



PERSONAL DETAILS

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WORK EXPERIENCE

May 2024 – present **Assistant Professor** *University of Milan Bicocca – Milan (Italy)*
1st-31th May 2023 **Short – Term Scientific Mission** *I3S - Institute of Health Innovation and Research, Porto (PT)*
Mar. 2023 – Feb. 2024 **Post-doc Research Fellowship** *University of Milan Bicocca – Milan (Italy)*
Nov. 2022 – Jan. 2023 **Research Scholarship** *University of Milan Bicocca – Milan (Italy)*
Apr. 2022 – Sep. 2022 **Visiting researcher** *I3S - Institute of Health Innovation and Research - Porto (PT)*

EDUCATION

Nov. 2019 – Jan. 2023 **Phd in Chemical Sciences** *University of Milan Bicocca – Milan (Italy)*
Oct. 2017- Oct. 2019 **Master's Degree in Chemical Sciences and Technologies** (LM-54) *University of Milan Bicocca – Italy*
Sep. 2018 – Feb. 2019 **Visiting student (Erasmus +)** *Freie Universität Berlin – Berlin (Germany)*
Sep. 2014 – Sep. 2017 **Bachelor's Degree in Chemistry** (L-27) *University of Trieste – Trieste (Italy)*

DIDACTIC ACTIVITIES

A.A. 2025-2026 Professor – II semester - “Chimica Organica per i materiali” course, Bachelor Degree Course in Material Sciences, University of Milan-Bicocca
A.A. 2025-2026 Professor – I semester - “Chimica Organica dei materiali con laboratorio” course, Bachelor Degree Course in Material Sciences, University of Milan-Bicocca
A.A. 2024-2025 Professor – I semester - “Laboratorio Chimica Organica III” course, Bachelor Degree Course in Chemical Sciences and Technologies, University of Milan-Bicocca
15th Apr. 2025 Le frontiere della Chimica - piano lauree scientifiche - course for high-school teachers
27th Jan. 2025 Contract Professor - percorsi orientamento PNRR, (M4C1-24), EU-PNNR course for high-school students “Biomedicina, Robotica e Intelligenza Artificiale”.
9th Feb. 2024 Contract Professor - percorsi orientamento PNRR, (M4C1-24)), EU-PNNR course for high-school students “Biomedicina, Robotica e Intelligenza Artificiale”.
13th Dec. 2023 Contract Professor - percorsi orientamento PNRR (M4C1-24)), EU-PNNR course for high-school students “Biomedicina, Robotica e Intelligenza Artificiale”.
31st May, 7th Jun. 2023 Contract Professor - percorsi orientamento PNRR (M4C1-24)), EU-PNNR course for high-school students “Biomedicina, Robotica e Intelligenza Artificiale”.

19th Apr. 2023 Contract Professor - percorsi orientamento PNRR (M4C1-24)), EU-PNNR course for high-school students "Biomedicina, Robotica e Intelligenza Artificiale".

A.A. 2020-2021 Contract Professor - Organic Chemistry Laboratory Course. University of Milano-Bicocca Practical based course for undergraduate students of Biotechnology.

A.A. 2019-2020 Tutor - Organic Chemistry Course. University of Milano-Bicocca Practical based course for undergraduate students of Chemical Sciences and Technologies.

PUBLICATIONS

^=The authors contributed equally to the published work.

1. F. **Cadamuro**, M. Piazzoni, I. Borghi, et al. " 3D Bioprinted Glioblastoma Multiforme Models: How the Extracellular Matrix Glycosignature Influences Drug Response." *Advanced Functional Materials* (2026): e77772.
2. M. Piazzoni, I. Borghi, F. **Cadamuro**, et al. " Endothelial Cells Angiogenesis in Sulfated Glycosaminoglycan (GAG) Hydrogels Enhanced by Bioactive Glass-Released Ions." *Adv. Funct. Mater.* (2025): e19933
3. F. **Cadamuro**[^], M. Piazzoni [^], E. Gamba, B. Sonzogni, F. Previdi, F. Nicotra, A. Ferramosca, L. Russo, "AI tool for prediction of ECM mimics hydrogel formulation via click chemistry". *Biomaterial Advances* (submitted).
4. L. Titze[^], F. **Cadamuro**[^], N. Murenu[^], R. Akbari, L. Pellegrino, G. Capitani, M. Acciarri, C. Antonini, L. Russo, N. Manfredi. "Spiro-Ometad As A Promising Substrate In Biomedical Devices". *ChemistryOpen* 2025, e202400002.
5. L. Rossi, ..., F. **Cadamuro**, et al. "Chitosan-based Multimodal Polymeric Nanoparticles Targeting Pancreatic β -cells" *Carbohydrate Polymer Technologies and Applications*, 2024, 8, 100610.
6. F. Barbugian, F. **Cadamuro**, et al. "Plasma treated collagen functionalized with chondroitin sulfate as bioactive and nanostructured ECM mimics." *Nanomedicine* 2024, 19, 9.
7. N. Porpiglia, ..., F. **Cadamuro**, et al. "Chitosan Derivatives as Dynamic Coating for Transferrin Glycoform Separation in Capillary Electrophoresis". *IJBM*, 2023, 254, 127888.
8. F. **Cadamuro**, M. Ferrario, F. Nicotra, L. Russo. "Tyrosine glucosylation of collagen films exploiting Horseradish Peroxidase (HRP)". *Carbohydrate Research*, 2023, 108938.
9. F. **Cadamuro**, V. Ardeni, F. Nicotra, L. Russo. "Alginate–Gelatin Self-Healing Hydrogel Produced via Static–Dynamic Crosslinking". *Molecules* 2023, 28(6), 2851.
10. G. Loi, G. Stucchi, F. Scocozza, L. Cansolino, F. **Cadamuro**, E. Delgrosso, F. Riva, C. Ferrari, L. Russo, M. Conti. "Characterization of a Bioink Combining Extracellular Matrix-like Hydrogel with Osteosarcoma Cells: Preliminary Results". *Gels*, 2023, 9 (2), 129.
11. F. **Cadamuro** and S. Sampaolesi, G. Bertolini, L. Roz, F. Nicotra, L. Russo. "Click Chemistry protocol for 3D bioprintable Elastin-Hyaluronic acid hydrogels". *ChemNanoMat* 2023, 9(2), e202200508.
12. F. **Cadamuro**, F. Nicotra, L. Russo. "3D printed tissue models: from bioinks to biomedical applications". *Journal of Controlled Release*, 2023, 354, 726-745.
13. F. **Cadamuro** et al. "3D bioprinted colorectal cancer models based on hyaluronic acid and signaling glycans". *Carbohydrate Polymers*, 2023, 301, 120395.
14. F. **Cadamuro**, L. Russo and F. Nicotra. "Biomedical Hydrogels Fabricated Using Diels–Alder Crosslinking". *Eur. J. Org. Chem.*, 2021: 374-382.

BOOK CHAPTERS

1. F. Barbugian, F. **Cadamuro**, L. Russo, L. “Chemical strategies for 3D printable biomaterials”. Bioprinting: From Multidisciplinary Design to Emerging Opportunities, 2022, pp. 87–107. Editors: Michele Conti, Michele Marino,
2. F. Barbugian, F. **Cadamuro**, S. Magli, F. Nicotra, L. Rossi, L. Russo, “Diagnostic Glycotools”, Carbohydr. Chem., 2022, 45, 572-608. Edited by Amélia Pilar Rauter; Thisbe K Lindhorst; Yves Queneau
3. C. Pignatelli, F. **Cadamuro**, S. Magli, L. Rossi, L. Russo and F. Nicotra, “Glycans and hybrid glyco-materials for artificial cell microenvironment fabrication”. Carbohydr. Chem., 2021, 44, 250–276. Edited by Amélia Pilar Rauter; Thisbe K Lindhorst; Yves Queneau

ORAL COMMUNICATIONS

^ = presenting author

1. F. Cadamuro[^], et al., Glyco-functionalized 3D Bioprinted Glioblastoma Multiforme Model. ISBOC 14, Milan 21st-24th June 2026
2. F. Cadamuro[^], et al., “A Glycosignature-Based 3D Bioprinted Model of Glioblastoma Multiforme”, ESB 2026, Turin, 7th - 11th of September 2025
3. L. Russo[^], I. Borghi, M. Bracchi, F. Cadamuro, M. Piazzoni, F. Nicotra. Custom Bioinks to mimic functional ECM: from glycosignature to AI predictive synthesis. ECCOMAS Thematic Conference. Sim-AM 2025. Pavia, Italy (September 9–11, 2025)
4. F. Cadamuro[^], F. Nicotra, L. Russo, Synthesis, characterization and 3D bioprinting of hydrogels for the production of glioblastoma multiforme in vitro models, XXVIII Congresso Nazionale della Società Chimica Italiana, Milano, 26th - 30th of August 2024
5. F. Cadamuro[^], F. Nicotra, L. Russo, Bio molecular inks for 3D gastric cancer organoids, Bioprinting winter school, Pavia 12-16th February 2024
6. L. Russo[^], F. Cadamuro, M. Ferrario, E. Ballarini, L. Crippa, L. Marongiu, F. Barbugian, M. Bracchi, A. Panunti, B. Sonzogni, L. Nespoli, N. Tamini, N. Zucchini, A. Ferramosca, G. Cavaletti, F. Previdi, F. Nicotra, Hyaluronic acid/gelatin based, A.I. Aided, synthesis of 3D human tissue mimetics, ISCNP31&ICOB11, 15th-19th Naples 2023, Italy
7. F. Cadamuro[^], L. S. Ferreira, F. Pinto, C. A. Reis, F. Nicotra, L. Russo, 3D Gastrointestinal Models: impact of ECM glycosignature in cell fate. Final Meeting COST ACTION 18132, 28th-29th August 2023, Maynooth, Ireland
8. M. Bracchi[^], A. Panunti, F. Cadamuro, F. Barbugian, F. Della Torre, M. Crippa, L. Rigamonti, M. Bigoni, G. Zatti, M. Turati, F. Nicotra, L. Russo. Mimicking extracellular matrix (ECM) features for meniscal regeneration: from biomolecular signatures to biomaterials design. Workshop “Ricerca e nanomedicina”, 13th June 2023, Pavia, Italy
9. N. Manfredi[^], F. Cadamuro, N. Murenu, L. Titze, R. Akbari, L. Pellegrino, G. Capitani C. Antonini, L. Russo. Molecular conductive materials as promising substrate in biomedical devices. XL Congresso Nazionale della divisione di Chimica Organica Società Chimica Italiana, 11-15th September 2022, Palermo, Italy
10. L. Russo[^], F. Barbugian, F. Cadamuro, F. Nicotra. Glycoconjugate polymers in medicine: from 3D bioprinted in vitro models to tissue engineering applications. Debcarb, 24-27th August 2022, Debrecen, Hungary
11. L. Russo[^], F. Cadamuro, V. Ardenti, F. Nicotra. Synthesis of glycosylated ECM mimetics for the production of 3D bioprinted colon cancer models. XL CDCO 11-15th September 2022, Palermo, Italy
12. F. Cadamuro[^], M. Amiconi, F. Nicotra, L. Russo. 3D bioprinted colon cancer models: the glycosignature effect”. Workshop “Ricerca e nanomedicina”, 14th June 2022, Pavia, Italy
13. Russo L.[^]; Barbugian F., Cadamuro F., Magli S., Murenu N., Rossi L., Nicotra F. Engineered bio-inks for 3D bioprinting: opportunities and challenges for tissue engineering and advanced cell models. 13th Biobarriers – International Conference on Biological Barriers, 7-8th Sept. 2021, Saarbrücken, Germany

14. F. Cadamuro[^], I. Valotti, F. Nicotra, L. Russo. Glycoconjugate biomaterials to design 3D extracellular matrix model. Workshop "Ricerca e nanomedicina", 15th June 2021, Pavia, Italy
15. F. Barbugian, F. Cadamuro, S. Magli, L. Rossi, F. Nicotra, L. Russo[^]. GlycoBiomaterials: GlycoBiomaterials for development of medical devices: from printable 3D cultures to regenerative medicine. 2nd COST Meeting GlycoNanoprobes, 16th December 2020 (online)
16. F. Cadamuro[^], F. Chiodo, F. Nicotra, L. Russo. Exploring the role of glycans in the Extracellular Matrix (ECM): glyco-conjugates biomaterials to study cell fate. 2nd COST Meeting GlycoNanoprobes 16th December 2020 (online)

GRANTS

1. LS3548 - ID16A - "Multiscale tomographic characterization of 3D bioprinted glioblastoma multiforme of drug screening" European Synchrotron Radiation Facility (ESRF), Grenoble, France, 5th-8th Feb 2026
2. LS3379 - ID16A - "Multiscale tomographic characterization of 3D bioprinted glioblastoma multiforme of drug screening" European Synchrotron Radiation Facility (ESRF), Grenoble, France, 23rd-27th Jan 2025
3. COST fellowship (E-COST-GRANT-CA18132-87d8d853), one month duration, 1500,00 euro, "Functional Glyconanomaterials for the Development of Diagnostics and Targeted Therapeutic Probes", 1st – 31st May 2023
4. Post Doctoral Fellowship (22A267-20267,53 euro) one year, Università degli Studi di Milano Bicocca, "Biomateriali per ingegneria tissutale e 3D in vitro models" Mar.2023-Feb. 2024
5. Fellowship (22B190-18000,00 euro) one year, Università degli Studi di Milano Bicocca, "Biomateriali per ingegneria tissutale Nov. 2022-Jan. 2023
6. PhD Secondment (3600,00 euro) six months, Università degli Studi di Milano Bicocca, host: Professor Celso Reis, Glycobiology lab, i3S Institute, Porto Portugal, Apr. 2022-Sep. 2023

PARTECIPATION AT SCHOOLS

1. Advances School on Carbohydrate Chemistry (XIX CSCC 2025), Certosa di Pontignano (Siena), 22-25th June 2025
2. Additive manufacturing in healthcare: from 3d printing to bioprinting, Como, 5th-9th June 2023
3. Advances School on Carbohydrate Chemistry (XVII CSCC 2021), Certosa di Pontignano (Siena), 4th-7th July 2021

MEMBERSHIP OF SCIENTIFIC SOCIETIES

Dr. Cadamuro is Member of several Research Network:
"Società Chimica Italiana" (SCI)
"Gruppo Interdivisionale di Chimica dei Carboidrati – SCI

Ai sensi della legge 679/2016 del Regolamento del Parlamento Europeo del 27 aprile 2016, esprimo il mio consenso al trattamento e utilizzare i miei dati forniti in questo CV

According to law 679/2016 of the Regulation of the European Parliament of 27th April 2016, I hereby express my consent to process and use my data provided in this CV

Francesca Cadamuro

Milan, 01/09/2026