

Giorgia Massacci, PhD

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Department of Biology

Cancer Signaling Systems Biology Laboratory

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CURRICULUM VITAE

Education

- 2018–2022: PhD in Cellular and Molecular Biology, University of Rome Tor Vergata, Italy. Excellent evaluation. Thesis: “A key role of the WEE1-CDK1 axis in mediating tyrosine kinase-inhibitors resistance in FLT3-ITD positive acute myeloid leukemia patients”.
- 2016–2018: MSc in Cellular and Molecular Biology, University of Rome Tor Vergata, Italy, 110/110 cum laude.
- 2012–2016: BSc in Biological Sciences, University of Rome Tor Vergata, Italy.

Positions

- 2022–present: Postdoctoral Researcher, Department of Biology, University of Rome Tor Vergata, Italy. Research on molecular mechanisms of therapeutic resistance in acute and chronic myeloid leukemia and pancreatic cancer.
- 2019–present: Research activity in the laboratory of Prof. Francesca Sacco, Department of Biology, University of Rome Tor Vergata, within projects on cancer signalling, therapeutic resistance and systems biology.
- 2019–present: Research activity at the TIGEM Telethon Institute, Pozzuoli, Italy, focusing on post-translational regulation and phosphoproteomics in cancer and disease models.
- 2018–2022: PhD Fellow in Cellular and Molecular Biology, University of Rome Tor Vergata, with research activities in proteomics, phosphoproteomics, high-resolution mass spectrometry and multi-omics data analysis.
- October 2023: Visiting Postdoctoral Researcher, Matthias Mann Laboratory, Max Planck Institute of Biochemistry, Germany.
- February 2020: Visiting PhD Researcher, Natalie Krahmer Laboratory, Helmholtz Institute, Germany.

Main Research Interests

My research focuses on cellular and molecular mechanisms underlying disease progression and therapeutic resistance, with expertise in quantitative proteomics, phosphoproteomics and systems biology. I investigate altered signalling pathways and molecular mechanisms associated with drug response in myeloid leukemias and pancreatic cancer, integrating high-resolution mass spectrometry, bioinformatics and network-based approaches. My research includes multi-omics data integration, identification of predictive biomarkers and potential therapeutic targets, and the study of post-translational regulatory mechanisms.

University Teaching Activity

- 2025–2026: Professor on contract. (Course: Molecular Biology and Applied Molecular Biology Laboratory II, 6CFU), Molecular Biology, Medicinal Chemistry and Computer Science for Pharmaceutical Applications, University of Rome La Sapienza
- 2023–2024: Lecture on Proteomics and its Applications, bachelor's degree in bioinformatics, University of Rome Tor Vergata.
- 2019–2020: Teaching support for Systems Biology (3 ECTS, MED/03), Master's Degree programmes in Bioinformatics and Cellular and Molecular Biology, University of Rome Tor Vergata.
- Co-supervisor of BSc and MSc theses in Biological Sciences and Cellular and Molecular Biology.

Publications and Bibliometric Indicators

Author or co-author of 15 peer-reviewed publications in international scientific journals. 287 citations; H-index (Scopus): 6; Total Impact Factor: 110.5; First/Co-first author: 5; Last/Co-last author: 1. ORCID: 0000-0003-3223-6547 | Scopus Author ID: 57207781126.

Selected publications: Leukemia (2026); Leukemia (2023); British Journal of Cancer (2023); Neurobiology of Disease (2024)

Presentations

Delivered several oral and poster presentations at international conferences.

Other

Maternity leave: 29 June 2021–29 November 2021/ 1 October 2024–30 April 2025.