

Riccardo Fontana, Ph.D

PERSONAL INFORMATION

Date and Place of birth: 25/08/1992, Schio (VI), IT | Citizenship: Italian

Address: Via Broccaindosso, 38 – 40125, Bologna IT - 3932167611

e-mail: fntrcr1@unife.it

Professional Social Media Accounts

Scopus Author ID: 57312138700 | ORCID ID: 0000-0001-7069-1677

LinkedIn: <https://www.linkedin.com/in/riccardo-fontana-56b397136/>

ResearchGate: <https://www.researchgate.net/profile/Riccardo-Fontana-6>

CURRENT POSITION

02/2025 – **RTD-A CHEM-07/A – Chimica Farmaceutica** - Department of Chemical, Pharmaceutical, and Agricultural Sciences, University of Ferrara.
now

EDUCATION

01/09/2012 – **Master's Degree in Pharmacy and Industrial Pharmacy (LM13) (Final grade: 110/110 cum laude)**, Faculty of Pharmacy, University of Ferrara. Experimental thesis at the Woolcock Medical Institute of Sydney. Thesis: "Aryl-urea fatty acid's effects on inflammation in lung epithelial cells". Supervisors: Prof. Gaia Colombo, Prof. Daniela Traini.
18/03/2018

01/11/2019 – **Ph.D. in Chemical Sciences, Department of Chemical, Pharmaceutical, and Agricultural Sciences, University of Ferrara.** Thesis: "Natural approaches against phytopathogenic bacteria". Coordinator: Prof. Alberto Cavazzini; Supervisors: Prof. Stefano Manfredini and Prof. Peggy Marconi. **Degree awarded with honors on 24/02/23.**
24/02/2023

POST-GRADUATE TRAINING AND RESEARCH

04/2018 – **Research Fellow at Azienda Ospedaliera Universitaria Sant'Anna di Ferrara. Research project "Antidotes and Intoxications in Emilia-Romagna Region":** Management of antidote stocks in hospitals, epidemiological research on intoxications, new drugs of abuse, and psychoactive substances.
10/2019
[18 months]

11/2019 – **Ph.D. Research Fellow in Chemical Sciences, University of Ferrara**
02/2023

[3 years]
Ph.D. in Chemical Sciences, Department of Chemical, Pharmaceutical, and Agricultural Sciences, University of Ferrara. Thesis: "Natural approaches against phytopathogenic bacteria". Supervisors: Prof. Stefano Manfredini and Prof. Peggy Marconi. The research projects undertaken during the Ph.D. included:

1. Design, extraction, and analysis of formulations containing natural substances extracted from agro-food waste (chitosan, nanocellulose, fermentations).

2. Study of natural substances (of natural origin) and biological therapies (bacteriophage therapy) and their antimicrobial activities against phytopathogens and human pathogens.
3. Study and functionalization of formulations containing natural substances extracted from agro-food waste (chitosan, nanocellulose, fermentations) and their biological activity with associated qualitative and quantitative chemical analyses of the extracts under examination.
4. Development and synthesis of preservative systems for cosmetic formulations.
5. Environmental microbiology studies - sampling campaigns in healthcare, industrial, and civil spaces.

Therapeutic Areas: Microbiology, Pharmaceutical Chemistry.

Experience gained with basic laboratory techniques: cell culture, bacterial cultures, ELISA, biochemical analyses (MTT, MTS, proliferation, tissue regeneration, LDH...), catalysis and biocatalysis, LCMS, optical microscopy, electron microscopy, and time-lapse microscopy; extraction and formulation of different plant matrices; functionalization of antimicrobial molecules; study of the analytical profiles of the extracts under examination; treatment of chemical/biochemical samples.

Experimental procedures and technologies applied: extraction and analysis of bioactive molecules; functionalization of antimicrobial molecules; study of the analytical profiles of plant extracts; treatment and characterization of chemical/biochemical samples; study of antimicrobial mechanisms of action; biofilm analysis; analysis of virulence factors; membrane permeability analysis; principles/procedures/technologies of extraction methods; dimensional analysis with electron microscopy; extraction and formulation from different plant matrices.

11/2023 -
12/2023

[1 month]

Occasional professional collaboration

Activities of drafting scientific articles in English for Peer Reviewed journals, Consortium Future in Research, Ferrara, IT. Supervisor: Prof. Peggy Marconi.

02/2023 –
02/2025

[24 months]

Research Fellow SSD MED/07 (art. 51 L. 449/97) Department of Chemical, Pharmaceutical, and Agricultural Sciences, University of Ferrara, IT. Supervisor: Prof. Peggy Marconi

1. Study of natural substances (of natural origin) and biological therapies (bacteriophage therapy) and their antimicrobial activities against human and phytopathogens.
2. Study of formulations containing natural substances extracted from agro-food waste (chitosan, nanocellulose, fermentations) and their microbiological activity.
3. Study and development of viral vectors, in vitro and in vivo, against HSV-1 and HSV-2.

4. Study and development of preservative systems for cosmetic formulations.
5. Environmental microbiology studies - sampling campaigns in healthcare and civil spaces.

Therapeutic Areas: Microbiology/Agricultural Microbiology/Environmental Microbiology.

Experience gained with basic laboratory techniques: cell culture, bacterial cultures, ELISA, biochemical analyses (MTT, MTS, proliferation, tissue regeneration, LDH...), study of antimicrobial mechanisms of action; biofilm analysis; analysis of virulence factors; membrane permeability analysis; catalysis and biocatalysis, LCMS, optical microscopy, electron microscopy, and time-lapse microscopy; extraction and formulation of different plant matrices; functionalization of antimicrobial molecules; study of the analytical profiles of the extracts under examination; treatment of microbiological/biochemical samples.

Experimental procedures and technologies applied: extraction and analysis of bioactive molecules; functionalization of antimicrobial molecules; study of the analytical profiles of plant extracts; treatment and characterization of chemical/biochemical samples; study of antimicrobial mechanisms of action; biofilm analysis; analysis of virulence factors; membrane permeability analysis; principles/procedures/technologies of extraction methods; dimensional analysis with electron microscopy; extraction and formulation from different plant matrices.

2018 – now

Collaboration with other Italian research groups - Various project activities have been developed thanks to collaborations with different university research laboratories and hospital structures. Some research has been and is still being conducted within the framework of national collaborations such as:

- Collaboration on the research project coordinated by Prof. Remo Guerrini, Prof. Salvatore Pacifico, Chemia S.r.l. - **Evaluation of the antimicrobial properties of peptides synthesized by the University of Ferrara against quarantine phytopathogens**, Consortium Future in Research, Ferrara, IT. Supervisor: Prof. Remo Guerrini.
- Collaboration on the research project coordinated by ISS - Finalized Research Project - 2020 Funding. Project title: **“Development of novel vaccines against Herpes simplex virus type 1 and 2”** (duration: 36 months). Project manager Dr. Barbara Ensoli - National HIV/AIDS Research Center - Infectious Diseases and Microbiology; Head of the operational unit of Ferrara, Department of Chemical, Pharmaceutical, and Agricultural Sciences, Prof. Antonella Caputo.
- Collaboration on the research project coordinated by Prof. Peggy Marconi, Prof. Anna Baldisserotto, Prof. Elisabetta Esposito, Prof. Benedetta Chiancone (University of Parma), Prof. Simone Ronsisvalle (University of Catania) - **Evaluation of the biological and antimicrobial properties of agro-food waste against quarantine phytopathogens**.
- Collaboration on the research project coordinated by Prof. Budriesi (University of Bologna), Prof. Marconi, and Prof. Manfredini, **Evaluation of the biological and**

antimicrobial properties of Magnolia officinalis extracts against respiratory pathogens.

- Collaboration on the research project coordinated by Prof. Peggy Marconi, in collaboration with Punto3 s.r.l. of Ferrara - **Microbiological analysis of cleaning services in civil and healthcare environments.**
- Collaboration on the research project coordinated by Prof. Peggy Marconi, Prof. Nicola Marchetti, and Prof. Elisabetta Esposito - **Evaluation of the antifungal activities of ozonized preparations against phytopathogenic fungi.**

Collaboration with other international research groups - Various project activities have been developed thanks to collaborations with different university research laboratories and hospital structures. Some research has been and is still being conducted within the framework of international collaborations such as:

2017 - 2018

- Collaboration on a research project aimed at drafting the Master's thesis at Woolcock Institute of Medical Research, University of Sydney - Thesis: "Aryl-urea fatty acid's effects on inflammation in lung epithelial cells". Supervisors: Prof. Gaia Colombo, Prof. Daniela Traini, SSD CHIM/09. The master's thesis project, developed at the Respitech laboratory, Woolcock Institute of Medical Research, University of Sydney, under the supervision of Prof. Daniela Traini and Prof. Paul Young, included the study of pharmaceutical formulations for pulmonary administration; my project focused on the effects of modified fatty acids with ureic portions in lung epithelial cells to evaluate their potential role as new active drugs in a potential pMDI formulation. Procedures and technologies applied: principles/procedures/technologies of synthesis and separation methods, catalysis and biocatalysis, LCMS, HPLC, dimensional analysis with Z-sizer, optical microscopy and timelapse microscopy, cell culture, bacterial cultures, ELISA, biochemical analysis (MTT, MTS, proliferation, tissue regeneration, LDH...).

2019 – 2021

- Collaboration on a research project coordinated by Prof. Peggy Marconi, Prof. Caputo, and Prof. Gavalyan (University of Yerevan – Armenia) - Novel Chitosan-Based Schiff Base Compounds: Chemical Characterization and Antimicrobial Activity.

2020 – now

- Collaboration on a research project coordinated by Prof. Peggy Marconi and Prof. Pablo Martín-Ramos (Universidad de Valladolid) – Evaluation of the antimicrobial properties of natural extracts of different origins against bacterial and fungal quarantine phytopathogens. Development of formulations to be administered in planta.

TEACHING EXPERIENCE

TEACHING ASSISTANCE

a.a. 2019/2020 Series of seminars on microbiology topics for the following Degree Courses:
2020/2021

- Chemistry and Pharmaceutical Technologies – academic year 2019/2020
- Pharmacy and Industrial Pharmacy – academic year 2019/2020
- Biological Sciences – academic year 2020/2021
- Biotechnologies – academic year 2020/2021

-

a.a. 2023/2024 Awarding of a series of seminars on microbiology topics for the Ph.D. course in Advanced Therapies and Experimental Pharmacology

ATTIVITÀ DI SUPPORTO ALLA DIDATTICA: SUPERVISIONE DI STUDENTI

Dal 2020 – now **Supervision of students as Second Supervisor/Co-supervisor for experimental five-year master's theses in Pharmaceutical Chemistry and Pharmacy, University of Ferrara, IT.**

Primary Supervisor: Peggy Marconi

- Thesis: Effects of Moringa oleifera extracts against the phytopathogen Erwinia amylovora. Degree Course in CTF
- Thesis: Antibacterial activity profile of Moringa oleifera leaf extracts against the phytopathogen Xanthomonas campestris pv. campestris. Degree Course in Pharmacy
- Thesis: Study of the antimicrobial effects of formulations based on natural extracts against the phytopathogen Xanthomonas campestris pv. campestris. Degree Course in CTF
- Thesis: Antibacterial activity profile of hop powder extracts against the phytopathogen Erwinia amylovora. Degree Course in CTF
- Thesis: Antibacterial activity profile of hop powder extracts against the phytopathogen Xanthomonas campestris pv. campestris. Degree Course in CTF

Primary Supervisor: Stefano Manfredini

- Thesis: Analysis of the antibacterial and antibiofilm activity of Magnolia officinalis extracts against pathogens involved in respiratory diseases. Degree Course in Pharmacy
- Thesis: Fungal fermentation processes in the cosmetic upcycling of by-products from ancient Rieti wheat bran from the Valmarecchia area. Degree Course in Biotechnologies for the Environment and Health

Primary Supervisor: Anna Baldisserotto

- Thesis: Synthesis, chemical-physical characterization, and evaluation of the antibacterial power of new cross-linked derivatives of hyaluronic acid. Degree Course in Medical Biotechnologies.

Primary Supervisor: Nicola Marchetti

- Thesis: Study of the anti-proliferative effect of an ozonized oil on phytopathogens of agri-food interest. Degree Course in Agricultural Biotechnologies.

Supervision of students as Second Supervisor for four experimental bachelor's theses in Biological Sciences, Environmental and Health Biotechnologies, and Medical Biotechnologies, University of Ferrara, IT.

- Thesis: Natural approaches against *Xanthomonas campestris* pv. *campestris*. Degree Course in Biotechnologies
- Thesis: Natural approaches against *Erwinia amylovora*. Degree Course in Biotechnologies
- Thesis: Natural, pharmacognostic, and biological approaches to quarantine phytopathogens. Degree Course in Biological Sciences
- Thesis: Study of the antibacterial activity of *Humulus lupulus* extracts against *Staphylococcus aureus*. Degree Course in Biological Sciences
- Thesis: Study of the antibacterial activity of *Humulus lupulus* extracts against Respiratory Tract Bacteria. Degree Course in Biological Sciences
- Thesis: Study of the antibacterial activity of *Humulus lupulus* extracts against digestive tract bacteria. Degree Course in Biological Sciences

ATTIVITÀ DIDATTICA PER CORSI UNIVERSITARI POST-LAUREAM

- a.a. 2022/2023 Universidad de Valladolid, Spain, 9-12/05/2022 - Seminars for the Doctoral School in Agri-food and Biosystems Science and Engineering, on the potential of nanotechnologies for agri-environmental development - "Effects of *Moringa oleifera* extracts on xylematic phytopathogens".
- a.a. 2023/2024 Awarding of a series of seminars on microbiology topics for the Ph.D. course in Advanced Therapies and Experimental Pharmacology

TEACHING TUTOR FOR COURSES OF STUDY IN BIOLOGICAL SCIENCES AND BIOTECHNOLOGY

- a.a. 2019/2020 Teaching tutoring in Physiology and Biochemistry for the Biological Sciences degree
- a.a. 2020/2021 Teaching tutoring in Microbiology for the Biological Sciences and Biotechnologies degree
- a.a. 2021/2022 Teaching tutoring in Microbiology for the Biological Sciences and Biotechnologies degree

TUTOR PER PROGETTI UNIVERSITARI

- a.a. 2019/2020 School-work alternation (law 107/2015): online, two IV classes of the Liceo Ariosto (Ferrara) and IIS Primo Levi (Badia Polesine).
- a.a. 2020/2021 School-work alternation (law 107/2015): online, two IV classes of the Liceo Ariosto (Ferrara) and IIS Primo Levi (Badia Polesine).

a.a. 2021/2022 School-work alternation (law 107/2015): online, two IV classes of the Liceo Ariosto (Ferrara) and IIS Primo Levi (Badia Polesine).

THIRD MISSION ACTIVITIES

- Report "Protection of the ecosystem from phytopathogens" c/o the UniFE information event "Ferrara, a city in symbiosis with its river", 11/18/2022
- European Researchers' Night 2022, "Protection of the agricultural ecosystem from phytopathogens", 10/2022
- Report on substance abuse (drugs, nicotine, alcohol, drugs of abuse), in sections. Third grade at the Smiling International School of Ferrara, 19/03/2023

RESEARCH REWARDS

Awarded with the annual prize Ferrara School of Pharmacy and Health Products, 2018

The diploma of the 'Ferrara School of Pharmacy and Health products' is awarded to students of the five-year single-cycle master's degrees in Pharmacy and in Pharmaceutical Chemistry and Technology (courses of the LM-13 Pharmacy and Industrial Pharmacy degree class), with an academic career high profile, with a marked international connotation and mastery of the English language in the scientific field.

REPORTS AND PARTICIPATION IN NATIONAL AND INTERNATIONAL CONGRESSES AND CONFERENCES

ORAL PRESENTATIONS

- **IX Convegno del Centro di Riferimento Regionale Antidoti, Università degli Studi di Ferrara, Ferrara, 10/06/2019**
 - **Riccardo Fontana**, Angela Ricci Frabattista, "CRR antidoti Emilia-Romagna: Stato dell'Arte 2019"
- **Congresso Nazionale della nuova Società Italiana di Microbiologia Farmaceutica ETS. Roma, Giugno 2023**
 - **Riccardo Fontana**, Anna Caproni, Mariangela Pappadà, Chiara Nordi, Mattia Buratto, Peggy Marconi, Stefano Manfredini - "Antimicrobial effects of wheat fermented extracts against *Staphylococcus aureus*, cytotoxicity and biochemical aspects";
 - **Riccardo Fontana**, Anna Caproni, Mariangela Pappadà, Chiara Nordi, Mattia Buratto, Peggy Marconi, Stefano Manfredini – "Antibiofilm effect of *Moringa oleifera* leaf extract against *Staphylococcus aureus* and *Pseudomonas aeruginosa*, cytotoxicity, biochemical aspects, anti-inflammatory properties".

POSTERS

- **XXXIX Congresso Nazionale SIFO 2018**
 - Angela Ricci Frabattista, **Riccardo Fontana**, Brunella Quarta, Davide Sighinolfi, ANALISI DELLE ATTIVITA' DI FORMAZIONE, CONSULENZA E MOVIMENTAZIONE ANTIDOTI DEL CENTRO

REGIONALE DI RIFERIMENTO ANTIDOTI Raccolta: 2018 Vol. 32 Suppl. 1 al N. 3 Luglio-Settembre;

- **Riccardo Fontana**, Davide Sighinolfi, Roberto Zoppellari, Paola Scanavacca, "MONITORAGGIO DEGLI EVENTI D'INTOSSICAZIONE PRESSO I PRONTO SOCCORSO DELLA PROVINCIA DI FERRARA - CRR ANTIDOTI RER" Raccolta: 2018 Vol. 32 Suppl. 1 al N. 3 Luglio-Settembre XXXIX Congresso Nazionale SIFO;
- Davide Sighinolfi, Roberto Zoppellari, **Riccardo Fontana**, Paola Scanavacca, "Intoxication events in Ferrara's Emergency Department in 2017: Emilia-Romagna Antidotes Reference Department"
Rivista: Clinical Toxicology 2019, vol 57, NO 6, 423-602
- **13° Congresso della Società Italiana di Microbiologia Farmaceutica (SIMiF), 28-29/06/2021.**
 - **Riccardo Fontana**, Irene Gugel, Giovanna Macchi, Laura B. Mattioli, Giulia Biotti, Matteo Micucci, Roberta Budriesi, Stefano Manfredini, Peggy Marconi, "Attività Antibatterica Di Estratti Di Magnolia Officinalis Nei Confronti Di Patogeni Coinvolti In Patologie Del Sistema Respiratorio" *13° Congresso della Società Italiana di Microbiologia Farmaceutica (SIMiF), 28-29/06/2021, Online.*;
 - **Riccardo Fontana**, Macchi G, Caproni A, Gugel I, Rossetti G, Sicurella M, Buratto M, Pappadà M, Salvatori F, Stanchina A, Baldisserotto A, Manfredini S, Marconi P. "Attività antibatterica di estratti di foglie di Moringa Oleifera nei confronti del fitopatogeno Erwinia amylovora" ;
 - **Caproni A***, **Riccardo Fontana***, Macchi G, Rossetti G, Sicurella M, Buratto M, Gugel I, Pappadà M, Salvatori F, Stanchina A, Baldisserotto A, Manfredini S, Marconi P. "Profilo dell'attività antibatterica di estratti di foglie di Moringa Oleifera nei confronti del fitopatogeno Xanthomonas campestris pv. Campestris" (* Gli autori hanno contribuito allo stesso modo al lavoro) *13° Congresso della Società Italiana di Microbiologia Farmaceutica (SIMiF), 28-29/06/2021, Online.*
- **12° International Scientific Agriculture Symposium – AGROSYM 2021, 7-10/10/2021, Jahorina, BIH.**
 - **Riccardo Fontana**, Macchi G, Caproni A, Gugel I, Sicurella M, Pappadà M, Salvatori F, Buratto M, Baldisserotto A, Manfredini S, Marconi P. "Antibacterial activity of Moringa Oleifera leaf extracts against the plant pathogen Erwinia amylovora";
 - **Caproni A***, **Riccardo Fontana***, Macchi G, Gugel I, Rossetti G, Sicurella M, Buratto M, Pappadà M, Salvatori F, Buzzi R, Baldisserotto A, Manfredini S, Marconi P. "Profile of antibacterial activity of Moringa Oleifera leaves extracts against the phytopathogen Xanthomonas campestris pv. Campestris" (* Gli autori hanno contribuito allo stesso modo al lavoro), *12° International Scientific Agriculture Symposium – AGROSYM 2021, 7-10/10/2021, Jahorina, BIH.*
- **5th National Congress of the Italian Society for Virology "SIV-ISV", 5-6/07/2021.**
 - Buratto M, Sicurella M, Stanchina A, Caproni A, Salvatori F, Pappadà M, **Riccardo Fontana**, Manservigi R, Marconi P. "Role of Immediate Early Proteins ICP0 and ICP27 in Apoptotic pathway";
 - Sicurella M, Cecchi D, Buratto M, Caproni A, Salvatori F, Pappadà M, **Riccardo Fontana**, Tomasini MC, Manservigi R, Marconi P. "HSV-1 as a risk factor in the pathogenesis of Alzheimer's disease: expression of nuclear tau in different cell lines and in mouse model neurons" *5th National Congress of the Italian Society for Virology "SIV-ISV", 5-6/07/2021, Online.*
- **50th National Congress of the Italian Society of Microbiology "SIM", 18-21/09/2022, Napoli, IT.**
 - **Caproni A**, **Riccardo Fontana**, Nordi C, Marzola M, Buratto M, Salvatori F, Pappadà M, Baldisserotto A, Manfredini S, Buzzi R, Marconi P. "Effects on Xanthomonas campestris pv. campestris by Moringa oleifera Lam. leaf fermented extracts";

- **Riccardo Fontana**, Caproni A, Nordi C, Marzola M, Buratto M, Salvatori F, Pappadà M, Sicurella M, Marconi P. “Antibiofilm activity of Moringa oleifera Lam. leaf extracts by Scanned Electron Microscopy visualization against Xanthomonas campestris pv. Campestris” *50th National Congress of the Italian Society of Microbiology "SIM"*, 18-21/09/2022, Napoli, IT.;
- **Riccardo Fontana**, Anna Caproni, Chiara Nordi, Marco Marzola, Giulia Trioschi, Ottavia Bonucelli, Mariaconcetta Sicurella, Stefano Manfredini, Anna Baldisserotto, Peggy Marconi “Profile of antibacterial activity of Moringa oleifera Lam. single phenols against the phytopathogen Xanthomonas campestris pv. campestris” *50th National Congress of the Italian Society of Microbiology "SIM"*, 18-21/09/2022, Napoli, IT.
- **52nd National Congress of the Italian Society of Microbiology "SIM", 8-11/09/2024, Pavia, IT.**
Riccardo Fontana, Caproni A, Nordi C, Buratto M, Pappadà M, Sicurella M, Marconi P. “Profile of antibacterial activity of Humulus lupulus against the phytopathogen Erwinia amylovoran.”

SEMINARS AND TRAINING COURSES

TRAINING COURSES/SEMINARS in the chemical field:

2019/2020:

- ICH M7 Mutagenic Impurities in Pharmaceuticals [Seminar, 2 hours]
- Quality Assurance in a multinational pharmaceutical company [Seminar, 2 hours]
- UNI EN ISO 22716: Cosmetics – Good Manufacturing Practices (GMP) [Seminar, 3 hours]
- ISO 22716:2007 and ISO 9001:2015 comparison: document management [Seminar, 2 hours]

2020/2021:

- Design and synthesis of peptide therapeutics in drug discovery [Seminar, 3 hours]
- Peptides and Peptide Mimetics: a galaxy of properties and applications [Seminar, 3 hours]
- Nitrosamines – unexpected Impurities of Drug? [Seminar, 3 hours]

2021/2022:

- Analysis of pesticide residues in food [Seminar, 3 hours]

TRAINING COURSES/SEMINARS in the biological field:

2019/2020:

- The great challenges of small devices for electrically interfacing biology [Seminar, 3 hours]
- Immunohistochemical techniques in molecular and regenerative medicine: research and clinical applications [Seminar, 3 hours]
- Plant organisms for the green economy [Seminar, 6 hours]
- Vaccine for COVID-19 Updates, Hopes, Issues and Considerations [Webinar, 6 hours]
- The EFSA host plant database of Xylella spp. [Webinar, 4 hours]
- Current Bacterial Endotoxins Test (BET) and its Intended Use [Webinar, 3 hours]
- Quantitative Methods for Biology [Webinar, 3 hours]
- The CRISPR Benchmark Report: Insights on Genome Engineering [Webinar, 3 hours]

2020/2021:

- Monoclonal antibodies against viral pathogens: therapeutic implications and epitope-based vaccine design [Webinar, 3 hours]
- Ethical aspects of cell therapy [Webinar, 3 hours]
- OpBA Course – Biology of rodents [Webinar]
- Metagenomics of the human microbiome for biomedical applications [Webinar, 3 hours]

- An online 2 days Course in Systematic Reviews of animal studies (AISAL) [Webinar, 2 days]
- 3rd European Conference on Xylella fastidiosa & XF-ACTORS Final Meeting

2021/2022:

- Nanomaterials for environmental, energy, and pharmaceutical applications [Webinar, 3 hours]
- ECM Course – Basic biology of rodents and lagomorphs [Training Course]
- ECM Course – National Legislation and Ethics [Training Course]
- ECM Course – Ethics and project design [Training Course]
- Series of Webinars organized by the Degree Course in Agricultural Biotechnologies for the Agro-Food Chain and the Order of Agronomists and Foresters of Ferrara
- 14th International Conference on Plant Pathogenic Bacteria and Workshop on Erwinia amylovora 2022 – Assisi

INTERDISCIPLINARY TRAINING COURSES/SEMINARS:

2019/2020:

- English language course [27/05/2020 – 25/07/2020 – 2 months]
- Course on personal data protection (new Privacy regulation)

2020/2021:

- Advanced computing and IR - basic module + specialized module in SVISA area [12/2020 – 02/2021 – 3 months]
- Basic Training Course in European Project Design, 9 modules [16/03/2021 – 09/04/2021 – 3 weeks]
- Ph.D. and Open Innovation [13/10/2021 – 10/11/2021 – 1 month]

2021/2022:

- Design Thinking for research and innovation [28/09/2022 – 03/11/2022 – 1 month]
- Advanced Training Course in European Project Design [12/2022 – 01/2023]
- Cambridge ESOL Exams (Passed on 02/12/2021) – C1
- Ethics Course [13/10/2022 – 20/10/2022 – 1 week]

PEER REVIEWED PUBLICATIONS LIST

Scientific profile:

Orcid ID: 0000-0001-7069-1677

Scopus Author ID: 57312138700

Scientific Production and Bibliometric Indicators (calculated in 2023)

Total number of publications in international journals with peer review reported on Scopus and PubMed:
12

Number of publications where the author has a leadership role (first/last author and/or corresponding author): 9

Total number of citations: 49 (source: Scopus)

Total Impact Factor (IF): 55.5 (ISI-WoS ranking)

Average Impact Factor per publication: 4.625

Hirsch Index/H-index: 4 (source: Scopus)

1. **Riccardo Fontana**, Macchi G, Caproni A, Sicurella M, Buratto M, Salvatori F, Pappadà M, Manfredini S, Baldisserotto A, Marconi P. Control of Erwinia amylovora Growth by Moringa oleifera Leaf Extracts:

- In Vitro and in Planta Effects. (2022) *Plants*. 11, pp 957-976. [IF₂₀₂₂= 4,658] *L'autore ha sviluppato la metodica, effettuato le analisi laboratoriali, le analisi dati e la stesura dell'articolo.* Keywords (KW): *Erwinia amylovora*; *Moringa oleifera* Lam; plant extracts; antimicrobial activity; amylovoran; biofilm; crop protection; phytopathogen control
2. **Riccardo Fontana**, Caproni A, Buzzi R, Sicurella M, Buratto M, Salvatori F, Pappadà M, Manfredini S, Baldisserotto A, Marconi P. Effects of *Moringa oleifera* Leaf Extracts on *Xanthomonas campestris* pv. *Campestris*. (2021) *Microorganisms*. 9, pp 2244-2261. [IF₂₀₂₁=4,926] *L'autore ha sviluppato la metodica, effettuato le analisi laboratoriali, le analisi dati e la stesura dell'articolo.*
 3. **Riccardo Fontana**, Marconi, P.C.R.; Caputo, A.; Gavalyan, V.B. Novel Chitosan-Based Schiff Base Compounds: Chemical Characterization and Antimicrobial Activity. *Molecules* **2022**, *27*, 2740. <https://doi.org/10.3390/molecules27092740> [IF₂₀₂₁=4,927] *L'autore ha sviluppato la metodica, effettuato le analisi laboratoriali, le analisi dati e la stesura dell'articolo.*
 4. **Riccardo Fontana**; Buratto, M.; Marzola, M.; Trioschi, G.; Bandera, B.; Buffone, C.; Vogli, L.; Marconi, P. An Evaluation of Hospital Cleaning Regimes—Microbiological Evaluation and LCA Analysis after Traditional and Sustainable/Green Procedures. *Sustainability* **2022**, *14*, 11465. <https://doi.org/10.3390/su141811465> [IF₂₀₂₁=3,889] *L'autore ha sviluppato la metodica, effettuato le analisi laboratoriali, le analisi dati e la stesura dell'articolo.*
 5. **Riccardo Fontana**, Mattioli, L. B., Biotti, G., Budriesi, R., Gotti, R., Micucci, M., Corazza, I., Marconi, P., Frosini, M., Manfredini, S., Buzzi, R., & Vertuani, S. (2023). *Magnolia officinalis* L. bark extract and respiratory diseases: From traditional Chinese medicine to western medicine via network target. *Phytotherapy Research*, 1– 24. <https://doi.org/10.1002/ptr.7786> [IF₂₀₂₁=6,388] *L'autore ha sviluppato la metodica, effettuato le analisi laboratoriali, le analisi dati e la stesura dell'articolo.*
 6. Pappadà, M., Bonuccelli, O., Buratto, M., **Riccardo Fontana**, et al. Suppressing gain-of-function proteins via CRISPR/Cas9 system in SCA1 cells. *Sci Rep* **12**, 20285 (2022). <https://doi.org/10.1038/s41598-022-24299-y> [IF₂₀₂₁=4,996] *L'autore ha contribuito nell'analisi sperimentale e nella stesura dell'articolo.*
 7. **Riccardo Fontana**; Marzola, M.; Buratto, M.; Trioschi, G.; Caproni, A.; Nordi, C.; Buffone, C.; Bandera, B.; Vogli, L.; Marconi, P. Analysis of Civil Environments Cleaning Services—Microbiological and LCA Analysis after Traditional and Sustainable Procedures. *Sustainability* **2023**, *15*, 696. <https://doi.org/10.3390/su15010696> [IF₂₀₂₁=3,889] *L'autore ha sviluppato la metodica, effettuato le analisi laboratoriali, le analisi dati e la stesura dell'articolo.*
 8. Sciabica, S.; Barbari, R.; **Riccardo Fontana**; Tafuro, G.; Semenzato, A.; Traini, D.; Silva, D.M.; Reis, L.G.D.; Canilli, L.; Terno, M.; Marconi, P.; Baldisserotto, A.; Vertuani, S.; Manfredini, S. A Safe-by-Design Approach for the Synthesis of a Novel Cross-Linked Hyaluronic Acid with Improved Biological and Physical Properties. *Pharmaceuticals* **2023**, *16*, 431. <https://doi.org/10.3390/ph16030431> [IF₂₀₂₁=5,215] *L'autore ha sviluppato la metodica, effettuato le analisi laboratoriali, le analisi dati e la stesura dell'articolo.*
 9. **Riccardo Fontana**; Anna Caproni; Sicurella, M.; Manfredini, S.; Baldisserotto, A.; Marconi, P. Effects of Flavonoids and Phenols from *Moringa oleifera* Leaf Extracts on Biofilm Processes in *Xanthomonas campestris* pv. *campestris*. *Plants* **2023**, *12*, 1508. <https://doi.org/10.3390/plants12071508> [IF₂₀₂₂= 4,658] *L'autore ha sviluppato la metodica, effettuato le analisi laboratoriali, le analisi dati e la stesura dell'articolo*
 10. **Fontana, R.**; Buratto, M.; Caproni, A.; Nordi, C.; Pappadà, M.; Bandera, B.; Vogli, L.; Buffone, C.; Marconi, P. Evaluating Cleaning Services in Civil Environments: Microbiological and Life Cycle Analysis Comparing Conventional and Sustainable Methods. *Sustainability* **2024**, *16*, 487. <https://doi.org/10.3390/su16020487> [IF₂₀₂₃= 3,9]
 11. **Fontana, R.**; Sánchez- Hernández, E.; Martín-Ramos, P.; Martín-Gil, J.; Marconi, P. Smilax aspera L. Leaf and Fruit Extracts as Antibacterial Agents for Crop Protection. *Agronomy* **2024**, *14*, 383. <https://doi.org/10.3390/agronomy14020383> [IF₂₀₂₃= 3,7]

12. Caproni, A.; Nordi, C.; **Fontana, R.**; Facchini, M.; Melija, S.; Pappadà, M.; Buratto, M.; Marconi, P. Herpes Simplex Virus ICP27 Protein Inhibits AIM 2-Dependent Inflammasome Influencing Pro-Inflammatory Cytokines Release in Human Pigment Epithelial Cells (hTert-RPE 1). *Int. J. Mol. Sci.* **2024**, *25*, 4608. <https://doi.org/10.3390/ijms25094608> [IF₂₀₂₃= 5,6]
13. **Fontana, R.**; Vogli, L.; Buratto, M.; Caproni, A.; Nordi, C.; Pappadà, M.; Facchini, M.; Buffone, C.; Bandera, B.; Marconi, P. Sustainable vs. Conventional Cleaning in Healthcare: Microbiological and Life Cycle Insights. *Sustainability* **2025**, *17*, 1114. <https://doi.org/10.3390/su17031114>
14. Anna Caproni, Silvia Leveraro, Klaudia Szarszoń, Chiara Nordi, **Riccardo Fontana**, Mattia Buratto, Peggy Marconi, Maurizio Remelli, Mariaconcetta Sicurella, Denise Bellotti, A multi-technique approach to enlighten the role of metal coordination in calcitermin antiviral properties, *Analytical Biochemistry*, Volume 700, 2025, 115784, ISSN 0003-2697, <https://doi.org/10.1016/j.ab.2025.115784>.

REVIEWER ACTIVITIES FOR INTERNATIONAL JOURNALS

- Peer review report per Drug Development and Industrial Pharmacy (WILEY)
- Peer review report per Phytotherapy Research (WILEY)
- Peer review report per Microorganisms (MDPI)
- Peer review report per Plants (MDPI)
- Peer review report per Hygiene (MDPI)
- Peer review report per Applied Sciences (MDPI)

LANGUAGES

I have an excellent knowledge of the English language (comprehension: advanced level (C1); speaking: advanced level (C1); writing: advanced level (C1)). **English Language Proficiency Certificate** - Cambridge Advanced English (CAE), obtained at InLingua Ferrara, December 16, 2021, European level C1 – advanced.

I have an excellent knowledge of the Spanish language (comprehension: advanced level (C1); speaking: advanced level (C1); writing: advanced level (C1)), acquired through participation in the Erasmus+ program 2014/2015 at Universidad Complutense de Madrid, Madrid, Spain.

Updated on the 16th March 2025

The undersigned declares to possess all the qualifications indicated in this curriculum vitae and that every information indicated in the aforementioned curriculum is true.

I authorize the processing of my personal data pursuant to Legislative Decree 30 June 2003, n. 196 Code regarding the protection of personal data.

Sincerely