

Curriculum vitae

Name: **Kalliope K. Papadopoulou**
Birthdate: 22-08-1968
Birthplace: Thessaloniki, Greece
Family status: Married, two children

Education

1986-1990: BSc in Biology, Aristotelian University of Thessaloniki, Greece.

1992-1996: Ph.D. in Plant Molecular Biology, Agricultural University of Athens, Dept. of Agricultural Biology & Biotechnology, Lab. of Molecular Biology, Athens, Greece. "Structure and Expression of nodulin genes in soybean and *Phaseolus*".

Appointments

05/2013-today: Associate Professor, Department of Biochemistry and Biotechnology, University of Thessaly

10/2005-04/2013: Assistant Professor, Department of Biochemistry and Biotechnology, University of Thessaly

12/2000- 9/2005: Associate Researcher National Agricultural Research Foundation, Institute of Kalamata, Kalamata, Greece

09/1999-11/2000: Research associate, National Agricultural Research Foundation, Institute of Kalamata, Kalamata, Greece

06/1997- 08/1999: Sainsbury Laboratory, John Innes Centre, Norwich, U.K. Post-doctoral researcher (Marie-Curie Fellowship).

01/1996-05/1997: National Agricultural Research Foundation, Institute of Kalamata, Kalamata, Greece. Post-doctoral researcher.

Research Interests and Activities:

- Plant secondary metabolism, with emphasis on biosynthetic pathways of triterpenes and glucosinolates; Manipulation of synthesis in legume model- plants; Effect of triterpenes on plant physiology and defence; Effect of nutrient availability in gene expression and metabolite profiles; biological activity assays of crude extracts and purified molecules.
- Molecular plant-microbe interactions with emphasis on Arbuscular Mycorrhizal Fungi; Plant – Fungi Interactions: Pathogenic and antagonistic soil-borne and endophytic fungi, Induced plant resistance, Tri-partite interactions; Plant-Bacteria Interactions: Rhizospheric and endophytic bacteria/ Legume-rhizobia symbiosis
- Microbial community structures and functions in soil and in soil treated with agroindustrial wastes

Other scientific activities-Management

- Scientific coordinator of the "OMIC-ENGINE, Synthetic Biology: from omics technologies to genomic engineering for agro-biotechnology economy" project, eligible for funding by national funds (INFRASTRUCTURES programme) Director of the MSc Programme "Applications of molecular biology" (<http://appmolbio.bio.uth.gr>)
- Member of the Steering Committee of the MSc Programme Biotechnology:Quality of Nutrition and the Environment
- Management committee member for the COST Action FA1103 – Financial Rapporteur

- Management Committee member for the COST Action FA- Committee of the Short Term Scientific Mission
- Member of the Editorial Board of Annals of Applied Biology
- Member of the Organizing Committee of the 11th TERPNET meeting on “Biosynthesis, Function and Biotechnology of Isoprenoids in Terrestrial and Marine Organisms” (Greece, 2013)
- Member of the Organizing Committee of the XVI International Congress of Molecular Plant-Microbe Interactions (Greece, 2014)
- Referee for scientific journals, including New Phytologist, Phytochemistry, Molecular Plant-Microbe Interactions, Physiological and Molecular Plant Pathology, European Journal of Plant Pathology, Soil Biology and Biochemistry
- Member of the Phytochemical Society of Europe, International Society for Molecular Plant-Microbe Interactions, the British Plant Pathology Society and the Hellenic Phytopathological Society.

Teaching - Supervision

- Plant Physiology, Molecular and Developmental Plant Biology, Plant Biotechnology (BSc level)
- Plant Genomics, Genetically Modified Organisms (Plants) (MSc level)
- Supervisor of in total 5 PhD students (3 completed), 3 Post-doctoral Fellows and several BSc and MSc theses.
- Member of the Advisory Committee in 4 PhD students
- Member of the Examining Committee of 5 PhD students

List of publications

1. **Papadopoulou K**, Roussis A, Kuin H, Katinakis P* (1995) Expression pattern of uricase II gene in Phaseolus. *Experientia*, 51: 90-94.
2. Roussis, van der Sanders K, **Papadopoulou K**, Drenth J, Franssen H, Bisseling T, Katinakis P* (1995) Characterization of the soybean gene pGmENOD40-2. *Journal of Experimental Botany*, 46:719-724.
3. **Papadopoulou K.**, Roussis A., & P. Katinakis* (1996) Phaseolus ENOD40 is involved in symbiotic and non-symbiotic organogenetic processes: Expression during nodule and lateral root development. *Plant Molecular Biology*, 30 :403-417.
4. Papadelli M, Roussis A, **Papadopoulou K**, Venieraki A, Chatzipavlidis I, Katinakis P, Balis K* (1996) Biochemical and molecular characterization of an *Azotobacter vinelandii* strain with respect to its ability to grow and fix nitrogen in OMW. *International Biodeterioration & Biodegradation*, 38:179-181.
5. Roussis A, **Papadopoulou K**, Katinakis P* (1997) NOD3, a novel late nodulin gene from soybean is expressed in the infected cells and the nodule parenchyma. *Journal of Experimental Botany*, 48:1011-1017.
6. Ehaliotis C, **Papadopoulou K***, Kotsou M, Mari I, C Balis (1999) Adaptation, population dynamics and N₂-fixation of *Azotobacter vinelandii* in olive-mill wastewaters during an aerobic bioremediation process. *FEMS Microbiology-Ecology*, 30: 301-311.

7. **Papadopoulou K**, Melton RE, Legget M, Daniels MJ, Osbourn AE* (1999) Compromised disease resistance in saponin-deficient plants. *Proceedings of the National Academy of Science*, 96: 12923-12928
8. Haralampidis K, Bryan G, Qi X, **Papadopoulou K**, Bakht S, Melton R, Osbourn AE* (2001) A new class of oxidosqualene cyclases directs synthesis of antimicrobial phytoprotectants in monocots. *Proceedings of the National Academy of Science*, 98: 13431-13436.
9. Zervakis G*, Venturella J, **Papadopoulou K** (2001) Genetic polymorphism and taxonomic infrastructure of the *Pleuorus eryngii* species-complex as determined by RAPD analysis, isozyme profiles and ecomorphological characters. *Microbiology UK*, 147:3183-3194.
10. **Papadopoulou K***, Ehaliotis C, Tourna M, Kastanis P, Karydis I, Zervakis G (2002) Genetic relatedness among dioecious *Ficus carica* L. cultivars by random amplified polymorphic DNA analysis and evaluation of agronomic and morphological characters. *Genetica*, 114:183-94.
11. Iturbe-Ormaetxe I, Haralampidis K, **Papadopoulou K**, Osbourn AE* (2003) Molecular cloning and characterization of triterpene synthases from the model legume species *Medicago truncatula* and *Lotus japonicus*. *Plant Molecular Biology*, 51: 731-743.
12. Ntougias S, Zervakis GI, Kavroulakis N, Ehaliotis C, **Papadopoulou K*** (2004) Bacterial diversity in spent mushroom compost assessed by amplified rDNA restriction analysis and sequencing of cultivated isolates. *Systematic and Applied Microbiology*, 27:746-754
13. Kavroulakis N, Ehaliotis C, Ntougias S, Zervakis G, **Papadopoulou K*** (2005) Local and systemic resistance against fungal pathogens of tomato plants elicited by a compost derived from agricultural residues. *Physiological and Molecular Plant Pathology*, 66: 163-174.
14. Ntougias S, Ehaliotis C*, **Papadopoulou K**, Zervakis G (2006) Application of respiration and FDA hydrolysis measurements for estimating microbial activity during composting processes. *Biology and Fertility of Soils* 42:330-337
15. Ntougias S*, Zervakis G, Kavroulakis N, Ehaliotis C, **Papadopoulou K**. (2006) Ecophysiology and molecular phylogeny of bacteria isolated from alkaline two-phase olive mill wastes. *Research in Microbiology*, 157: 376-385
16. Kavroulakis N*, **Papadopoulou K**, Ntougias S, Zervakis G, Ehaliotis C (2006) Cytological and other aspects of pathogenesis-related gene expression in tomato plants grown on a suppressive compost. *Annals of Botany*, 98: 555-564
17. Kavroulakis N, Ntougias S, Zervakis G, Ehaliotis C, Haralampidis K, **Papadopoulou KK*** (2007) Role of ethylene in the protection of tomato plants against fungal pathogens conferred by an endophytic *Fusarium solani* strain. *Journal of Experimental Botany*, 58: 3853-3864
18. Ntougias S., **Papadopoulou KK**, Zervakis GI, Kavroulakis N., Ehaliotis C* (2008) Suppression of soil-borne pathogens of tomato by composts derived from agro-industrial wastes abundant in Mediterranean regions, *Biology and Fertility of Soils*, 44:1081-1090
19. Mylona P, Owatworakit A, **Papadopoulou K**, Jenner H, Qin B, Findlay K, Hill L, Qi X, Bakht S, Melton S, Osbourn A* (2008) *Sad3* and *Sad4* are required for avenacin A-1 biosynthesis and root development in oat. *Plant Cell*, 20: 210-212
20. Omirou M, Papastylianou I, Iori R, Papastephanou C, **Papadopoulou KK**, Ehaliotis C, Karpouzias DG* (2009) Microwave-assisted extraction of glucosinolates from *Eruca sativa* seeds and soil: comparison with existing methods, *Phytochemical analysis*, 20:214-220.

21. Mugford ST, Qi X, Bakht S, Hill L, Wegel E, Hughes RK, **Papadopoulou K**, Melton RI, Goss RJM, Osbourn A* (2009) A Serine Carboxypeptidase-Like Acyltransferase Is Required for Synthesis of Antimicrobial Compounds and Disease Resistance in Oats, *Plant Cell*, 21: 2473–2484
22. Ipsilantis I, Karpouzas DG, **Papadopoulou KK**, Ehaliotis C* (2009) Effects of soil application of olive mill wastewaters on the structure and function of the community of arbuscular mycorrhizal fungi. *Soil Biology & Biochemistry*, 41:2466-2476
23. Karpouzas DG, Rousidou C, **Papadopoulou KK**, Bekris F, Zervakis G, Singh BK, Ehaliotis C* (2009). Effect of continuous olive mill wastewater applications, in the presence and absence of N fertilization, on the structure of rhizosphere soil fungal communities. *FEMS Microbiology Ecology*, 70:388-401
24. Omirou MD, **Papadopoulou KK**, Papastylianou I, Constantinou M, Karpouzas DG, Passam H, Ehaliotis C* (2009) Impact of nitrogen and sulfur fertilization on the composition of glucosinolates in relation to sulfur assimilation in different plant organs of broccoli. *Journal of Agricultural and Food Chemistry*, 57:9408-9417
25. Karpouzas DG, Ntougias S, Iskidou E, Rousidou C, **Papadopoulou KK**, Zervakis G, Ehaliotis C* (2010) The effects of soil application of olive mill wastewaters on functional soil bacterial communities. *Applied Soil Ecology*, 45:101-111
26. Kavroulakis N, Ntougias S, Besi MI, Katsou P, Damaskinou A, Ehaliotis C, Zervakis GI, **Papadopoulou KK*** (2010) Antagonistic bacteria of composted agro-industrial residues exhibit antibiosis against soil-borne fungal plant pathogens and protection of tomato plants from *Fusarium oxysporum* f.sp. *radicis-lycopersici*. *Plant and Soil* 333:233–247
27. Omirou M, Rousidou C, Bekris F, **Papadopoulou KK**, Ehaliotis C, Menkissoglu-Spiroudi U, Karpouzas DG (2011) The impact of biofumigation and chemical fumigation methods on the structure and function of the soil microbial community. *Microbial Ecology* 61:201-13
28. Delis C, Krokida A, Georgiou S, Peña-Rodríguez LM, Kavroulakis N, Ioannou E, Roussis V, Osbourn AE, **Papadopoulou KK*** (2011) Role of lupeol synthase in *Lotus japonicus* nodule formation, *New Phytologist* 189:335-346
29. Karpouzas DG, Karatasas A, Spiridaki E, Rousidou C, Bekris F, Omirou M, Ehaliotis C, **Papadopoulou KK*** (2011) Impact of a beneficial and of a pathogenic *Fusarium* strain on the fingerprinting based structure of microbial communities in tomato (*Lycopersicon esculentum* Mill.) rhizosphere. *European Journal of Soil Biology*, 47: 400-408
30. Omirou M, Papastefanou C, Katsarou D, Papastylianou I, Passam HC, Ehaliotis C and **Papadopoulou KK*** (2012) Relationships between nitrogen, dry matter accumulation and glucosinolates in *Eruca sativa* Mills. The applicability of the critical NO₃-N levels approach. *Plant and Soil*, 354:347–358
31. Osbourn AE*, **Papadopoulou K**, Qi X, Field B, Wegel E. (2012) Finding and analysing plant secondary metabolic gene clusters (Review) *Methods in Enzymology* 517: 113-138
32. Hadar Y, **Papadopoulou K*** (2012) Suppressive composts: microbial links between abiotic environments and healthy plants (Review) *Annual Review of Phytopathology* 50:133–53
33. Ouzounidou G, **Papadopoulou KK**, Asfi M, Mirtziou I, Gaitis F (2012) Comparative study of the efficacy of different chemicals on shelf life extension of parsley stored at two temperatures *International Journal of Food Science*, 48, 1610–1617
34. Krokida A, Delis C, Geisler K, Garagkounis C, Tsikou D, Peña-Rodríguez LM, Field B, Osbourn AE, **Papadopoulou KK*** (2013) A metabolic gene cluster in *Lotus japonicus* discloses novel enzyme functions and products in triterpene biosynthesis *New Phytologist* 200: 675-690.

35. Omirou M, Karpouzas DG, **Papadopoulou KK**, Ehaliotis C. (2013) The decomposition of pure and plant – derived glucosinolates in soil. *European Journal of Soil Biology* 56:49-55
36. Mosses T, **Papadopoulou KK**, Osbourn AE (2014) Metabolic and functional diversity of saponins, biosynthetic intermediates and semi-synthetic derivatives. *Critical Reviews in Biochemistry and Molecular Biology* DOI: 10.3109/10409238.2014.953628
37. Zografidis A, Giorgos Kapolas G, Podia V, Beri D, **Papadopoulou KK**, Milioni D, Haralampidis K (2014) Transcriptional regulation and functional involvement of the Arabidopsis pescadillo ortholog AtPES in root development. *Plant Science* 229: 53-65
38. Ouzounidou G, Skiada V, **Papadopoulou KK**, Stamatis N, Kavvadias V, Elefteriadis E, Gaitis F (2015) Effects of soil pH and arbuscular mycorrhiza (AM) inoculation on growth and chemical composition of chia (*Salvia hispanica* L.) leaves. *Brazilian Journal of Botany* 38: 487-495
39. Tanou G, Minas IS, Karagiannis E, Tsikou D, Audebert S, **Papadopoulou KK**, Molassiotis A (2015) The impact of sodium nitroprusside and ozone in kiwifruit ripening physiology: a combined gene and protein expression profiling approach. *Annals of Botany* 116: 649–662
40. Aydi Ben Abdallah R, Nefzi A, Jabnoun-Khiareddine H, Messaoud C, Stedel C, **Papadopoulou KK**, Mokni-Tlili S, Daami-Remadi M. (2016) A putative endophytic *Bacillus cereus* str. S42 from *Nicotiana glauca* for biocontrol of *Fusarium* wilt disease in tomato and gas chromatography-mass spectrometry analysis of its chloroform extract. *Archives of Phytopathology and Plant Protection*, 49: 343–361
41. Papazlatani C, Rousidou C, Katsoula A, Kolyvas M, Genitsaris S, **Papadopoulou KK**, Karpouzas DG. (2016) Assessment of the impact of the fumigant dimethyl disulfide on the dynamics of major fungal plant pathogens in greenhouse soils. *Eur J Plant Pathol* DOI 10.1007/s10658-016-0926-6
42. Georgatza D, Gorgogietas VA, Kylindri P, Charalambous MCh, **Papadopoulou KK**, Hayes JM, Psarra AMG. (2016) The triterpene echinocystic acid and its 3-O-glucoside derivative are revealed as potent and selective glucocorticoid receptor agonists. *The International Journal of Biochemistry & Cell Biology* 79 (2016) 277–287
43. Delis C, Krokida A, Tomatsidou A, Tsikou D, Beta RAA, Tsioumpekou M, Moustaka J, Stravodimos G, Leonidas DD, Balatsos NAA, **Papadopoulou KK**.* *RNA Biology*, 13:1, 68-8

Other publications

co-author of textbook on molecular plant development;

participation in the translation in greek of *Plant Physiology*, Taiz & Zeiger