

Curriculum vitae – Prof. Vita Di Stefano –

<https://orcid.org/0000-0002-4483-2058>

Born in Palermo, 11 October 1966

Education and career path:

Associate Professor of Food Chemistry, Department of Biological, Chemical and Pharmaceutical Sciences and Technologies (STEBICEF) of the University of Palermo, Italy

(website: <https://www.unipa.it/persone/docenti/d/vita.distefano>)

2000-2020: Researcher in Food Chemistry at the University of Palermo.

1996: Ph.D. in Pharmaceutical Chemistry at the University of Palermo.

1991: Master's Degree in Pharmacy at the University of Palermo.

Research interest:

Author of 98 scientific publications present in the Scopus database, with over 1850 total citations (June 2023) and h index = 24, <https://www.scopus.com/authid/detail.uri?authorId=6603809567>.

Her main research activity focuses on food chemistry.

The research activity of Dr. Vita Di Stefano is aimed at the development of conventional and innovative analytical procedures focused on food safety, the determination of the levels of contaminants (mycotoxins, phthalates, etc.) in food matrices, qualification-quantification and traceability through a metabolomic approach of raw materials of plant origin, functional foods and food supplements.

Specific topics include:

i) Analytical study of the metabolomic profile of plant species of food interest: search for secondary metabolites to identify chemical markers useful for quality control of the studied species; isolation and chemical characterization of the largest possible number of biologically active compounds with the use of modern techniques such as GC-MS (single and triple quadrupole) and high-resolution UHPLC-ESI-MS/MS. The object of the study was the study of the secondary metabolites of various cultivars of pomegranate, mango, avocado, purslane, wheat, different varieties of Citrus, etc., of Sicilian origin.

The same technical-scientific skills are the basis of the study of bio-functional compounds of extra virgin olive oils, extracted from fruits produced by plants of different Sicilian cultivars subjected to various crop management models. The results obtained made it possible to identify within the Sicilian varietal heritage the cultivars and the related agronomic processes suitable for obtaining oils with bio-phenols content compliant with the standards established by the EFSA health claims.

ii) Use of by-products from the agri-food industry, optimization, and application of advanced analytical methods using HPLC and high-resolution tandem mass spectrometry. Enhancement of waste products from the agri-food industry (citrus, oil, wine, fish, pressing of Cannabis sativa seeds), for the recovery of bioactive

and functional compounds with high added value (polyphenols, sterols, triglycerides, proteins) given their use in functional foods, nutraceuticals, and the pharmaceutical sector.

iii) Quality control of food matrices: development of analytical and instrumental methodologies applied to the determination of mycotoxin content in Sicilian wines.

iv) Study on the effect of ionizing radiations on the detoxification of food matrices from aflatoxins and ochratoxins.

v) Development of functional foods. This line of research was inspired by studies concerning the chemical and biological characterization of various bio-functional compounds such as polyunsaturated fatty acids, polysaccharides with prebiotic activity, and compounds with antioxidant activity present in plants. Starting from this experience, various functional foods (pasta and bakery products) have been developed for particular groups of consumers. This study, which had a strong boost from the recent European directive on health claims on the label, has the laboratory preparation of new functional foods in collaboration with CNR — Institute for Bioeconomic of Catania.

2001 -today Talks at international conferences and member of conference scientific committees:

2019 - today Founding member of ITACHEMFOOD

Teaching and Mentoring:

Classes in the subjects of "Food Chemistry" 6 ECTS (Master in "Pharmacy, University of Palermo, since 2015), 6 ECTS (Master in "Science of food and human nutrition", University of Palermo, since 2020), and 3 ECTS (Bachelor in "Dietetics", University of Palermo, since 2018), always with good appreciation scores by students.

Tutor of Ph.D theses

External referee for Ph.D. theses.

Since 2010: Member of the "Molecular and biomolecular sciences" Ph.D. board (University of Palermo) and advisor (to date) of 2 Ph.D. students.

Advisor (2002-to date) of 60 Bachelor students, in the preparation and discussion of their final thesis.

Member of the SCI (Italian Chemical Society). Division of Mass Spectrometry and the Interdivisional Group of Food Chemistry.

Guest Editor of the Special Issue on "Food Waste: Treatments, Environmental Impacts, Current and Potential Uses", A special issue on Sustainability (ISSN 2071-1050). This special issue belongs to the section "Sustainable Food".

https://www.mdpi.com/journal/sustainability/special_issues/food_waste_environment

Topic Editor of "Cold Pressed Oils: A Green Source of Specialty Oils - Volume II", Frontiers (ISSN 2296-861X) in Frontiers Nutrition (IF 6.590) in the section "Nutrition and Food Science"

Since 2022 Editor of "Frontiers in Food Science and Technology", section Food Safety and Quality Control (ISSN 2674-1121, Online), (Frontiers Media S.A.) <https://www.frontiersin.org/research-topics/31171/cold-pressed-oils-a-green-source-of-specialty-oils-volume-ii>

Since 2018: Editor for "International Journal of Food Science" International Open Access Journal di Hindawi Publishing Corporation.

Since 2018: Editor of "Pharmacognosy Magazine" published by Wolters Kluwer - Medknow Publications and Media Pvt. Ltd. Technology.

Since 2021: Editor for "Horticulturae" Open Access Journal from MDPI
<https://www.mdpi.com/journal/horticulturae/editors?search=di+stefano>

Since 2021: Editor for "Agriculture" Open Access Journal from MDPI
<https://www.mdpi.com/journal/agriculture/editors?search=di+stefano>

Since 2021: Editor for "Sustainability" Open Access Journal from MDPI

Since 2022: Editor for "Polish Journal of Food and Nutrition Sciences"
(<http://journal.pan.olsztyn.pl/Editorial-Board,1521.html>)

Since 2023: Editor for "Frontiers in Nutrition" (ISSN 2296-861X, Online) Section Food Science, (Frontiers Media S.A.)

<https://loop.frontiersin.org/people/1032445/overview>

Since 2023: Editor for "AIMS Agriculture and Food", (ISSN 2471-2086) (AIMS Press).

<https://www.aimspress.com/aimsagri/news/solo-detail/editorialboard>

Since 2021: Editor for "Sustainability" (ISSN: 2071-1050), section "Sustainable Foods".

https://www.mdpi.com/journal/sustainability/sectioneditors/food_sust?search=di+stefano

Since 2023: Editor for "Beverages" Open Access Journal from MDPI
<https://www.mdpi.com/journal/beverages/editors?search=di+stefano>

Referee for many international scientific journals

Honors and Awards:

- 2021: Inserted in the list of Top Italian Scientists affiliated to the University of Palermo (<https://www.younipa.it/universita-classifica-mondiale-dei-migliori-ricercatori-al-mondo-86-sono-docenti-di-unipa/>)
- 2015: "Excellent" evaluation of the two publications presented for the "Evaluation of Research Quality" (VQR 2011-2014).
- 2020: "Excellent" evaluation of the four publications presented for the "Evaluation of Research Quality" (VQR 2015-19).

Institutional activity:

- Member of several academy boards of the University of Palermo
- As of 2013, member of the Quality assurance group for the Master course in Pharmacy of the University of Palermo.

Several participations in public events (exhibitions, school days, readings) and interviews to spread the results obtained during her research.