

## KAPAZOGLOU ALIKI – SHORT CV

Dr Alik Kapazoglou is Researcher B' at the Hellenic Agricultural Organization-Demeter (ELGO-Dimitra), Institute of Olive Tree, Subtropical Crops and Viticulture (IOSV), Department of *Vitis*, Lykovrysi, Athens, Greece. She received a Bachelor's degree in Biochemistry from Rutgers-The State University of New Jersey, USA, and after earning a PhD scholarship she obtained a PhD degree in Biochemistry (1994) from the Biochemistry/Molecular Biology Department of the University of Georgia, Athens Georgia, USA. Subsequently, she held Post-Doctoral and Research Fellow posts at the University of Cambridge, Cambridge, UK, at the Imperial College of Science Technology and Medicine, London, UK, and the Wolfson Institute for Biomedical Research, University College London, UK, where she was involved in a series of plant molecular biology projects in higher plants and algae. She returned to Greece as a research associate for the Institute of Applied Biosciences (INAB) at the Centre of Research and Technology (CERTH), in Thessaloniki, Greece, where she studied the genetic and epigenetic molecular mechanisms underlying plant developmental processes and the response to abiotic stress, associated with important traits of agronomic relevance in cereals, vegetables and castor plant. She was also a research associate at the Agricultural University of Athens (AUA) where she studied plant herbicide resistance at the molecular level. Her current interests focus on genetic and epigenetic mechanisms governing plant developmental processes and resilience to adverse environmental conditions, the use of -omics approaches to uncover the association of genotype-phenotype in important crop plants such as grapevine, olive tree and citrus, the elucidation of molecular mechanisms regulating important agronomical traits and their exploitation for crop improvement and adaptation to climate change. In addition, her interests include the characterization of local varieties and the protection of autochthonous genetic resources, the molecular basis of grafting in plants, and the molecular traceability of plants species and their products.

She is the Coordinator of the EU project '*MedVitis*-Protecting the Diversity of Mediterranean *Vitis* in a Changing Environment' (ARIMNET2) (2018-2022), P.I. in the project '*PyrrouAmpelos*' (regional programmes for the area of Epirus, Greece), member of the research team of national projects '*Hellenoinos*', '*CloseViva*', '*Grapevine Routes*', '*Olive tree Routes*' and '*CitrusUp*' involving the phenotypic, molecular characterization and valorization of autochthonous greek grapevine, olive tree and citrus varieties, and of the EU project '*ZeroParasitic*' (PRIMA) on the management of the parasitic weed *Orobanche*. In addition, she has coordinated work packages, and researcher exchange and training actions in European programmes such as Agri-Geno-Trans (Agri-Genomics Transfer and Dissemination between Greece & Bulgaria), InnoFood SEE (Innovation in Food Technology in the Southeast European Area) and has been a research associate in projects '*JonahFuel*/Greece-Israel Bilateral Cooperation' (2014-2015) and '*BreedSeed*'.

She is MC (Management Committee) member for Greece in the COST Action CA16212 '*Impact of Nuclear Domains on Gene Expression and Plant Traits –INDEPTH*' (2017-2021), substitute MC member in the COST Action CA19125 '*Epigenetic mechanisms of Crop Adaptation to Climate Change-EpiCatch*' (2020-2024), and member of COST Action CA17111 '*Data integration to maximize the power of -omics for grapevine improvement-INTEGRAPE*' and COST Action 18111 '*Genome Editing in Plants-PlantEd*' (2019-2024).

She has published multiple articles in peer reviewed international journals (SCI) and several book chapters (>850 citations, h index 17), has participated in numerous international and national conferences with oral and poster presentations and has been a reviewer for international scientific journals (SCI). Furthermore, she is a member of the Hellenic Scientific Society of Genetics and Plant Breeding, Hellenic Weed Science Society, Hellenic Entomological Society, and The Biochemical Society.

Selected publications:

1. **Kapazoglou A\***, Tani E, Avramidou EV, Abraham EM, Gerakari M, Megariti S, Doupis G, Doulis GA\* (2021) Epigenetic changes and transcriptional reprogramming upon woody plant grafting for crop sustainability in a changing environment. *Frontiers in Plant Sciences*,11:2160,doi: 10.3389/fpls.2020.613004.
2. Letsiou S, **Kapazoglou A**, Tsaftaris AS (2020). Transcriptional and epigenetic effects of *Vitisvinifera* L. leaf extract on UV-stressed human dermal fibroblasts. *Molecular Biology Reports*, 47(8), 5763-5772.
3. Varotto S, Tani E, Abraham E, Krugman T, **Kapazoglou A**, Melzer R, Radanović A, Miladinović D (2020) Epigenetics: possible applications in climate-smart crop breeding. *Journal of Experimental Botany*, eraa188, <https://doi.org/10.1093/jxb/eraa188>
4. Ventouris YE, Tani E, Avramidou EV, Abraham EM, Chorianopoulou SN, Vlachostergios DN, Papadopoulos G, **Kapazoglou A** (2020) Recurrent Water Deficit and Epigenetic Memory in Medicago Sativa L. Varieties. *Applied Sciences*.10:3110.
5. Xanthopoulou A, Tsaballa A, Ganopoulos I, **Kapazoglou A**, Avramidou E, Aravanopoulos F, Moysiadis T, Osathanunkul M, Tsaftaris A, Doulis AG, Kalivas A, Sarrou E, Martens S, Nianiou-Obeidat I, Madesis P (2019). Intra-species grafting induces epigenetic and metabolic changes accompanied by alterations in fruit size and shape of Cucurbitapepo L. *Plant Growth Regulation*87(1), 93-108.
6. **Kapazoglou A**, Ganopoulos I, Tani E, Tsaftaris AS (2018) Epigenetics, Epigenomics, and Crop Improvement. *Advances in Botanical Research* 86:287-324.
7. Drosou V, **Kapazoglou A**, Koidou V, Merkouropoulos G, Hilioti Z. (2018) Spatial and temporal expression of cytosine-5 DNA methyltransferase and DNA demethylase gene families of *Ricinuscommunis* during seed development and drought stress *Plant Growth Regulation*84:81.
8. Xanthopoulou A, Tsaballa A, Ganopoulos I, **Kapazoglou A**, Avramidou E, Aravanopoulos F, Moysiadis T, Osathanunkul M, Tsaftaris A, Doulis AG, Kalivas A, Sarrou E, Martens S, Nianiou-Obeidat I, Madesis P (2019). Intra-species grafting induces epigenetic and metabolic changes accompanied by alterations in fruit size and shape of Cucurbitapepo L. *Plant Growth Regulation*, 87(1), 93-108.
9. Xanthopoulou, A., Ganopoulos, I., Psomopoulos, F., Manioudaki, M., Moysiadis, T., **Kapazoglou, A.**, ...&Nianiou-Obeidat, I. (2017) 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.
10. GanopoulosI, **KapazoglouA**, Bosmalil, Xanthopoulou,Naniou-ObeidatI., TsaftarisAS, Madesis P (2017) Application of the ITS2 Region for Barcoding plants of the genus *Triticum* L. *Cereal Research Communications* 45:381–389.
11. Merkouropoulos, G., **Kapazoglou, A.**, Drosou, V., Jacobs, E., Krolzig, A., Papadopoulos, C., &Hilioti, Z. (2016). Dwarf hybrids of the bioenergy crop *Ricinuscommunis* suitable for mechanized harvesting reveal differences in morpho-physiological characteristics and seed metabolic profiles. *Euphytica*210:207–219
12. **Kapazoglou A**, Tani E, Chachalis D (2015) Control of *Orobanchespp.*: Molecular aspects and agronomic practices. In: "*Weed and Pest control: Molecular Biology, Practices and Environmental Impact*" Nova Science Publisher, Inc. NY
13. AvramidouE, **KapazoglouA**, AravanopoulosF, XanthopoulouA, GanopoulosA, TsaballaA, Madesis P, Doulis F, Tsaftaris AS. (2015) Global DNA methylation changes in *Cucurbitaceae* inter-species grafting.*Crop Breeding and Applied Biotechnology*15: 112-116.
14. **Kapazoglou A**, Drosou V, Nitsos CK, Bossis I, Tsaftaris AS, Triantafyllidis KS, Hilioti Z. (2013)Biofuelsgetinthefastlane: Developmentsinplantfeedstockproductionandprocessing. *Advances in Crop Science and Technology*1(4):117.
15. **Kapazoglou A\***, Drosou V, Argiriou A, Tsaftaris AS\*. (2013) The study of a barley epigenetic regulator, *HvDME*, in seed development and under drought. *BMC Plant Biology* 13:172.

16. **Kapazoglou A**, Engineer C, Drosou V, Kalloniati C, Tani E, Tsaballa A, Kouri ED, Ganopoulos I, Flemetakis E, and Tsaftaris AS. (2012) The study of two barley *Type I-like MADS-box* genes as potential targets of epigenetic regulation during seed development. *BMC Plant Biology* 12:166.
17. Tsaftaris A.S., **Kapazoglou A**, Darzentas N. (2012) Epigenetics, Epigenomics, and Implications in Plant Breeding. In: A. Altman and P.M. Haegawa (eds), "Plant biotechnology and agriculture: Prospects for the 21<sup>st</sup> century", Elsevier Press.
18. **Kapazoglou A** and Tsaftaris A. S. (2011). Epigenetic Chromatin Regulators as Mediators of Abiotic Stress Responses in Cereals, *Abiotic Stress in Plants - Mechanisms and Adaptations*, ArunShanker (Ed.), ISBN: 978-953-307-394-1, In Tech.
19. **Kapazoglou A**, Papaefthimiou D, Tsaftaris A.S. (2012) Histone Modifiers in Cereals. In: Chang-HuiShen (ed), "Histones: Class, Structure and Function", Nova Science Publisher, Inc. NY.
20. **Kapazoglou A**, Tondelli A, Papaefthimiou D, Ampatzidou H, Francia E, Stanca MS, Bladenopoulos K, Tsaftaris AS. (2010) Epigenetic chromatin modifiers in barley: IV. The study of barley Polycomb group (PcG) genes during seed development and in response to external ABA. *BMC Plant Biology* 10:73.
21. Demetriou K\*, **Kapazoglou A\***, Tondelli A, Francia E, Stanca MA, Bladenopoulos K, Tsaftaris AS. (2009) Epigenetic chromatin modifiers in barley: I. Cloning, mapping and expression analysis of the plant specific *HD2* family of histone deacetylases from barley, during seed development and after hormonal treatment. *Physiologia Plantarum* 136: 358
22. Demetriou K\*, **Kapazoglou A\***, Bladenopoulos K, Tsaftaris AS. (2010) Epigenetic chromatin modifiers in barley: II. Characterization and expression analysis of the *HDA1* family of barley histone deacetylases during development and in response to jasmonic acid. *Plant Mol. Biol. Rep.* 28: 9–21.
23. Papaefthimiou D, Lykotrafiti E, **Kapazoglou A**, Bladenopoulos K, Tsaftaris AS. (2010) Epigenetic chromatin modifiers in barley: III. Isolation and characterization of the barley GNAT-MYST family of histone acetyltransferases and responses to exogenous ABA. *Plant Physiology and Biochemistry* 48: 98-107.
24. Tsaftaris A. S., Polidoros A., **Kapazoglou A.**, Tani E., Kovacevic N. (2008) Epigenetics and Plant Breeding. In J. Janick (ed) *Plant Breeding Reviews* 30:49-179.