 30 (15), 2400487.
- (27) Koureas, M.; Rachiotis, G.; Tsakalof, A.; Hadjichristodoulou, C. Increased Frequency of Rheumatoid Arthritis and Allergic Rhinitis among Pesticide Sprayers and Associations with Pesticide Use. *Int. J. Environ. Res. Public Health* 2017, 14 (8), 865.
- (28) Koureas, M.; Speletas, M.; Bogogiannidou, Z.; Babalis, D.; Pinakas, V.; Pinaka, O.; Komnos, A.; Tsoutsas, S.; Papadamou, G.; Kyritsi, M. A. Transmission Dynamics of SARS-CoV-2 during an Outbreak in a Roma Community in Thessaly, Greece—Control Measures and Lessons Learned. *Int. J. Environ. Res. Public Health* 2021, 18 (6), 2878.
- (29) Koureas, M.; Tsakalof, A.; Tsatsakis, A.; Hadjichristodoulou, C. Systematic Review of Biomonitoring Studies to Determine the Association between Exposure to Organophosphorus and Pyrethroid Insecticides and Human Health Outcomes. *Toxicol. Lett.* 2012, 210 (2), 155-168.
- (30) Koureas, M.; Tsakalof, A.; Tzatzarakis, M.; Vakonaki, E.; Tsatsakis, A.; Hadjichristodoulou, C. Biomonitoring of Organophosphate Exposure of Pesticide Sprayers and Comparison of Exposure Levels with Other Population Groups in Thessaly (Greece). *Occup. Environ. Med.* 2014, 71 (2), 126-133.
- (31) Koureas, M.; Tsezou, A.; Tsakalof, A.; Orfanidou, T.; Hadjichristodoulou, C. Increased Levels of Oxidative DNA Damage in Pesticide Sprayers in Thessaly Region (Greece). Implications of Pesticide Exposure. *Sci. Total Environ.* 2014, 496, 358-364.
- (32) Madureira, T.; Nunes, F.; Mata, F.; Vrontaki, M.; Manouras, A.; Koureas, M.; Malissiova, E.; Veiga, J. Cross-National Analysis of Consumer Preferences for Organic Food in Portugal, Spain, and Greece: Socio-Demographic Drivers and Attribute Importance. *Foods* 2026, 15 (1), 155.
- (33) Maisoglou, I.; Koureas, M.; Dimitriou, L.; Meleti, E.; Alexandraki, M.; Kossyva, V.; Tzereme, A.; Vrontaki, M.; Manouras, V.; Manouras, A. Functional Goat Milk Yogurt Dessert Enriched with Antioxidant Extract from Spent Coffee Grounds: Sensory and Consumer Insights. *Dietetics* 2025, 4 (3), 34.
- (34) Malissiova, E.; Sultani, G.; Kogia, P.; Koureas, M.; Hadjichristodoulou, C. Analysis of 20-Year Data for the Assessment of Dietary Exposure to Chemical Contaminants in the Region of Thessaly, Greece. *Food Control* 2022, 136, 108838.

- (35) Malissiova, E.; Tsakalof, A.; Arvanitoyannis, I.; Katsafliaka, A.; Katsioulis, A.; Tserkezou, P.; Koureas, M.; Govaris, A.; Hadjichristodoulou, C. Monitoring Aflatoxin M1 Levels in Ewe's and Goat's Milk in Thessaly, Greece; Potential Risk Factors under Organic and Conventional Production Schemes. *Food Control* 2013, 34 (1), 241-248.
- (36) Malissiova, E.; Tsinopoulou, G.; Gerovasileiou, E. S.; Meleti, E.; Soultani, G.; Koureas, M.; Maisoglou, I.; Manouras, A. A 20-Year Data Review on the Occurrence of Aflatoxin M1 in Milk and Dairy Products in Mediterranean Countries-Current Situation and Exposure Risks. *Dairy* 2024, 5 (3), 491-514.
- (37) Manouras, A.; Koureas, M.; Meleti, E.; Maisoglou, I.; Manouras, V.; Malissiova, E. Insights into the Impact of Extreme Flood Events on Aflatoxin Contamination in Maize from Thessaly, Greece. *Pollutants* 2026, 6 (1), 17.
- (38) Meleti, E.; Alexandraki, M.; Samara, A.; Loffi, C.; Tedeshi, T.; Galaverna, G.; Manouras, A.; Koureas, M.; Malissiova, E. Profile Assessment of Bioactive Peptides in the Greek Traditional Cheese "Tsalafouti." *Dietetics* 2024, 3 (1), 16-29.
- (39) Meleti, E.; Koureas, M.; Manouras, A.; Giannouli, P.; Malissiova, E. Bioactive Peptides from Dairy Products: A Systematic Review of Advances, Mechanisms, Benefits, and Functional Potential. *Dairy* 2025, 6 (6), 65.
- (40) Meleti, E.; Kossyva, V.; Maisoglou, I.; Vrontaki, M.; Manouras, V.; Tzereme, A.; Alexandraki, M.; Koureas, M.; Malissiova, E.; Manouras, A. The Nutritional Benefits and Sustainable By-Product Utilization of Chestnuts: A Comprehensive Review. *Agriculture* 2024, 14 (12), 2262.
- (41) Mouchtouri, V. A.; Koureas, M.; Kyritsi, M.; Vontas, A.; Kourentis, L.; Sapounas, S.; Rigakos, G.; Petinaki, E.; Tsiodras, S.; Hadjichristodoulou, C. Environmental Contamination of SARS-CoV-2 on Surfaces, Air-Conditioner and Ventilation Systems. *Int. J. Hyg. Environ. Health* 2020, 230, 113599.
- (42) Mouchtouri, V. A.; Kourentis, L.; Anagnostopoulos, L.; Koureas, M.; Kyritsi, M.; Kontouli, K. M.; Kalala, F.; Speletas, M.; Hadjichristodoulou, C. Interventional Study of Nonpharmaceutical Measures to Prevent COVID-19 Aboard Cruise Ships. *Emerg. Infect. Dis.* 2024, 30 (5), 1030.
- (43) Papadopoulou, A.; Koureas, M.; Farmakis, A.; Sirakouli, A.; Papathanasiou, I. V.; Gourgoulialis, K. I. Increased Frequency of Health Anxiety in Health Science Students: A Cross Sectional Study in a Greek University. *Med. Arch.* 2021, 75 (3), 221.
- (44) Speletas, M.; Dadouli, K.; Syrakouli, A.; Gatselis, N.; Germanidis, G.; Mouchtouri, V. A.; Koulas, I.; Samakidou, A.; Nikolaidou, A.; Stefos, A. MBL Deficiency-Causing B Allele (Rs1800450) as a Risk Factor for Severe COVID-19. *Immunobiology* 2021, 226 (6), 152136.
- (45) Tzereme, A.; Koureas, M.; Manouras, A.; Malissiova, E.; Soultani, G.; Poulianiti, K.; Gogou, E. A Comparative Kinetic Study on Alkaline Phosphatase Thermal Inactivation in Different Milk Types. *Kinases Phosphatases* 2025, 3 (2), 11.

## Selected Invited Talks

Year	Conference / Scientific Event	Location & Date	Talk Title
2020	Annual Panhellenic Conference Pulmonology Days, Society of Respiratory Disorders and Critical Illness	Volos, 15-18 October 2020	Volatile organic compounds in exhaled breath
2022	Panhellenic Public Health Congress: Well-being, the perpetual goal of Public Health. Challenges and prospects in the post-COVID-19 era	28 February-2 March 2022	Capturing SARS-CoV-2 spread through wastewater monitoring: applications, uncertainties and prospects
2024	Panhellenic Public Health Congress 2024	School of Public Health, University of West Attica, 13-15 June 2024	Recent epidemiological evidence on the effects of heat exposure during pregnancy
2025	3rd International Conference: Emerging Diseases - Old and New Infections in the Mediterranean Basin	Larissa, 10-12 October 2025	Time-series data from Greece on the effect of environmental parameters on pregnancy and fetal outcomes
2025	ONE-Bridge in Health, within the European project ONE Bridge: One Health Nexus - Bridging Human, Animal & Environmental Health Across Europe	University of Patras, 8-11 December 2025	Latest epidemiological evidence on the association between short- and long-term heat exposure and adverse birth outcomes
2025	HIGH Horizons - Heat and Maternal, Newborn and Child Health Indicators Workshop	Athens, 15-16 December 2025	Heat exposure and maternal, newborn and child health outcomes in Greece: findings from the HIGH Horizons Project

## Selected Conference Presentations

1. Modelling the Risk of West Nile Virus Infection in Europe Integrating Serological and Case Notification Data  
Hailin Feng, Giovanni Marini, Eva Barabas, Michalis Koureas, Varvara A. Mouchtouri, Ilaria Dorigatti. Epidemics 10: 10th International Conference on Infectious Disease Dynamics, San Diego, USA, 30 November-3 December 2025.
2. Assessing the Impact of Ambient Temperature and Heat Stress Indices on Preterm Births in Greece: A Time-Stratified Case-Crossover Analysis  
Michalis Koureas, Georgios Charvalis, Chara Bogogiannidou, Ioanna Voulgaridi, Fani Kalala, Varvara A. Mouchtouri, Christos Hadjichristodoulou. The Climate and Health Africa Conference, October 2024.
3. Preliminary results on discriminating the concentration of thyme in honey from the island of Limnos, Greece, using FTIR-ATR combined with chemometrics  
L. Dimitriou, M. Koureas, C. Pappas, A. Papachristoforou, A. Manouras, E. Malissiova. 1st International Conference BeSafe BeeHoney, 28–29 May 2024. Poster.
4. Rapid Authentication of PDO Feta Cheese Using ATR-FTIR Spectroscopy and Chemometric Modeling  
Lamprini Dimitriou, Christos S. Pappas, Athanasios Manouras, Michalis Koureas, Eleni Malissiova. 7th International Conference on Food Science & Technology: Innovation and Sustainability Challenges, Metropolitan Expo, Athens, Greece, 8–9 November 2025.
5. Pilot Implementation of SARS-CoV-2 Wastewater Surveillance on Cruise Ships Arriving at the Port of Piraeus from June to November 2021  
Michalis Koureas, Maria Kyritsi, Alexandros Vontas, Leonidas Kourentis, Charalampos Vasileiou, Varvara A. Mouchtouri, Christos Hadjichristodoulou. Public Health Congress on Maritime Transport and Ports 2022: Sailing to the Post-COVID-19 Era.
6. Analysis of Volatile Organic Compounds in Exhaled Breath for Lung Cancer Diagnosis  
Michalis Koureas, Paraskevi Kyrgou, Gregorios Amoutzias, Christos Hadjichristodoulou, Konstantinos Gourgoulisanis, Andreas Tsakalof. Panhellenic Public Health Congress, 28 February-2 March 2022. Best free communication award.
7. Comparison of Targeted and Untargeted Approaches in Breath Analysis for Discrimination of Lung Cancer from Other Pulmonary Diseases and Healthy Persons

Michalis Koureas, Dimitrios Kalompatsios, Andreas Tsakalof.

Breath Biopsy Conference, Owlstone Medical, Digital Event, 10-11 November 2020.

8. Population Biomonitoring for the Exposure to Organochlorine Pesticides in Thessaly, Greece  
A. Tsakalof, M. Koureas, F. Karagkouni, V. Rakitskii, C. Hadjichristodoulou, A. Tsatsakis.  
52nd Congress of the European Societies of Toxicology, EUROTOX, Seville, Spain, 4-7 September 2016.
9. Biomarkers of Exposure to Organophosphate Insecticides in Population Groups in Thessaly and Association of Exposure Levels with Occupational Practices  
M. Koureas, A. Tsakalof, M. Tzatzarakis, E. Vakonaki, A. Tsatsakis, C. Hadjichristodoulou.  
3rd Panhellenic Congress of the Public Health and Social Medicine Forum, Athens, 30 November-2 December 2012.

## Book Chapters

1. The International Cookbook for Wastewater Practitioners - Vol. 1: SARS-CoV-2  
Gawlik, B.M., Comero, S., Deere, D.A., Medema, G., Remonnay, I., Loret, J., de Roda Husman, A.M., Rinck-Pfeiffer, S. et al., including Koureas, M.  
Publications Office of the European Union, Luxembourg, 2024.  
DOI: 10.2760/995967  
JRC138489.

Contribution to the following chapters:

- **Lead author of the chapter Statistical Analysis and Correlations**
- Contributor to the chapter Data Normalization
- Contributor to the chapter Data Visualization

## Reviewer for Scientific Journals

1. **Food Control**  
ISSN: 0956-7135
2. **Chemosphere**  
ISSN: 0045-6535
3. **Science of the Total Environment**  
ISSN: 0048-9697
4. **Environment International**  
ISSN: 1873-6750
5. **International Journal of Hygiene and Environmental Health**  
ISSN: 1438-4639
6. **International Journal of Environmental Research and Public Health**  
ISSN: 1660-4601
7. **Viruses**  
ISSN: 1999-4915

## Selected European Projects and Actions

Period	Project / Action	Role / Scope
Current	101057843 - HIGH Horizons - HORIZON-HLTH-2021-ENVHLTH-02 / Heat Indicators for Global Health Monitoring, - Task 2.1: Population-level impacts: measurement	Participation in:

Period	Project / Action	Role / Scope
	Early Warning Systems and Health Facility Interventions for Pregnant and Postpartum Women, Infants and Young Children and Health Workers	and predictions - Task 2.4: Investigation of heat-related biomarkers of effect at individual level and examination of their association with adverse outcomes through a birth cohort epidemiological design
10/2024- Current	101140460 - EU-WISH - EU4H-2023-JA-IBAEU Wastewater Integrated Surveillance for Public Health	Deputy Work Package Lead, WP6 - Usage of wastewater surveillance data for public health. Lead for Task 6.1 - Exploring and designing risk-based wastewater sampling strategies and producing guidelines.
02/2023- 05/2024	HORIZON 2020 Marie Skłodowska-Curie Actions - Economy bY spacE: EYE	Epidemiological design and analysis of epidemiological data. Participation in WP4: Calibration and Validation; WP5: Transfer of Knowledge, Training and Networking; WP6: Communication, Dissemination and Exploitation.
02/2021- 07/2023	<u>Advanced Earth Observation and ICT Technologies for Early Study and Warning of Mosquito-Borne Diseases, EMPROS</u>	<u>System design, data observatory, early-warning system and functionality demonstration.</u>
12/2017- 11/2020	<u>Development and application of a GC-MS methodology for the early diagnosis of lung cancer through the determination of biomarkers in exhaled breath</u>	<u>Development and application of an analytical GC-MS methodology for determining volatile organic compounds in human breath. Application and evaluation of the methodology for lung cancer diagnosis.</u>
03/2013- 06/2014	<u>Genetic association studies combined with environmental exposures for the development of Parkinson's disease</u>	<u>Instrumental analysis of blood serum samples for the detection and quantification of organochlorine compounds in patients with Parkinson's disease and healthy controls.</u>

## Teaching Experience - Postgraduate Study Programs

Program / Institution	Course / Thematic Unit	Academic Years
MSc "Applied Public Health and Environmental Hygiene" Faculty of Medicine, University of Thessaly	Environmental Chemistry & Toxicology; Air Quality & Public Health	2013-2014, 2015-2016, 2016-2017, 2018-2019, 2019-2020, 2021-2022, 2022-2023
	Principles of Instrumental Analysis in Food, Water and Air Control Laboratories	2023-2024
	ISO 9001:2008 Certification, Laboratory Accreditation and Total Quality Management (TQM), and Genetically Modified Foods	2016-2017, 2017-2018, 2019-2020, 2022-2023
	Analytical Epidemiology and Occupational Hygiene	2020-2021, 2021-2022, 2023-2024
	Basic Principles of Epidemiology - Descriptive Epidemiology	2019-2020, 2022-2023
	Foodborne diseases and prevention - principles of good hygiene practice	2009-2010, 2011-2012, 2013-2014
	Vector-borne diseases - integrated vector-control programs	2021-2022, 2023-2024
	Sampling methods	2012-2013

Program / Institution	Course / Thematic Unit	Academic Years
	Public Health and Environmental Hygiene; Food and Human Nutritional Requirements	2022-2023
	Waste Management	2009-2010
<b>MSc "Animal Production and Environmental Management"</b> Department of Animal Science, University of Thessaly	ISO 14000 / EMAS in animal food production	2022-2023, 2024-2025, 2025-2026
	Environmental footprint of animal-derived food production - case studies	2022-2023, 2024-2025, 2025-2026
<b>MSc "Social-Preventive Medicine and Quality in Healthcare"</b> Faculty of Medicine, Aristotle University of Thessaloniki	Screening - evaluation of diagnostic tests	2022-2023, 2023-2024
<b>MSc "Colorectal Surgery"</b> Faculty of Medicine, University of Thessaly	Research methodology	2019-2020
	Scientific literature search	2019-2020
	Medical article writing	2019-2020
	Presentation of medical research	2019-2020
<b>MSc "Biomedical Research Methodology, Biostatistics and Clinical Bioinformatics"</b> Faculty of Medicine, University of Thessaly	Population sample selection - sampling methods	2019-2020, 2020-2021, 2021-2022, 2022-2023, 2023-2024, 2024-2025
	Collection, entry and analysis of epidemiological data	2019-2020, 2020-2021, 2021-2022, 2022-2023, 2023-2024, 2024-2025
<b>Foreign-language MSc "Public Health with Emphasis on Maritime Transport"</b> Faculty of Medicine, University of Thessaly	Principles in Epidemiology and Social Research, M1.1	2023-2024
	Statistics for Public Health, M1.2	2023-2024
	Health Policy and Principles for Disease Prevention, M1.3	2023-2024
	Issues in Public Health, M2.3	2023-2024

## Teaching Experience - Undergraduate Study Programs

Institution / Department	Course / Activity	Academic Years
Laboratory of Hygiene and Epidemiology, Faculty of Medicine, University of Thessaly	<b>Academic Teaching Experience for Young Scientists Holding a PhD, within the Operational Program Human Resources Development, Education and Lifelong Learning</b>	2019-2022
	Epidemiology and Applied Medical Research - independent teaching	2019-2022
	Medical Communication - independent teaching	2019-2021
	Epidemiology & Prevention of Infectious Diseases - Global Public Health Threats - independent teaching	2019-2021
	Occupational Medicine	2021-2022

Institution / Department	Course / Activity	Academic Years
Faculty of Medicine, University of Thessaly	Lectures in the course "Social and Preventive Medicine": Air Pollution and Public Health; Introduction to Environmental Health	2012-2013 to 2022-2023
	Teaching assistant in 10 two-hour practical sessions per course per year	2012-2013 to 2018-2019
	Lectures in the course "Epidemiology and Applied Medical Research": sources of epidemiological data, mortality and fertility indicators, population sample selection, sampling methods, analysis and interpretation of epidemiological data, confounding factors and quality assessment of studies, e.g. Newcastle-Ottawa scale	2018-2019, 2022-2023, 2023-2024
Department of Animal Science, University of Thessaly	Instrumental analysis for food hygiene determination in animal production; qualitative and quantitative characteristics	2023-2024, 2024-2025

## Training -Coursework

Institution / Program	Subject	Location	Date
Harvard School of Public Health	EH 201: Introduction to Environmental Health	Boston, Massachusetts, USA	30 July-17 August 2011
University of Southern California, Viterbi School of Engineering	Course for the Training of Cross-Connection Control Programme Specialists, Foundations of Cross-Connection Control and Hydraulic Research	Baton Rouge, Louisiana, USA	2-6 March 2009
University of Thessaly, Medical School	Attendance and successful completion of "Epidemiology I" (grade 8/10, 3 ECTS) and "Epidemiology II" (grade 9/10, 4 ECTS), within the MSc Applied Public Health and Environmental Hygiene	Larissa, Greece	June 2012
University of Crete, Medical School	Training at the Laboratory of Toxicology and Forensic Chemistry, focused on the analysis and determination of organophosphate insecticide metabolites in urine samples	Heraklion, Greece	13-25 February 2012
EU SHIPSAN TRAINET Project	Hygiene Inspections and Communicable Disease Prevention and Control on Passenger Ships - "Train the Trainers" Course	Athens, Greece	17-18 January 2011
EU SHIPSAN TRAINET Project	Hygiene Inspections and Communicable Disease Prevention and Control on Passenger Ships - participation as trainer	Athens, Greece	19-22 January 2011

## Skills - Technical Qualifications

- Statistical analysis: use of Epi Info, SPSS and R for statistical analysis and processing of experimental and epidemiological data.
- Programming and bioinformatics: excellent knowledge of R, with experience in packages such as caret, randomForest, MASS, mixOmics and XCMS for chemometric analysis, machine learning, and development

of classification and regression models. Excellent knowledge of R Shiny for interactive web applications and experience with R Markdown for dynamic and reproducible report generation.

- Analytical instrumentation and spectrometric data processing: operation of GC-MS, LC-MS and FTIR instruments for the determination of chemical metabolites and environmental pollutants. Experience with specialized software including Thermo Xcalibur, OMNIC Spectra Software, ProteoWizard - including msConvert, Skyline, IDPicker and SeeMS - and OpenChrom.
- Office software and data management: advanced use of Microsoft Excel, including complex formulas, pivot tables and macros, as well as excellent knowledge of Word, PowerPoint, Access and Visio for documentation, presentations and data analysis.