

CURRICULUM VITAE

Giacomo Zapparoli

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EDUCATION

2000: PhD degree on Food Biotechnology, Università degli Studi del Molise, Italy

1990: Laurea cum laude in Biology University of Padua, Italy

LANGUAGES:

Italian, English

ACADEMIC POSITION

Decembre 2019 -today Associate professor in agricultural microbiology

Novembre 1999 - November 2021 assistant professor in agricultural microbiology

TEACHING EXPERIENCE

1999-today at University of Verona

Courses in Bachelor degree:

In Biotechnology (L2):

- Laboratory of general microbiology

In Viticultural and Oenological Science and Technology (L25):

- Laboratory of enological microbiology

Courses in Master degree in Agri-Food Biotechnology (LM7):

- Biotechnology of food and agricultural microbiology
- Laboratory of food microbiology

TUTORING ACTIVITY

Tutor (relatore) and cotutor (correlatore) of students discussing in different courses of Master's degrees in Biotechnology and Bachelor's degrees at the University of Verona

Since October 2024 is a Tutor of a PhD student (XXXIX cycle) of Biotechnology at the University of Verona

SCIENTIFIC RESEARCH ACTIVITY

He carries out research activity on the identification and monitoring of microorganisms using classical and molecular methods, the selection of microbial strains to use in fermented beverages and foods, and he investigates the physiology and metabolism of bacteria and yeasts involved in the fermentation processes. He has cooperated with public authorities and institutions and with companies of food starter producers. Since 2015 his activity has been focused on mycology, in particular fungal pathogens of grapevine. He described different new species of filamentous fungi and yeasts like *Botrytis euroamericana* (2016) and *Penicillium fructuariae-cellae* (2019) and yeasts like *Sporobolomyces agrorum* and *S. sucorum* (2019), and evaluated the impact of fungicides on bacteria and yeasts of phylloplanes, highlighting the negative impact of these pesticides on microbial diversity in agroecosystems. Moreover, he focused on the activity of plant growth-promoting and antagonistic microorganisms. Recently (2023-2024), he investigated the fermentation processes for the production of cherry wine and microorganisms occurring in oleic ecosystems, particularly yeasts and filamentous fungi with potential effects on olive oil quality. Since 2024, he has been studying microorganisms living in peatlands, collaborating with Prof. Zaccone of Verona University, evaluating the main physiological traits that can be related to the specific habitat in which they live.

FUNDED PROJECTS

In collaboration with Universities

- Project (codice MI01-00138) titled "Pasta e salute nel mondo. Realizzazione di una innovativa pasta alimentare funzionale arricchita di componenti bioattivi e probiotici - Pass World" (Bando 2008 relativo ai programmi di ricerca e sviluppo e innovazione da presentare nell'ambito del Progetto di Innovazione Industriale Nuove Tecnologie per il Made in Italy (art. 1 comma 842 legge 27 dicembre 2006) - Decreto del 30.07.2009 - GU n.206 del 05/09/2009) funded by Ministero dello Sviluppo Economico- and company Rustichella D'Abruzzo S.p.A. Durata: 29/11/2011 - 28/03/2015
- project PRIN 2007 (Codice 20067MA557R) "Aspetti microbiologici della prevenzione di patologie infettive mediante componenti naturali degli alimenti" with Prof. Pietro Severino Canepari as coordinator.

In collaboration with research institutes:

CREA of Conegliano Veneto and various Institutes and companies:

- Join Project action (grant JP2017; CUP: B31I17000180003).
- Project FSE DGR 736/2018 - Use of microorganisms activating the grapevine defence pathways towards Flavescence dorée attack: development of a new effective and sustainable technology

Istituto Sperimentale di Viticoltura ed enologia of Verona Provincie and Companies:

- Prove di inoculo
- sequenziale di lieviti non-*Saccharomyces* e *Saccharomyces*. Danstar Ferment AG.

- Verifica della attività malolattica di colture starter di *Lactobacillus plantarum* e *Oenococcus oeni* in vini con differenti parametri chimico-fisici inoculati simultaneamente e sequenzialmente ai lieviti. Danstar Ferment AG.
- Induzione sulle performance tecnologiche e qualitative di ceppi di lieviti e batteri nella vinificazione in rosso ed effetti della microossigenazione sulla stabilità del colore di vino rosso demalicato mediante inoculo di ceppi batterici prima e dopo la fermentazione malolattica. Danstar Ferment AG.
- Impiego di un protocollo di rapida acclimatazione di una coltura di *Oenococcus oeni* in condizioni enologiche stressanti. Lallemand Inc. Succursale. Dal 1/10/08 al 31/12/08.
- Confronto di due ceppi di *Oenococcus oeni* nell'indurre la fermentazione malolattica in vini rossissimi. Lallemand Inc. Succursale.
- Valutazione di differenti protocolli 1-Step® di colture batteriche da inoculare in condizioni enologiche standard. Lallemand Inc. Succursale.
- Effetti sulla composizione di attivanti specifici per la nutrizione dei lieviti sulla produzione di aromi fermentativi in vino bianco. Esseco srl.
- 8-Effetti dell'uso di mannoproteine di lievito durante la macerazione di uve rosse. Esseco srl.
- 9- Prove di induzione della fermentazione malolattica in vini rossissimi. Lallemand Inc. Succursale.
- Valutazione delle performance fermentative di 4 ceppi di lievito in microvinificazione in rosso. Lallemand Inc. Succursale.

PUBLICATION DATA BY WEB OF SCIENCE™ (10 March 2026)

Total publications: 84

Citing Articles: total 2397, without self-citations 2331

Times cited: total 2963, without self-citations 2790, average per item 35.27

H-index: 31

PUBLICATIONS IN THE LAST DECADE

- Avesani, M., Carvalho, C., Conacher, CG, Steffen, HC, Botha, A, Zapparoli, G, Sampaio, JP. *Kwoniella olivae* f.a. sp. nov., a novel basidiomycetous yeast species associated with olive ecosystems 2025 INTERNATIONAL JOURNAL OF SYSTEMATIC AND EVOLUTIONARY MICROBIOLOGY 75(9)
- Avesani, M. and Zapparoli, G. 2025. New records of fungi in oleic ecosystems through analyzing olive oil, paste, and pomace from an olive oil production area in northern Italy. Journal of Applied Microbiology, 2025, 136(4), 1xaf092
- Avesani, M. Zapparoli, G., Jindamorakot, S. and Limtong S. 2024. Yamadazyma oleae f.a. sp. nov. and Yamadazyma molendinolei f.a. sp. nov., two novel ascomycetous yeast species isolated from olive oil mills in Italy, and reassignment of 11 Candida species to the genus Yamadazyma Int. J. Syst. Evol. Microbiol. 2024;74:006592
- Liu, S., Simonato, B., Rizzi, C., Zapparoli, G., Bianchi, F. and Vincenzi S. 2025. Sustainable Sparkling Cherry Wine Production from Early and Late Varieties: Insights into Technological Properties and Volatile Compounds Food and Bioprocess Technology <https://doi.org/10.1007/s11947-025-03851-4>

- Bianchi, F., Avesani, M., Lorenzini, M., Zapparoli G., Simonato, B. 2024 Fermentation Performances and Aroma Contributions of Selected Non-Saccharomyces Yeasts for Cherry Wine Production. *Foods*, 13, 2455.
- Lorenzini M, Cappello MS, Green A, Zapparoli G. 2023. Effects of film-forming *Pichia* and *Candida* yeasts on cider and wine as post-fermentation contaminants. *Lett Appl Microbiol*. 2023. Sep 1;76(9): 10.1093/lambio/ovad099.
- Andreolli M, Lampis S, Tosi L, Marano V, Zapparoli G. 2023. Fungicide sensitivity of grapevine bacteria with plant growth-promoting traits and antagonistic activity as non-target microorganisms. *World J Microbiol Biotechnol*. Mar 17;39(5):121. doi: 10.1007/s11274-023-035695.
- Lorenzini M, Cappello MS, Andreolli M, Zapparoli G 2023. Characterization of selected species of *Pichia* and *Candida* for their growth capacity in apple and grape must and their biofilm parameters. *Lett Appl Microbiol*. Jan 23;76(1):ovac028. doi: 10.1093/lambio/ovac028.
- Cappello MS, Falco V, Curcio R, Mita G, Zapparoli G. 2022. Molecular and Physiological Properties of Indigenous Strains of *Oenococcus oeni* Selected from Nero di Troia Wine (Apulia, Italy). *Microorganisms*. Apr 9;10(4):795. doi: 10.3390/microorganisms10040795.
- Andreolli M, Zapparoli G, Lampis S, Santi C, Angelini E, Bertazzon N. 2021 In Vivo Endophytic, Rhizospheric and Epiphytic Colonization of *Vitis vinifera* by the Plant-Growth Promoting and Antifungal Strain *Pseudomonas protegens* MP12. *Microorganisms*. Jan 23;9(2):234. doi:10.3390/microorganisms9020234.
- Lorenzini M, Zapparoli G. 2020 Epiphytic bacteria from withered grapes and their antagonistic effects on grape-rotting fungi. *Int J Food Microbiol*. Apr 16;319:108505. doi: 10.1016/j.ijfoodmicro.2019.108505.
- Andreolli M, Zapparoli G, Angelini E, Lucchetta G, Lampis S, Vallini G. 2019. *Pseudomonas protegens* MP12: A plant growth-promoting endophytic bacterium with broad-spectrum antifungal activity against grapevine phytopathogens. *Microbiol Res*. Feb;219:123-131. doi: 10.1016/j.micres.2018.11.003.
- Lorenzini M, Zapparoli G. Yeast-like fungi and yeasts in withered grape carposphere: Characterization of *Aureobasidium pullulans* population and species diversity. *Int J Food Microbiol*. 2019 Jan 16;289:223-230. doi: 10.1016/j.ijfoodmicro.2018.10.023.
- Zapparoli G, Lorenzini M, Tosi E, Azzolini M, Slaghenaufi D, Ugliano M, Simonato B. Changes in chemical and sensory properties of Amarone wine produced by *Penicillium* infected grapes. *Food Chem*. 2018 Oct 15;263:42-50. doi: 10.1016/j.foodchem.2018.04.110.
- Lorenzini M, Simonato B, Zapparoli G. Yeast species diversity in apple juice for cider production evidenced by culture-based method. *Folia Microbiol (Praha)*. 2018 Nov;63(6):677-684. doi: 10.1007/s12223-018-0609-0. Epub 2018 May 7. PMID: 29736893
- Garfinkel AR, Lorenzini M, Zapparoli G, Chastagner GA. *Botrytis euroamericana*, a new species from peony and grape in North America and Europe. *Mycologia*. 2017 May-Jun;109(3):495-507. doi: 10.1080/00275514.2017.1354169.
- Cappello MS, Zapparoli G, Logrieco A, Bartowsky EJ. Linking wine lactic acid bacteria diversity with wine aroma and flavour. *Int J Food Microbiol*. 2017 Feb 21;243:16-27. doi:10.1016/j.ijfoodmicro.2016.11.025.
- Andreolli M, Lampis S, Zapparoli G, Angelini E, Vallini G. Diversity of bacterial endophytes in 3 and 15 year-old grapevines of *Vitis vinifera* cv. Corvina and their potential for plant growth promotion and phytopathogen control. *Microbiol Res*. 2016 Feb;183:42-52. doi: 10.1016/j.micres.2015.11.009.
- Lorenzini M, Mainente F, Zapparoli G, Cecconi D, Simonato B. Post-harvest proteomics of grapes infected by *Penicillium* during withering to produce Amarone wine. *Food Chem*. 2016 May 15;199:639-47. doi: 10.1016/j.foodchem.2015.12.032.
- Lorenzini M, Zapparoli G. Description of a taxonomically undefined Sclerotiniaceae strain from withered rotten-grapes. *Antonie Van Leeuwenhoek*. 2016 Feb;109(2):197-205. doi: 10.1007/s10482-015-0621-1. Epub 2015 Nov 18.

POSTER IN INTERNATIONAL CONFERENCE AND MEETING

- Avesani M., Zapparoli G. Biodiversity and enzymatic activities of fungal communities in Italian oleic ecosystems. FEMS MICRO Milan 2025 14-17 July 2025, Milan, Italy

- Zaccone C., Andreolli M., Galluzzi G., Zapparoli G. Biodiversity and plant growth-promoting traits of yeasts from alpine peatlands. ECCO XLIII, 15-17 September 2025, Utrecht, Netherland
- Avesani M., Zapparoli G. Evaluation of spontaneous fermentation with backslopping method for the production of alcoholic ginger beer. 28th International ICFMH Conference FOOD MICRO 2024. 8-11 July 2024, Burgos, Spain
- Sinatra M., Galluzzi G., Avesani M., Zapparoli G., Zaccone C. An attempt to reconstruct the history of the most ancient European farming community using peat cores from the Fiavè mire. Centennial Celebration and Congress of the International Union of Soil Sciences 19-21 May 2024 Firenze, Italy

ORAL COMUNICATION IN TECHNICAL MEETING IN ITALY

- 6 June 2013 Centro della Sperimentazione in Vitivinicoltura, via Pieve 64, San Pietro Incariano, Verona, organizzato da Provincia di Verona. La bottrizzazione controllata come opportunità per la produzione di “vini nobili” da uve passite. Relazione Proposte applicative per diversificare i vini passiti
- 15 May 2013 Centro della Sperimentazione in Vitivinicoltura, via Pieve 64, San Pietro Incariano, organizzato da Provincia di Verona e Lallemand Succursale Italia Relazione: Microbiologia pratica: analisi dei rischi e controlli analitici nella gestione della FML
- 19 June 2012 Sala Conferenze Azienda Universitaria A. Servadei, via Pozzuolo 324, Udine, organizzato da Università degli Studi di Udine e Lallemand Succursale Italia. Titolo: Biodiversità in cantina: nuove prospettive per la gestione dei non-*Saccharomyces* in enologia. Relazione: Esperienze pratiche sull'applicazione di *Torulaspota delbrueckii* nella vinificazione: dai vini bianchi all'amarone.
- 24 June 2008 Aula Magna- C03 via Celoria, 2, Milano; organizzato da Università degli Studi di Milano, Fondazione Fojanini e Regione Lombardia Milano. Titolo: Selezione e valorizzazione di enococchi autoctoni per la produzione di vino Rosso di Valtellina DOC e Valtellina Superiore DOCG. Relazione La fermentazione malolattica: aspetti fisiologici e tassonomici dei batteri malolattici