PyrrouAmpelos Phenotypic characterization, molecular fingerprinting and oenological evaluation of indigenous *Vitis* cultivars from the Epirus region of Greece

Theodora Pitsoli[1], Eleni Sintou[2], Aliki Kapazoglou[1], Ioannis Lambropoulos[3], Andreas Doulis[1], Haralampos Stamatis[4], Dimitra Papaefthimiou[4], Eleni Tani[5]

[1]*Institute of Olive Tree, Greece*
[2]*Zoinos Winery, Zitsa, Ioannina, Greece*
[3]*IPER, 54221 Ioannina, Greece*
[4]*University of Ioannina, Greece*
[5]*Agricultural University of Athens, Greece*

Abstract

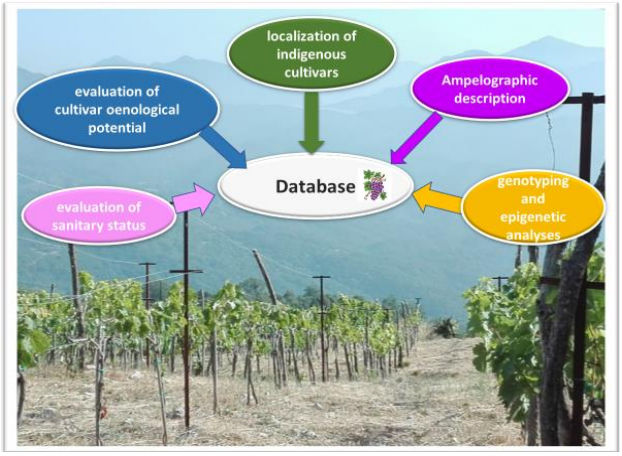
The project "PyrrouAmpelos" constitutes a synergy among two companies in the region of Epirus and three research originations: Zoinos Winery, IPER, the Hellenic Agricultural Organization-Demeter, the University of Ioannina and the Agricultural University of Athens.

It aims at preserving and promoting the uniqueness of indigenous grapevine genetic resources of the Epirus region of Greece, through their proper identification and valorization.

The goal of the project is to strengthen the capacity of the regional viti-vinicultural sector to place a variety of branded products in the market.

The project focuses on:

- localization of autochthonous grapevine varieties (either registered or not registered in the National Catalogue), ampelographic description and phenotypic evaluation
- genotyping and epigenetic analyses towards developing diagnostic molecular tools for identification, traceability and stability of genetic resources
- evaluation of the phytosanitary status of the grapevine germplasm
- evaluation of the oenological potential of different grapevine varieties through vinification, chemical analysis, metabolomic analyses and organoleptic assessments
- generation of a grapevine database with the phenotypic, genetic and epigenetic information complemented by geo-referenced data.



Recent Publications

1. Pitsoli T, Kapazoglou A, Aikaterini B (2019). Phenotypic variation of autochthonous Greek *Vitis* varieties. 1st annual meeting of COST Action 17111-INTEGRAPE, March 25-28, Chania, Greece
2. Pitsoli A, Kapazoglou A, Doulis AG, (2019) Morphological characterization and phenotypic variability of autochthonous Greek grapevine varieties. 21St GiESCO International Meeting (Group of international Experts for Cooperation on Vitivinicultural Systems), June 23-28, Thessaloniki, Greece.
3. Theodora Pitsoli et al. (2018) Differentiation of white wine-producing *Vitis vinifera* L. biotypes, autochthonous to Crete, Greece, employing ampelographic and SSR markers. International Conference "Vine, wine, food and health" May 22 – 26, Heraklion, Greece
4. Kapazoglou A, Ganopoulos I, Tani E, Tsaftaris AS (2018) Epigenetics, Epigenomics, and Crop Improvement. *Advances in Botanical Research 86*:287-324
5. Božić, D., Papaefthimiou, D., Brückner, K., De Vos, R. C., Tsoleridis, C. A., Katsarou, D., ... &

Kanellis A (2015) Towards elucidating carnosic acid biosynthesis in Lamiaceae: functional characterization of the three first steps of the pathway in Salvia fruticosa and Rosmarinus officinalis. *PLoS One*, *10*(5), e0124106.
6. Tani E, Chronopoulou EG, Labrou NE, Sarri E, Goufa M, Vaharidi X, ... & Abraham EM (2019) Growth, Physiological, Biochemical, and Transcriptional Responses to Drought Stress in Seedlings of Medicago sativa L., Medicago arborea L. and Their Hybrid (Alborea). *Agronomy*, *9*:38.
7. Xanthakis E, Theodosiou E, Magkouta S, Stamatis H, Loutrari H, Roussos C, & Kolisis F (2010) Enzymatic transformation of flavonoids and terpenoids: structural and functional diversity of the novel derivatives. *Pure and Applied Chemistry*, *82*:1-16.



Biography

Pitsoli Theodora holds a position of scientific personnel at the Hellenic Agricultural Organization-Demeter, Institute of Olive Tree, Subtropical Crops and Viticulture, Department of *Vitis*, Lykovryssi, Athens, Greece specializing in Ampelography and phenotypic evaluation of grapevine germplasm. She received her M.Sc. degree in Viticulture and Oenology from the Agricultural University of Athens. She was employed as a scientific officer and participated as research team member in various research programs. Her main research interests include the identification, classification and evaluation of grapevine varieties by ampelographic methods and grapevine microprogation. She participated as a member of the Ministry of Agriculture Working Group, in the ECPGR On-Farm Conservation and Management Working Group and Wild Species Conservation in Genetic Reserves Working Group and as a member of the group of reviewer for the rational use of pesticides. She has undertaken a series of projects on the comparative assessment of native grapevine varieties in cooperation with local authorities in various regions of Greece. She has publications in international scientific journals and in conference presentations.

Email: dorapitsoli@yahoo.com Contact No: +30 6951 732198