

Dr. Carmine Negro

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Agricultural Expert Diploma at ITAS "G. Presta" Lecce, 1992

M.D. in Biological Science at the University of Lecce in 1998,

Ph.D. in Biology and Biotechnology at University of Salento in 2008.

Graduate technical assistant at the University of Salento since September 2000, Department of Biological and Environmental Sciences and Technologies (DiSTeBA).

Actually in charge of the operational technical management of the DiSTeBA's Plant Physiology and Plant Pathology Laboratories, supporting research activities through sampling and analytical determinations through HPLC / MS / TOF and GC / MS.

In addition other duties are: a) supervision of the correct performance of activities by users in compliance with the laboratory operating regulations and safety procedures; b) the routine maintenance of the instrumentation and relative calibration; c) the development of appropriate technical / operational methods to achieve the objectives of the various research projects.

I also follow an independent research on plant secondary metabolites focused on the characterization of plant matrices and in particular on polyphenolic compounds, terpenoids and alkaloids and their biological activity.

He has participated in numerous research projects concerning alternative energy, plant biomass, qualitative / functional evaluation of plant foods, plant biodiversity, cultivation of crops with hydroponic techniques. He is also an expert in the taxonomic recognition and identification of plant species of agricultural interest, sampling and collection of plant material.

Over the years he has acquired specific knowledge on electrophoretic and chromatographic techniques (HPLC / MS / TOF and GC / MS), ELISA techniques and *in vitro* testing of the biological activities of phytochemicals and on the management of growth chambers for plant organisms.

He carries out reviews for prestigious international journals such as Antioxidants, Food, Plants and other international journals.

Author of over 50 scientific publications (below a list of publications from the last 5 years) in national and international peer-reviewed journals.

1. Luvisi A., Aprile A., Sabella E., Vergine M., Nicoli F., Nutricati E., Miceli A., Negro C., De Bellis L., (2017); "*Xylella fastidiosa* subsp. *pauca* (CoDiRO strain) infection in four olive (*Olea europaea* L.) cultivars: profile of phenolic compounds in leaves and progression of leaf scorch symptoms". *Phytopathologia Mediterranea* 56: 259–273.
2. Negro C., De Bellis L., Sabella E., Nutricati E., Luvisi A., Miceli A., 2017; "Detection of not allowed food-coloring additives (copper chlorophyllin, coppersulphate) in green table olives sold on the Italian market". *Advances in Horticultural Sciences* 31: 225-233
3. Sabella E., Luvisi A., Aprile A., Negro C., Vergine M., Nicoli F., Miceli A., De Bellis L., 2018; "*Xylella fastidiosa* induces differential expression of lignification related-genes and lignin accumulation in tolerant olive trees cv. Leccino". *Journal of Plant Physiology* 220: 60–68
4. Aprile A., Sabella E., Vergine M., Genga A., Siciliano M., Nutricati E., Rampino P., De Pascali M., Luvisi A., Miceli A., Negro C. and De Bellis L. 2018. Activation of a gene network in durum wheat roots exposed to cadmium. *BMC Plant Biology* 18, 238.
5. Nicoli F, Vergine M, Negro C, Luvisi A, Nutricati E, Aprile A, Rampino P, Sabella E, De Bellis L, Miceli A. 2019. *Salvia clandestina* L.: unexploited source of danshensu. *Nat Prod Res.* 33 (3) 439–442 doi: 10.1080/14786419.2018.1452015.
6. Nicoli F, Negro C, Vergine M, Aprile A, Nutricati E, Sabella E et al., Evaluation of Phytochemical and Antioxidant Properties of 15 Italian *Olea europaea* L. Cultivar Leaves, 2019 *Molecules* 24 (10), 1998
7. Vergine, M., Nicoli, F., Negro, C., Luvisi, A., Nutricati, E., Accogli, A.R., Sabella, E., Miceli, A. 2018. Phytochemical profiles and antioxidant activity of *Salvia* species from Southern Italy. *Records of natural products* 13 (3), 205-215 <http://doi.org/10.25135/rnp.96.18.07.119>
8. Blando F, Russo R, Negro C, De Bellis L, Frassinetti S, Antimicrobial and Antibiofilm Activity against *Staphylococcus aureus* of *Opuntia ficus-indica* (L.) Mill. Cladode Polyphenolic Extracts *Antioxidants* 2019 8 (5), 117

9. Aprile A, Negro C, Sabella E, Luvisi A, Nicoli F, Nutricati E, Vergine M et al., Antioxidant Activity and Anthocyanin Contents in Olives (cv Cellina di Nardò) during Ripening and after Fermentation 2019 *Antioxidants* 8 (5), 138
10. Negro C, Aprile A, Luvisi A, Nicoli F, Nutricati E, Vergine M, et al., Phenolic Profile and Antioxidant Activity of Italian Monovarietal Extra Virgin Olive Oils, 2019 *Antioxidants* 8 (6), 161
11. Negro C, Aprile A, De Bellis L, Miceli A. Nutraceutical Properties of Mulberries Grown in Southern Italy (Apulia), 2019 *Antioxidants* 8, (7), 223
12. Mariarosaria De Pascali, Marzia Vergine, Erika Sabella, Alessio Aprile, Eliana Nutricati, Francesca Nicoli, Ilaria Buja, Carmine Negro, Antonio Miceli, Patrizia Rampino, Luigi De Bellis, Andrea Luvisi Molecular Effects of *Xylella fastidiosa* and Drought Combined Stress in Olive Trees, *Plants* 2019, 8(11), 437; <https://doi.org/10.3390/plants8110437>
13. Erika Sabella, Alessio Aprile, Alessandra Genga, Tiziana Siciliano, Eliana Nutricati, Francesca Nicoli, Marzia Vergine, Carmine Negro, Luigi De Bellis, Andrea Luvisi Xylem cavitation susceptibility and refilling mechanisms in olive trees infected by *Xylella fastidiosa* Scientific reports (2019) 9:9602 | <https://doi.org/10.1038/s41598-019-46092-0>
14. Erika Sabella, Alessio Aprile, Carmine Negro, Francesca Nicoli, Eliana Nutricati, Marzia Vergine, Andrea Luvisi, Luigi De Bellis Impact of climate change on durum wheat yield, *Agronomy* 2020, 10, 793; doi:10.3390/agronomy10060793
15. Carmine Negro, Erika Sabella, Francesca Nicoli, Roberto Pierro, Alberto Materazzi, Alessandra Panattoni, Alessio Aprile, Eliana Nutricati, Marzia Vergine, Antonio Miceli, Luigi De Bellis, Andrea Luvisi Biochemical Changes in Leaves of *Vitis vinifera* cv. Sangiovese Infected by Bois Noir Phytoplasma Pathogens 2020, 9, 269; doi:10.3390/pathogens9040269
16. Leani Martínez García, Costanza Ceccanti, Carmine Negro, Luigi De Bellis, Luca Incrocci, Alberto Pardossi, Lucia Guidi Effect of Drying Methods on Phenolic Compounds and Antioxidant Activity of *Urtica dioica* L. Leaves *Horticulturae* 2021, 7, 10. <https://doi.org/10.3390/horticulturae7010010>
17. Muscella A, Stefàno E, De Bellis L, Nutricati E, Negro C, Marsigliante S, Antitumor and antimigration effects of *Salvia clandestina* L. extract on osteosarcoma cells, 2021, *Annals of the New York Academy of Sciences*, doi: 10.1111/nyas.14601
18. Pavan S., Vergine M., Nicoli F., Sabella E., Aprile A., Negro C., Fanelli V., Savoia A., Montilon V., Susca L., Delvento C., Lotti C., Nigro F., Montemurro C., Ricciardi L., De Bellis L., Luvisi A. Screening of Olive Biodiversity Defines Genotypes Potentially Resistant to *Xylella fastidiosa*. *Frontiers in Plant Science*, 2021, 12, 1734, doi: 10.3389/fpls.2021.723879
19. Negro C., Aprile A., Luvisi A., De Bellis L., Miceli A., Antioxidant Activity and Polyphenols Characterization of Four Monovarietal Grape Pomaces from Salento (Apulia, Italy). *Antioxidants* 2021, 10, 1406. <https://doi.org/10.3390/antiox10091406>
20. Negro,C.; Dimita,R.; Min Allah, S.; Miceli, A.; Luvisi, A.; Blando, F.; De Bellis, L.; Accogli, R. Phytochemicals and Volatiles in Developing *Pelargonium* ‘Endsleigh’ Flowers. *Horticulturae* 2021, 7, 419. <https://doi.org/10.3390/horticulturae7110419>
21. De Pascali, M.; Vergine, M.; Negro, C.; Greco, D.; Vita, F.; Sabella, E.; De Bellis, L.; Luvisi, A. *Xylella fastidiosa* and Drought Stress in Olive Trees: A Complex Relationship Mediated by Soluble Sugars. *Biology* 2022,11,112. <https://doi.org/10.3390/biology11010112>
22. Dimita, R.; Min Allah, S.; Luvisi, A.; Greco, D.; De Bellis, L.; Accogli, R.; Mininni, C.; Negro, C. Volatile Compounds and Total Phenolic Content of *Perilla frutescens* at Microgreens and Mature Stages. *Horticulturae* 2022,8,71. <https://doi.org/10.3390/horticulturae8010071>
23. Benabdallah A., Betina S., Bouchentouf S., Boumendjel M., Bechkri S., Bensouici C., Nicoli F., Vergine M., Negro C., De Bellis L., Chemical profiling, antioxidant, enzyme inhibitory and in silico modeling of *Rosmarinus officinalis* L. and *Artemisia herba alba* Asso. essential oils from Algeria. *South African Journal of Botany*, 147, 2022, 501-510,