

Vasiliki Lagouri, MSc, PhD

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EDUCATION:

- Bachelor of Arts Degree in Chemistry, June 1991
- Doctorate of Philosophy in Chemistry, June 1998
- Master of Science in Medicinal Chemistry, July, 2006

HONORS-AWARDS:

- Undergraduate Fellowship from Greek National Foundation 1989-91
- Postgraduate Research Fellowship:
 - Greek National Foundation 1993-95
 - Mpodosakis Foundation 1992-95
 - Who's Who in America 2011

ACADEMIC AFFILIATIONS:

- Lab Assistant: Department of Chemistry, Aristotle University of Thessaloniki, Greece, 1992-96.
- Lecturer: Department of Food Technology, Faculty of Food Technology and Nutrition, Technological Educational Institute of Thessaloniki, Greece, 2002-2013
- Lecturer: Postgraduate program "Biomedical Methods and Technology in Diagnosis" of the University of West Attica (UWA), Course "Modern analytical Methods - Nanotechnology in Biomedical Laboratories" 2020-2023
- Post Doctorate Researcher: Department of Chemistry National and Kapodistrian University of Athens, Greece 2013-2015.
- Post Doctorate Researcher: Department of Pharmacognosy and Chemistry of Natural Products Faculty of Pharmacy, School of Health Sciences, National and Kapodistrian University of Athens, Greece, 2017-October 2019.
- Project manager of the European program "The National Research Infrastructures on Integrated Structural Biology, Drug Screening Efforts and Drug Target Functional Characterization" / INSPIRED", Institute of Chemical Biology (ICB), National Hellenic Research Foundation (NHRF).

SCIENTIFIC COMMITTEE AND SOCIETY MEMBERSHIPS:

- Supervisor and member of the examination committee of graduate students thesis, Department of Food Technology, Faculty of Food Technology and Nutrition, Technological Educational Institute of Thessaloniki, Greece.
- Member of the examination committee of the Greek Organization of Vocational Education and Training for “Special Dietary Applications” and “Technicians of pharmaceuticals, cosmetics and related products” 2008-2010.
- Member of:
 - American Chemical Society 2011-present
 - Society Free-radical research-Europe 2011-present Oxygen Club of California 2009-present
 - ISEKI-Food Association 2008-present
 - Greek Chemist’s Union 1992-present

JOURNAL ACTIVITIES

Reviewer for:

1. International Journal of Food properties 2. Journal of the Science of Food and Agriculture
3. Central European Journal of Chemistry 4. Separation Science and Technology 5. Natural Products research 6. Food and Function 7. Molecules 8. Nutrients 9. Plants 10. J Integrative Medicine 11. Int J of Molecular Sciences 12. Current Traditional Medicine 13. Current Nutrition & Food Science.

ACADEMIC AND RESEARCH ACTIVITIES

Undergraduate Researcher: Lab. of Biochemistry, Department of Chemistry, Aristotle University of Thessaloniki, 1990-91

“Amino-acid sequencing of ribosomic proteins” Director: Prof. Th. Choli

Doctorate Researcher

Lab. of Food Chemistry, Chemistry Department, Aristotle University of Thessaloniki, 1992-1998: "Antioxidant activity and chemical composition of plant extracts of the family Lamiaceae" Director: Prof. D. Boskou.

"The isolation and identification of bioactive compounds from oregano extracts" in Laboratory of Organic Chemistry (sponsor Janseen-Cilang), University of Ghent, Belgium, 1994-1995, Supervisor Research Director Dr. Luc Van Puyvelde.

Master Researcher

Department of Pharmacy, National and Kapodistrian University of Athens, 2005-2006: "New anti inflammatory derivatives of naproxen and ketoprofen and their applications to neurodegenerative diseases" Director: Prof. P. Kourounakis.

Post Doctorate Researcher

- "Development and investigation of novel compositions for stabilization of edible oils and other fat containing food", Lab. of Food Chemistry, Chemistry Department, A.U.Th. 1997
- "The development of pharmaceutical compounds-synthesis and biological activity determination", Lab. of Medicinal Chemistry, Department of Pharmacy, Aristotle University of Thessaloniki, Greece 2003-2004.
- " Synthesis of bioactive compounds, the experimental determination of physicochemical properties and the biological activity determination" Lab. of Medicinal Chemistry, Department of Pharmacy, Aristotle University of Thessaloniki, Greece 2004-2005.
- " Microencapsulation of antioxidant extracts of family Lamiaceae in thin chitozan flms" Department of Food Technology in Technological Educational Institute of Thessaloniki, Greece 2008-2009
- "Online probes for the quality control and safety assurance of olive and other edible oils" Department of Chemistry National and Kapodistrian University of Athens, Greece 2013-2015.
- "Reinforcement of Mediterranean olive oil sector competitiveness through development and application of innovative production and quality control methodologies related to olive oil health protecting properties- INTERREG MED.

Department of Pharmacognosy and Chemistry of Natural Products, Faculty of Pharmacy, School of Health Sciences, National and Kapodistrian University of Athens, Greece, 2017-October 2019.

- **Project manager** “The National Research Infrastructures on Integrated Structural Biology, Drug Screening Efforts And Drug Target Functional Characterization” INSPIRED”, Institute of Chemical Biology (ICB), National Hellenic Research Foundation (NHRF), Athens, Greece, November 2019-May 2023.

Management experience in research programs

- Research program “Online probes for the quality control and safety assurance of olive and other edible oils” Department of Chemistry National and Kapodistrian University of Athens, Greece 2013-2015: funded by the G.S.R.T. (General Secretary for Research and Technology) (from 16/07/2013 to 31/10/2015). I have work experience in the management of the program, the implementation of the financial subject through the financing guide of Special Account for research Grants (S.A.R.G.) of National and Kapodistrian University of Athens (N.K.U.A). I have worked in the preparation of the deliverables and submission of the progress reports. The using of the financial guidelines of G.S.R.T. for the submission of the semester expenditures in specified security protected Excell files.
- ARISTOIL research program - “Reinforcement of Mediterranean olive oil sector competitiveness through development and application of innovative oil quality control methods” Department of Pharmacognosy and Chemistry of Natural Products, Faculty of Pharmacy, School of Health Sciences, National and Kapodistrian University of Athens, Greece, 2017-October 2019: INTERREG MED program, co-funded by the European Regional Development Fund (ERDF) and from National resources (from 1/03/2017 -October 2019). My work experience involves the administration and financial management of the program through the procedures of the Interreg Med and the S.A.E.G. (General Secretariat for Research and Technology) of N.K.U.A. (National and Kapodistrian University of Athens) financing guides. Knowledge and the use of the program's platform tools called “Synergie” for submitting deliverables, the preparation and submission of progress reports and expenditure’s documents for each semester.
- I have experience in public procurement procedures and the use of relevant websites (KIDMIS, DIAGYIA). I have worked in the administration and financial management of three other programs funded by external sources, of the Department of Pharmacognosy and Chemistry of Natural Products of N.K.U.A., offering research services.
- I have worked in preparing and submitting proposals for attracting external funding (EYDE-ETAK, ESPA) and in the use of integrated information systems and

electronic applications for proposals (MOD, MOΔAE, METRO). I have communication skills and knowledge of the requirements for the implementation of research programs.

- Project Manager (Nov 2019-May 2023) of the European program “The National Research Infrastructures on Integrated Structural Biology, Drug Screening Efforts and Drug Target Functional Characterization / INSPIRED”, Institute of Chemical Biology (ICB), National Hellenic Research Foundation (NHRF).

RESEARCH EXPERIENCE

Research experience as a research group leader (2002-2013) of the laboratory of “Natural antioxidants” at the Department of Food Technology in Technological Educational Institute of Thessaloniki, Greece. I have worked for the project management and the implementation of the scientific (analysis of the data, preparation of the reports and deliverables) and financial subject (administration) of the projects a. “Online probes for the quality control and safety assurance of olive and other edible oils”, the Department of Chemistry National and Kapodistrian University of Athens, Greece (2013-2015). b. Interreg Med project Aristoil: “reinforcement of Mediterranean olive oil sector competitiveness through development and application of innovative production and quality control methodologies related to olive oil health protecting properties-INTERREGMED” Department of Pharmacognosy and Chemistry of Natural Products, Faculty of Pharmacy, School of Health Sciences, National and Kapodistrian University of Athens, Greece, (2017- 2019).

I have established collaborations with the: 1. Department of Food Engineering, Agricultural Faculty, Uludag University, Bursa, Turkey. 2. Eliachar Research Laboratory of Western Galilee Hospital, Israel.

I have lab experience on experimental designs and applications of different extraction methods in order to obtain extracts from various natural sources. The development of in vitro analytical methods for the isolation, identification and quantification of natural and biologically active polar and non-polar compounds and studies of biological and physicochemical properties of the obtained extracts and isolated components. She has experience on the using of analytical tools: Thin Layer Chromatography, Spectrophotometry, High-Pressure Liquid Chromatography, Gas Chromatography-Mass Spectrometry, Nuclear Magnetic Resonance Spectroscopy, UV-VIS spectroscopy. Also experienced on optical non-destructive UV-VIS-NIR spectroscopic tools and chemometrics in the monitoring of olive oil quality parameters and phenolic compounds (UV-VIS-NIR spectroscopy combined with chemometric statistical tools).

SPEAKING ENGAGEMENTS/COURSES

- Lab courses “Food Analysis”, “Quality control of Foods” and “Oenology”. Department of Chemistry, Aristotle University of Thessaloniki, 1992-1996
- Lecture for the postgraduate students of the M.Sc. program between the Department of Chemistry, University of Ioannina and Department of Food Technology, Faculty of Food Technology and Nutrition, Technological Educational Institute of Thessaloniki, Greece, 2008
- Lecturer: Institute of Professional Training courses: “Food Chemistry”, “Biotechnology”, “Quality Food Control” and “Food Chemistry”, 2008-2010.
- Lecturer Courses “Chemistry and Food Analysis”, “Food Chemistry”, “Technology and Quality Control of Lipids-Olive Oil” and “Instrumental Food Analysis”,
- Lecturer: Postgraduate program "Biomedical Methods and Technology in Diagnosis" of the University of West Attica (UWA), Course “Modern analytical Methods - Nanotechnology in Biomedical Laboratories” 2020-2023

SEMINARS AND WORKSHOPS

- Seminar: “Food packaging and quality”, November 1993, Thessaloniki. Organized by the Lab of Food Chemistry, Aristotle University of Thessaloniki and the Department of Food Science and Nutrition, University of Ghent, Belgium.
- International Autumn Workshop: “Classical and modern methods for chemical analysis of medicinal and aromatic plants”, October 1996, Bulgaria. Organized by the Centre of Phytochemistry Institute of Organic Chemistry, sponsor UNESCO.
- 2nd Open Seminar: “Risk assessment of microbial problems and preventive actions in food industry”, October 2007, Istanbul. Arranged by Safoodnet-Food Safety and Hygiene Networking within new member states and associated candidate countries.
- Training course: “Multivariate Analysis of Spectroscopic Data”: November 2014, Utrecht. Organized by CAMO software AS. (Nedre Vollgate 8, Oslo, Norway).

PUBLICATIONS

1. Lagouri V., Blekas G., Tsimidou M., Kokkini S., Boskou D. (1993): "Composition and antioxidant activity of essential oils from oregano plants grown wild in Greece". *Zeitschrift für Lebensmittel Untersuchung und Forschung* 197(1), 20-23
2. Lagouri V. and Boskou D. (1995): "Screening for antioxidant activity of essential oils obtained from spices". 8th International Flavor Conference of American Chemical Society, Kos, Greece. Published in *Food Flavors: Generation, Analysis and Process Influence* Charalambous(ed.), Elsevier Science B.V., 37(c) pp.869-79 (Conference paper)
3. Lagouri V. and Boskou D. (1996): "Nutrient antioxidants in oregano". *International Journal of Food Science and Nutrition* 47(6), 493-97
4. Gerothanasis I.P., Exarchou V., Lagouri V., Troganis A., Tsimidou M. and Boskou D. (1998): "Methodology for identification of phenolic acids in complex phenolic mixtures by high resolution two-dimensional nuclear magnetic resonance. Application to methanolic extracts of two oregano species". *J. Agric. Food Chem.* 46(10), 4185-92
5. Tsaliki E., Lagouri V., Doxastakis G. (1999): "Evaluation of the antioxidant activity of lupin seed flour and derivatives (*Lupinus albus* ssp. *Graecus*)". *Food Chem* 65(1), 71-75
6. Lagouri V., Mpantouna A. and Stathopoulos P. (2008): "Antioxidant properties of non-polar extracts from selected Cretan Lamiaceae species" VTT 251 Symposium on "Risk assessment of microbial problems and preventive actions in food industry", Iss. 251, pp.103, G. Wirtanen & S. Salo (Eds), VTT Technical Research Centre of Finland (Conference paper)
7. M. Guldas, e. Ursu, V. Lagouri, N. A. Kisikkaya, M. F. Uyar, P. Mokorel, H. Ture, S. Lee, F. Korel & e. Karplökov (2008): "Risk assessment in miscellaneous food processing industries including producers of vegetables and spices", VTT 251 Symposium on "Risk assessment of microbial problems and preventive actions in food industry", Iss. 251, pp. 167-76, G. Wirtanen & S. Salo (Eds), VTT Technical Research Centre of Finland (Conference paper)
8. Lagouri V. and Nisteropoulou E. (2009): "Antioxidant properties of *O. onites*, *T. vulgaris* and *O. basilicum* species grown in Greece and their total phenol and rosmarinic acid content". *J. Food Lipids* (16), 484-498
9. Lagouri V., Mpantouna A. and Stathopoulos P. (2010): "A comparison of the antioxidant activity and phenolic content of non-polar and polar extracts obtained from four endemic Lamiaceae species grown in Greece" *J. Food Process. Pres.* (34), 872-886
10. Lagouri V, Guldas M. and Gurbuz O. (2011): In vitro antioxidant/free radical scavenging

and antibacterial properties of endemic oregano and thyme extracts from Greece” Food Sci. Biotechnol. 20(6), 1487-1493

11. Doulgkeris C., Siskou I.C. Xanthopoulou N., Lagouri V., Kravaritou C., Eleftheriou P., Kourounakis P.N. and Rekka E.A. (2012): “Compounds against inflammation and oxidative insult as potential agents for neurodegenerative disorders” Med. Chem. Res., 21(9), 2280-2291

12 Lagouri, V. and Alexandri G. (2013): “Antioxidant properties of Greek *O. dictamnus* and *R. officinalis* methanol and aqueous extracts-HPLC determination of phenolic acids” Int. J. Food Prop. 16(3), 549-562

13 Lagouri V, Prasianaki D. and Krystalli F. (2014): “Antioxidant properties and phenolic composition of Greek propolis extracts”. Int. J. Food Prop. 17 (3): 511-522.

14 Lagouri V. (2015): “Lipophilic antioxidants” in “Lipids and Skin Health” A. Pappas (Ed.), Springer, pp.301-310.

15 Lagouri V., Manti V., Gimisis T. (2017) Optical non-destructive UV-VIS-NIR spectroscopic tools and chemometrics in the monitoring of olive oil functional compounds in “Olives and Olive oil as Functional Foods: Bioactivity, Chemistry and Processing” A.P. Kiritsakis and F. Shahidi (Eds), John Wiley & Sons, Ltd; 2017. pp. 221-247.
<https://doi.org/10.1002/9781119135340.ch11>

16 Lagouri, V. and Gimisis, A., (2016). Optical Non Destructive UV-VIS-NIR Spectroscopic Tools and Chemometrics in the Monitoring of Olive Oil Phenolic Compounds and Oxidation. Free Radical Biology and Medicine, 100, pp.S102-S103.

17. Lagouri, V., 2018, 'Introductory Chapter: Functional Foods', in V. Lagouri (ed.), Functional Foods, IntechOpen, London. 10.5772/intechopen.82304.

18 Lagouri, V (ed.). 2019, Functional Foods, IntechOpen, London. 10.5772/intechopen.73983

19 Lagouri V, Dimitreli G, Kouvatsi A. (2019). “Effects of Greek Pomegranate Extracts in the Antioxidant Properties and Storage Stability of Kefir” Current Bioactive Compounds 15(4): 437–441 <https://doi.org/10.2174/1573407214666180808113450>

20 Trapali, M., Lagouri, V., 2021, 'Vasculoprotective and Neuroprotective Effects of Various Parts of Pomegranate: In Vitro, In Vivo, and Preclinical Studies', in V. Lagouri (ed.), Pomegranate, IntechOpen, London. [10.5772/intechopen.96680](https://doi.org/10.5772/intechopen.96680).

21. Lagouri V (ed.) (2022) Pomegranate. IntechOpen. [DOI: 10.5772/intechopen.90501](https://doi.org/10.5772/intechopen.90501).

CONFERENCES

1. 5th Greek conference of Food Science and Food Technology (Athens, November 1992): "Chemical composition and antioxidant activity of essential oils of oregano grown wild in Greece" **Lagouri V.**, Blekas G., Tsimidou M., Kokkiki S., Boskou D.
2. 8th International Conference of American Chemical Society (Kos, Greece, July 1995): "Screening for antioxidant activity of essential oils obtained from spices". **Lagouri V.** and Boskou D.
3. 6th Greek conference of Food Science and Technology (Athens, December 1995): "Antioxidant activity of non polar oregano extracts and the presence of tocopherols" **Lagouri V.** and Boskou D.
4. 1st International Conference of the Chemical Societies of the South-East European Countries (Halkidiki, Greece, June 1998): "Ursolic acid in oregano plants". **Lagouri V.**, Puyvelde L. and Boskou D.
5. FEBS Special Meeting: 45th International Conference on the Bioscience of Lipids (Ioannina-Greece, May 25-29, 2004): "Ursolic acid in oregano". **Lagouri V.**, Puyvelde L. and Boskou D.
6. International Conference on the Bioscience of Lipids (Ajaccio-Corsica, September 20-24, 2005): "Quercetin and caffeic acid in oregano species" **Lagouri V.** and Boskou D.
7. International EUFEPS/AAPS Conference on: "Optimisation of drug-like properties of leads in discovery: fine-tuning the Physchem-Biopharmaceutical-ADME-Tox profile" (Swiss Federal Institute of Technology Zurich, March 2-3, 2006): "Novel non-steroidal anti-inflammatory drug derivatives with potentially interesting biological activities" **Lagouri V.**, Gavalas A., Kourounakis A., Rekka E., Kourounakis P.
8. 5th International Conference on Food Technology "Consumer protection through food process improvement and innovation in the real world" (Thessaloniki, 9-11/03/07): "Antioxidant properties of non-polar extracts from selected Lamiaceae species grown in Crete" **Lagouri V.**, Mpantouna A., Stathopoulos P.
9. 2nd International Congress on Food and Nutrition "Food for Future" (Instabul, 24-26/10/07): a) "Antioxidant/free-radical scavenging properties of endemic oregano and thyme extracts from Greece" **Lagouri V.**, Malioka H. and Petridis D. b) "In vitro antioxidant

and antimicrobial properties of oregano and thyme extracts from Greece” **Lagouri V.**, Malioka H., Guldass M. and Gurbuz O.

10 VTT 251 Symposium “Risk assessment of microbial problems and preventive actions in food industry” (22-23/10/07, Instabul): “Risk assessment in miscellaneous food processing industries including producers of vegetables and spices” M. Guldass, e. Ursu, **V. Lagouri**, N. A. Kisikkaya, M. F. Uyar, P. Mokorel, H. Ture, S. Lee, F. Korel & e. Karpilökov, · Iss. 251, 167-76, G. Wirtanen & S. Salo (Eds), VTT Technical Research Centre of Finland

11 4th International Conference on “Oxidative Stress-Skin Biology and Medicine” (Andros, 11-14/09/08): “Free-radical scavenging properties and rosmarinic acid content of oregano, thyme and basil extracts from Greece” **Lagouri V.** and Nisteropoulou E.

12 SFRR-Europe Meeting “Free radicals, Health and lifestyle from cell signaling to disease prevention” (Rome, 26-29/08/09): “Free radical scavenging and ferric reducing antioxidant properties of oregano (*O.onites*), thyme (*T.vulgaris*) and basil (*O.basilicum*) species grown in Greece and their total phenol and rosmarinic acid content” **Lagouri V.** and Nisteropoulou E.

13 FEBS/SFRR-E/IUMB Advanced Lecture Course “Protein maintenance and turnover in ageing and diseases (Spetses, 4-10/06/2010): “Antioxidant properties of Greek *O.dictamnus* and *e.officinalis* methanol and aqueous extracts-HPLC determination of phenolic acids” **Lagouri, V.** and AlexandriG.

14 5th International Conference on “Oxidative Stress-Skin Biology and Medicine” (Andros, 1-4/09/11): Antioxidant properties and phenolic composition of Greek propolis extracts”. **Lagouri V.**, Prasianaki D. and Krystalli F.

15 16th Biennial meeting Society for Free eadical eeseach International (London, 6-9/09/12): “Antioxidant properties and phenolic content of Greek pomegranate cultivars” **Lagouri V** and Xinada E.

16 6th International Conference on “Oxidative Stress-Skin Biology and Medicine” (Andros, 28-31/08/14): “Antioxidant properties and phenolic content of Greek pomegranate cultivars” **Lagouri V.**

17 6th Greek Scientific Conference “Recent trends in lipids” (Athens, 12/06/2015): A novel portable device for on-site, real time assessment of olive oil quality parameters A. Gimisis, **V. Lagouri**, V. Manti, E. Smyrli, V. Tsoulougian, A. Velkou, S. Vraimakis, S. Dimou, T. Domvoglou, S.Koutsoukos, D. Lenis, M. Maniatis, G. Stavropoulos, K.Grigoriou, D.Kostopoulou, L. Leondiadis, I. Vasiliadou.

18 6th Olive oil Festival-Greek Observatory of Oxidative Stress (Athens 8-10/5/2015): “A new

approach in the evaluation of quality parameters of olive oil” **V. Lagouri**.

19 3rd Conference of the Oleocanthal International Society (Olympia, Greece 2-3/06/16): “Optical non-destructive UV-VIS-NIR spectroscopic tools and chemometrics in the monitoring of olive oil quality parameters and phenolic compounds”. **V. Lagouri** .

20 7th International Conference on “Oxidative Stress-Skin Biology and Medicine” (Andros, Greece 1-4/09/16): “Optical non-destructive UV-VIS-NIR spectroscopic tools and chemometrics in the monitoring of olive oil quality parameters and phenolic compounds. A novel portable device for on-site, real time assessment of olive oil quality parameters”. A. Gimisis, **V. Lagouri**, V. Manti, E. Smyrli, V. Tsoulougian, A. Velkou, S. Vraimakis, S. Dimou, T. Domvoglou, S. Koutsoukos, D. Lenis, M. Maniatis, G. Stavropoulos, K. Grigoriou, D. Kostopoulou, L. Leondiadis, I. Vasiliadou.

21 SFRBM/SFRRI - 23rd Annual Meeting of the Society for Redox Biology and Medicine (16-19/11/16, San Francisco, CA): “Optical non-destructive UV-VIS-NIR spectroscopic tools and chemometrics in the monitoring of olive oil phenolic compounds and oxidation”. **V. Lagouri** and A. Gimisis.

22 International Conference “Mediterranean Diet & Health: A nutritional Odyssey in Greece” (16-20/2017, Chalkidiki, Greece): “Effects of Greek pomegranate extracts in the antioxidant properties and storage stability of kefir” **V. Lagouri**, G. Dimitreli and A. Kouvatsi.

23 8th International Conference on “Oxidative Stress-Skin Biology and Medicine” (Andros, Greece 6-9/09/18): “Effects of Greek pomegranate extracts in the antioxidant properties and storage stability of kefir” **V. Lagouri**, G. Dimitreli and A. Kouvatsi.

24 4th International Conference on “Food Microbiology and Food Market” (New York, USA, 20-21/03/19) Key note speech: “Effects of Greek pomegranate extracts in the antioxidant properties and storage stability of kefir” **V. Lagouri**, G. Dimitreli and A. Kouvatsi.

25 70th International Congress and Annual Meeting of the Society of Medical Plant and Natural Product Research (GA), (28-31/08/2022, Thessaloniki, Greece): “Vasculoprotective and Neuroprotective Effects of Various Parts of Pomegranate: In Vitro, In Vivo, and Preclinical studies” **V. Lagouri**, Trapali M and Varvaressou A.