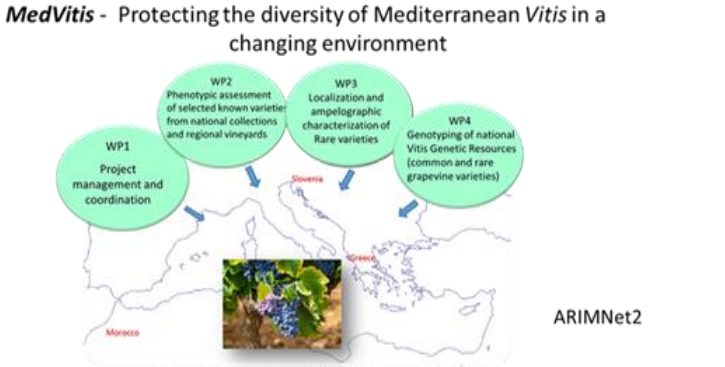
MedVitis - Protecting the diversity of Mediterranean *Vitis* in a changing environment

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Abstract

Viticulture and wine production are important agricultural activities in Mediterranean countries, such as Greece, Slovenia and Morocco. In all three countries diverse geographical terrains and microclimates have favoured wide *Vitis* diversity and led to local varieties that are well adapted to the specific agro-climatic conditions supporting sustainable agricultural systems of low inputs. However, introduction of foreign commercial varieties have resulted in genetic erosion and loss of genetic diversity, calling for collaborative actions to preserve the diversity of *Vitis* genetic resources. Moreover, environmental changes accros the Mediterranean region, linked to the the ongoing global climate change, and the threat of diseases may have a negative impact for Mediterranean viticulture. The project, '*MedVitis*', within the framework of the ARIMNET2 programme, is an integrated effort by Greek, Slovenian and Moroccan partners, aiming to protect Mediterranean grapevine biodiversity and enrich national grapevine resources. It involves phenotypic and molecular characterization of commonly used as well as rare grapevine varieties leading to proper variety identification, resolving problems of ambiguous varietal identity, and updating national grapevine databases. Furthermore, exploration and characterization of rare grapevine germplasm will provide knowledge about varieties with tolerance to the changing climatic conditions observed in these Mediterranean regions, such as drought, elevated temperature, increased rainfalls, or with resistance to common pathogens, and could promote sustainable viticulture as less water and/or fungicide usage will be needed. The project '*MedVitis*' aims to protect the diversity of grapevine germplasm across the three countries, in order to address more efficiently issues of grapevine identification, genetic erosion, climate change and *Vitis* pathogenicity across the Mediterranean basin. Hence, the research proposed by the project '*MedVitis*' is expected to contribute to the conservation of Mediterranean grapevine genetic resources, promote sustainable viticulture in the region, and enhance rural development affecting the economy and growth of local communities.

Image



- **Updating of national grapevine databases or generating new national *Vitis* databases**
- **Valorization of national grapevine genetic resources in the Mediterranean**
- **Grapevine varieties with important traits (yield, quality, tolerance to stresses)**

Recent Publications (minimum 5)

1. Kapazoglou A, Ganopoulos I, Tani E, Tsaftaris AS (2018) Epigenetics, Epigenomics, and Crop Improvement. *Advances in Botanical Research 86*:287-324.
2. Merkouropoulos G, Michailidou S, Alifragkis A, Argiriou A, Zioziou E, Koundouras S, Nikolaou N (2015) A combined approach involving ampelographic description, berry oenological traits and molecular analysis to study native grapevine varieties of Greece. *Vitis 54*:99–103
3. Taskos, D., Stamatiadis, S., Yvin, J. C., & Jamois, F. (2019). Effects of an Ascophyllum nodosum (L.) Le Jol. extract on grapevine yield and berry composition of a Merlot vineyard. *Scientia Horticulturae*, *250*:27-32.
4. Pitsoli T, 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, 2019, Thessaloniki, Greece.
5. Rusjn D, Pipan B, Pellengic R, Meglic V (2012) Genotypic and phenotypic discrimination of grapevine (*Vitis vinifera* L.) varieties of the 'Vitovska' and 'Garganja' Denominations. *European Journal of Horticultural Science, 77:84-94.*
6. El Oualkadi A, Ater M, Messaoudi, Z, El Heit K, Laucou V, Boursiquot, J. M. ..& This, P. (2011) Genetic diversity of Moroccan grape accessions conserved ex situ compared to Maghreb and European gene pools. *Tree genetics & genomes*, *7*:1287-1298.
7. Hmimsa Y and Ater M. (2008). Agrodiversity in the traditional agrosystems of the Rif mountains (north of Morocco) *Biodiversity 9*:78–81.



Biography

Aliki Kapazoglou is a Researcher at the Hellenic Agricultural Organization-Demeter, Institute of Olive Tree, Subtropical Crops and Viticulture, Department of *Vitis*, Lykovryssi, Athens, Greece. She received a PhD degree in Biochemistry from the Biochemistry/Molecular Biology Department of the University of Georgia, Athens Georgia, USA. She held Post-Doctoral and Research Fellow posts on plant molecular biology at the University of Cambridge, Cambridge UK, at the Imperial College of Science, Technology and Medicine, London, UK, the Wolfson Institute for Biomedical Research, University College London, UK, and at the Institute of Applied Biosciences (INAB), Centre of Research and Technology (CERTH), in Thessaloniki, Greece. Her research interests include genetic and epigenetic mechanisms governing plant development and abiotic and biotic stress responses, preservation of local genetic resources, molecular traceability of plants species and their products. She has publications in international scientific journals (SCI) and book chapters (i-index 13, >600 citations), a multitude of conference presentations and is a reviewer in scientific journals.

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Notes/Comments: