Curriculum Vitae

PERSONAL INFORMATION

SURNAME: **NIANIOU-OBEIDAT**
NAME: **IRINI**
e-mail: **nianiou@agro.auth.gr**
TEL.: 2310-998617

Scopus ID: 10042732500
ORCID Number: https://orcid.org/0000-0001-5838-6370
Google Scholar:
https://scholar.google.com/citations?hl=el&user=7lirqVEAAAAJ&view_op=list_works&sortby=pubdate

CURRENT POSITION

Professor Lab of Genetics and Plant Breeding, School of Agriculture, Forestry and Natural Environment, Aristotle University of Thessaloniki, Greece. «Tissue culture and molecular technology in plant breeding »
Visiting professor, Agriculture University of Athens, Greece
Collaborating Researcher, CERTH-INAB, Thermi, Greece.

EDUCATION

1986-1989 Ph.D: Agricultural University of Prague, Czech Republic, graduation with distinction (Top 5%).

1984-1986 Agricultural University of Prague, Czech Republic, Research Project founded by FAO (VII-3-10/01)

1979-1984 Msc Agricultural University of Prague, Czech Republic. Graduation with a general grade (A), «Student of the Year Award».

POST-DOCTORAL SERVICE AND EXPERIENCE

1989-1990 Post-doctoral fellow, Agriculture University of Prague, Dept. of Tropical and Subtropical Plants and Dept. of Physiology and Botany, Czech Republic.

1991-1993 Post-doctoral fellow, School of Agriculture, Laboratory of Genetics and Plant Breeding, Aristotle University of Thessaloniki, Greece.

1993-1996 Vitro Hellas company: The Head of the Research and Development (R&D) Department

1994 Benaki Phytopathological Institute, Athens, Greece.

1997 Limagrain group (Vilmorin & Clause Co.) Dept. of Biotechnology, Nîmes, France.

1998 Plant Embryogenesis - Embryogenic Potential and Transformation of Gametic and Somatic Cells, Joint Cost Action 822 & 824, Dublin, Ireland. Founded by Scientific Secretaries of European Commission

1998 Mediterranean Agronomic Institute of Chania (CIHEAM), Crete, Greece. The Horticultural Genetics & Biotechnology Department: "Plant biotechnology and applications". International Centre for Advanced Mediterranean Agronomic Studies.

1999 The Academy of Sciences of the Czech Republic, Institute of Plant Molecular Biology, Ceske Budejovice and Agriculture University of Prague, Czech Republic. Education Program founded by Greek Ministry of Education, Religious Affairs and Sports and the Czech Ministry of Education.

FELLOWSHIPS and AWARDS

1986-1989 Ph.D Scholarship, Ministry of Education, Czech Republic. Dept. of Tropical and Subtropical Plants and Dept. of Physiology and Botany, Agricultural University of Prague, Czech Republic.

1999 Postdoctoral Scholarship, Ministry of Education, Czech Republic and Ministry of Education and Religious Affairs, Greece. Lab of Genetics and Plant Breeding, School of Agriculture, Aristotle University of Thessaloniki, Greece

1984 Rector's Award for the best thesis in MSc degree «Student of the Year Award», Agriculture University of Prague, Czech Republic.

1986-1989 PhD thesis. Graduation with distinction (Top 5%), Agriculture University of Prague, Czech Republic.

AREA OF EXPERTISE

Research covers many areas of biotechnology, including plant genetics and breeding via *in vitro* techniques, genetic engineering, and the application of CRISPR-Cas technology in plant breeding. Plant tolerance to various biotic and abiotic stresses using molecular tools. Study of genetic and epigenetic changes in plant grafting with omics technologies. Plant tissue culture in the production of propagation material.

TEACHING EXPERIENCE

Undergraduate courses

(N510Y) Plant Breeding
(N658E) Genetics and Plant Breeding
(N548E) Production and Distribution of Seeds and Clonal Propagated Material
(N555E) Plant Biotechnology
(N539E) Molecular Biology
(N700Y) Practical skills

Postgraduate courses

PRP 'Genetics, Plant Breeding and Production of Plant Propagation Material'
(GPP101) Molecular Breeding and Biotechnology
(GPP106) Production, Technology, Management and Marketing of Seeds and Plant Propagating Material
(GPP103) Plant Genetic Resources and Propagation material
(GPP102) Master's Research approach

SUPERVISION OF GRADUATE STUDENTS AND POSTDOCTORAL FELLOWS

She has supervised 5 doctoral dissertations, 45 master's theses (3 awarded a 'Christidis P (2014,2017, 2018) and 1 a 'Papadaki Prize' 2025), and over 70 undergraduate theses, one as co supervisor with Dr. Roger Miles**,** King's College, University of London. U.K. (first class, 71%).

PUBLICATIONS

Selected publications in SCI (IF)

2026 Aikaterini Papanikolaou, Maria Irakli, Konstantinos Kampas, Chrysanthi Pankou, Irini Nianiou-Obeidat, Athanasios G. Mavromatis *. Identification of Seed Quality and Nutritional Components in Chickpea Breeding Lines Using Chemical and Spectrometric Methods. Seeds **2026**, *5*(1), 8; .https://doi.org/10.3390/seeds5010008

2026 Anna Pitsikoglou *, Georgios C. Menexes, Zoi M. Parissi, Maria Irakli, Irini Nianiou-Obeidat, Eleni M. Abraham, Athanasios G. Mavromatis *. Evaluation of lupin varieties and assessment of adaptability to neutral pH soils recording of morphological, agronomical, and seed quality characteristics. *Agronomy 16*(3), 289; https://doi.org/10.3390/agronomy16030289

2024 Alexios Polidoros; Irini Nianiou-Obeidat; Nikolaos Tsakirpaloglou; Nestor Petrou; Eleftheria Deligiannidou; Nefeli-Maria Makri. Genome-Editing Products Line up for the Market: Will Europe Harvest the Benefits from Science and Innovation? DOI: 10.3390/genes15081014

2024 Georgia-Maria Nteve; Stefanos Kostas; Alexios N. Polidoros; Panagiotis Madesis; Irini Nianiou-Obeidat. AgricultureAdaptation Mechanisms of Olive Tree under Drought Stress: The Potential of Modern Omics Approaches.
DOI: 10.3390/agriculture14040579

2024 Symela Ntoanidou, Aikaterini Kaplani , Charikleia Paloukopoulou, Christos Bazakos, Efstathia Patelou , Lemonia Doukidou , Aikaterini-Angeliki Kotoula , Evangelos Gklavakis, Stefanos Hatzilazarou , Anastasia Karioti , Eirini Nianiou-Obeidat , Stefanos Kostas, Angelos K. Kanellis. Identification of high carnosic acid rosemary (*Salvia rosmarinus* Spenn.) genotypes through genetic diversity exploitation, chemical profiling, and transcriptomic approaches. Industrial Crops & Products 214 (2024) 118562. https://doi.org/10.1016/j.indcrop.2024.118562

2024 Anastasia Boutsika Aliki Xanthopoulou Georgia Tanou Maria –Evangelia Zacharatou Michalis Vernikos Irini Nianiou-Obeidat Ioannis Ganopoulos Ifigeneia Mellidou. 2024. A microbiome survey of contrasting potato terroirs using 16S rRNA long-read sequencing. Plant Soil https://doi.org/10.1007/s11104-024-06686-8

2023 Nanos C, Tsoulpha P, Kostas S, Hatzilazarou S, Michail I, Anastasiadi V, Pipinis E, Gklavakis E, Kanellis AK, Nianiou-Obeidat I. Asexual Propagation of Greek *Salvia officinalis* L. Populations Selected for Ornamental Use. *Horticulturae* 9(7):847. DOI: 10.3390/horticulturae9070847

2023 Anastasia Boutsika, Michail Michailidis, Maria Ganopoulou, Athanasios Dalakouras,1 Christina Skodra, Aliki Xanthopoulou, George Stamatakis, Martina Samiotaki, Georgia Tanou, Theodoros Moysiadis, Lefteris Angelis, Christos Bazakos, Athanassios Molassiotis, Irini Nianiou-Obeidat, Ifigeneia Mellidou* and Ioannis Ganopoulos. A wide foodomics approach coupled with metagenomics elucidates the environmental signature of potatoes. iScience 26, 105917, e (http://creativecommons.org/licenses/by-nc-nd/4.0/).

2023 Styliani Alexandri , Maria Tsaktsira , Stefanos Hatzilazarou , Stefanos Kostas , Irini Nianiou-Obeidat ,Athanasios Economou , Apostolos Scaltsoyiannes and Parthena Tsoulpha. Selection for Sustainable Preservation through In Vitro Propagation of Mature Pyrus spinosa Genotypes Rich in Total Phenolics and Antioxidants. Sustainability, 15, 4511. https://doi.org/10.3390/su15054511

2023 Athanasios Mavromatis , Irini Nianiou-Obeidat , Alexios Polidoros , Zoi Parissi , Eleni Tani , Maria Irakli ,Konstantinos A. Aliferis, Ioannis Zafeiriou , Photini V. Mylona, Efi Sarri , Evgenia-Anna Papadopoulou , Rafail Tagiakas , Leonidas Kougiteas , Stavroula Kostoula and Eleni M. Abraham. Characterization of Lupin Cultivars Based on Phenotypical, Molecular and Metabolomic Analyses. *Agronom 13*, 370. https://doi.org/10.3390/agronomy13020370

2023 Eleni Avramidou , Ioannis Ganopoulos , Photini Mylona , Eleni M. Abraham, Irini Nianiou-Obeidat, Maslin Osathanunkul and Panagiotis Madesis. Comparative Analysis of the Genetic Diversity of Faba Bean (Vicia faba L.). Sustainability, 15, 1016. https://doi.org/10.3390/su15021016)

2023 Ekaterini Koura, Adamantia Pistikoudi, Margaritis Tsifintaris , George Tsiolas Evangelia Mouchtaropoulou , Christos Noutsos, Triantafyllos Karantakis , Athanasios Kouras, Athanasios Karanikolas, Anagnostis Argiriou , Irini Nianiou-Obeidat , Photini V. Mylona and Alexios N. Polidoros. The Effect of Phosphorus Fertilization on Transcriptome

Expression Profile during Lentil Pod and Seed Development. Appl. Sci., 13, 11403. https://doi.org/10.3390/app132011403

2023 Styliani Alexandri , Maria Tsaktsira , Stefanos Hatzilazarou , Stefanos Kostas , Irini Nianiou-Obeidat ,Athanasios Economou , Apostolos Scaltsoyiannes and Parthena Tsoulpha**.** Selection for Sustainable Preservation through In Vitro Propagation of Mature Pyrus spinosa Genotypes Rich in Total Phenolics and Antioxidants. Sustainability, 15, 4511. http://dx.doi.org/10.3390/su15054511

2023 Athanasios Mavromatis , Irini Nianiou-Obeidat , Alexios Polidoros , Zoi Parissi , Eleni Tani , Maria Irakli ,Konstantinos A. Aliferis, Ioannis Zafeiriou , Photini V. Mylona, Efi Sarri , Evgenia-Anna Papadopoulou , Rafail Tagiakas , Leonidas Kougiteas , Stavroula Kostoula and Eleni M. Abraham. Characterization of Lupin Cultivars Based on Phenotypical, Molecular and Metabolomic Analyses. *Agronom 13*, 370. https://doi.org/10.3390/agronomy13020370

2023 Christos Nanos; Parthena Tsoulpha; Stefanos Kostas; Stefanos Hatzilazarou; Ioanna Michail; Vasiliki Anastasiadi; Elias Pipinis; Evangelos Gklavakis; Angelos K. Kanellis; Irini Nianiou-Obeidat. Asexual Propagation of Greek Salvia officinalis L. Populations Selected for Ornamental Use. Horticulturae. http://dx.doi.org/10.3390/horticulturae9070847

2022 Stefanos Kostas, Aikaterini Kaplani , Efthymia Koulaouzidou , Aikaterini-Angeliki Kotoula , Evangelos Gklavakis , Parthena Tsoulpha , Stefanos Hatzilazarou , Irini Nianiou-Obeidat ,Angelos K. Kanellis and Athanasios Economou. Sustainable Exploitation of Greek Rosmarinus officinalis L. Populations for Ornamental Use through Propagation by Shoot Cuttings and In Vitro Cultures. Sustainability, 14, 4059. https://doi.org/10.3390/su14074059.

2022 Eirini Sarrou, Lemonia Doukidou, Evangelia V. Avramidou, Stefan Martens, Andrea Angeli , Rafaela Stagiopoulou, Nikolaos M. Fyllas, Nikos Tourvas , Eleni Abraham, Eleni Maloupa, Irini Nianiou-Obeidat, Ioannis Ganopoulos, Nikos Krigas. 2022 Chemodiversity is closely linked to genetic and environmental diversity: Insights into the endangered populations of the local endemic plant *Sideritis euboea* Heldr. of Evia Island (Greece) Journal of Applied Research on Medicinal and Aromatic Plants 31 100426. https://doi.org/10.1016/j.jarmap.2022.100426

2022 R. I. Tagiakas, I. D. Avdikos, A. Goula3, K. Koutis, Irini Nianiou-Obeidat1 and A. G. Mavromatis. Characterization and evaluation of Greek tomato landraces for productivity and fruit quality traits related to sustainable low-input farming systems. Frontiers in Plant Science DOI 10.3389/fpls.2022.994530

2022 Anastasia Boutsika , Georgia Tanou , Aliki Xanthopoulou , Martina Samiotaki , Irini Nianiou-Obeidat , Ioannis Ganopoulos ,*Ifigeneia Mellidou * 2022. Insights and advances in integrating multi-omic approaches for potato crop improvement Scientia Horticulturae 305 111387. https://doi.org/10.1016/j.scienta.2022.111387

2021 Evangelia Stavridou, Ioannis Giannakis, Ioanna Karamichali, Nathalie N. Kamou, George Lagiotis, Panagiotis Madesis, Christina Emmanouil, Athanasios Kungolos, Irini Nianiou-Obeidat* and Anastasia L. Lagopodi *2021. Biosolid-Amended Soil Enhances Defense Responses in Tomato Based on Metagenomic Profile and Expression of Pathogenesis-Related Genes. Plants 10*(12)*,2789 ; http://dx.doi.org/10.3390/plants10122789

2021 Maria Tsaktsira , Eleana Chavale , Stefanos Kostas , Elias Pipinis , Parthena Tsoulpha 1,Stefanos Hatzilazarou , Fotios-Theocharis Ziogou , Irini Nianiou-Obeidat , Ivan Iliev , Athanasios Economou and Apostolos Scaltsoyiannes . Vegetative Propagation and ISSR-Based Genetic Identification of Genotypes of Ilex aquifolium 'Agrifoglio Commune'. Sustainability 13, 10345. https://doi.org/10.3390/su131810345

2021 Vaia Styliani Titeli , Ioannis Zafeiriou , Angeliki Laskaridou , Georgios Menexes, Panagiotis Madesis , Evangelia Stavridou and Irini Nianiou-Obeidat *. Development of a Simple and Low-Resource Regeneration System of Two Greek Tomato Varieties.

Agriculture 11, 412. https://doi.org/10.3390/agriculture11050412. ***The manuscript was selected as the cover of Issue 5, Volume 11, 2021***

2021 Evangelia Stavridou , Georgia Voulgari , Michail Michailidis , Stefanos Kostas , Evangelia G. Chronopoulou , Nikolaos E. Labrou , Panagiotis Madesis and Irini Nianiou-Obeidat*. Overexpression of A Biotic Stress-Inducible Pvgstu Gene Activates Early Protective Responses in Tobacco under Combined Heat and Drought. *Int. J. Mol. Sci.* *22*(5), 2352 https://doi.org/10.3390/ijms22052352

2021 Aphrodite Tsaballa , Aliki Xanthopoulou , Panagiotis Madesis , Athanasios Tsaftaris and Irini Nianiou-Obeidat *. Vegetable Grafting From a Molecular Point of View: The Involvement of Epigenetics in Rootstock-Scion Interactions. Frontiers in Plant Science, Volume 11, Article 621999 doi: 10.3389/fpls.2020.621999

2020 Lefkothea Karapetsi, Irini Nianiou-Obeidat , Antonios Zambounis ,Maslin Osathanunkul, Panagiotis Madesis. Molecular screening of domestic apple cultivars for scab resistance genes in Greece. Czech Journal of Genetics and Plant Breeding, 56, (1) https://doi.org/10.17221/119/2019-CJGPB

2020 Ifigeneia Mellidou , Konstantinos Krommydas, Irini Nianiou-Obeidat, Georgia Ouzounidou, Apostolos Kalivas and Ioannis Ganopoulos. Exploring morpho-physiological profiles of a collection of tomato (Solanum lycopersicum) germplasm using multivariate statistics. Plant Genetic Resources: Characterization and Utilization; 1–10, doi:10.1017/S1479262120000088

2020 Aphrodite Tsaballa, Eirini Sarrou, Aliki Xanthopoulou, Eleni Tsaliki, Christos Kissoudis, Evangelos Karagiannis, Michail Michailidis, Stefan Martens, Elektra Sperdouli, Zoe Hilioti, Vasileios Fotopoulos, Irini Nianiou-Obeidat, Athanasios Tsaftaris, Panagiotis Madesis, Apostolos Kalivas,, Ioannis Ganopoulos. Comprehensive approaches reveal key transcripts and metabolites highlighting metabolic diversity among three oriental tobacco varieties. Industrial Crops & Products 143 (111933). https://doi.org/10.1016/j.indcrop.2019.11193

2021 Vaia Styliani Titeli , Ioannis Zafeiriou , Angeliki Laskaridou , Georgios Menexes, Panagiotis Madesis , Evangelia Stavridou and Irini Nianiou-Obeidat *. Development of a Simple and Low-Resource Regeneration System of Two Greek Tomato Varieties. Agriculture 11, 412. https://doi.org/10.3390/agriculture11050412

2021 Evangelia Stavridou , Georgia Voulgari , Michail Michailidis , Stefanos Kostas , Evangelia G. Chronopoulou , Nikolaos E. Labrou , Panagiotis Madesis and Irini Nianiou-Obeidat*. Overexpression of A Biotic Stress-Inducible Pvgstu Gene Activates Early Protective Responses inTobacco underCombined Heat and Drought. Int. J. Mol. Sci., 22, 2352. https://doi.org/10.3390/ijms22052352

2021 Aphrodite Tsaballa , Aliki Xanthopoulou , Panagiotis Madesis , Athanasios Tsaftaris and Irini Nianiou-Obeidat *. Vegetable Grafting From a Molecular Point of View: The Involvement of Epigenetics in Rootstock-Scion Interactions. Frontiers in Plant Science, Volume 11, Article 621999 doi: 10.3389/fpls.2020.621999

2020 Lefkothea Karapetsi, Irini Nianiou-Obeidat , Antonios Zambounis ,Maslin Osathanunkul, Panagiotis Madesis. Molecular screening of domestic apple cultivars for scab resistance genes in Greece. Czech Journal of Genetics and Plant Breeding, 56, (1) https://doi.org/10.17221/119/2019-CJGPB

2020 Exploring morpho-physiological profiles of a collection of tomato (Solanum lycopersicum) germplasm using multivariate statistics. Ifigeneia Mellidou , Konstantinos Krommydas, Irini Nianiou-Obeidat, Georgia Ouzounidou, Apostolos Kalivas and Ioannis Ganopoulos. Plant Genetic Resources: Characterization and Utilization; 1–10, doi:10.1017/S1479262120000088

2020 Exploring morpho-physiological profiles of a collection of tomato (*Solanum lycopersicum*) germplasm using multivariate statistics. Ifigeneia Mellidou, Konstantinos Krommydas, Irini Nianiou-Obeidat , Georgia Ouzounidou, Apostolos Kalivas and Ioannis

Ganopoulos. Plant Genetic Resources: Characterization and Utilization, 1–10, doi:10.1017/S1479262120000088

2020 Aphrodite Tsaballa, Eirini Sarrou, Aliki Xanthopoulou, Eleni Tsaliki, Christos Kissoudis, Evangelos Karagiannis, Michail Michailidis, Stefan Martens, Elektra Sperdouli, Zoe Hilioti, Vasileios Fotopoulos, Irini Nianiou-Obeidat, Athanasios Tsaftaris, Panagiotis Madesis, Apostolos Kalivas,, Ioannis Ganopoulos. Comprehensive approaches reveal key transcripts and metabolites highlighting metabolic diversity among three oriental tobacco varieties. Industrial Crops & Products 143 (111933). https://doi.org/10.1016/j.indcrop.2019.111933

2019 Eleni M. Abraham, Ioannis Ganopoulos , Panagiotis Madesis, Athanasios Mavromatis, Photini Mylona , Irini Nianiou-Obeidat , Zoi Parissi , Alexios Polidoros , Eleni Tani and Dimitrios Vlachostergios. The Use of Lupin as a Source of Protein in Animal Feeding: Genomic Tools and Breeding Approaches Int. J. Mol. Sci., 20 (4), 851. doi:10.3390/ijms20040851

2019 Tolerance of transplastomic tobacco plants overexpressing a theta class glutathione transferase to abiotic and oxidative stresses. E. Stavridou, M. Michailidis, S. Gedeon, A. Ioakeim, S. Kostas, E. Chronopoulou, R. Edwards, A. Day, N. E. Labrou, I. Nianiou-Obeidat, P. Madesis. Frontiers in Plant Science, 9(1861),. doi: 10.3389/fpls.2018.01861

2019 E. Stavridou, N. A. Tzioutziou, P. Madesis N. E. Labrou and I. Nianiou-Obeidat. Effect of different factors in regeneration and transformation efficiency of tomato (*Lycopersicum esculentum*) hybrids. Czech J. Genet. Plant Breed, 55: 120-127,. doi: 10.17221/61/2018-CJGPB

2019 Xanthopoulou, A. and Tsaballa, A. and Ganopoulos, I. and Kapazoglou, A. and Avramidou, E. and Aravanopoulos, F.A. and Moysiadis, T. and Osathanunkul, M. and Tsaftaris, A. and Doulis, A.G. and Kalivas, A. and Sarrou, E. and Martens, S. and Nianiou-Obeidat, I. and Madesis P. Intra-species grafting induces epigenetic and metabolic changes accompanied by alterations in fruit size and shape of *Cucurbita pepo*. L . Plant Growth Regulation 87(1):93-108, doi: 10.1007/s10725-018-0456-7

2018 Evangelia G. Chronopoulou, Anastassios C. Papageorgiou, Farid Ataya, Irini Nianiou-Obeidat , Panagiotis Madesis and Nikolaos E. Labrou. Expanding the Plant GSTome Through Directed Evolution: DNA Shuffling for the Generation of New Synthetic Enzymes With Engineered Catalytic and Binding Properties. Frontiers in Plant Science,Volume 9, Article 1737, doi: 10.3389/fpls.2018.01737

2018 Evangelia G. Chronopoulou, Anastassios C. Papageorgiou, Farid Ataya, Irini Nianiou-Obeidat, Panagiotis Madesis, Nikolaos E. Labrou. Expanding the plant GSTome through directed evolution: DNA shuffling for the generation of new synthetic enzymes with engineered catalytic and binding properties. Frontiers in Plant Science 9(1737),(doi: 10.3389/fpls.2018.01737).

2018 Maria Papaioanou, Evangelia G Chronopoulou, Gheorghii Ciobotari, Rodica C Efrose, Liliana Sfichi-Duke, Marianna Chatzikonstantinou, Evangelia Pappa, Ioannis Ganopoulos**,** Panagiotis Madesis, Irini Nianiou-Obeidat, Taofen Zeng, Nikolaos E Labrou. Cosmeceutical Properties of Two Cultivars of Red Raspberry Grown under Different Conditions. Cosmetics 5 (20):1-17**,** doi:10.3390/cosmetics5010020

2018 Papaioanou M, Chronopoulou EG, Ciobotari G, Efrose RC, Sfichi-Duke L, Chatzikonstantinou M, Pappa E, Ganopoulos I, Madesis P, Nianiou-Obeidat I et al **.**Evaluation of the Nutraceutical and Cosmeceutical Potential of Two Cultivars of Rubus fruticosus L. under Different Cultivation Conditions. Curr Pharm Biotechno, 18(11):890-899.

2018 E. Stavridou, G. Voulgari, I. Bosmali, E. G. Chronopoulou, L. Lo Cicero, A. Roberta Lo Piero, A. Tsaftaris, I. Nianiou-Obeidat, N. E. Labrou, P. Madesis. Plant Adaptation to Stress Conditions: The Case of Glutathione S-Transferases (GSTs). In: Biotic and Abiotic Stress Tolerance in Plants. Springer, Singapore. p. 173-202,. doi: 10.1007/978-981-10-9029-5_7

2017 I. Nianiou-Obeidat, P. Madesis, C. Kissoudis, G. Voulgari, E. Chronopoulou, A. Tsaftaris, N. E. Labrou. Plant glutathione transferase mediated stress tolerance: functions and

biotechnological Applications. Plant Cell Report 36(6): 791-805.

2017 A. Xanthopoulou, I. Ganopoulos, F. Psomopoulos, M. Manioudaki, T. Moysiadis, A. Kapazoglou, Maslin Osathanunkul S. Michailidou, A. Kalivas, A. Tsaftaris, I. Nianiou-Obeidat, P. Madesis. *De novo* comparative transcriptome analysis of genes involved in fruit morphology of pumpkin cultivars with extreme size difference and development of EST-SSR markers. Gene 622: 50-66,

2016 P. Madesis, I. Ganopoulos, A. Xanthopoulou, A. Tsaftaris, I. Nianiou-Obeidat. Perspectives of Genome Editing in Plant Breeding. Advances in Plants & Agriculture Research 3(6).

2016 Xanthopoulou , F. Psomopoulos, I. Ganopoulos, M. Manioudaki, A. Tsaftaris, I. Nianiou-Obeidat, P. Madesis. Genomics *De novo* trascriptome assembly of two contrasting pumpkin cultivars Data 7: 200-201.

2015 A.Tsaballa, I. Ganopoulos, A.Timplalexi, A. Xanthopoulou, I. Bosmali, I. Nianiou-Obeitat, A. Tsaftaris, P, Madesis. Molecular characterization of Greek pepper (*Capsicum annuum* L) landraces with neutral (ISSR) and gene-based (SCoT and EST-SSR) molecular markers Biochemical Systematics and Ecology 59:256-263..

2015 Xanthopoulou, I. Ganopoulos, A. Kalivas, I. Nianiou-Obeidat, P. Ralli, T. Moysiadis, A. Tsaftaris, P. Madesis. Comparative analysis of genetic diversity in Greek Genebank collection of summer squash (*Cucurbita pepo*) landraces using start codon targeted (SCoT) polymorphism and ISSR markers. Australian Journal of Crop Science 9 (1): 14-21.

2015 Kissoudis, C. Kalloniati, O. Pavli, E. Flemetakis, P. Madesis, N. E. Lambrou, G. Scarakis, A. Tsaftaris, I. Nianiou-Obeidat. Stress-inducible GmGSTU4 shapes transgenic tobacco plants metabolome towards increased salinity tolerance. Acta Physiol Plant 37:102 (1-11)..

2014 Xanthopoulou, I. Ganopoulos, A. Tsaballa, I. Nianiou-Obeidat, A. Kalivas, A. Tsaftaris, P. Madesis. Summer Squash Identification by High-Resolution-Melting (HRM) Analysis Using Gene-Based EST–SSR Molecular Markers. Plant Molecular Biology Reporter, 32: 395-405.

2013 Tsaballa, C. Athanasiadis, K. Pasentsis, I. Ganopoulos, I. Nianiou-Obeidat, A. Tsaftaris Molecular studies of inheritable grafting induced changes in pepper (*Capsicum annuum*) fruit shape. Scientia Horticulturae 149: 2–8.

2011 P. Madesis, E. Konstantinidou, A. Tsaftaris, I. Nianiou-Obeidat. Micropropagation and shoot regeneration of *Cistus Creticus* ssp. *Creticus.* Journal of Applied Pharmaceutical Science 1(8):54-58.

2010 P. Madesis, M. Osathanunkul, U. Georgopoulou, M.F.Gisby, E.A. Mudd, I. Nianiou, P. Tsitoura, P. Mavromara, A.Tsaftaris, A. Day. A hepatitis C virus core polypeptide expressed in chloroplast detects anti-core antibodies in infected human sera. Journal of Biotechnology 145 (4): 377-386.

2010 K. Benekos, C. Kissoudis, I. Nianiou-Obeidat, N. Labrou, P. Madesis, M. Kalamaki, A. Makris, A. Tsaftaris. Overexpression of a specific soybean GmGSTU4 isoenzyme improves diphenylether and chloroacetanilide herbicide tolerance of transgenic tobacco plants. Journal of Biotechnology 150 (1):195-201.

2009 K. Chatzidimitriadou, I. Nianiou-Obeidat, P. Madesis, R. Perl-Treves, A. Tsaftaris. Expression of SOD transgene in pepper confer stress tolerance and improve shoot regeneration. Electronic Journal of Biotechnology 12 (4): 1-9. **Highlight in Agricell Report 2009** (Recent advances in Regeneration and Micropropagation), 53 (5):36.

2008 I. Nianiou, K. Kalantidis, P. Madesis, U. Georgopoulou, P. Mavromara, Tsaftaris A. Expression of an HCV core antigen coding gene in tobacco (*N. Tabacum* L.). Preparative Biochemistry and Biotechnology 38 (4): 411-421.

2007 P. Madesis, K. Kalantidis, I. Nianiou-Obeidat, K. Chatzidimitriou, N. Panopoulos, A. Tsaftaris. Expression of the yeast *cpd1* gene in tobacco confers resistance to the fungal toxin cercosporin. Biomolecular Engineering 24 (2): 245-251. *(Renamed to New Biotechnology)*

2005 Shoot regeneration and micrografting of micropropagated hybrid tomatoes.

Grigoriadis, I. Nianiou-Obeidat, A. Tsaftaris. Journal of Horticultural Science and Biotechnology 80 (2): 183-186..

2005 Differential expression of CmPP16 homologues in pumpkin (*C. maxima*), winter squash (*C. moschata*) and their interspecific hybrid. R. Athanasiadou, A. Polidoros, G. Mermigka, I. Nianiou-Obeidat, A. Tsaftaris. Journal of Horticultural Science and Biotechnology 80 (5):643-649.

Book

2012 A. Tsaftaris, Ei. Nianiou-Obeidat, A.Polydoras. Plant Breeding, Sychroni Paidia, Thessaloniki, Greece (Eudoxos 148677) ISBN 978-960-357-103-2A.

Book chapters

2021 Polidoros A, Avdikos ID, Gleridou A, Kostoula SD, Koura E, Sakellariou MA, Stavridou E, Gerasopoulos D, Lagopodi A, Mavromatis A, Mylona PV, Nianiou-Obeidat I, Vlachostergios D (2021) Lentil genetic diversity, breeding, conservation and utilization. *In P. M. Priyadarshan and Sri Mohan Jain* (eds): Genetic Diversity, Erosion, Conservation and Utilization - Cash Crops. Springer.https://doi.org/10.1007/978-3-030-74926-2_11, ISBN 978-3-030-74925-5 ISBN 978-3-030-74926-2 (eBook), σελ.626.

2019 Evangelia Stavridou, Michail Michailidis, Stella Gedeon, Antri Ioakeim,Stefanos Kostas, Evangelia Chronopoulou, Nikolaos E. Labrou,Robert Edwards, Anil Day, Irini Nianiou-Obeidat and Panagiotis Madesis. *Tolerance of Transplastomic Tobacco Plants Overexpressing a Theta Class Glutathione Transferase to Abiotic and Oxidative Stresses in* Csiszαr et al eds. (2019) Plant Glutathione Transferases: Diverse, Multi-Tasking Enzymes with Yet-to-Be Discovered Functions. Lausanne: Frontiers Media SA. Frontiers eBook doi: 10.3389/978-2-88963-240-4

2019 Evangelia G. Chronopoulou, Anastassios C. Papageorgiou, Farid Ataya, Irini Nianiou-Obeidat, Panagiotis Madesis and Nikolaos E. Labrou *Expanding the Plant GSTome Through Directed Evolution: DNA Shuffling for the Generation of New Synthetic Enzymes With Engineered Catalytic and Binding Properties in* Csiszαr et al eds. (2019) Plant Glutathione Transferases: Diverse, Multi-Tasking Enzymes with Yet-to-Be Discovered Functions. Lausanne: Frontiers Media SA. Frontiers eBook doi: 10.3389/978-2-88963-240-4

2018 E. Stavridou, G. Voulgari, I. Bosmali, E. G. Chronopoulou, L. Lo Cicero, A. Roberta Lo Piero, A. Tsaftaris, I. Nianiou-Obeidat, N. E. Labrou, P. Madesis.Adaptation to Stress Conditions: The Case of Glutathione S-Transferases (GSTs). In: Biotic and Abiotic Stress Tolerance in Plants. Springer, Singapore. p. 173-202, doi: 10.1007/978-981-10-9029-5_7

2013 Evangelia Chronopoulou, Marianna Chatzikonstantinou, Panagiotis Madesis,Irini Nianiou-Obeidat, Nikolaos E. Labrou**.** Structure and Catalytic Properties of Human Glutathione Transferase P1-1. *In*: Nikolaos Labrou and Emmanouil Flemetakis *(eds)*Glutathione: Biochemistry, Mechanisms of Action and Biotechnological Implications, Chapter 9, p. 187-198. Nova Science Publishers, Inc, Hauppauge, NY.

2013 Panagiotis Madesis, Irini Nianiou-Obeidat, Nikos Lambrou, Tsaftaris Athanasios. The Use of Highly Specific GSTs towards the Development of Stress tolerant Transgenic Plants. *In*: Nikolaos Labrou and Emmanouil Flemetakis (*eds*). Glutathione: Biochemistry, Mechanisms of Action and Biotechnological Implications, Chapter 14, p. 263-275. Nova Science Publishers, Inc, Hauppauge, NY.

2000 A. S. Tsaftaris, A. N. Polidoros, M. Karavangeli, I. Nianou-Obeidat, P. Madesis, C. Goudoula. . Transgenic crops: recent developments and prospects. In Balazs, E., Galante, E., Lynch, J.M., Schepers, J.S., Toutant, J.-P., Werner, D., Werry, P.At\.T.J., (Eds). Biological Resource Management-Connecting Science and Policy. pp. 187-203. Springer, Berlin. http//www.springer.de, ISBN 3-540-67117-X

E. Stavridou, G. Voulgari, I. Bosmali, E. G. Chronopoulou, L. Lo Cicero, A. Roberta Lo Piero, **1999** A. S. Tsaftaris, G. Sapountzakis, I. Nianiou-Obeidat. . The construction of new genotypes of cucumbers and peppers *in vitro* through genetic engineering (Chapter 11). *In*: Bahar A. Siddiqui & Samiullan Khan. Breeding in crop plants- Mutation & *in vitro* mutation breeding. pp. 198-218. Kalyani Publishers. https://www.amazon.in/Breeding-Plants-Mutations-Vitro-Mutation/dp/8176631043

1997 A. S. Tsaftaris, G. Sapountzakis, I. Nianiou-Obeidat. Foreign Detoxification Genes Expressed in Plants for Developing Herbicide Tolerant Genotypes: Development of Glufosinate-Tolerant Vegetables. *In*: K.K. Hatzios (ed), Regulation of Enzymatic Systems Detoxifying Xenobiotics in Plants, pp.325-336. Kluwer Academic Publishers. The Netherlands.NATO ASI Series ISBN: 978-90-481-4879-0 https://link.springer.com/book/9780792346463

INDICATIVE CONFERENCES/WORKSHOPS/etc.

In total, she has participated in 30 international and 80 national scientific conferences

Selected conferences

2021 20th International Congress of the International Society for Ethnopharmacology, 24-26 November, Capsis Hotel, Thessaloniki, Greece. Preserving mature Pyrus spinosa Forskk. plant material through an efficient micropropagation protocol. Alexandri, S. Tsaktsira, M. Nianiou-Obeidat, I. Tsoulpha1, P.

2018 Plant Biology Europe. Stavridou E., Gedeon S., Ioakeim A., Nianiou-Obeidat I., Madesis P.. Engineering GSTs at different scales: abiotic stress tolerance in transplastomic and transgenic tobacco for environmental resilience. June 18-21, Copenhagen, Denmark

2017 IV International Russian-Greek Students Scientific Conference "STUDENTS FOR AGRICULTURE V.S. Titeli, I. Nianiou-Obeidat. *In vitro* regeneration, rooting and acclimatization of tomato, 29-04-, RUDN University of Russia, Moscow, Russia.

2012 9th Solanaceae Conference. A. Tsaballa, C. Athanasiadis, K. Pasentsis, I. Ganopoulos, I. Nianiou-Obeidat, A. Tsaftaris. Understanding the molecular mechanisms involved in fruit shape changes after grafting in pepper (*Capsicum annum*), 26-30 August, , Neuchatel, Switzerland

2011 International Symposium on Vegetable Grafting. C. Athanasiadis, I. Nianiou-Obeidat, A. Tsaballa, A. S. Tsaftaris. Graft induced changes in pepper fruit shape, 3-5 October, , Viterbo, Italy

2011 International Symposium on Vegetable Grafting Nianiou- Obeidat, G. Sapountzakis, I. Grigoriadis, A. S. Tsaftaris. Combination of Micrografting with Micropropagation (M and M) in vegetable plants, 3-5 October, Viterbo, Italy

INDICATIVE RESEARCH GRANTS

Overall, she has participated in 35 research projects as coordinator (8), partner (15) and PostDoc and researcher (12) funded by the FAO, GSRT, EU and private companies. She is a co-creator of two oriental-type tobacco varieties (National Catalogue of Cultivated Plant Species Varieties, ΦΕΚ 6283- 1/2/2023).

2022-2025 Certification and creation of a new tobacco variety with high-quality yield and disease tolerance, Measure 16 Cooperation/Action 2/Ministry of Rural Development & Food (Μ16ΣΥΝ2-00277.

2018-2021 BIO-FARM. Exploration of Biodiversity for the Management and Sustainable Exploitation of Greek Pharmaceutical and Aromatic Plants Rich in Active Molecules. The Management and Implementation Authority for Research, Technological Development and Innovation Actions **(**MIA-RTDI)

2018-2021 Legumes4Proteine .European Regional Development Fund of the European Union and Greek national funds through the Operational Program Competitiveness, Entrepreneurship and Innovation, under the call RESEARCH–CREATE–INNOVATE (project code: T1EDK-04448)

2018-2021 LENSBRID: Evaluation and breeding of lentil landraces and cultivars for special agronomic, physiological and quality traits, funded by GSRT- NSRF

2014-2020 LEDWAR.gr (LED WAteRmelon GRafted). Application of artificial LED lighting to reduce production cost of high quality grafted watermelon seedlings GSRT- NSRF, European Union and Greek national funds through the Operational Program Competitiveness, Entrepreneurship and Innovation, under the call RESEARCH–CREATE–INNOVATE.

2013-present: Research program funded by company Leaf Tobacco Missirian s.a. 'Increasing the yield of variety Basmas Xanthi using conventional plant breeding techniques and molecular markers without the use of genetically modified plants' .

2013-2018: Research program funded by company Leaf Tobacco A.Michailides s.a. 'Breeding tobacco cv. Virginia for high nicotine content using conventional plant breeding techniques and molecular markers'.

2014-2016: AREISTIA II research program: «Design of Catalytic Bioscavengers Against Toxic Herbicides by Resurrecting Functional Ancestral Enzymes and Directed Evolution», funded by GSRT.

2011-2016: THALIS research program: Glutathione transferases (GSTs) multifunctional molecular tools in red and green biotechnology», funded by GSRT under the Operational Programme "Education and Lifelong Learning" of the National Strategic Reference Framework (NSRF), co-financed by the European Social Fund.

MEMBERSHIPS & REVIEWING ACTIVITIES

She is a reviewer in 15 international scientific journals (2020 IJMS-excellent reviewer) and holds several academic and professional memberships.

Review Editor on the Editorial Board of Industrial Biotechnology (specialty section of Frontiers in Bioengineering and Biotechnology). Co-guest editor in Crop Breeding and Genetics of the SCI journal. Chairmen of the Postgraduate course 'Genetic, Breeding, Agronomy and Weed Science', Member of the board of the Postgraduate course 'Genetics, Plant Breeding and Production of Propagating Material'. Member of General Assembly, Member of Evaluation Committee for Undergraduate Student in Practical skills, School of Agriculture, Forestry and Natural Environment, AUTh,Greece. Directorate of Propagating Material of Cultivated Plant Species and Plant Genetic Resources, Ministry of Rural Development and Food. Member of the Evaluation Committee in the "Redesigning European Cultivation Systems based on Mixtures of Species". Member of International Scientific Committee GMOs in EU and Ministry of Agriculture, Greece. Member of the board of Hellenic Scientific Society of Genetics and Plant Breeding, Greece. Member of Greek Scientific Society of Biology, Greece.