

“GOOD WINE MAKES GOOD BLOOD”: AN INTEGRATED APPROACH TO CHARACTERIZE AUTOCHTHONOUS APULIAN GRAPEVINES AS PROMISING CANDIDATES FOR HEALTHY WINES

SABETTA W.***, CENTRONE M.***, D'AGOSTINO M.***, DIFONZO G.****, MANSI L.***, TRICARICO G.*****, VENERITO P.*****, PICARDI E.*****
CECI L. R.*****¹, TAMMA G.***, CAPONIO F.****, MONTEMURRO C.*****², VOLPICELLA M.***

*) Institute of Biosciences and BioResources (IBBR), National Research Council (CNR), Via Amendola 165/A, 70126 Bari, Italy.

**) Spin off Sinagri s.r.l., University of Bari Aldo Moro, Via Amendola 165/A, 70126 Bari, Italy.

***) Department of Biosciences, Biotechnologies and Biopharmaceutics, University of Bari Aldo Moro, Via Amendola 165/A, 70126 Bari, Italy.

****) Department of Soil, Plant and Food Sciences, University of Bari Aldo Moro, Via Amendola 165/A, 70126 Bari, Italy.

*****) Confcooperative Puglia, Viale Einaudi 15, 70125 Bari, Italy.

*****) CRSFA-Centro Ricerca, Sperimentazione e Formazione in Agricoltura “Basile Caramia”, Via Cisternino, 281, 70010 Locorotondo (BA), Italy.

*****) Institute of Biomembranes, Bioenergetics and Molecular Biotechnologies (IBIOM), National Research Council (CNR), Via Amendola 165/A, 70126 Bari, Italy.

*****) Institute for Sustainable Plant Protection–Support Unit Bari (IPSP), National Research Council (CNR), Via Amendola 165/A, 70126 Bari, Italy.

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Wine production represents an ancient human activity and one of the most economically important markets in Europe. Moreover, the health effects of grapes and related products have been largely demonstrated, and mostly depend on their richness in bioactive molecules such as flavonoid and non-flavonoid phenolic compounds. Italy has the highest global wine production and provides one of the richest grapevine germplasm in the Mediterranean

area. In this paper, our attention was focused on the evaluation of the total phenol and anthocyanin content in five autochthonous Apulian grapevine cultivars, in both wines and their non-alcoholic extracts. Moreover, the potential antioxidant effects of the non-alcoholic wine extracts on the cell viability of Caco-2 and HeLa carcinoma cell lines were tested. Finally, for the most promising autochthonous selected cultivars (Negramaro, Nero di Troia and Susumaniello), comparative transcriptomic analysis in berries was performed using high-throughput sequencing technology.