

Curriculum Vitae

Family name: Karasali
First names: Helen
Date of birth: 13 October 1965
Nationality: Hellenic
Civil Status: Married, 2 (grown up) children
Education: PhD, Chemical Engineering

Institution [Date from - Date to]	Degree(s) or Diploma(s) obtained:
Polytechnic University of Patras, Greece, Department of Chemical Engineering (December 1989-April 1994)	Ph.D in Chemical Engineering
University of Patras, Greece (September 1984-June 1988)	Diploma in Chemistry

Language skills: Indicate competence on a scale of 1 to 5 (1 - excellent; 5 - basic)

Language	Reading	Speaking	Writing
Greek (mother tongue)	1	1	1
English	1	2	1

Membership of professional bodies:

- FAO JMPS member (Joint meeting on Pesticide Specifications). JMPS is a statutory body of FAO for developing specifications for PPPs;
- Full member of CIPAC (Collaborative International Pesticides Analytical Council). CIPAC is an international organization devoted to promote the international agreement on methods for the analysis of pesticides and physico-chemical test methods for formulations and to promote inter-laboratory programmes for the evaluation of test methods

Other skills:

- Ability to use computer programs (word, excel, SPSS, power point, etc.)
- Ability to work with modern electronic instruments (GC with ECD, NPD, TCD and FID detectors, HPLC with diode-array and UV detection, Atomic Absorption, LC/MS/MS, GC/MS/MS, dustmeter-Heubach)

Present position: Head of the Laboratory of Chemical Control of Pesticides (*chemical analysis of pesticides and evaluation of dossier for national and European authorization as regards the physicochemical properties, identity and fate and behaviour in the environment*)

Head Research Scientist-Benaki Phytopathological Institute (2009-today).

Years within the firm: 22

Key qualifications:

Main research activities:

1. Method development and validation for the determination of the active ingredient content for the quality control of Plant Protection Products with Gas and Liquid Chromatography with various detectors.
2. Method development and validation for the determination of the toxicological important impurities for the quality control of Plant Protection Products (PPPs) with Gas and Liquid Chromatography with various detectors and with gas and liquid chromatographic tandem mass spectrometry.
3. Non-target analysis with gas chromatography mass spectrometry operated in full scan mode for the authentication of Plant Protection Products.
4. Detection of unknown active ingredients in the case of non-authorized PPPs using mass spectrometric techniques.
5. Method development and validation for the determination of pesticide residues in environmental matrices (soil and sediment) with mass spectrometric techniques.
6. Method development and validation for the determination of pesticide residues in solid waste materials from agricultural uses (especially plastic waste materials) with mass spectrometric techniques.
7. Scientific experience on environmental pollution (especially soil, sludge, sediment-author of papers in scientific journals, conference and reports).
8. Method development and validation for the determination of trace metals in herbal extracts and bee products with atomic absorption with furnace.
9. i) Quality manager (according to ISO 17025) in the laboratory of Chemical Control of Pesticides; Preparation of :

a) The Quality Manual of the laboratory of the Chemical Control of Pesticides,

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- b) SOPs,
 - c) Methods for the analysis of pesticide formulations and
 - d) Statistical evaluation (determination of the following parameters: repeatability, reproducibility, uncertainty).
- ii) Deputy Technical Manager (according to ISO 17025) in three laboratories of Benaki Phytopathological Institute (Chemical Control of Pesticides, Pesticide Residues and Pesticide Toxicology).
10. Teaching in a University graduate course on methods for the analysis of pesticides
11. Participation in training activities in the framework of EC-funded project for the benefit of foreign governments and institutions (TWINNING, PHARE)

Professional experience:

Country	Title of the project/duration
Podgorica, Montenegro	TAIEX Workshop on Inspection Procedure: Fake Plant Protection Products - Inspection and Controls, 27-28 September 2018
Podgorica, Montenegro	Project: Development of the Food Safety and Phytosanitary Services in Montenegro, EuropeAid/135835/DH/SER/ME Short Term Expert on The Quality Control of Plant Protection Products (PPPs) and Illegal PPPs Podgorica: 16-20 November 2015
Beirut, Lebanon	Organizing a study visit in Greece and a six day training in Beirut-Lebanon "Technical Assistance support to build capacities of staff at the Ministry of Agriculture's Laboratories in Lebanon" EuropeAid/2014/344-024. Study visit:30 March until 2 April 2015. Training in Beirut: 18-23 May 2015
Yerevan, Armenia	Organising three weeks training (theoretical and practical) courses Project: 'GCP/ARM/003/GRE-Support for pesticide quality control and residues monitoring in Armenia' Supported by the Food and Agriculture Organization (FAO) of the United Nations. (27 January to 22 February 2013) & (22-30 April 2015)
Yerevan, Armenia	Project: USAID - Enterprise Development and Market Competitiveness (EDMC) Project in Armenia' regarding training the residue monitoring department specialists of SSFS Centre for laboratory services' 13-January until 1 February 2014
Sarajevo-Bosnia & Herzegovina	EuropeAid/128353/C/SER/BA "Support to BiH plant health administration" in Bosnia and Herzegovina 26-29 June 2012

Other relevant information (e.g. Publications)

Publications

12. Scientific publications in international scientific journal and conferences (available upon request);

Most recent publications

1. Helen Karasali, Anna Marousopoulou, Kyriaki Machera (2016) 'Pesticide residue concentration in soil following conventional and Low-Input Crop Management in a Mediterranean agro-ecosystem, in Central Greece. *Science of the Total Environment*, 541, 130-142.
2. H. Karasali and G. Pavlidis (2016) Microwave assisted acid extraction of the major metal elements in herbal extracts followed by flame atomic absorption spectrometric determination (FAAS) *Toxicological & Environmental Chemistry*. Vol. 98, No. 10, 1173-1182.
3. Maragou N.C., Pavlidis G, Karasali H., Hatjina F (2016) 'Cold Vapor Atomic Absorption and Microwave Digestion for the Determination of Mercury in Honey, Pollen, Propolis and bees of Greek Origin'. *Global NEST Journal*, Vol 18, No 4, pp 690-696
4. Helen Karasali*, Konstantinos M. Kasiotis, Kyriaki Machera. 2014. Rapid determination of fosetyl-aluminium in commercial pesticide formulations by high-performance liquid chromatography. *Chemical Papers* 68 (6) 725–731.
5. George Balayiannis • Helen Karasali • Arpad Ambrus (2014). Rapid Determination of Famoxadone and Cymoxanil in Commercial Pesticide Formulation by High Performance Liquid Chromatography Using a C18 Monolithic Rod Column. *Bull Environ Contam Toxicol* 93:775–780.
6. D. Briassoulis, M. Hiskakis, H. Karasali, C. Briassoulis. (2014). Design of a European agrochemical plastic packaging wastemanagement scheme—Pilot implementation in Greece. *Resources, Conservation and Recycling* 87, 72–88
7. Helen Karasali, Konstantinos M. Kasiotis, Kyriaki Machera, and Arpad Ambrus. Case Study To Illustrate an Approach for Detecting Contamination and Impurities in Pesticide Formulations. [dx.doi.org/10.1021/jf504729g](https://doi.org/10.1021/jf504729g) | *J. Agric. Food Chem.* 2014, 62, 11347–11352.
8. Helen Karasali, Konstantinos M. Kasiotis, and Helen Anagnostopoulos (2015). Experimental investigation of the efficiency of triple rinsing of agricultural containers regarding their characterization as non-hazardous wastes, *Toxicological & Environmental Chemistry*, 97(1), 22-31.
9. N.N. Kamou, H. Karasali, G. Menexes, K.M. Kasiotis, M.C. Bon, E.N. Papadakis, G.D. Tzelepis, L. Lotos, & A. L. Lagopodi (2016). Isolation screening and characterisation of local beneficial rhizobacteria based upon their ability to suppress the growth of *Fusarium oxysporum* f. sp. *radicis-lycopersici* and tomato foot and root rot, *Biocontrol Science and Technology*, 25 (8), 928-949
10. Helen Karasali, Niki Maragou (2016). Pesticides and Herbicides: Types of Pesticide, *Encyclopedia of Food and Health*, Chapter: Pesticides and Herbicides: Types of Pesticide, 319-325
11. H. Karasali, G. Pavlidis (2016). Microwave assisted acid extraction of the major metal elements in herbal extracts followed by flame atomic absorption spectrometric determination (FAAS), *Toxicological & Environmental Chemistry*, 98 (10), 1173-1182.
12. N.C. Maragou, G. Pavlidis, H. Karasali, and Hatjina F. (2017). Major and Minor Element Levels in Greek Apicultural Products. *Global NEST Journal* 19.
13. Niki C Maragou, George Pavlidis, H. Karasali, Fani Hatjina (2017). Determination of Arsenic in Honey, Propolis, Pollen and Honey Bees by Microwave Digestion and Hydride Generation Flame Atomic Absorption, *Analytical Letters*, 50 (11), 1831-1838
14. G Pavlidis, E Ploumistou, H Karasali, K Liapis, C Anagnostopoulos, A Charalampous, D Alexakis, D Gamvroula, Vassilios A Tsihrintzis (2018). Evaluation of the water quality status of two surface water reservoirs in a Mediterranean island. *Environmental Monitoring and Assessment*, 190:570
15. George Pavlidis, Vassilios A Tsihrintzis, Helen Karasali, Dimitrios Alexakis (2018). Tree uptake of excess nutrients and herbicides in a maize-olive tree cultivation system, *Journal of Environmental Science and Health, Part A*, 53 (1), 1-12.

16. George Pavlidis, Helen Karasali, & Tsihrintzis Vassilios (2018). Development and Validation of a Simple and Efficient Method for the Determination of Pendimethalin and Its Metabolite M455H001 in Soil by Liquid Chromatography–Tandem Mass Spectrometry, *Analytical Letters*
 17. Evangelos Karanasios, Helen Karasali, Anna Marousopoulou, Antigoni Akrivou, Emilia Markellou (2018). Monitoring of glyphosate and AMPA in soil samples from two olive cultivation areas in Greece: aspects related to spray operators activities. *Environmental Monitoring and Assessment*, 190 (6), 361.
 18. H. Karasali, G. Pavlidis, A. Marousopoulou & A. Ambrus, 2017. Occurrence and distribution of trifluralin, ethalfluralin and pendimethalin in soils used for long-term intensive cotton cultivation in central Greece. *Journal of Environmental Science and Health*, 2017 Oct 3;52(10):719-728.
 19. Helen Karasali, George Pavlidis & Anna Marousopoulou, 2019. Investigation of the presence of glyphosate and its major metabolite AMPA in Greek soils. *Environmental Science and Pollution Research*. <https://doi.org/10.1007/s11356-019-06523-x>
13. Participation in many CIPAC collaborative studies for pesticide formulation analysis published in CIPAC handbooks.
14. **Projects Participation**
- i) Participation in the research project 'Quality Control of Pesticide Products' organized by the International Organizations: IAEA and FAO;
 - ii) Participation in many EU research projects (LIFE, FP-7)
 - iii) Participation in a training project: 'GCP/ARM/003/GRE-Support for pesticide quality control and residues monitoring in Armenia' Supported by the Food and Agriculture Organization (FAO) of the United Nations;
 - iv) Collaboration with USAID (consultant)
 - v) Collaboration with European Organizations and the private sector regarding the analysis of shredded empty pesticides containers after triple rinsing.
 - vi) Seed loaded and seed dusting analysis for private sector