CV of the group leader

Personal Information	
SURNAME	ZOUMPOULAKIS
name	PANAGIOTIS
place of Residence	ATHENS, GREECE
e-mail	pzoump@uniwa.gr

CURRENT POSITION(S)

05.2020 - to date	**Associate Professor** Department of Food Science and Technology, University of West Attica, Greece

PREVIOUS POSITION(S)

05.2017 - 05.2020	**Researcher B** Institute of Chemical Biology, National Hellenic Research Foundation, Greece
07.2018 - 08.2019	**Research and Business Development** (Research Mobility according to article 37, national law 4310.) Qualia Pharma, Athens, Greece
10.2006-07.2018	**Research Associate** Department of Food Technology, Technological Educational Institute of Athens, Greece
01.2013-05.2017	**Researcher C** Institute of Biology, Medicinal Chemistry and Biotechnology, National Hellenic Research Foundation, Greece
01.2008-12.2012	**Researcher D** Institute of Organic and Pharmaceutical Chemistry, National Hellenic Research Foundation, Greece
12.2004-11.2006	**Postdoctoral Fellow** Institute of Organic and Pharmaceutical Chemistry, National Hellenic Research Foundation, Greece

EDUCATION

10.2005 - 07.2007	**Executive MBA** Departments of Business Administration & Management Science and Technology & Marketing and Communication, Athens University of Economics and Business
10.1999 - 12.2004	**Ph.D. in Chemistry** Department of Chemistry, University of Patras, Greece
10.1994-07.1999	**Diploma in Chemistry** Department of Chemistry, University of Patras, Greece

Panagiotis Zoumpoulakis is a chemist (1999) from the University of Patras (GR) with postgraduate studies in Management and Administration (MBA) from the Athens University of Economics and Business (2007) and Ph.D. in Chemistry from the University of Patras (2004). He is an Associate Professor (2020) and holds the position of the Head (2021) of the Department of Food Science and Technology of the University of West Attica. From 2021 he is the director of the Laboratory of Chemistry, Analysis and Design of Food Processes. From 2020, he is a visiting Researcher at the Institute of Chemical Biology of the National Hellenic Research Foundation, where from 2008 to 2020 he was a Researcher (with consequent promotions from D to B grade). From 2015 he is a visiting professor at the Department of Biochemistry and Biotechnology of the University of Thessaly. During the period 2018-2019 he moved at Qualia Pharma pharmaceutical group of companies (contract for research mobility according to law No.4310) as a Research and Business Development Manager with duties and responsibilities to identify research opportunities and setup new projects. From 2006 up to 2017 he was a research collaborator at the Department of Food Technology of the Technological Institute of Athens.

His research activity focuses on the field of health and food with the key objectives the application of analytical and computational chemistry approaches for the study of biomolecules and bioactive compounds as well as the identification of biomarkers. Dr. Zoumpoulakis has participated as a coordinator, scientific director, or research team member in 26 national and European competitive funded research projects. His work is summarized in 127 original publications and review articles in international scientific journals, more than 130 publications in proceedings of International and Greek conferences as well as 2 Books and Educational Notes.

From 2013 until today he has acts as a reviewer of research proposals for European and national committees (European Commission, H2020 – MSCA INDIVIDUAL FELLOWSHIPS & FP7 - PEOPLE, HFRI - PostDoc Fellowships, GSRT, The National Science Centre of Poland (Narodowe Centrum Nauki), The Research Promotion Foundation (RPF) of Cyprus, The French Research Agency (ANR)).

Mr. Zoumpoulakis has working experience in the field of technology transfer (external partner in Intermas Consultants Ltd, from 2006 to 2007), while he has been actively involved in the start-up ecosystem, acting as a member of evaluation committees for start-ups competitions. He is the co-founder of Cloudpharm P.C., one of the winning start-ups of the Enter Grow Go competition of Eurobank and Corallia and one of the three selected Greek start-up companies that participated in 2018 in the DMZ accelerator in Toronto, Canada.

Since 2015 he is a member of the bi-institutional Committee of the M.Sc. "Bio-entrepreneurship" and is responsible for the networking with industries in the field of biotechnology. From 2017 to 2021 he has been the General Secretary of the Scientific Department of Food of the Hellenic Chemical Association. He is married with two children.

CV of group members

Eftichia Kritsi, Chemist, MSc., Ph.D.

E-mail: ekritsi@uniwa.gr **Scopus Author ID:** 52163993900 ***h*-index**: 7

Eftichia Kritsi is a chemist and she obtained her bachelor diploma and her master's degree in the field of Organic Chemistry from the National and Kapodistrian University of Athens (NTUA). In 2017, she earned her PhD diploma from the School of Chemical Engineering of the National Technical University of Athens (NTUA). From 2017 to 2021, she was employed as postdoctoral researcher at the Institute of Chemical Biology of National Hellenic Research Foundation (NHRF) and from 2020 until today she is collaborated as teaching fellow at the Department of Food Science and Technology of the University of West Attica (UNIWA). From 2018, she is academic staff (1) at the Department of Biochemistry and Biotechnology of the University of Thessaly (Interinstitutional Programm of postgraduate studies in Bioentrepreeurship) and (2) from 2019 at the School of Medicine of the University of Crete (Postgraduate Programm Oncology: from Oncogenesis to Therapy). Her scientific work resulted in 21 publications at international peer-reviewed journals and in more than 20 oral and poster announcements in conferences. Also, she has participated in 3 National funded research projects (and also she has received 3 fellowships. Her research activity focuses on the discovery of bioactive compounds, using advanced *in silico* methodologies (pharmacophore modeling, conformational studies, virtual screening, Molecular Dynamics simulations) complemented with analytical techniques.

Highlighted Publications in Peer Reviewed Scientific Journals

(1) D. Matiadis, P. G. V. Liggri, **E. Kritsi**, N. Tzioumaki, P. Zoumpoulakis, D. P. Papachristos, G. Balatsos, M. Zagnou, A. Michaelakis, Curcumin derivatives as potential mosquito larvicidal agents against two mosquito vectors, Culex pipiens and Aedes albopictus, *Int. J. Mol. Sci.*, 22, 1-19, 2021. **doi:** https://doi.org/10.3390/ijms22168915

(2) G. Zoidis, **E. Kritsi**, P. Lecinska, M. Ivanov, P. Zoumpoulakis, M. Sokovic, M. Catto, The Triazole ring as a Privileged Scaffold for Putative Antifungals: Synthesis and Evaluation of a Series of New analogues, *ChemMedChem*, 16, 134-144, 2020. **doi:** https://doi.org/10.1002/cmdc.202000312

(3) J. Zachmann, **E. Kritsi**, A. Tapeinou, P. Zoumpoulakis, T. Tselios, M. T. Matsoukas, A Combined Computational and Structural Approach into Understanding the Role of Peptide Binding and Activation of the Melanocortin Receptor 4, *J. Chem. Inf. Model*, 60, 1461-1468, 2020. **doi:** https://doi.org/10.1021/acs.jcim.9b01196

(4) E. Kritsi, M. T. Matsoukas, C. Potamitis, V. Karageorgos, A. Detsi, M. Ivanov, M. Sokovic, P. Zoumpoulakis, Novel Hit Compounds as Putative Antifungals: The Case of *Aspergillus fumigatus*, *Molecules*, 24, 3853, 2019. **doi:** https://doi.org/10.3390/molecules24213853

(5) E. Kritsi, M. T. Matsoukas, C. Potamitis, V. Karageorgos, A. Detsi, V. Magafa, G. Liapakis, T. Mavromoustakos, P. Zoumpoulakis, Exploring new scaffolds for angiotensin II receptor

Dimitra Z. Lantzouraki, Chemist, MSc, PhD

e-mail: dlantzouraki@gmail.com; Scopus Author ID: 56026777000, h-index: 7

Dimitra Lantzouraki is a chemist (MSc, PhD, Department of Chemistry of National and Kapodistrian University of Athens) specialized in analytical and food chemistry and is currently working in the Laboratory of Toxicological Control of Pesticides of the Benaki Phytopathological Institute. Experienced in the use and applications of modern instrumental analysis and techniques, such as GC-MS and HPLC-MSn she has developed methods for the identification, profiling and quantification of natural bioactive compounds in plants, foods and biological samples. Dimitra has participated as a scientific associate in three national research projects. Her ongoing participation in international and panhellenic conferences includes 32 announcements/oral presentations, whilst she has published 13 articles in international peer reviewed scientific journals. Her research activity focuses on the following areas:

(1) Analysis of phytocannabinoids in cannabis plant and products with chromatographic and mass spectrometric techniques.

(2) Identification and quantification of bioactive compounds with GC-FID (Gas Chromatography–Flame Ionization Detector) and GC-MS (Gas Chromatography–Mass Spectrometry) techniques in foods and beverages

(3) Extraction and determination of the concentration of (poly)phenolic compounds of plant origin, and assessment of the in vitro antiradical and antioxidant activity of natural products and foods by spectrophotometric methods.

(4) Development of LC-PDA-MSn (Liquid Chromatography–Photodiode Array Detector–Mass Spectrometry) methods for the identification, structure elucidation and quantification of natural and synthetic (poly)phenolic compounds, antioxidants, carotenoids, vitamins and bioactive metabolites derived from industrial by-products, foods, plant-based and biological samples

<u>Highlighted Publications in Peer Reviewed Scientific Journals</u>

(1) T. Tsiaka, T., Fotakis, C., Lantzouraki, D.Z., Tsiantas, K., Siapi, E., Sinanoglou, V.J., and Zoumpoulakis, P. (2020). Expanding the Role of Sub-Exploited DOE-High Energy Extraction and Metabolomic Profiling towards Agro-Byproduct Valorization: The Case of Carotenoid-Rich Apricot Pulp. Molecules, 25(11), 2702. DOI: 10.3390/molecules25112702.

(2) Sinanoglou, V.J., Kavga, A., Strati, I.F., Sotiroudis, G., Lantzouraki, D.Z., and Zoumpoulakis, P. (2019). Effects of Infrared Radiation on Eggplant (Solanum melongena L.) Greenhouse Cultivation and Fruits' Phenolic Profile. Foods, 8(12). pii: E630. DOI: 10.3390/foods8120630 (IF 2018/2019: 3.011)

(3) Lantzouraki, D.Z., Tsiaka, T., Soteriou, N., Asimomiti, G., Spanidi, E., Natskoulis, P., Gardikis, K., Sinanoglou, V.J., and Zoumpoulakis, P. (2018). Antioxidant Profiles of Vitis vinifera L. and Salvia triloba L. Leaves Using High Energy Extraction Methodologies. Journal of AOAC International, 103, 1–9. DOI: 10.5740/jaoacint.19-0261 (IF 2018/2019: 1.201)

(4) Tsiaka, T., Lantzouraki, D.Z., Siapi, E., Sinanoglou, V.J., Heropoulos, G.A., Calokerinos, A.C., and Zoumpoulakis, P. (2018). Macular carotenoids in lipid food matrices: DOE-based high energy extraction of egg yolk xanthophylls and quantification through a validated

APCI(+) LC-MS/MS method. Journal of Chromatography B, 1096, 160–171. DOI: 10.1016/j.jchromb.2018.08.010 (IF 2018/2019: 2.813)

(5) Fotakis, C., Lantzouraki, D.Z., Goliomytis, M., Simitzis, P.E., Charismiadou, M., Deligeorgis, S.G., and Zoumpoulakis, P. (2017). NMR Metabolomics Investigates the Influence of Flavonoid-Enriched Rations on Chicken Plasma. Journal of AOAC International, 100(2), 315-322. DOI: 10.5740/jaoacint.16-0405 (IF 2018/2019: 1.201)

(6) Lantzouraki, D. Z., Sinanoglou, V. J., Tsiaka, T., Proestos, C., and Zoumpoulakis, P. (2015). Total phenolic content, antioxidant capacity and phytochemical profiling of grape and pomegranate

Thalia Tsiaka, Postdoctoral Researcher, Chemist, Ph.D, MSc

E-mail: tsiakath@eie.gr; **Scopus Author ID:** 23006476200, **h-index (Scopus):** 7

Tsiaka Thalia is a Postdoctoral researcher (2019-present) at the Institute of Chemical Biology (ICB) of National and Hellenic Research Foundation (NHRF). She is also a Teaching assistant and Research Associate (2019-present) at the Department of Food and Science Technology of University of West Attica. She graduated from the Department of Chemistry (2008) and she holds a PhD in Analytical Chemistry (2019) and a MSc degree in Analytical Chemistry and Quality Control (2012) from National and Kapodistrian University of Athens. Her main research fields include (a) Analysis of phytochemicals (carotenoids, polyphenols, FAs, etc.) in foods/nutraceuticals, extracts and biofluids (blood, urine, feces, amniotic fluid), (b) Development/Validation of LC-MSn analytical methods/protocols, (c) Targeted/Untargeted metabolomics using high-throughput analytical techniques/multivariate statistical analysis and (d) Optimization of high-energy extraction techniques (UAE, MAE) using experimental design (DOE) models and green solvents. She has participated in the composition of various Greek research proposals and she has excellent verbal and written communication skills in three languages (Greek: Native speaker, English: Proficient user, Spanish: Proficient user). Currently, she works as a postdoctoral researcher in competitive national programs (EPAnEK 2104-2020, Operational Programme "Competitiveness, Entrepreneurship, Innovation", European Regional Development Fund) at ICB of NHRF. She has worked as a teaching assistant at Chemistry Department of National and Kapodistrian University of Athens (2012-2017). In 2008, she interned as analytical chemist at General Chemical State Laboratory. She was also a grant-holder of 'A. Papadakis' scholarship from National and Kapodistrian University of Athens (2009-2011). She is the author and co-author of 16 research articles in international peer reviewed scientific journals and she has participated in various oral (3 presentations) and poster presentations (16 announcements) at international conferences. To cite the most important:

1) **The Metagenomic and Metabolomic Profile of the Infantile Gut: Can They Be "Predicted" by the Feed Type?**, E.I. Dimitrakopoulou, A. Pouliakis, V. Falaina, T. Xanthos, P. Zoumpoulakis, T. Tsiaka, R. Sokou, Z. Iliodromiti, T. Boutsikou, N. Iacovidou, *Children*, **(2022)**, (9)2, 154.

2) **Exploring the Role of Natural Deep Eutectic Solvents (NADES) Towards the Valorization of Food Processing Industry Waste**, A. Tzani, M.A. Karadendrou, T. Tsiaka, E. Kritsi, P. Zoumpoulakis and A. Detsi, In: *Deep Eutectic Solvents: Properties, Applications and Toxicity*, Nova Publishers, **2022**.

3) **Expanding the Role of Sub-Exploited DOE-High Energy Extraction and Metabolomic Profiling towards Agro-Byproduct Valorization: The Case of Carotenoid-Rich Apricot Pulp.** T. Tsiaka, C. Fotakis, D.Z. Lantzouraki, K. Tsiantas, E. Siapi, V.J. Sinanoglou, P. Zoumpoulakis, *Molecules*, **(2020)**, 25, 2702.

4) **Choline chloride and Tartaric acid NADES: An efficient solvent for the extraction of phenolic and carotenoid compounds.** S. Koutsoukos, T. Tsiaka, A. Tzani, P. Zoumpoulakis, A. Detsi, *Journal of Cleaner Production*, **(2019)**, 241, 118384.

5) **1H NMR-based metabolomics reveals the effect of maternal habitual dietary patterns on human amniotic fluid profile.** M. Fotiou, C. Fotakis, F. Tsakoumaki, E. Athanasiadou, C. Kyrkou, A. Dimitropoulou, T. Tsiaka, A.C. Chatziioannou, K. Sarafidis, G.

Menexes, G. Theodoridis, C.G. Biliaderis, P. Zoumpoulakis, A.P. Athanasiadis, A.M. Michaelidou, *Scientific Reports*, **(2018)**, (8):4076, 1-12.

1. Conferences attended

CONFERENCES/WORKSHOPS/etc.
2018-2019

- 2nd Food Chemistry Conference: Shaping the Future of Food Quality, Safety, Nutrition and Health, 17-19 September 2019, Seville, Spain.
- International Conference on Carotenoid research and applications in agro-food and health - EUROCAROTEN, Lemesos, 26-28 November, 2019
- 10th International Symposium on Computational Methods in Toxicology and Pharmacology Integrating Internet Resources - CMTPI-2019, 23-27 June, Ioannina, Greece.
- 8th Conference of the Hellenic Scientific Society of Mikrobiokosmos, 18-20 April 2019, Patras, Greece.
- 11th Aegean Analytical Chemistry Days, 25-29 September, 2018, MAICH, Chania, Crete, Greece.