




PERSONAL INFORMATION

Vasileios Fotopoulos



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Sex Male | Date of birth 27/01/1978 | Nationality Greek

POSITION

Professor in Structural & Functional Plant Biology

WORK EXPERIENCE

2024-present

Professor

Cyprus University of Technology (Cyprus)

I am currently a Professor in Structural and Functional Plant Biology at the Department of Agricultural Sciences, Biotechnology and Food Science. I am responsible for teaching lectures for undergraduate courses ABF110 'Plant Anatomy and Morphology', ABF211 'Plant Physiology', as well as for postgraduate courses ABF504 'Advanced Techniques in Molecular Biology and Bioinformatics' and ABF505 'Advanced Biotechnology'.

2018-2023

Associate Professor

Cyprus University of Technology (Cyprus)

I was an Associate Professor in Structural and Functional Plant Biology at the Department of Agricultural Sciences, Biotechnology and Food Science. I am responsible for teaching lectures for undergraduate courses ABF110 'Plant Anatomy and Morphology', ABF211 'Plant Physiology', as well as for postgraduate courses ABF504 'Advanced Techniques in Molecular Biology and Bioinformatics' and ABF505 'Advanced Biotechnology'.

2012-2017

Assistant Professor

Cyprus University of Technology (Cyprus)

I was an Assistant Professor in Structural and Functional Plant Biology at the Department of Agricultural Sciences, Biotechnology and Food Science.

2008-2012

Lecturer

Cyprus University of Technology (Cyprus)

I was a Lecturer in Structural and Functional Plant Biology at the Department of Agricultural Sciences, Biotechnology and Food Science.

2007-2008 Post-Doctoral Research Scientist

Institute of Agrobiotechnology, CERTH (Greece)

I carried out post-doctoral research for the following funded projects:

- 'VIGS (Virus-Induced Gene Silencing) technology on pepper plants as a tool to silence host genes and examine the resulting phenotypic response' (Grant Code: INA-GENOME 12979/B1/4.5.1/4513 – DIA.044210).
- 'The effect of salinity on the antioxidant gene response of the model legume plant *Medicago truncatula*' (Grant Code: 55/98 P.Y.S.).

2004-2006 Post-Doctoral Research Scientist

Aristotle University of Thessaloniki (Greece)

I carried out post-doctoral research for the following funded projects:

- 'Isolation and characterization of glandular trichome-specific genes from the plant *Cistus creticus* spp. *Creticus*' (Grant Code: GR-GSRT-USA-2004).
- "The effect of ascorbate oxidase over-expression in transgenic tobacco plants on the response to abiotic and biotic stress factors' (Grant Code: GR-GSRT-UK-BC2002-Agrobiotech project).

EDUCATION AND TRAINING

1999-2003 PhD in Plant Molecular Biology

University of Southampton (U.K.)

PhD Thesis title: Molecular analysis of nutrient transfer in the host/powdery mildew interaction.

1998-1999 MSc/DIC in Pest Management (Plant Disease) with Distinction

Imperial College of Science, Technology and Medicine, University of London (U.K.)

MSc Thesis title: Identification and characterization of viruses infecting spinach in Northern Greece.

1995-1998 BSc (Hons) in Horticulture with Second Class: Upper Division

Wye College, University of London (U.K.)

BSc Thesis title: Biological Control of *Botrytis cinerea* Pers.

PERSONAL SKILLS

Mother tongue(s) Greek

Other languages English (fluent), French (independent user), Spanish (basic)

Communication skills Established efficient communication streamlining among students and staff members of CUT Plant Stress Physiology Group.

Networking and negotiating skills as being responsible for building up consortia for research project proposals under the EC-RTD funding mechanisms.

Organisational / managerial skills

Coordination and monitoring of working groups, and quality assurance of deliverables.
Excellent command of quality assurance processes for study programmes.

Consolidated mentoring skills, as being responsible for training and induction of new members of staff, as well as being a personal tutor for more than 30 undergraduate and postgraduate students.

ADDITIONAL INFORMATION

Research-related metrics

- Publications in peer reviewed journals with impact factor: **110**
- Book chapters: **8**
- Editorships: **7**
- Conference proceedings abstracts: **173**
- Patents: **9**
- Total impact factor: **710,5**
- Mean impact factor: **6,5**
- h-index=**49**
- Web of Science citations: **6126**
- Scopus citations: **7091**
- Google scholar citations: **9373**

Publications

- 1) **Fotopoulos V**, Gilbert MJ, Pittman JK, Marvier AC, Buchanan AJ, Sauer N, Hall JL, Williams LE (2003). The monosaccharide transporter gene, *AtSTP4*, and the cell-wall invertase, *Atβfruct1*, are induced in *Arabidopsis* during infection with the fungal biotroph *Erysiphe cichoracearum*. Plant Physiology 132, 821-829.
- 2) **Fotopoulos V** (2005). Plant Invertases: structure, function and regulation of a diverse enzyme family. Journal of Biological Research 4, 127-137.
- 3) **Fotopoulos V**, Holmes R, Hall JL, Williams LE (2006). Isolation, cloning and expression analysis of *EcPMA1*, a putative plasma membrane H⁺-ATPase transporter gene from the biotrophic pathogenic fungus *Erysiphe cichoracearum*. Mycological Research 110, 28-37.
- 4) **Fotopoulos V**, Sanmartin M, Kanellis AK (2006). Effect of ascorbate oxidase over-expression on ascorbate recycling gene expression in response to agents imposing oxidative stress. Journal of Experimental Botany 57, 3933-3943.
- 5) **Fotopoulos V**, De Tullio MC, Barnes J, Kanellis AK (2008). Altered stomatal dynamics in ascorbate oxidase over-expressing tobacco plants suggest a role for dehydroascorbate signalling. Journal of Experimental Botany 59, 729-737.
- 6) **Fotopoulos V** (2008). Assessment of potential for biological control of *Botrytis cinerea* by an indigenous *Trichoderma harzianum* isolate with a detached leaf-droplet inoculation bioassay and induction of host resistance through increased phytoalexin production. Pest Technology 2, 109-113.
- 7) Falara V, **Fotopoulos V**, Margaritis T, Anastasaki T, Pateraki I, Bosabalidis AM, Kafetzopoulos D,

- Demetzos C, Pichersky E, Kanellis AK (2008). Transcriptome analysis approaches for the isolation of genes expressed exclusively in glandular trichomes of the medicinal plant *Cistus creticus* ssp. *creticus*. *Plant Molecular Biology* 68, 633-651.
- 8) Kalamaki MS, Alexandrou D, Lazari D, Merkouropoulos G, **Fotopoulos V**, Pateraki I, Carrillo AL, Cavetas MR, Aggelis A, Kanellis AK (2009). Over-expression of a tomato N- acetyl-glutamate synthase gene (*SINAGS1*) in *Arabidopsis thaliana* results in high ornithine levels and increased tolerance in salt and drought stresses. *Journal of Experimental Botany* 60, 1859-1871.
- 9) Mhadhbi H, **Fotopoulos V**, Djebalin N, Polidoros AN, Aouani ME (2009). Behaviours of *Medicago truncatula*-*Sinorhizobium meliloti* symbioses under osmotic stress in relation with symbiotic partner input effects on nodule functioning and protection. *Journal of Agronomy & Crop Science* 195, 225-231.
- 10) **Fotopoulos V**, Tanou G, Ziogas V, Molassiotis A (2010). Involvement of AsA/DHA and GSH/GSSG ratios in gene and protein expression and in the activation of defense mechanisms under abiotic stress conditions. In: *Ascorbate-Glutathione Pathway and Stress Tolerance in Plants* (eds. Anjum NA, Chan MT, Umar S). Springer-Verlag, The Netherlands, 265-302.
- 11) Mhadhbi H, **Fotopoulos V**, Mylona PV, Jebara M, Aouani ME, Polidoros AN (2011). Role of antioxidant gene-enzyme responses in *Medicago truncatula* genotypes with different degrees of sensitivity to high salinity. *Physiologia Plantarum* 141, 201-214.
- 12) Filippou P, Antoniou C, **Fotopoulos V** (2011). Effect of drought and rewatering on the cellular status and antioxidant response of *Medicago truncatula* plants. *Plant Signaling & Behavior* 6, 270-277.
- 13) Molassiotis A, **Fotopoulos V** (2011). Oxidative and nitrosative signaling in plants: two branches in the same tree? *Plant Signaling & Behavior* 6, 210-214.
- 14) **Fotopoulos V**, Dovas CI, Katis N (2011). Incidence of spinach viruses in Greece, highlighting the importance of weeds as reservoir hosts. *Journal of Plant Pathology* 93, 389-395.
- 15) **Fotopoulos V** (2012). Never say dye: new roles for an old fluorochrome. *Plant Signaling & Behavior* 7, 342-344.
- 16) Filippou P, Antoniou C, Yelamanchili S, **Fotopoulos V** (2012). NO loading: efficiency assessment of five commonly used application methods of sodium nitroprusside in *Medicago truncatula* plants. *Plant Physiology & Biochemistry* 60, 115-118.
- 17) Tanou G, **Fotopoulos V**, Molassiotis A (2012). Priming against environmental challenges and proteomics in plants: Update and agricultural perspectives. *Frontiers in Plant Science* 3, 216.
- 18) Tanou G, Filippou P, Belghazi M, Job D, Diamantidis G, **Fotopoulos V**, Molassiotis A (2012). Oxidative and nitrosative-based signaling and associated post-translational modifications orchestrate the acclimation of citrus plants to salinity stress. *Plant Journal* 72, 585-599.
- 19) Filippou P, Tanou G, Molassiotis A, **Fotopoulos V** (2013). Plant acclimation to environmental stress using priming agents. In: *Plant Acclimation to Environmental Stress* (eds. Tuteja N, Gill SS). Springer Science & Business Media, U.S.A., 1-28.
- 20) Mhadhbi H, **Fotopoulos V**, Mylona PV, Jebara M, Aouani ME, Polidoros AN. (2013). Alternative oxidase 1 (*Aox1*) gene expression in roots of *Medicago truncatula* is a genotype-specific component of salt stress tolerance. *Journal of Plant Physiology* 170, 111-114.
- 21) Filippou P, Antoniou C, **Fotopoulos V** (2013). The nitric oxide donor sodium nitroprusside regulates proline and polyamine biosynthesis in *Medicago truncatula* plants. *Free Radical Biology & Medicine* 56, 172-183.
- 22) Christou A, Manganaris G, Papadopoulos I, **Fotopoulos V** (2013). Hydrogen sulfide induces

- systemic tolerance to salinity and non-ionic osmotic stress in strawberry plants through modification of reactive species biosynthesis and transcriptional regulation of multiple defense pathways. *Journal of Experimental Botany* 64, 1953-1966.
- 23) Ziogas V, Tanou G, Filippou P, Diamantidis G, Vasilakakis M, **Fotopoulos V**, Molassiotis A (2013). Nitrosative responses in citrus plants exposed to six abiotic stress conditions. *Plant Physiology & Biochemistry* 68, 118-126.
- 24) Molassiotis A, Tanou G, Filippou P, **Fotopoulos V** (2013). Proteomics in the fruit tree science arena: new insights into fruit defense, development and ripening. *Proteomics* 13, 1871-1884.
- 25) Antoniou C, Filippou P, Mylona P, Fasoula D, Ioannides I, Polidoros A, **Fotopoulos V** (2013). Developmental stage and concentration-specific sodium nitroprusside application results in nitrate reductase regulation and the modification of nitrate metabolism in leaves of *Medicago truncatula* plants. *Plant Signaling & Behavior* 8, e25479.
- 26) **Fotopoulos V**, Kanellis AK (2013). Altered apoplastic ascorbate redox state in tobacco plants via ascorbate oxidase overexpression results in delayed dark-induced senescence in detached leaves. *Plant Physiology & Biochemistry* 73, 154-160.
- 27) Filippou P, Antoniou C, **Fotopoulos V** (2013). The role of nitrosative signaling in response to changing climates. In: *Climate Change and Abiotic Stress Tolerance* (eds. Tuteja N, Gill SS). Wiley-VCH Verlag GmbH & Co. Weinheim, Germany, 137-162.
- 28) **Fotopoulos V**, Christou A, Manganaris GA (2013). Hydrogen sulfide as a potent regulator of plant responses to abiotic stress factors. In: *Molecular Approaches in Plant Abiotic Stress* (eds. Gaur RK, Sharma P). CRC Press, UK, p 353-373.
- 29) Filippou P, Bouchagier P, Skotti E, **Fotopoulos V** (2014). Proline and reactive oxygen/nitrogen species biosynthesis is involved in the tolerant response of the invasive plant species *Ailanthus altissima* to drought and salinity. *Environmental & Experimental Botany* 97, 1-10.
- 30) Christou A, Georgiadou E, Filippou P, Manganaris G, **Fotopoulos V** (2014). Establishment of a rapid, inexpensive protocol for extraction of high-quality RNA from small amounts of strawberry plant tissues and other recalcitrant fruit crops. *Gene* 537, 169-173.
- 31) Christou A, Filippou P, Manganaris G, **Fotopoulos V** (2014). Sodium hydrosulfide induces systemic thermotolerance to strawberry plants through transcriptional regulation of heat shock proteins and aquaporin. *BMC Plant Biology* 14, 42.
- 32) Tanou G, Ziogas V, Belghazi M, Christou A, Filippou P, Job D, **Fotopoulos V**, Molassiotis A (2014). Polyamines reprogram oxidative and nitrosative status and the proteome of citrus plants exposed to salinity stress. *Plant Cell & Environment* 37, 864-885.
- 33) Antoniou C, Chatzimichail G, Kashfi K, **Fotopoulos V** (2014). Exploring the potential of NOSH-aspirin as a plant priming agent against abiotic stress factors. *Nitric Oxide* 39, s39.
- 34) **Fotopoulos V**, Antoniou C, Filippou P, Mylona P, Fasoula D, Ioannides I, Polidoros A (2014). Application of sodium nitroprusside results in distinct antioxidant gene expression patterns in leaves of mature and senescing *Medicago truncatula* plants. *Protoplasma* 251, 973-978.
- 35) Christou A, Manganaris G, **Fotopoulos V** (2014). Systemic mitigation of salt stress by hydrogen peroxide and sodium nitroprusside via transcriptional regulation of enzymatic and non-enzymatic antioxidants. *Environmental & Experimental Botany* 107, 46-54.
- 36) Seckin B, Antoniou C, **Fotopoulos V** (2014). Interplay between GST and nitric oxide in the early response of soybean (*Glycine max* L.) plants to salinity stress. *Journal of Plant Physiology* 171, 1740-1747.

- 37) Nikiforou C, Filippou P, Manetas Y, **Fotopoulos V** (2014). Winter leaf redness in mastic tree (*Pistacia lentiscus* L.) is associated with increased cellular damage levels and modified nitric oxide and hydrogen peroxide biosynthesis. *Advances in Plants and Agriculture Research* 1, 00028.
- 38) **Fotopoulos V**, Christou A, Antoniou C, Manganaris GA (2015). Hydrogen sulphide: a versatile tool for the regulation of growth and defense responses in horticultural crops. *Journal of Horticultural Science & Biotechnology* 90, 227-234.
- 39) Kyrtzis A, Skarlatos D, **Fotopoulos V**, Vamvakousis V, Katsiotis A (2015). Investigating correlation among NDVI index derived by unmanned aerial vehicle photography and grain yield under late drought stress conditions. *Procedia Environmental Sciences* 29, 225–226.
- 40) Ziogas V, Tanou G, Belghazi M, Filippou P, **Fotopoulos V**, Diamantidis G, Molassiotis A (2015). Roles of sodium hydrosulfide and sodium nitroprusside as priming molecules during drought acclimation in citrus plants. *Plant Molecular Biology* 89, 433-450.
- 41) Georgiadou EC, Ntourou T, Goulas V, Manganaris GA, Kalaitzis P, **Fotopoulos V** (2015). Temporal analysis reveals a key role for *VTE5* for vitamin E biosynthesis in olive fruit during on-tree development. *Frontiers in Plant Science* 6, 871.
- 42) Filippou P, Antoniou C, Obata T, Harokopos E, Van der Kellen K, Kanetis L, Aidinis V, Van Breusegem F, Fernie AR, **Fotopoulos V** (2016). Kresoxim-methyl primes *Medicago truncatula* plants against abiotic stress factors via altered reactive oxygen and nitrogen species signalling leading to downstream transcriptional and metabolic readjustment. *Journal of Experimental Botany* 67, 1259-1274.
- 43) Sequera-Mutiozabal M, Erban A, Kopka J, Atanasov KE, Bastida J, **Fotopoulos V**, Alcazar R, Tiburcio AF (2016). Global metabolic profiling of Arabidopsis Polyamine Oxidase 4 (AtPAO4) loss-of-function mutants exhibiting delayed dark-induced senescence. *Frontiers in Plant Science* 7, 173.
- 44) Savvides A, Ali S, Tester M, **Fotopoulos V** (2016). Chemical priming against multiple abiotic stresses: mission possible? *Trends in Plant Science* 21, 329-340.
- 45) Christou A, Antoniou C, Hapeshi, Christodoulou C, Michael C, Fatta-Kassinou D, **Fotopoulos V** (2016). Stress-related phenomena and detoxification mechanisms induced by common pharmaceuticals in alfalfa (*Medicago sativa* L.) plants. *Science of the Total Environment* 557-558, 652-664.
- 46) Georgiadou EC, Goulas V, Ntourou T, Manganaris GA, Kalaitzis P, **Fotopoulos V** (2016). Regulation of on-tree vitamin E biosynthesis in olive fruit during successive growing years: the impact of fruit development and environmental cues. *Frontiers in Plant Science* 7, 1656.
- 47) Antoniou C, Savvides A, Christou A, **Fotopoulos V** (2016). Unravelling chemical priming machinery in plants: the role of reactive oxygen-nitrogen-sulfur species in abiotic stress tolerance enhancement. *Current Opinion in Plant Biology* 33, 101-107 (invited review).
- 48) Sequera-Mutiozabal M, Antoniou C, Tiburcio AF, Alcázar R, **Fotopoulos V** (2017). Polyamines: emerging hubs promoting drought and salt stress tolerance in plants. *Current Molecular Biology Reports* 3, 28-36.
- 49) Zarza X, Atanasov KE, Marco F, Kopka J, Arbona V, Carrasco P, **Fotopoulos V**, Munnik T, Gómez-Cadenas A, Tiburcio AF, Alcázar R (2017). Mechanisms of salt tolerance induced by *Polyamine Oxidase 5* loss-of-function mutations in *Arabidopsis thaliana*. *Plant Cell and Environment* 40, 527-542.
- 50) Antoniou C, Chatzimichail G, Xenofontos R, Pavlou G, Panagiotou E, Christou A, **Fotopoulos V** (2017). Melatonin systemically ameliorates drought stress-induced damage in *Medicago sativa* plants by modulating nitro-oxidative homeostasis and proline metabolism. *Journal of Pineal Research* 62, e12401.
- 51) Hadjipieri M, Georgiadou EC, Marin A, Diaz-Mula HM, Goulas V, **Fotopoulos V**, Tomás-Barberán

- FA, Manganaris GA (2017). Metabolic and transcriptional elucidation of the carotenoid biosynthesis pathway on peel and flesh tissue of loquat fruit during on-tree development. *BMC Plant Biology* 17, 102.
- 52) Christou A, Agüera A, Bayona JM, Cytryn E, **Fotopoulos V**, Lambropoulou D, Manaia C, Michael C, Revitt M, Schröder P, Fatta-Kassinos D (2017). The potential implications of reclaimed wastewater reuse for irrigation on the agricultural environment: the knowns and unknowns of the fate of antibiotics and antibiotic resistant bacteria and resistance genes - A review. *Water Research* 123, 448-467.
- 53) Van Dingenen J, Antoniou C, Filippou P, Pollier J, Gonzalez N, Dhondt S, Goossens A, **Fotopoulos V**, Inze D (2017). Strobilurins as growth-promoting compounds: How Strobilurins regulates Arabidopsis leaf growth. *Plant Cell and Environment* 40, 1748-1760.
- 54) Manganaris GA, Drogoudi P, Goulas V, Tanou G, Georgiadou EC, Pantelidis GE, Paschalidis KA, **Fotopoulos V**, Manganaris A (2017). Deciphering the interplay among genotype, maturity stage and low-temperature storage on phytochemical composition and transcript levels of enzymatic antioxidants in *Prunus persica* fruit. *Plant Physiology and Biochemistry* 119, 189-199.
- 55) Balestrini R, Chitarra W, **Fotopoulos V**, Ruocco M (2017). Potential role of beneficial soil microorganisms in plant tolerance to abiotic stress. In: *Soil Biological Communities and Ecosystem Resilience* (eds. Lukac M, Grenni P, Gamboni M). Springer Science & Business Media, U.S.A.. 191-207.
- 56) Antoniou C, Savvides A, Georgiadou E, **Fotopoulos V** (2018). Spectrophotometric quantification of reactive oxygen, nitrogen and sulfur species in plant samples. In: *Polyamines: Methods and Protocols* (eds. Alcazar R, Tiburcio AF). Methods in Molecular Biology, Springer Science & Business Media, U.S.A., 155-161.
- 57) Pollastri S, Savvides A, Pesando M, Lumini E, Volpe MG, Ozudogru EA, Faccio A, De Cunzio F, Michelozzi M, Lambardi M, **Fotopoulos V**, Loretto F, Centritto M, Balestrini R (2018). Impact of two arbuscular mycorrhizal fungi on *Arundo donax* L. response to salt stress. *Planta* 247, 573-585.
- 58) Balestrini R, Chitarra W, Antoniou C, Ruocco M, **Fotopoulos V** (2018). Improvement of plant performance under water deficit with the employment of biological and chemical priming agents. *Journal of Agricultural Science* 156, 680-688.
- 59) Christou A, Michael C, Fatta-Kassinos D, **Fotopoulos V** (2018). Can the pharmaceutically active compounds released in agroecosystems be considered as emerging plant stressors? *Environment International* 114, 360-364.
- 60) Savvides A, **Fotopoulos V** (2018). Two inexpensive and non-destructive techniques to correct for smaller-than-gasket leaf area in gas exchange measurements. *Frontiers in Plant Science* 9, 548.
- 61) Georgiadou EC, Goulas V, Majak I, Ioannou A, Leszczynska J, **Fotopoulos V** (2018). Antioxidant potential and phytochemical content of selected fruits and vegetables consumed in Cyprus. *Biotechnology and Food Science* 82, 3-14.
- 62) Georgiadou E, Kowalska E, Patla K, Kulbat K, Smolinska B, Leszczynska J, **Fotopoulos V** (2018). Influence of heavy metals (Ni, Cu and Zn) on nitro-oxidative stress responses, proteome regulation and allergen production in basil (*Ocimum basilicum* L.) plants. *Frontiers in Plant Science* 9, 862.
- 63) Antoniou C, Fragkoudi I, Martinou A, Stavrinos M, **Fotopoulos V** (2018). Spatial response of *Medicago truncatula* plants to drought and spider mite attack. *Plant Physiology and Biochemistry* 130, 658-662.
- 64) Ziogas V, Molassiotis A, **Fotopoulos V**, Tanou G (2018). Hydrogen sulfide: A potent tool in postharvest fruit biology and possible mechanism of action. *Frontiers in Plant Science* 9, 1375.

- 65) Christou A, Kyriacou MC, Georgiadou EC, Papamarkou R, Hapeshi E, Karaolia P, Michael C, **Fotopoulos V**, Fatta-Kassinos D (2019). Uptake and bioaccumulation of three widely prescribed pharmaceutically active compounds in tomato fruits and mediated effects on fruit quality attributes. *Science of the Total Environment* 647, 1169-1178.
- 66) Mellidou I, Georgiadou EC, Kaloudas D, Kalaitzis P, **Fotopoulos V**, Kanellis AK (2019). Vitamins. In: *Postharvest Physiology and Biochemistry of Fruits and Vegetables* (eds. Yahia EM, Carillo-López A). Elsevier, 359-383.
- 67) Christou A, Papadavid G, Dalias P, **Fotopoulos V**, Michael C, Bayona JM, Piña B, Fatta-Kassinos D (2019). Ranking of crop plants according to their potential to uptake and accumulate contaminants of emerging concern. *Environmental Research* 170, 422-432.
- 68) Arbona V, De Ollas C, Morillón R, **Fotopoulos V**, Puértolas J, Ollitrault P, Gómez-Cadenas A (2019). Systems biology of iconic Mediterranean woody crops in a climate change scenario. *Frontiers in Plant Science* 10, 427.
- 69) Georgiadou EC, Koubouris G, Goulas V, Sergeantani C, Nikoloudakis N, Manganaris GA, Kalaitzis P, **Fotopoulos V** (2019). Genotype-dependent regulation of vitamin E biosynthesis in olive fruits as revealed through metabolic and transcriptional profiles. *Plant Biology* 21, 604-614.
- 70) Tsballa A, Sarrou E, Xanthopoulou A, Tsaliki E, Kissoudis C, Karagiannis E, Michailidis M, Martens S, Sperdouli E, Hilioti Z, **Fotopoulos V**, Nianiou-Obeidat I, Tsaftaris A, Madesis P, Kalivas A, Ganopoulos I (2020). Comprehensive approaches reveal key transcripts and metabolites highlighting metabolic diversity among three oriental tobacco varieties. *Industrial Crops and Products* 143, 111933.
- 71) Antoniou C, Xenofontos R, Chatzimichail G, Christou A, Kashfi K, **Fotopoulos V** (2020). Exploring the potential of nitric oxide and hydrogen sulfide (NOSH)-releasing synthetic compounds as novel priming agents against drought stress in *Medicago sativa* plants. *Biomolecules* 10, 120.
- 72) Gohari G, Mohammadi A, Akbari A, Panahirad S, Dadpour MR, **Fotopoulos V**, Kimura S (2020). Titanium dioxide nanoparticles (TiO₂ NPs) promote growth and ameliorate salinity stress effects on essential oil profile and biochemical attributes of *Dracocephalum moldavica*. *Scientific Reports* 10, 912.
- 73) Gohari G, Alvai Z, Esfandiari E, Panahirad S, Hajihoseinlou S, **Fotopoulos V** (2020). Interaction between hydrogen peroxide and sodium nitroprusside following chemical priming of *Ocimum basilicum* L. against salt stress. *Physiologia Plantarum* 168, 361-373.
- 74) Singh VP, Tripathi DK, **Fotopoulos V** (2020). Hydrogen sulfide and nitric oxide signal integration and plant development under stressed/non-stressed conditions. *Physiologia Plantarum* 168, 239-240.
- 75) Brizzollara S, Manganaris GA, **Fotopoulos V**, Watkins CB, Tonutti P (2020). Primary metabolism in fresh fruits during storage. *Frontiers in Plant Science* 11, 80.
- 76) Gohari G, Safai F, Panahirad S, Akbari A, Rasouli F, Dadpour MR, **Fotopoulos V** (2020). Modified multiwall carbon nanotubes display either phytotoxic or growth promoting and stress protecting activity in *Ocimum basilicum* L. in a concentration-dependent manner. *Chemosphere* 249, 126171.
- 77) Ioannou A, Gohari G, Papaphilippou P, Panahirad S, Akbari A, Dadpour MR, Krasia-Christoforou T, **Fotopoulos V** (2020). Advanced nanomaterials in agriculture under a changing climate: the way to the future? *Environmental and Experimental Botany* 176, 104048.
- 78) Irankhah S, Chitarra W, Nerva L, Antoniou C, Lumini E, Volpe V, Ganjeali A, Cheniany M, Mashreghi M, **Fotopoulos V**, Balestrini R (2020). Impact of an arbuscular mycorrhizal fungal inoculum and exogenous MeJA on fenugreek secondary metabolite production under water deficit. *Environmental and Experimental Botany* 176, 104096.

- 79) Hasanuzzaman M, Bhuyan MHMB, Zulficar F, Raza A, Mohsin SM, Al Mahmud J, Fujita M, **Fotopoulos V** (2020). Reactive oxygen species and antioxidant metabolism in plants under abiotic stress: Revisiting the crucial role of a universal defense regulator. *Antioxidants* 9, 681.
- 80) Langensiepen M, Jansen MAK, Wingler A, Demmig-Adams B, Adams III WW, Dodd IC, **Fotopoulos V**, Snowdon R, Fenollosa E, de Tullio MC, Buck-Sorlin G, Munné-Bosch S (2020). Linking integrative plant physiology with agronomy to sustain future plant production. *Environmental and Experimental Botany* 178, 104125.
- 81) Christou A, Georgiadou EC, Zissimos A, Christoforou IC, Christofi C, Neocleous D, Dalias P, Torrado SOCA, Argyraki A, **Fotopoulos V** (2020). Hexavalent chromium leads to differential hormetic or damaging effects in alfalfa (*Medicago sativa* L.) plants in a concentration-dependent manner by regulating nitro-oxidative and proline metabolism. *Environmental Pollution* 267, 115379.
- 82) Hadjipieri M, Georgiadou EC, Costa F, **Fotopoulos V**, Manganaris GA (2020). Dissection of the incidence and severity of purple spot physiological disorder in loquat fruit through a physiological and molecular approach. *Plant Physiology and Biochemistry* 155, 980-986.
- 83) Kulbat-Warycha K, Georgiadou EC, Mańkowska D, Smolińska B, **Fotopoulos V**, Leszczyńska J (2020). Response to stress and allergen production caused by metal ions (Ni, Cu and Zn) in oregano (*Origanum vulgare* L.) plants. *Journal of Biotechnology* 324, 171-182.
- 84) Georgiadou EC, Manganaris GA, **Fotopoulos V** (2020). The diverse roles of vitamin E, its occurrence and regulation in different plant tissues. *Food Science Technology Quality* 27, 113-126.
- 85) Christou A, Georgiadou EC, Zissimos AM, Christoforou IC, Christofi C, Neocleous D, Dalias P, **Fotopoulos V** (2021). Uptake of hexavalent chromium by *Lactuca sativa* and *Triticum aestivum* plants and mediated effects on their performance, linked with associated public health risks. *Chemosphere* 267, 128912.
- 86) Antoniou C, Zarza X, Gohari G, Panahirad S, Filippou P, Tiburcio AF, **Fotopoulos V** (2021). Involvement of polyamine metabolism in the response of *Medicago truncatula* genotypes to salt stress. *Plants* 10, 269.
- 87) Singh S, Husain T, Kushwaha BK, Suhel M, Fatima A, Mishra V, Singh SK, Tripathi DK, Rai M, Prasad SM, Dubey NK, Chauhan DK, Bhatt JA, **Fotopoulos V**, Singh VP (2021). Regulation of ascorbate-glutathione cycle by exogenous nitric oxide and hydrogen peroxide in soybean roots under arsenate stress. *Journal of Hazardous Materials* 409, 123686.
- 88) **Fotopoulos V** (2021). Welcome to the new journal Plant Stress. *Plant Stress* 1, 100001.
- 89) Gohari G, Panahirad S, Sadeghi M, Akbari A, Zareei E, Zahedi SM, Bahrami MK, **Fotopoulos V** (2021). Putrescine-functionalized carbon quantum dot (Put-CQD) nanoparticles effectively prime grapevine (*Vitis vinifera* cv. 'Sultana') against salt stress. *BMC Plant Biology* 21, 120.
- 90) Georgiadou EC, Antoniou C, Majak I, Goulas V, Filippou P, Smolińska B, Leszczyńska J, **Fotopoulos V** (2021). Tissue-specific elucidation of lycopene metabolism in commercial tomato fruit cultivars during ripening. *Scientia Horticulturae* 284, 110144..
- 91) Filippou P, Zarza X, Antoniou C, Obata T, Villarroel CA, Ganopoulos I, Harokopos V, Gohari G, Aidinis V, Madesis P, Christou A, Fernie AR, Tiburcio AF, **Fotopoulos V** (2021). Systems biology reveals key tissue-specific metabolic and transcriptional signatures involved in the response of *Medicago truncatula* genotypes to salt stress. *Computational and Structural Biotechnology Journal* 19, 2133-2147.
- 92) Gohari G, Zareei E, Rostami H, Panahirad S, Kulak M, Farhadi H, Amini M, Martinez-Ballesta MdC, **Fotopoulos V** (2021). Protective effects of cerium oxide nanoparticles in grapevine (*Vitis vinifera* L.) cv.

- Flame Seedless under salt stress conditions. *Ecotoxicology and Environmental Safety* 220, 112402.
- 93) Christou A, Georgiadou EC, Zissimos AM, Christoforou IC, Christofi C, Neocleous D, Dalias P, Ioannou A, **Fotopoulos V** (2021). Uptake of hexavalent chromium by tomato (*Solanum lycopersicum* L.) plants and mediated effects on their physiology and productivity, along with fruit quality and safety. *Environmental and Experimental Botany* 189, 104564.
- 94) Mladenov V, **Fotopoulos V**, Kaiserli E, Karalija E, Maury S, Miroslav B, Segal N, Testillano PS, Vassileva V, Pinto G, Nagel M, Hoenicka H, Miladinović D, Gallusci P, Vergata C, Kapazoglou A, Abraham E, Tani E, Gerakari M, Sarri E, Avramidou E, Gašparović M, Martinelli F (2021). Deciphering the epigenetic alphabet involved in transgenerational stress memory in crops. *International Journal of Molecular Sciences* 22, 7118.
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- 96) Agathokleous E, Zhou B, Xu J, Ioannou A, Feng Z, Saitanis CJ, Frei M, Calabrese EJ, **Fotopoulos V** (2021). Exogenous application of melatonin to plants, algae, and harvested products to sustain agricultural productivity and enhance nutritional and nutraceutical value: A meta-analysis. *Environmental Research* 200, 111746.
- 97) Gohari G, Panahirad S, Sepehri N, Akbari A, Zahedi SM, Jafari H, Dadpour MR, **Fotopoulos V** (2021). Enhanced tolerance to salinity stress in grapevine plants through application of carbon quantum dots functionalized by proline. *Environmental Science and Pollution Research* 28, 42877-42890.
- 98) Hadjipieri M, Georgiadou EC, Drogoudi P, **Fotopoulos V**, Manganaris GA (2021). The efficacy of acetyl salicylic acid, spermidine and calcium preharvest foliar spray applications on yield efficiency, incidence of physiological disorders and shelf-life performance of loquat fruit. *Scientia Horticulturae* 289, 110439.
- 99) Hadjipieri M, Georgiadou EC, Drogoudi P, **Fotopoulos V**, Badenes ML, Manganaris GA (2021). The physiological disorder of purple spot in loquat fruit: etiology, possible causes and mitigation measures. *Acta Horticulturae* 1327, 577-581.
- 100) Hasanuzzaman M, Parvin K, Bardhan K, Nahar K, Anee TI, Masud AAC, **Fotopoulos V** (2021). Biostimulants for the regulation of reactive oxygen species metabolism in plants under abiotic stress. *Cells* 10, 2537.
- 101) Spanos A, Athanasiou K, Ioannou A, **Fotopoulos V**, Krasia-Christoforou T (2021). Functionalized magnetic nanomaterials in agricultural applications. *Nanomaterials* 11, 3106.
- 102) Guzmán MG, Cellini F, **Fotopoulos V**, Balestrini R, Arbona V (2022). New approaches to improve crop tolerance to biotic and abiotic stresses. *Physiologia Plantarum* 174, e13547.
- 103) Christou A, Stylianou M, Georgiadou EC, Gedeon S, Ioannou A, Michael C, Papanastasiou P, **Fotopoulos V**, Fatta-Kassinos D (2022). Effects of biochar derived from the pyrolysis of either biosolids, manure or spent coffee grounds on the growth, physiology and quality attributes of field-grown lettuce plants. *Environmental Technology and Innovation* 26, 102263.
- 104) Wang K, Cai S, Xing Q, Qi Z, **Fotopoulos V**, Yu J, Zhou J (2022). Melatonin delays dark-induced leaf senescence by inducing *miR171b* expression in tomato. *Journal of Pineal Research* 72, e12792.
- 105) Christou A, Agathokleous E, **Fotopoulos V** (2022). Safeguarding food security: Hormesis-based plant priming to the rescue. *Current Opinion in Environmental Science and Health* 28, 100374.

- 106) Sheikhalipour M, Mohammadi SA, Esmailpour B, Zareei E, Kulak M, Ali S, Nouraein M, Bahrami MK, Gohari G, **Fotopoulos V** (2022). Exogenous melatonin increases salt tolerance in bitter melon by regulating ionic balance, antioxidant system and secondary metabolism-related genes. *BMC Plant Biology* 22, 380.
- 107) Agathokleous E, Guedes RNC, Calabrese EJ, **Fotopoulos V**, Azevedo RA (2022). Transgenerational hormesis: What do parents sacrifice for their children? *Current Opinion in Environmental Science and Health* 29, 100380.
- 108) Agathokleous E, Barceló D, Aschner M, Azevedo RA, Bhattacharya P, Costantini D, Cutler GC, De Marco A, Docea AO, Dórea JG, Duke SO, Efferth T, Fatta-Kassinos D, **Fotopoulos V**, Ginebreda A, Guedes RNC, Hayes AW, Iavicoli I, Kalantzi OI, Koike T, Kouretas D, Kumar M, Manautou JE, Moore MN, Paoletti E, Peñuelas J, Picó Y, Reiter RJ, Rezaee R, Rinklebe J, Rocha-Santos T, Sicard P, Sonne C, Teaf C, Tsatsakis A, Vardavas AI, Wang W, Zeng EY, Calabrese EJ. (2022). Rethinking sub-threshold effects in regulatory chemical risk assessments. *Environmental Science and Technology* 56, 11095-11099.
- 109) Savvides AM, Velez-Ramirez AI, **Fotopoulos V** (2022). Challenging the water stress index concept: Thermographic assessment of *Arabidopsis* transpiration. *Physiologia Plantarum* 174, e13762.
- 110) Guo M, Yang F, Liu C, Zou J, Qi Z, **Fotopoulos V**, Lu G, Yu J, Zhou J (2022). A single nucleotide polymorphism in *WRKY33* promoter is associated with the cold sensitivity in cultivated tomato. *New Phytologist* 236, 989-1005.
- 111) Gedeon S, Ioannou A, Balestrini R, **Fotopoulos V**, Antoniou C (2022). Application of biostimulants in tomato plants (*Solanum lycopersicum*) to enhance plant growth and salt stress tolerance. *Plants* 11, 3082.
- 112) Colzi I, Gonnelli C, Vergata C, Golia G, Coppi A, Castellani MB, Giovino A, Buti M, Sabato T, Capuana M, Aprile A, De Bellis L, Cicatelli A, Guarino F, Castiglione S, Ioannou A, **Fotopoulos V**, Martinelli F (2023). Transgenerational effects of chromium stress at phenotypic and molecular level in *Arabidopsis thaliana*. *Journal of Hazardous Materials* 442, 130092.
- 113) Gohari G, Farhadi H, Panahirad S, Zareei E, Labib P, Jafari H, Mahdavinia G, Hassanpouraghdam HB, Ioannou A, Kulak M, **Fotopoulos V** (2023). Mitigation of salinity impact in spearmint plants through the application of engineered chitosan-melatonin nanoparticles. *International Journal of Biological Macromolecules* 224, 893-907.
- 114) Gohari G, Panahirad S, Mohammadi A, Kulak M, Dadpour MR, Lighvan ZM, Sharifi S, Eftekhari-Sis B, Szafert S, **Fotopoulos V**, Akbari A (2023). Characterization of octa - aminopropyl polyhedral oligomeric silsesquioxanes (OA-POSS) nanoparticles and their effect on sweet basil (*Ocimum basilicum* L.) response to salinity stress. *Plant Physiology and Biochemistry* 196, 89-102.
- 115) Panahirad S, Dadpour M, Gohari G, Akbari A, Mahdavinia G, Jafari H, Kulak M, Alcazar R, **Fotopoulos V** (2023). Putrescine-functionalized carbon quantum dot (Put-CQD) nanoparticle: A promising stress-protecting agent against cadmium stress in grapevine (*Vitis vinifera* cv. Sultana). *Plant Physiology and Biochemistry* 197, 107653.
- 116) Kyriakou M, Christodoulou M, Ioannou A, **Fotopoulos V**, Koutinas M (2023). Improvement of stress multi-tolerance and bioethanol production by *Saccharomyces cerevisiae* immobilised on biochar: Monitoring transcription from defense-related genes. *Biochemical Engineering Journal* 195, 108914.
- 117) Georgiadou EC, Mina M, Neoptolemos V, Koundouras S, D'Onofrio C, Bellincontro A, Mencarelli F, **Fotopoulos V**, Manganaris GA (2023). The beneficial effect of leaf removal during fruit set on

physiological, biochemical and qualitative indices and volatile organic compound profile of the Cypriot reference cultivar 'Xynisteri'. *Journal of the Science of Food and Agriculture* 103, 3776-3786.

118) Sheikhalipour M, Mohammadi SA, Esmailpour B, Spanos A, Mahmoudi R, Mahdavinia G, Milani MH, Kahnamoei A, Nouraein M, Antoniou C, Kulak M, Gohari G, **Fotopoulos V** (2023). Seedling nanoprimering with selenium-chitosan nanoparticles mitigates the adverse effects of salt stress by inducing multiple defense pathways in bitter melon plants. *International Journal of Biological Macromolecules* 242, 124923.

119) Panahirad S, Gohari G, Mahdavinia G, Jafari H, Kulak M, **Fotopoulos V**, Alcazar R, Dadpour M (2023). Foliar application of chitosan-putrescine nanoparticles (CTS-Put NPs) alleviates cadmium toxicity in grapevine (*Vitis vinifera* L.) cv. Sultana: modulation of antioxidant and photosynthetic status. *BMC Plant Biology* 23, 411.

120) Raza A, Tabassum J, Fakhar AZ, Sharif R, Chen H, Zhang C, Ju L, **Fotopoulos V**, Siddique KH, Singh RK, Zhuang W, Varshney RK (2023). Smart reprogramming of plants against salinity stress using modern biotechnological tools. *Critical Reviews in Biotechnology* 43, 1035-1062.

121) Spanos A, Nikolaou IY, Gohari G, **Fotopoulos V** (2023). Nanomaterials as new techniques in plant priming technology. In: *Engineered Nanoparticles in Agriculture: from Laboratory to Field* (eds. Fotopoulos V, Gohari G). De Gruyter, p. 247-270.

122) Sheikhalipour M, Gohari G, Esmailpour B, Behnamian M, Giglou MT, Milani MH, Bahrami MK, Kulak M, Ioannou A, **Fotopoulos V**, Vita F (2023). Effect of melatonin foliar sprays on morphophysiological attributes, fruit yield and quality of *Momordica charantia* L. under salinity stress. *Plant Physiology and Biochemistry* 205, 108194.

123) Pasquini D, Zampieri E, Ioannou A, Spanos A, Sillo F, Giovannini L, **Fotopoulos V**, Brunetti C, Lumini E, Balestrini R (2023). Impact of the arbuscular mycorrhizal fungal inoculation on growth and biochemical parameters in *Rosmarinus officinalis* and *Lavandula angustifolia*. *Symbiosis* 91, 107-117.

124) Sheikhalipour M, Kulak M, Mohammadi SA, Esmailpour B, Nouraein M, Kocak MZ, Farajzadeh SM, Gohari G, **Fotopoulos V**, Vita F (2024). Foliar application of either melatonin or sodium nitroprusside regulates the antioxidant status, and the morpho-physiological attributes and essential oil production in sage (*Salvia officinalis* L.) under salinity stress. *Scientia Horticulturae* 323, 112526.

125) Gohari G, Jiang M, Manganaris GA, Zhou J, **Fotopoulos V** (2024). Next generation chemical priming: with a little help from our (nanomaterial) friends. *Trends in Plant Science* (in press).

Patents

- 1) Kashfi K, **Fotopoulos V** (2015). Method of Priming Plants Against Abiotic Stress Factors and Promoting Growth. International Application No. PCT/US15/15380 (WO 2015123273 A1).
- 2) Inzé D, Van Dingenen J, Antoniou C, **Fotopoulos V** (2016). Means and Methods to Increase Plant Yield. Provisional EPO Application No. 16190088.1.
- 3) **Fotopoulos V**, Antoniou C (2017). A Method of Treating Seeds and Seeds Produced Thereby. Provisional USPTO Application No. 62/507,833.
- 4) Kashfi K, **Fotopoulos V** (2018). Method of Priming Plants Against Abiotic Stress Factors. USPTO No. 10,071,981.

- 5) **Fotopoulos V**, Antoniou C, Kashfi K (2019). A Method of Treating Seeds and Seeds Produced Thereby. Provisional USPTO Application No. 62/915,387.
- 6) Kashfi K, **Fotopoulos V** (2019). Method of Priming Plants Against Abiotic Stress Factors and Promoting Growth. IPO No. 247190.
- 7) Kashfi K, **Fotopoulos V** (2020). Method of Priming Plants Against Abiotic Stress Factors. EPO No. EP3104856B1.
- 8) Kashfi K, **Fotopoulos V** (2020). Method of Priming Plants Against Abiotic Stress Factors and Promoting Growth. APO No. 2015217310.
- 9) **Fotopoulos V**, Ioannou A, Krasia T, Athanasiou K (2022). Methods and Compositions for Improved Seed Growth. International Application No. PCT/EP2022/083957 (WO 2023099627A1).

Honours and Awards

- Final year Horticulture Project marked best amongst all Horticulture Projects, represented Wye College in 1998's annual Horticulture Research International (H.R.I.) competition for the Aberconway Medal.
- PhD scholarship of excellence awarded by the Alexander S. Onassis Public Benefit Foundation (Prot. Nr.: W117). Scholarship Duration: 24 months (2000-2002).
- Post-doctoral scholarship of academic excellence awarded by the Research Committee of the Aristotle University of Thessaloniki (Prot. Nr.: 34947/04). Scholarship Duration: 12 months (1/04-12/04).
- Winner of 2021 Physiologia Plantarum Reviewer Award (in the form of a travel grant), as one of two top-performing reviewers for this journal.
- Winner of the 2022 Award as 'Distinguished Collaborator' of Lodz University of Technology, granted in a ceremony by the TUL Rector.
- Winner of the Antioxidants 2022 Best Paper Award, accompanied by a monetary honorarium.
- MITEF Greece Startup Competition 2022 winner of General Track category and 3rd place overall with Team 'YieldSeCYre' (CUT/PI: Fotopoulos; UCY/PI: Krasia-Christoforou).

Projects

- 'Transcriptomic profiling of the plant *Medicago truncatula* under drought conditions using a DNA microarray approach'. Cyprus University of Technology Start-up Research Fund (2009-2011). Coordinator.
- 'Molecular analysis and biotechnological applications of olive plant enzymes involved in phenolic compounds with antioxidant activity'. HEALTH/FOOD/0609 (2009-2012). Partner.
- 'Tackling invasive plant species: The case of *Ailanthus altissima* Mill. Swingle'. Greek Ministry of Education/European Social Fund (1/2012-12/2014). Partner.
- 'The effect of maturity stage and postharvest storage treatments on quality attributes and phytochemical profile of peach (*Prunus persica* L.) fruit: a physicochemical, biochemical and transcriptomic approach'. European Social Fund/Greek Ministry of Education (1/2013-12/2015). Partner.
- 'Evaluation of NOSH-A pre-treatment on monocotyledonous plants against drought stress conditions'. Cyprus University of Technology [CY], City University of New York [USA] – Short tech project (9/2015-3/2016). Coordinator.
- 'Conservation and sustainable capitalization of biodiversity in forested areas'. INTERREG Balkan-Med 2014-2020 (2017-2019). Partner.
- 'Application of agricultural bio-stimulants as a novel sustainable practice to enhance production volumes

- and qualitative attributes of raspberry fruit'. RPF RESTART 2016-2020/CONCEPT (2019-2020). Partner.
- 'Valorization of the reference indigenous grape cultivar 'Xynisteri' under variable vineyard conditions through sensorial analyses and aromatic characterization'. Cypriot Research Promotion Foundation/DIDAKTOR (2019-2021). Partner.
 - 'Sustainable yield security through seed priming with chemical agents'. RPF/Cyprus Research Award - Young Researcher 2019 (2021-2022). Partner.
 - 'Sustainable yield security through seed priming with non-toxic chemical agents coupled with advanced naturally-derived, biodegradable hydrogel coatings'. Cyprus Seeds (2021-2022). Coordinator.
 - 'ReAlising Dynamlc vAlue chainNs for underUtilised crops'. H2020-SFS-2018-2020 (2021-2025). Partner.
 - 'OPTIMAl USage of natural product and biological PRIMing agents to improve rEsilience of agrosystems to climate change'. RPF/PRIMA 2020 – Topic 2.2.1 (2021-2024). Partner.
 - 'Seed priming using natural chemical agents and advanced nanomaterials for improved growth and protection against drought and salinity in tomato and basil'. EPPN2020 Transnational Call (2021). Coordinator.
 - 'Sustainable yield security through advanced seed treatments'. RIF/Excellence 2021 (2022-2024). Coordinator.
 - 'Mechanism of microbially-mediated transformation of nutrients from agri-food wastes via different scenarios of biofertilizer introduction into the soil system: soil colonization/plant infection'. NCN/SONATA BIS 11 (2022-2026). Foreign Expert Partner.
 - 'Development of innovative priming technologies safeguarding yield security in soft fruit crops through a cutting-edge interdisciplinary approach'. HORIZON-WIDERA-2021 (2022-2025). co-PI.
 - 'Development of green-tech functionalized, biodegradable fibrous plant nursery bags in ecological seedlings cultivation'. RIF/CO-DEVELOP 2022 (2023-2025). Partner.
 - 'Enhanced tolerance of potato plants to frost damage through chemical priming'. Hellenic Ministry of Rural Development and Food/Metro 16 (2022-2025). Foreign Partner.
 - 'Primed chestnut plants with mycorrhizae and stress memory to boost their resilience to climate change'. FCT/CEEC-6th EDITION (2024-2030). Foreign Expert Partner.
 - 'A whole-plant phenotyping platform to improve plant productivity, agricultural sustainability, and resilience to climate change'. RIF/STRATEGIC INFRASTRUCTURES 2023 (2024-2027). Partner.

Invited Presentations

- **Fotopoulos V** (2023). Reactive oxygen, nitrogen and sulfur species in plants under stress: the three musketeers to the rescue. *11th Conference of the Polish Society of Experimental Plant Biology*, 19-22 September 2023, Poznan, Poland.
- **Fotopoulos V** (2023). The role of reactive oxygen, nitrogen and sulfur species as regulators of plant abiotic stress responses. *IX International Plant Science Conference*, 13-16 September 2023, Pisa, Italy (**recorded presentation**).
- **Fotopoulos V** (2023). Next generation chemical priming as a green strategy for sustainable agriculture. *XII Italian Society of Plant Biology Congress*, 11-14 September 2023, Bari, Italy.
- **Fotopoulos V** (2023). Priming approaches towards a climate-smart agriculture. *International Conference on Innovations for Sustainable Crop Production in the Mediterranean Region*. 12-13 July 2023, Palermo, Italy (**invited but could not attend**).

- **Fotopoulos V** (2023). Employment of functionalized nanoparticles and polymers towards climate-smart crops. *ICAR 2023*, 5-9 June 2023, Chiba, Japan.
- **Fotopoulos V** (2023). Plant and seed priming as 'green' tools for sustainable agriculture under conditions of global climate change. *IV Biostimulants Conference*, 1-2 March 2023, Catania, Italy.
- **Fotopoulos V** (2023). Plant and seed priming as 'green' tools for sustainable agriculture under a changing climate. *Biostimulants.com*, 15 February 2023 (**webinar**).
- **Fotopoulos V** (2022). Priming technologies as 'green' tools for sustainable agriculture. *Biotechnological Approaches for a Sustainable Food Production*, 12-13 December 2022, Castellon, Spain.
- **Fotopoulos V** (2022). Elucidation of water deficit effects on 'Xynisteri' grapes through systems biology approaches. *8th International Conference on Drylands, Deserts and Desertification*, 27 November – 1 December 2022, Ben-Gurion, Israel.
- **Fotopoulos V** (2022). Plant and seed priming as 'green' tools for sustainable agriculture under a changing climate. *SABB2022*, 20-22 September 2022, Ghent, Belgium.
- **Fotopoulos V** (2022). Achieving yield security through plant priming. *Sustainable Food Systems Using Orphan Crops*, 24-25 June 2022, Athens, Greece.
- **Fotopoulos V** (2022). Plant and seed priming for improved growth and abiotic stress protection under a changing climate. *MPU 2022*, 4-8 April 2022, Limassol, Cyprus.
- **Fotopoulos V** (2022). Nanotechnological applications towards a sustainable agriculture. *6th World Plant Genomics and Plant Science Congress*, 29-30 April 2022, Osaka, Japan (**webinar**).
- **Fotopoulos V** (2022). Priming technologies in peach: where are we now, where do we go from here? *X International Peach Symposium*, 30 May-3 June 2022, Naoussa, Greece.
- **Fotopoulos V** (2022). Improvement of agricultural production through the use of advanced nanomaterials. *Advances and Innovations in Biotechnology and Allied Sciences – AIBAS 2022*, 24-25 March 2022, Chandigarh, India (**webinar**).
- **Fotopoulos V** (2022). Potential use of nanomaterials towards a sustainable agriculture. *Int-BIONANO 2022*, 10-11 February 2022, Gwalior, India (**webinar**).
- **Fotopoulos V** (2021). Pharmaceutically active compounds as emerging plant stressors. *2nd International Symposium on Water, Ecology and Environment (ISWEE 2021)*, 15-18 October 2021, Beijing, China (**invited but could not attend – webinar**).
- **Fotopoulos V** (2021). When nanotechnology meets agriculture: a recipe for success. *5th World Plant Genomics and Plant Science Congress*, 28-29 September 2021, Paris, France (**invited but could not attend - webinar**).
- **Fotopoulos V** (2021). Pharmaceutically active compounds in the plant stress physiology arena: a new kid on the block. *II Plant Abiotic Stress Forum – An Integrative Lense Over Plant Adaptation*, 29 May 2021, Porto, Portugal (**webinar**).
- **Fotopoulos V** (2021). Update on plant and seed priming technologies: when chemical biology meets materials science. *International Conference on Recent Advances in Agricultural Sciences*, 16-17 March 2021, Uttar Pradesh, India (**webinar**).
- **Fotopoulos V** (2020). Advanced nanomaterials in agriculture under a changing climate. *Plant Genomics and Plant Science 2020 Webinar*, 26 May 2020, Osaka, Japan (**webinar**).

- **Fotopoulos V** (2020). Update on plant and seed priming technologies: when chemical and biological agents meet nanomaterials? *BIO-SANGAM 2020*, 21-23 February 2020, Allahabad, India (*invited but could not attend*).
- Antoniou C, Savvides A, Georgiadou E, Ioannou A, **Fotopoulos V** (2020). Research activity of the Plant Stress Physiology Group at the Cyprus University of Technology. *1st Panhellenic Scientific Meeting of Plant Physiologists*, 7-8 February 2020, Athens, Greece.
- **Fotopoulos V** (2019). Bio stimulants and bio fertilizers: mechanisms of action at the whole-plant level. *International Conference on Integrative Plant Physiology*, 27-29 October 2019, Sitges, Spain.
- **Fotopoulos V** (2019). Employment of physiological, analytical and molecular approaches for the examination of quality attributes of loquat (*Eriobotrya japonica* L.) fruit. *3rd International Conference on Biologically Active Compounds in Food*, 19-20 September 2019, Lodz, Poland.
- **Fotopoulos V** (2019). Plant priming for improved growth and stress protection under climate change conditions. *3rd World Plant Genomics and Plant Science Congress*, 15-16 July 2019, Osaka, Japan.
- **Fotopoulos V** (2017). Bioactive compounds in peach fruit under cold storage. *2nd International Conference on Biologically Active Compounds in Food*, 9-10 November 2017, Lodz, Poland.
- **Fotopoulos V** (2015). On-tree tocochromanol biosynthesis in olive fruit. *International Conference on Biologically Active Compounds in Food*, 15-16 October 2015, Lodz, Poland.
- **Fotopoulos V** (2014). Employment of priming agents for improved plant performance under abiotic stress conditions. *Gordon Research Conference on Salt & Water Stress in Plants*, 3-8 August 2014, Newry, USA.
- **Fotopoulos V** (2014). Molecular characterization of flavonoid biosynthesis in grapes (*Vitis vinifera* L. cv. 'Syrah') under drought conditions. *COST Action FA1003, WG2 Meeting 'Advancement in phenotyping methodologies'*, 23-24 June 2014, Limassol, Cyprus.
- Georgiadou EC, Goulas V, Ntourou T, Manganaris GA, Kalaitzis P, **Fotopoulos V** (2013). High resolution temporal analysis of vitamin E biosynthetic pathway during olive fruit ripening. *4th Panhellenic Conference on Food Technology & Biotechnology*, 11-13 October, Athens, Greece (*invited but could not attend* – talk carried out by Mrs. E. Georgiadou).
- **Fotopoulos V** (2011). Successful participation in COST Action FA0605. *RPF Pancyriot COST Meeting*, 13 September 2011, Nicosia, Cyprus.
- Antoniou C, Filippou P, Ioannides I, Polidoros A, **Fotopoulos V** (2010). Exogenous nitric oxide application results in the modification of the antioxidant status of *Medicago truncatula* plants. *1st International Conference on Advances in Biotechnology-Industrial Microbial Biotechnology*, 2-5 November, Thessaloniki, Greece (*invited but could not attend* – talk carried out by Dr. P. Filippou).
- **Fotopoulos V** (2009). Genetically modified plants – technology and applications. *2009 Pancyriot Agricultural Exposition*. 25 October 2009, Nicosia, Cyprus.

Editorial Experience

- Journal of Horticultural Science & Biotechnology (Associate Editor; 2010-2021)
- Plant Signaling and Behavior (Associate Editor; 2011-2022)
- Journal of Experimental Botany (Reviewer Panel member, 2012-present)
- Frontiers in Plant Physiology (Associate Editor, 2016-present; Review Editor, 2012-2016)
- Journal of Agricultural Science and Technology A (Editorial Board member, 2012-2020)

- BMC Plant Biology (Associate Editor; 2013-2021)
- Advances in Horticultural Science (Associate Editor; 2013-2022)
- Gene (Associate Editor; 2013-2020)
- Frontiers in Agricultural Biological Chemistry (Review Editor, 2013-2018)
- Plant Gene (Associate Editor; 2014-2020)
- Frontiers in Crop Science and Horticulture (Associate Editor, 2015-2017)
- Recent Patents on Biotechnology (Regional Editor, 2016-2021)
- Frontiers in Plant Breeding (Associate Editor, 2017-2019)
- Frontiers in Plant Abiotic Stress (Associate Editor, 2017-2022)
- Plant Physiology and Biochemistry (Editorial Board member, 2018-2022; Associate Editor, 2023-**present**)
- Frontiers in Crop Biology and Sustainability (Review Editor, 2018-2022)
- Plants (Editorial Board Member, 2020-2022)
- Open Agriculture (Associate Editor, 2020-2020)
- Frontiers in Plant Symbiotic Interactions (Review Editor, 2020-2022)
- Annals of Applied Biology (Editorial Board Member, 2020-2022)
- Plant Stress (Editor-in-Chief; 2020-**present**)
- Plant Molecular Biology (Associate Editor; 2020-**present**)
- *Ad-hoc* reviewer for >220 international journals, including Trends in Plant Science, Current Biology, New Phytologist, Plant Physiology, Plant Biotechnology Journal, Plant Journal, Plant Cell and Environment, Nano Letters, Water Research etc.

Research Proposal Evaluation

- Reviewer for GSRT (GR) doctoral research proposals 'Heracleus II'.
- Reviewer for CONICYT (CH) research proposals 'FONDECYT'.
- Reviewer for MIUR/CINECA (IT) research proposals 'PRIN (2010-2011, 2015, 2017, 2020, 2022)', 'Futuro in Ricerca 2012', and 'VQR 2011-2014'.
- Reviewer for FCT (PT) research proposals 'AGR' and 'BIA'.
- Reviewer for ISF (IL) research proposals 'IRG'.
- Reviewer for IMST (IL) research proposals 'Italy-Israel'.
- Reviewer for FWO (BE) postdoctoral fellowship proposals 'BIO1', 'BIO2' and 'BIO4', 'Odysseus' funding programme and 'Bilateral Scientific Cooperation South Africa'.
- Reviewer for QNRF (QA) research proposals 'NPRP' and 'UREP'.
- Reviewer for FWF (AT) research proposals 'IPN'.
- Reviewer for ANR (FR) research proposals 'CE02 – Living Earth', 'CE20 -Biologie des animaux, des organismes photosynthétiques et des microorganismes' (Generic Call 2020, 2021, 2022) and 'Priority Research Programme'.
- Reviewer for CUT (CY) Start-up Grants 'CY100RES'.
- Reviewer for IFD (DK) research proposals 'Green Development and Demonstration programme', 'Grand Solutions (2016, 2018, 2020)'.
- Reviewer for GACR (CZ) research proposals 'Standard Projects 2022'.
- Reviewer for SFRS (RS) research proposals 'IDEAS' and 'PROMIS 2023'.

- Reviewer for NSC (PL) research proposals 'POLONEZ-1', 'POLONEZ BIS-2', 'OPUS-20', 'OPUS-21', 'SONATA-16', 'SONATA-17' and 'SONATA-18'.
- Reviewer for LIAA (LV) research proposals 'European Regional Development Fund'.
- Reviewer for LCS (LV) research proposals 'Fundamental and Applied Research'.
- Reviewer for CFLA (LV) research proposals 'Industry-Driven Research' and mid-term and final reports for 'Industry-Driven Research' proposals.
- Reviewer for BBSRC (UK) research proposals 'Institute Strategic Programme Grant - Rothamsted'.
- Reviewer for ARC (AU) research proposals 'Australian Laureate Fellowships', 'Industry Laureate Fellowships', 'Discovery Fellowships' and 'Early Career Industry Fellowships'.
- Reviewer for MTA (HU) research proposals 'Lendület Momentum 2023'.
- Reviewer for Eureka (EU) research proposals 'Eurostars'.
- Reviewer for PRIMA (EU) midterm and final reports for 'Section 2 - Multitopic' proposals.
- Reviewer for University of Insubria (IT) post-doctoral position research proposals 'Assegni di Ricerca SENIOR' and 'Assegni di Ricerca JUNIOR'.
- Reviewer for University of Pavia (IT) post-doctoral position research proposals 'Blue Sky Research'.
- Reviewer for University of Calabria (IT) post-doctoral position research proposals 'Proposte Assegni di Ricerca'.
- Reviewer for University of Florence (IT) research proposals 'Young Independent Researchers'.
- External Expert for NSC (PL) proposals in the 'OPUS-22' evaluation panel for Life Sciences NZ9 (Fundamentals of applied life sciences and biotechnology).
- Review Panel Member for University of Thessaly (GR) doctoral fellowship proposals in the field of Life Sciences.
- Review Panel Member for EYDE-ETAK (GR) proposals 'Research-Create-Innovate 2017' in the field of 'Agronutrition and Food Industry'.
- Review Panel Member for COST Action (EU) proposals for the open call OC-2018-2: Review Panel 3 - Interdisciplinary networks for a sustainable future: a focus on life and environmental sciences.
- Review Panel Member for FWO (BE) proposals in the 'BIO1PD' 2020 post-doctoral fellowship panel in the field of 'Molecular and Cellular Biology'.
- Review Panel Member for FWO (BE) proposals in the 'BIO1ASP' 2020 doctoral fellowship panel in the field of 'Molecular and Cellular Biology'.
- Review Panel Member for PRIMA (EU) proposals in the 'Section 2 – Multitopic 2021' evaluation panel for Topic 2.2.1 (RIA) 'Up-scaling field practices based on agroecological practices to increase ecosystem services and biodiversity, to adapt the small farming systems to climate change and to increase farmers incomes'.
- Review Panel Member for NSC (PL) proposals in the 'PRELUDIUM 2021' evaluation panel for Life Sciences NZ9 (Fundamentals of applied life sciences and biotechnology).
- Review Panel Member for NSC (PL) proposals in the 'PRELUDIUM 2022' evaluation panel for Life Sciences NZ9 (Fundamentals of applied life sciences and biotechnology).
- Review Panel Member for GSRT (GR) proposals in the 'AGRO 2023' evaluation panel for proposals submitted to the 'Emblematic Actions' call.
- Review Panel Member for Horizon Europe (EU) proposals in the Cluster Six Call, Topic '2023-BIODIV-01-14: Biodiversity friendly practices in agriculture – breeding for Integrated Pest Management (IPM)' evaluation panel.

- Review Panel Member for FCT (PT) proposals in the 'CEECLnd 6th Edition - 2023' evaluation panel in the field of Biological Sciences.

Academic Institution Evaluation

- Invitation by the Hellenic Quality Assurance Agency of Higher Education (HQAA) to participate in the External Evaluation process (as a Committee member) of the Department of Food Technology/TEI of Kalamata. Athens & Kalamata (Greece), 26 May-1 June 2013.
- Invitation by the Hellenic Quality Assurance Agency of Higher Education (HQAA) to participate in the External Evaluation process (as a Committee member) of the Department of Food Technology/TEI of Ionian Isles. Athens & Argostoli (Greece), 3-8 February 2014.
- Invitation by the Hellenic Quality Assurance Agency of Higher Education (HQAA) to participate in the External Accreditation process (as a Committee member) of the University of Ioannina. Athens & Ioannina (Greece), 4-10 November 2018.
- Invitation by the Hellenic Quality Assurance Agency of Higher Education (HQAA) to participate in the External Accreditation process (as a Committee member) of the Undergraduate programme in Biotechnology of the Agricultural University of Athens. Athens (Greece), 11-17 November 2019.
- Invitation by the Hellenic Quality Assurance Agency of Higher Education (HQAA) to participate in the External Accreditation process (as a Committee member) of the Undergraduate programme in Agriculture (Integrated Master) of the Aristotle University of Thessaloniki. Thessaloniki (Greece), 1-6 February 2021.
- Invitation by the Hellenic Quality Assurance Agency of Higher Education (HQAA) to participate in the External Accreditation process (as a Committee member) of the Undergraduate Programme in Agriculture Development, Agri-Food and Natural Resources Management of the National and Kapodistrian University of Athens. 19-24 June 2023.

PhD/MSc Thesis External Evaluation

- External Examiner for the awarding of a PhD title to Mrs. Giulia Atzori at the University of Florence, Italy (February 2017).
- External Examiner for the awarding of a PhD title to Mr. Xavier Zarza at the University of Amsterdam, The Netherlands (March 2017).
- External Examiner for the MSc thesis of Ms. Khansa Mekkaoui at Mediterranean Agronomic Institute of Chania Crete, Greece (November 2018).
- External Examiner for the MSc thesis of Ms. Dominic Vogel at Stellenbosch University, South Africa (December 2018).
- External Examiner for the awarding of a PhD title to Mrs. Maria Patsalou at the Cyprus University of Technology, Cyprus (December 2019).
- External Examiner for the awarding of a PhD title to Mrs. Martina Chatzigianni at the Agricultural University of Athens, Greece (November 2020).
- External Examiner (Substitute) for the awarding of a PhD title to Mrs. Nazanin Arafaty at the University of Barcelona, Spain (April 2021).
- External Examiner for the awarding of a PhD title to Mrs. Sylvia Kalli at Wageningen University & Research, The Netherlands (May 2021).

- External Examiner (Substitute) for the awarding of a PhD title to Mr. Arnau Fiol Garví at the Autonomous University of Barcelona, Spain (April 2022).
- External Examiner for the awarding of a PhD title to Mrs. Stella Parmaki at the Cyprus University of Technology, Cyprus (April 2022).
- External Examiner for the awarding of a PhD title to Mr. Beppe Benedetto Consentino at The University of Palermo, Italy (December 2022).
- External Examiner for the awarding of a PhD title to Mr. Mikias Wondimu Mulat at Sharda University, India (January 2023).