



► Barla V. Ioanna

PhD Candidate at University of Athens

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Education

B.Sc. in Chemistry (2014-2018), University of Athens, Grade: 7.22/10

M.Sc. in Chemical Analysis & Quality Assurance (2018-2020), University of Athens, Grade: 9.23/10

Other Degrees

- Certificate of Proficiency in English, University of Michigan
- Certificate of specialized training in data analysis: Program “**Data Analyst**”, University of Athens

Research Topics

Undergraduate Thesis: “Method Validation for determination of coccidiostat residues in muscle tissues, by LC-MS/MS, according to EU Directive 2002/657/EC”, Laboratory of Analytical Chemistry, Department of Analytical Chemistry, University of Athens (2018).

Master Thesis: “Development of methodologies for dairy products authenticity characterization using MALDI-TOF MS”, Laboratory of Analytical Chemistry, Department of Analytical Chemistry, University of Athens (2020).

PhD Thesis: Development of methodologies for the identification of biomarkers in clinical/biological samples by high resolution mass spectrometry techniques (2020-).

Research Interests

Method Development, Sample preparation techniques, Food Quality Control, Food Authenticity, Omics, LC-MS/MS techniques, HRMS techniques, Data analysis, Chemometrics.

Publications in journals and books

1. Anastasia S. Kritikou, Reza Aalizadeh, Dimitrios E. Damalas, **Ioanna V. Barla**, Carsten Baessmann, Nikolaos S. Thomaidis, “MALDI-TOF-MS integrated workflow for food authenticity investigations: An untargeted protein-based approach for rapid detection of PDO feta cheese adulteration”, *Food Chemistry*, 2022, 370, (<https://doi.org/10.1016/j.foodchem.2021.131057>)
2. Panagiotis Efentakis, Sofia Lamprou, Manousos Makridakis, **Ioanna Barla**, Panagiota-Efstathia Nikolaou, Andriana Christodoulou, Costantinos Dimitriou, Nikolaos Kostomitsopoulos, Ioannis Ntanasios-Stathopoulos, Irene Theochari, Maria Gavriatopoulou, Harikleia Gakiopoulou, Androniki Tasouli, Antonia Vlahou, Evangelos Gikas, Nikolaos Thomaidis, Meletios-Athanasios Dimopoulos, Evangelos Terpos, Ioanna Andreadou, “Mineralocorticoid Receptor Pathway Is a Key Mediator of Carfilzomib-induced Nephrotoxicity: Preventive Role of Eplerenone”, *HemaSphere*, 2022, (DOI: [10.1097/HS9.0000000000000791](https://doi.org/10.1097/HS9.0000000000000791))
3. **Ioanna Barla**, Panagiotis Efentakis, Sofia Lamprou, Maria Gavriatopoulou, Meletios-Athanasios Dimopoulos, Evangelos Terpos, Ioanna Andreadou, Nikolaos Thomaidis, Evangelos Gikas, “An Untargeted Metabolomics Approach on Carfilzomiv Induced Nephrotoxicity”, *Molecules*, 2022 27(22), (<https://doi.org/10.3390/molecules27227929>)

Conferences Presentations

1. Anastasia S. Kritikou, Dimitrios E. Damalas, **Ioanna V. Barla**, Reza Aalizadeh, Volker Sauerland, Carsten Baessmann, Nikolaos S. Thomaidis, *Novel MALDI-TOF-MS-based Methodology for Rapid Detection Of PDO Feta Cheese Adulteration*, 11th International Conference on Instrumental Methods of Analysis, IMA 2019, Ioannina, Greece, 22-25 Sept 2019. (poster presentation)
2. Anastasia S. Kritikou, Dimitrios E. Damalas, **Ioanna V. Barla**, Reza Aalizadeh, Volker Sauerland, Carsten Baessmann, Nikolaos S. Thomaidis, *Rapid MALDI-TOF based proteomics approach for reliable detection of PDO Feta cheese adulteration*, 9th International Symposium on Recent Advances in Food Analysis, RAFA 2019, Prague, Czech Republic, 5-8 November 2019. (poster presentation).
3. **I. Barla**, P. Efentakis, S. Lamprou, P-E. Nikolaou, E. Kastritis, MA. Dimopoulos, E. Terpos, I. Andreadou, N. Thomaidis, E. Gikas, *Combination of library-free and library-based metabolomics protocols for the characterization of anti-cancer drug Carfilzomib administrated to mice*, 12th International Conference on Instrumental Methods of Analysis, IMA 2021, Virtual event, Greece, 20-23 Sept 2021. (poster presentation, awarded)
4. P. Efentakis, S. Lamprou, M. Makridakis, **I. Barla**, P-E. Nikolaou, A. Christodoulou, C. Dimitriou, E. Kastritis, C.Gakiopoulou, E. Gikas, A. Vlachou, N. Thomaidis, MA. Dimopoulos, E. Terpos, I. Andreadou, *The increase of blood pressure caused by carfilzomib is mediated by the signaling of latocorticosteroid receptors. The beneficial effect of eplerenone*, 32nd Hellenic Hematology Conference, Greece 10-14 Nov. 2021 (oral presentation, awarded).
5. **I. Barla**, P. Efentakis, S. Lamprou, P-E. Nikolaou, E. Kastritis, M. A. Dimopoulos, E. Terpos, I. Andreadou, N. Thomaidis, E. Gikas, *Metabolomics on carfilzomib-induced cardiotoxicity: Approaching the kidney as an input-output-system of metabolites, to understand the impact of the Cfz-renal-dysregulation on the occurrence of cardiovascular disorders*, 18th Annual Conference of The Metabolomics Society (METABOLOMICS2022) 19-23-JUNE, Valencia, Spain (poster presentation)
6. **I. Barla**, E. Papagiannopoulou, K. Antoniadis, S. Polychronopoulou, N. Thomaidis, E. Gikas, *Cardiotoxicity as a side-effect of chemotherapy in pediatric patients: untargeted metabolomics gives evidence of biochemical fingerprints of predisposition*, 2nd Nordic Metabolomics Conference 2022, (#NMetC2022), 6-9 Sept., Copenhagen, Denmark. (oral presentation, awarded with travel grant)
7. Ch. Kompolias, **I. Barla**, K. Antoniadis, S. Polychronopoulou, N. Thomaidis, E. Gikas, *Comparison & application of advanced metabolomics strategies for the discovery of chemotherapy induced cardiotoxicity biomarkers*, Athens Conference on Advances in Chemistry (ACAC 2022 26/6-1/7)
8. E. Papagiannopoulou, **I. Barla**, K. Antoniadis, S. Polychronopoulou, N. Thomaidis, E. Gikas, *Can cardiotoxicity in underage patients with neoplasia be predicted? A metabolomic approach*, Athens Conference on Advances in Chemistry (ACAC 2022 26/6-1/7)

Awards and Honors

1. Second Best Poster Award, poster presentation at the 12th Int. Conference on Instrumental Methods of Analysis, IMA 2021
2. “Arkagathos - Gouttas” award at the 32nd Hellenic Hematology Conference, 2021
3. Travel Grant for the 2nd Nordic Metabolomics Conference 2022

Professional Experience

QC analyst (2019-present), Laboratory of Analytical Chemistry, Department of Chemistry, University of Athens:

- ✓ 2020: Determination of veterinary drugs and coccidiostats in animal tissues and eggs with LC-MS

- ✓ 2021: 3D-printed Wearable sensors based on Metal-Organic Frameworks for the electrochemical sweat glucose monitoring (Development and application of LC-MS-based method for the determination of glucose).
- ✓ 2022: Determination of OMEGA 3 Fatty Acids in fish with GC-FID

Professional Affiliations

- Association of Greek Chemists, 2018-Present