

Silvana Alfei

Confirmed Researcher (RTI)

Scientific Disciplinary Sector

CHEM-05/A - Organic Chemistry, Department of Pharmacy – DIFAR

National Scientific Qualification (ASN), Associate Professor since October 7, 2022

Research Lines: The research lines concern: a) synthesis of dendrimers, biodegradable soluble polymers and copolymers functionalizable with biologically active molecules, or polycationic polymers functionalized with amino acids with intrinsic antibacterial and/or anticancer activities for biomedical applications; b) synthesis of nanosized ammonium and triphenylphosphonium salts, including amphiphilic ones, and their derivatives functionalized with pharmacologically active natural molecules; c) synthesis of cationic cross-linked polymers (resins) and bioactive gels for environmental, biomedical, and tissue engineering applications.

EDUCATION AND TRAINING

November 9, 1999

Bachelor's Degree in Chemistry and Pharmaceutical Technologies (CTF)

Thesis in Organic Chemistry: "Synthesis of a Styrene Monomer with Moderate Inhibition of Benzyl Amino oxidase and Its Copolymers Through the Use of Ortho-Direct Metallation Reactions." Supervisor: Professor Vincenzo Bertini

Grade: 110/110 with Honors.

Faculty of Pharmacy, University of Genoa

PROFESSIONAL HISTORY

Institutional Technical Positions

December 1, 2000 to 2005

Graduate Technical Assistant (Technical, Scientific-Technical, and Data Processing Areas, Category C)

Winner of a competition announced by the University of Genoa
Organic Chemistry Laboratory

Department of Pharmaceutical and Food Chemistry and Technology (DiCTFA) of the Faculty of Pharmacy.

[14/02/2002 to 2005](#)

Responsible for the collection, storage, and delivery to specialized companies of toxic and hazardous waste, including that from the DiCTFA research and teaching laboratories.

Department of Pharmaceutical and Food Chemistry and Technology (Faculty of Pharmacy)

[2003-2005](#)

**Responsible for the Registration and Cataloging of Scientific Journals in the DiCTFA Library
Assignment of the Director of the Department of Pharmaceutical and Food Chemistry and Technology**

Faculty of Pharmacy

[05/05/2004 to 2025](#)

Worker in Charge of Implementing Fire Prevention and Firefighting Measures, Worker Evacuation in Case of Serious and Immediate Danger, Rescue, First Aid, and Management Emergency

Rector's Decree - University of Genoa

Teaching Support Assignments

[Academic Year 2001/2002 to 2005](#)

Collaborated with the Basic Organization and Preparation of Laboratory Exercises in Drug Analysis I (Degree in Pharmacy)

Department of Pharmaceutical and Food Chemistry and Technology

University of Genoa

[Academic Year 2001/2002 to 2005](#)

Collaborated with the Basic Organization and Preparation of Laboratory Exercises in Drug Analysis I (Degree in CTF)

Department of Pharmaceutical and Food Chemistry and Technology (DiCTFA) of the Faculty of Pharmacy, University of Genoa

[Academic Year 2001/2002](#)

Achieved the Qualification of Expert in the Scientific Disciplinary Sector CHIM/06 (Organic Chemistry)

Faculty of Pharmacy of the University of Genoa

[Academic Year 2001/2002](#)

Became Examination Commissioner for the Organic Chemistry Courses for the Bachelor's Degree in Pharmacy, Herbal Techniques, Scientific Information on Drugs, Organic Chemistry I (CTF), Organic Chemistry II (CTF), and Physical Methods in Organic Chemistry (CTF)

Department of Pharmaceutical and Food Chemistry and Technology (DiCTFA) of the Faculty of Pharmacy

[2002 2009](#)

Carried out classroom exercises

Experimental demonstrations of recognition and reactivity of the main classes of organic substances for the Organic Chemistry course for the Bachelor's Degree in Herbal Techniques

Department of Pharmaceutical and Food Chemistry and Technology (DiCTFA) of the Faculty of Pharmacy

[2003-2009](#)

Carried out classroom exercises

Experimental demonstrations of recognition and reactivity of the main classes of organic substances for the Organic Chemistry course for the Bachelor's Degree in Pharmacy and Organic Chemistry I of the CTF degree program.

Work Experience

[December 30, 2005](#)

Appointed Researcher (RTI) for the Scientific Disciplinary Sector CHIM/06 (Organic Chemistry)

Winner of the comparative evaluation procedure for one University Researcher position at the Faculty of Pharmacy, University of Genoa
Rector's Decree - University of Genoa

[May 25, 2009](#)

Appointed Confirmed University Researcher for the scientific disciplinary sector CHIM/06.

Faculty of Pharmacy, University of Genoa
Rector's Decree, D.R. No. 459 - University of Genoa

[From 2011 to present](#)

Member of the Study Plan Commission for the Degree Programs in Pharmacy and C.T. F.

Department of Pharmacy, School of Medical and Pharmaceutical Sciences, University of Genoa

[From 2015 to present](#)

Head of the Organic Chemistry Laboratory

Department of Pharmacy, School of Medical and Pharmaceutical Sciences, University of Genoa
University of Genoa

Teaching Appointments

[From 2006 to present](#)

Teacher of Organic Chemistry I, for the Degree Program in Pharmaceutical Chemistry and Technology

Department of Pharmacy, School of Medical and Pharmaceutical Sciences, University of Genoa
[2020-2022](#)

Teacher of Organic Chemistry, for the Degree Program in Pharmacy

Department of Pharmacy, School of Medical and Pharmaceutical Sciences, University of Genoa
[From 2001 to present](#)

Chair of the Examination Committee for Organic Chemistry I course (Degree Program in Pharmaceutical Chemistry and Technology)

Department of Pharmaceutical Chemistry and Technology, Faculty of Pharmacy, Department of Pharmacy, School of Medical and Pharmaceutical Sciences, University of Genoa
[2001-2019 and 2023-2025](#)

Member of the Examination Committee for Organic Chemistry (Degree Program in Pharmacy)

Department of Pharmaceutical Chemistry and Technology, Faculty of Pharmacy, Department of Pharmacy, School of Medical and Pharmaceutical Sciences, University of Genoa
[2020-2022](#)

Chair of the Examination Committee for Organic Chemistry (Pharmacy Degree)

Department of Pharmacy, School of Medical and Pharmaceutical Sciences, University of Genoa
[2001-2019](#)

Member of the Examination Committee for Physical Methods in Organic Chemistry Course (CTF Degree)

Department of Pharmaceutical Chemistry and Technology, Faculty of Pharmacy, Department of Pharmacy, School of Medical and Pharmaceutical Sciences, University of Genoa
[Academic Year 2024-2025](#)

Member of the Examination Committee for the Organic Chemistry II NO Course (CTF Degree)

TITLES

DIRECTOR OR MEMBER OF EDITORIAL BOARDS OF RENOWNED JOURNALS, SERIES, ENCYCLOPEDIAS, AND TREATISES

[2017](#)

Author of the book "Organic Chemistry" by Paula Yurkanis Bruice in the editorial series. Edited by Maria Valeria D'Auria; C. La Rosa, for the editing of Chapter 20 of the Italian version.

2017. Alfei, Silvana. Part Seven, Chapter 20. The Organic Chemistry of Carbohydrates. pp. 949-989. In ORGANIC CHEMISTRY - ISBN:9788879599351

EDISES

[01/09/2017 to Today](#)

Reviewer for several Indexed Scientific Journals (Scopus and WOS)

222 revisions to date

Journals: Pharmaceuticals, Scientia Pharmaceutica, Microorganisms, Molecules, Life, Materials, Biomolecules, Nutrients, Applied Sciences, Current Issues in Molecular Biology, Gels, Pharmaceutics, Nanomaterials, Antioxidants, Membranes, Foods, Toxics, Biomedicines, International Journal of Molecular Sciences, Journal of Functional Biomaterials, Micromachines, Bioengineering, Polymers, Coatings, Neurology International, Plants, Inventions, Macromol

MDPI

[10/07/2020 to 30/04/2021](#)

Guest Editor for the Special Issue "Positively Charged Antimicrobial Dendrimers" - First Edition

Polymers (ISSN 2073-4360)

MDPI

[2020 to Today](#)

Member of the Reviewer Board of Indexed Scientific Journals (Scopus and WOS)

Polymers, Applied Sciences, Pharmaceutics

MDPI

[19/05/2021 to 31/05/2022](#)

Guest Editor for the Special Issue "Cationic Nanoparticles: Options to Replace Antibiotics against Multidrug Resistant Pathogens"

International Journal of Molecular Sciences (ISSN 1422- 0067)

MDPI

[02/11/2021 to 31/07/2022](#)

Guest Editor for the Special Issue "Positively Charged Antimicrobial Dendrimers" – Second Edition

Polymers (ISSN 2073-4360)

MDPI

[03/17/2022 to Today](#)

Topical Advisory Panel Member

International Journal of Molecular Sciences

MDPI

[11/04/2023 to Today](#)

Topical Advisory Panel Member

International Journal of Molecular Science

"Molecular Nanoscience" Section

MDPI

[01/01/2023 to Today](#)

Topical Advisory Panel Member

Nanomaterials

MDPI

[04/11/2022 to 12/04/2024](#)

Guest Editor for the Special Issue "Macromolecules and Hydrogel Formulations: Synthesis, Characterization, Pharmacological Effects and Possible Environmental Applications"

International Journal of Molecular Science

MDPI

[08/09/2022 to 09/30/2023](#)

Guest Editor for the Special Issue "Nanoparticles: New Antimicrobial Agents"

International Journal of Molecular Sciences (ISSN 1422-0067)

MDPI

[20/10/2023 to 20/03/2025](#)

Guest Editor for the Special Issue "Macromolecules and Hydrogel Formulations: Synthesis, Characterization, Pharmacological Effects and Possible Environmental Applications 2.0"

International Journal of Molecular Sciences (ISSN 1422-0067)

MDPI

[22/07/2024 to 19/12/2025](#)

Guest Editor for the Special Issue entitled: "Bola-amphiphilic Nanomaterials for Biomedical and Environmental Applications" then "Nanomaterials for Biomedical and Environmental Applications"

Nanomaterials

MDPI

[25/08/2024 to 30/09/2025](#)

Guest Editor for the Special Issue entitled: "Antimicrobial Agents: Synthesis and Design"

International Journal of Molecular Sciences (ISSN 1422-0067)

MDPI

[01/08/2023 to Present](#)

Member of the Editorial Board of the International Journal of Molecular Sciences, IJMS (MDPI)

International Journal of molecular Science

MDPI

[01/06/2024 to Present](#)

Member of the Editorial Board of the journal "Nanomaterials" (MDPI)

Nanomaterials

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[01/08/2023 to Present](#)

Member of the Section Board of Editors of the journal "Nanomaterials" (MDPI)

Nanomaterials

MDPI

[01/01/2024 to Present](#)

Member of the Section Board of Editors of the journal "International Journal of Molecular Sciences"

International Journal of Molecular Sciences (ISSN 1422-0067)

MDPI

[16/09/2022 to Present](#)

Academic Editor of Indexed Scientific Journals (Scopus, WOS)

233 Decisions to Date

Nanomaterials

International Journal of Molecular Sciences (ISSN 1422-0067)

MDPI

Certificate of Publication

The article Alfei, S.; Giordani, P.; Zuccari, G. Synthesis and Physicochemical Characterization of Gelatine-Based Biodegradable Aerogel-like Composites as Possible Scaffolds for Regenerative Medicine. *Int. J. Mol. Sci.* 2024, 25, 5009. <https://doi.org/10.3390/ijms25095009> was selected as the most cited article in 2024.

International Journal of Molecular Sciences (ISSN 1422-0067)