

PERSONAL INFORMATION



Emilio Stefani

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Gender: M | Date of birth: 20/03/1957 | Nationality: Italian

WORK EXPERIENCE

September 2005 - present

Associate Professor of Plant Pathology

University of Modena and Reggio Emilia, Department of Life Sciences (formerly Faculty of Agriculture)

Current teaching courses at the University of Modena and Reggio Emilia:

- Plant Pathology (in Italian)
- Post-harvest Management of Agricultural Produce (in Italian)
- Post-harvest Losses and their Management (in English)
- Mycotoxigenic fungi in agri-food and pesticide contamination: analysis and risk management (in English)

Other teaching appointments (international):

- "Bacterial Plant Diseases", MSc in Integrated Pest Management of Fruit and Vegetable Crops, Centre International de Hautes Etudes Agronomiques Méditerranéennes (CIHEAM), Mediterranean Agronomic Institute, Valenzano, Bari (Contract Professor: 2012 – 2020)
- "Aplicaciones de Biotecnologías en Patología Vegetal", Escuela de Postgrado, Facultad de Ciencias Agronomicas, Universidad de Chile, Santiago (Contract Professor: 2001 and 2006)

Academic duties (education) at UNIMORE:

- Academic coordinator of the international Master of Science in "Food Safety and Food Risk Management" (2020 – present)
- Academic and departmental coordinator of students' international mobility in the framework of the EU Erasmus+ programme for education, training, youth and sport
- Co-founder and deputy Director of the University Centre for International Cooperation and Development (CUSCOS)
- Member of the PhD School in Agri-Food Science, Technology and Biotechnology and tuition of PhD students
- Tuition of PhD students from Cameroon and Serbia, in the framework of the Erasmus KA107 Programme (2017-2020). EU Grant Agreement: 2017-1-IT02-KA107-036227
- Students' mobility coordinator in the framework of the UNIGREEN Alliance of Universities (2022 – present) (<https://unigreen-alliance.eu/>)
- European Commission, MSCA project COFUND FutureData4EU: Tutor of PhD students in the framework of the Marie Skłodowska Curie initiative (2024-2027)
- Italian Ministry of University and Research, PNRR-MUR-TNE: Academic Collaboration through Higher International Education for a Viable and Equitable Africa with Italy (Acronym: ACHIEVE-IT). Visiting Professor for Sustainable Agricultural Systems and Rural Development at the University of Yaoundé, Cameroon (2024-2026)

RESEARCH

Role: Principal Investigator and Supervisor of the research group of Plant Pathology and Disease Control.

Main research areas:

- Diagnosis, epidemiology and integrated management of plant diseases
- Molecular microbe-microbe and plant-microbe interactions
- Plant-associated microbiota and development/implementation of microbial biocontrol agents
- Pest Risk Analysis (PRA)
- Implementation of international phytosanitary policies

Major research grants (2005 – present)

- European Commission: Development of a New Diagnostic Tool using DNA barcoding to Identify Quarantine Organisms in Support of Plant Health (Acronym: QBOL) (2008-2012)
- Italian Ministry of Foreign Affairs and International Cooperation (MAECI): Achieving European Standards for Quality Conformity of Potato Production in Lebanon (Acronym: EuLebPot) (2011-2015)
- European Commission: Development of Seed Testing Methods for Pests and Pathogens of Plant Health Concern (Acronym: TESTA) (2013 – 2017)
- Regione Valle d'Aosta/CCS Aosta: A Transcriptomic Approach to Study Crop Response to Microbial-based Fertilizers as an Alternative to Chemical Products (2014-2016)
- European Commission, Euphresco: Consensus Detection and Identification Protocol for *Acidovorax citrulli* on cucurbit seeds (Acronym: DIP-ACIT) (2016-2018)
- CCS/Aosta: Symbiotic agriculture: increasing knowledge on the mode of action of beneficial microbes (2016 – 2023)
- Assosementi (Italy): Quality, Management and Disinfection of Carrot Seeds from *Ca. Liberibacter solanacearum* (2018-2021)
- European Commission: LIFE Microfighter: Innovative Zeo Biopesticides, based on useful microorganisms, for eliminating the use of copper-based pesticide (Acronym: MicroFighter) (2022-2026)

Since 2002 Prof. Stefani developed and participated as MC Member and WG Leader into following EU COST Actions: CA873 "Bacterial diseases of stone fruits and nuts"; FA1103 "Endophytes in biotechnology and agriculture"; CA16107 "Euroxanth: integrating science on *Xanthomonadaceae* for integrated plant disease management in Europe"; CA22158 "MiCropBiomes: Exploiting Plant-Microbiomes Networks and Synthetic Communities to improve Crops Fitness".

THIRD MISSION

1. *Targeted use and transfer of academic knowledge to help resolve current societal and economical challenges:*
 - European and Mediterranean Plant Protection Organisation (EPPO), Paris: governmental Delegate and Representative for Italy (1994 – present)
 - European Commission: Short term Expert and Advisor in the framework of TAIXE (https://neighbourhood-enlargement.ec.europa.eu/funding-and-technical-assistance/taixex_en) Topics: Development and implementation of phytosanitary policies and the General Food Law. Countries assigned: Serbia, Montenegro, Kosovo, Albania, Turkey, Jordan, Lebanon (2001-2018)
 - The European Food Safety Authority (EFSA): *ad hoc* Expert associated to the Plant Health Panel (2006-2013)
 - Italian House of Deputies, Commission Agriculture: Nominated Advisor for the Management of *Xylella fastidiosa* (2014-present)
 - European Commission: Evaluator of Horizon Europe Proposals (2017-2021)
 - The European Food Safety Authority (EFSA): Member of the Plant Health Panel and vice-Chair of the WG Plant Pathogens (2020-2024)
 - United Kingdom Research and Innovation (UKRI), London: Evaluator of research proposals for the Biotechnology and Biological Sciences Research Committee (BBSRC) (2023-present)
2. *Transfer and utilisation of technologies and innovations through cooperation with public and private enterprises:*
 - Consorzio Agrario di Ravenna: Advisor on Phytosanitary Matters and Trainer of Plant Health Inspectors (2010-present)
 - Instituto de Investigaciones Agropecuarias (INIA), Santiago, Chile: Visiting Scientist and Trainer for the Setup of a diagnostic lab for regulated bacteria (Host: Dr. Paulina Sepulveda, Director, November-December 2007)
 - Biosecurity New Zealand, Auckland, NZ: Visiting Scientist for the development of a PRA on *Ca. Liberibacter solanacearum* (Host: Dr. Lia Liefing, Chief Scientist, January-February 2011)
3. *Other:*
 - Co-founder and vice-Chair of the European Union of Phytobacteriologists, Gent, Belgium (2014-present)
 - Bari Court-appointed expert (2018-2022)
 - Nomination by the University of Göttingen (Germany) as Panel Member for the assessment of the QS World University Rankings (2024 – present)

EDUCATION AND TRAINING

- 1987-1991** Doctoral School in Plant Pathology
Faculty of Agriculture, University of Göttingen, Germany.
Research thesis: The role of the extracellular polysaccharides for the pathogenicity of phytopathogenic bacteria.
- 1984-1987** Magisterstudium Phytomedicine
Faculty of Agriculture, University of Göttingen, Germany
Research thesis: Evaluation of potato germplasm for the resistance to soft rot
- 1978-1983** Corso di Laurea in Scienze Naturali
Faculty of Mathematical, Physical and Natural Sciences, University of Modena
Research thesis: Ultra-histochemical interactions in the plant-bacteria pathosystems.

PERSONAL SKILLS

Mother tongues Italian and German. Bilingualism certificate issued by the School Superintendence (Sovrintendenza Scolastica), province of Bolzano, according to the Ministerial Decree DPR n.752 del 26.07.1976

Other language(s)	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C2	C2	C2	C2	C2
Replace with name of language certificate. Enter level if known.					
Spanish	B1	B1	A2	A2	A1
Replace with name of language certificate. Enter level if known.					

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2 Proficient user
[Common European Framework of Reference for Languages](#)

ADDITIONAL INFORMATION

Publications Prof. Stefani published over 300 papers in national and international journals, books, manuals or other media (Google Scholar, i10 index = 45; H-index = 24, 2437 citations); in major scientific international journals he authored or co-authored 175 publications (Scopus, H-index = 15; 1275 citations)

MAIN SCIENTIFIC PUBLICATIONS (2014-2024)

- SCHRADER G., P. MULLER and E. STEFANI, 2014. *Candidatus Liberibacter solanacearum* -eine neue Gefahr für den Kartoffel-und Tomatenanbau. Journal für Kulturpflanzen, 66:169-174.
- TONTOU R., D. GIOVANARDI and E. STEFANI, 2014. Pollen as a possible pathway for the dissemination of *Pseudomonas syringae* pv. *actinidiae* and bacterial canker of kiwifruit. Phytopathologia Mediterranea, 53: 333-339.
- LORETI S., N. PUCCI, G. PEREZ, V. CATARA, M. SCORTICHINI, P. BELLA, P. FERRANTE, D. GIOVANARDI and E. STEFANI, 2015. Detection and identification of *Xanthomonas arboricola* pv. *pruni* from symptomless plant material: results of an Italian test performance study. Bulletin OEPP/EPPO Bulletin 45(1): 41-51.
- GIOVANARDI D., E. BIONDI, S. PEREZ, M. IGNJATOV, K. GASIC, M. FERRARI, R. JEVTIC and E. STEFANI, 2015. Seed transmission of *Xanthomonas vesicatoria* and *Clavibacter michiganensis* subsp. *michiganensis* in tomato and *Xanthomonas euvesicatoria* in pepper and implementation of seed disinfection methods. In: Proceedings of the VII Congress

- on Plant Protection, Zlatibor, Serbia, 24-28 November 2014. ISBN 978-86-83017-27-0 . pp.65-70.
- GIOVANARDI D., M. FERRARI and E. STEFANI, 2015. Seed transmission of *Acidovorax citrulli*, implementation of its detection in watermelon seeds and development of disinfection methods In: Proceedings of the VII Congress on Plant Protection, Zlatibor, Serbia, 24-28 November 2014. ISBN 978-86-83017-27-0 . pp. 71-76.
 - TONTOU R., F. GAGGIA, L. BAFFONI, V. VENTURI and E. STEFANI, 2016. Isolation and characterisation of an endophyte from *Actinidia* sp. showing a strong antagonistic activity against *Pseudomonas syringae* pv. *actinidiae*. Plant and Soil 405: 97-106.
 - TONTOU R., D. GIOVANARDI, M. FERRARI and E. STEFANI, 2016. Isolation of bacterial endophytes from *Actinidia chinensis* and preliminary studies on their possible use as antagonists against *Pseudomonas syringae* pv. *actinidiae*. Journal of Berry Research 6 (1), 1-12.
 - GIOVANARDI D., D. DALLAI, L. DONDINI, W. MANTOVANI and E. STEFANI, 2016. Elicitation of resistance to bacterial canker of stone fruits by humic and fulvic acids (glucohumates): a cDNA-AFLP-dHPLC approach. Scientia Horticulturae 212: 183-192.
 - GIOVANARDI D., S. BONNEAU, S. GIRONDE, M. LE SAUX-FISCHER, C. MANCEAU and E. STEFANI, 2016. Morphological and genotypic features of *Xanthomonas arboricola* pv. *juglandis* populations from walnut groves in Romagna region, Italy. European Journal of Plant Pathology, 145(1): 1-16.
 - GIOVANARDI D., D. DALLAI and E. STEFANI, 2017. Population features of *Xanthomonas arboricola* pv. *pruni* from *Prunus* spp. orchards in northern Italy. European Journal of Plant Pathology 147(4): 761-771.
 - CHOUËIRI E., F. JREIJIRI, S. WAKIM, M. EL-KHOURI, F. VALENTINI, N. DUBLA, R. HABCHY, K. AKL and E. STEFANI. 2017. Surveys of potato-growing areas and surface water in Lebanon for the detection of potato brown and ring rots. Phytopathologia Mediterranea 56(1): 87-97.
 - GIOVANARDI D., E. BIONDI, M. IGNJATOV, R. JEVTIC and E. STEFANI, 2018. Impact of bacterial spot outbreaks on the phytosanitary quality of tomato and pepper seeds. Plant Pathology.
 - VURUKONDA S.S.K.P., D. GIOVANARDI and E. STEFANI, 2018. Plant growth promoting and biocontrol activity of *Streptomyces* spp. as endophytes. International Journal of Molecular Sciences, 19(4), doi: 10.3390/ijms19040952
 - GIOVANARDI D., P. FERRANTE, M. SCORTICHINI and E. STEFANI, 2018. Characterisation of *Pseudomonas syringae* isolates from apricot orchards in north-eastern Italy. European Journal of Plant Pathology, 151(4): 901-917.
 - LORETI S., A. CUNTY, N. PUCCI, A. CHABIRAND, E. STEFANI et al., 2018. Performance of diagnostic tests for the detection and identification of *Pseudomonas syringae* pv. *actinidiae* (Psa) from woody samples. European Journal of Plant Pathology, doi: 10.1007/s10658-018-1509-5.
 - AIELLO D., C. RESTUCCIA, E. STEFANI A. VITALE, G. CIRVILLERI, 2019. Postharvest biocontrol activity of *Pseudomonas synxantha* against *Monilinia fructicola* and *Monilinia fructigena* on stone fruits. Postharvest Biology and Technology, 149: 83-89.
 - MEKAM P.N., S. MARTINI, J. NGUEFACK, D. TAGLIAZUCCHI, G.N. MANGOUMOU, E. STEFANI, 2019. Extracts from tropical plants and their possible activity against three pathogenic fungi of tomato (*Solanum lycopersicum* L.). South African Journal of Botany 27; 319-332..
 - ALTIN I., L. CASOLI, E. STEFANI, 2020. First report of bacterial spot caused by *Xanthomonas cucurbitae* on pumpkin in Italy. New Disease Reports, vol. 41, p. 21,
 - VURUKONDA SSKP., M. MANDRIOLI, G. D'APICE E. STEFANI, 2020. Draft genome sequence of plant growth-promoting *Streptomyces* sp. strain SA51, isolated from olive trees. Microbiology Resource Announcements, vol. 9, p. e00768-19
 - KALUZNA M., M. FISHER-LE SAUX, J. POTHIER, M-A. JACQUES, A. OBRADOVIC, F. TAVARES, E. STEFANI, 2021. *Xanthomonas arboricola* pv. *juglandis* and pv. *corylina*: Brothers or distant relatives? Genetic clues, epidemiology, and insights for disease management. Molecular Plant Pathology, vol. 22, p. 1481-1499
 - STEFANI E., A. OBRADOVIC, K. GASIC, I. ALTIN, I. NAGY, T. KOVACS, 2021. Bacteriophage-mediated control of phytopathogenic xanthomonads: A promising green solution for the future. Microorganisms, vol. 9, p. 1-21
 - DONGMO A.N., J. NGUEFACK, Dongmo, J.B. LECAGNE, F.R. FOULENKACK, R.U. AZAH, E.A. NKENGFACK, E. STEFANI, 2021. Chemical characterization of an aqueous extract and the essential oil of *Tithonia diversifolia* and their biocontrol activity against seed-borne pathogens of rice. Journal of plant Diseases and Protection, vol. 128, p. 1-11
 - COSTA J., J. POTHIER, J. BOCH, E. STEFANI, M-A. JACQUES, V. CATARA, R. KOEBNIK, 2021. Integrating science on *Xanthomonadaceae* for sustainable plant disease management in Europe. Molecular Plant Pathology, vol. 22, p. 1461-1463.

- VURUKONDA SSK, D. GIOVANARDI, E. STEFANI, 2022. Identification, evaluation and selection of a bacterial endophyte able to colonize tomato plants, enhance their growth and control *Xanthomonas vesicatoria*, the causal agent of the spot disease. *Canadian Journal of Plant Pathology*, vol. 44, p. 219-234
- BEN OTHMEN S., G. CONTI NIBALI, S. CASSANELLI, D. GIOVANARDI, E. STEFANI, 2023. A viability qPCR protocol to assess the efficacy of a heat treatment to sanitize carrot seeds from *Candidatus Liberibacter solanacearum*. *European Journal of Plant Pathology*, p. 1-14.
- XHEMALI B., D. GIOVANARDI, E. BIONDI, E. STEFANI, 2024. Tomato and pepper seeds as pathways for the dissemination of phytopathogenic bacteria: A constant challenge for the seed industry and the sustainability of crop production. *Sustainability*, 16, 1808. <https://doi.org/10.3390/su16051808>
- NANFACK A.D., J. NGUEFACK, S. MUSONERIMANA, S. LA CHINA, D. GIOVANARDI E. STEFANI, 2024. Exploiting the microbiome associated with normal and abnormal sprouting rice (*Oryza sativa* L.) seed phenotypes through a metabarcoding approach. *Microbiological Research* 279, 127546. <https://doi.org/10.1016/j.micres.2023.127546>

Memberships

Prof. Stefani is Associate Editor of the *Journal of Plant Diseases and Protection* (Springer) and Associate Editor of *Frontiers in Microbiology*.

Prof. Stefani is Member of the Deutsche Phytomedizinische Gesellschaft (DPG) and of the Italian Phytopathological Society (SIPAV).

He was nominated Honorary Member of the Italian-Serbian Association of Scientists.

Patents

Patent PCT/IB/2023/056252. *Streptomyces venezuelae* strain DSMZ33887 as a novel biofungicide.