



Mara Martino

● LANGUAGE SKILLS

Mother tongue(s): **ITALIAN**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH	B2	B2	B2	B2	B2
FRENCH	A2	A2	A2	B1	A1

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

● PUBLICATIONS

2024

Age differentially impacts adaptive immune responses induced by adenoviral versus mRNA vaccines against COVID-19.

Nature Aging. 2024 Aug. PMID: 38918602

Authors: Dallan B, P. D., D. L. M., G. E., Martino M, G. S., Z. A., V. S., G. B., B. M., A. V., A. V., B. S., L.-L. S., P. S., G. L., B. M., S. S., S. V., L. K., P. H. M., M. P. A. H., P. D., C. A., G. R., Nicoli F | **Journal Name:** Nature Aging

2025

Generation of a human induced pluripotent stem cell line (UNIFEi001-A) from a patient with Spinocerebellar ataxia type 1 (SCA1)

Stem Cell Res. 2025 Mar PMID: 39892158.

Authors: Pappadà M, Melija S, Facchini M, Martino M, Minarini S, Caproni A, Nordi C, Rimessi P, Selvatici R, Marconi P. | **Journal Name:** Stem Cell Res

● CONFERENCES AND SEMINARS

03/2023 Webinar

The Virtual School of Immunology 2023, SIICA Junior Faculty

05/2023 Verona, Italy

14th National Congress of Immunology (SIICA)

04/2024 Urbino, Italy

Flow Cytometry course

Technical and methodological aspects in flow cytometry by BIOMEDIA

07/2024 Bologna, Italy

8th National Congress of the Italian Society for Virology (SIV)

[poster]

07/2024 Rome, Italy

16th Italian Conference on AIDS and Antiviral Research (ICAR)

[poster]

07/2024 Monaco, Germany

25th International AIDS conference

[poster]

05/2025 Padova, Italy

17th Italian Conference on AIDS and Antiviral Research (ICAR)

[poster]

06/2025 Perugia, Italy

15th National Congress of Immunology (SIICA)

[oral]

06/2025 Torino, Italy

9th National Congress of the Italian Society for Virology (SIV)

[poster]

● **PROFESSIONAL PROFILE**

PhD | Postdoctoral Researcher - Translational R&D

PhD and postdoctoral experience in Advanced Therapies and Experimental Pharmacology, with expertise in HIV virology, immunology, and preclinical studies. Strong hands-on skills in cell culture, cytotoxicity assays, flow cytometry, confocal microscopy, and data analysis. Proven ability to manage complex experimental projects in regulated BSL-3 environments and collaborate in multidisciplinary teams. Interested in translational research and industrial R&D settings.

● **EXPERIENCE, TRAINING AND EDUCATION**

07/2017

Diploma

High school diploma of maturity in chemistry, materials and biotechnology health at Institute of Higher Secondary Education "Nicolucci- Reggio" with 100/100

10/2022

Degree

University of Ferrara

Specialistic 5-years degree in Pharmaceutical chemistry and technology at the University of Ferrara with 109. Title of the thesis "Analysis of cell cytotoxicity mediated by hiv-specific antibodies: standardisation of a Rapid Fluorometric Antibody-Dependent Cell-mediated Cytotoxicity protocol in vitro".

Supervisor: Prof. Riccardo

11/2023

Licenses

University of Ferrara

Pharmacist Professional License

11/2025

PhD

University of Ferrara

PhD student in Advanced Therapies and Experimental Pharmacology at the Department of Chemical, Pharmaceutical and Agricultural Sciences (DOCPAS), University of Ferrara, Italy, with a fellowship funded by the Istituto Superiore di Sanità (ISS), Rome.

Supervisor: Prof. Riccardo

06/2025 - 10/2025

Training in BLS-3 laboratory

Istituto Superiore di Sanità (ISS)

Completed advanced training in BSL-3 (P3) laboratory practices at the Istituto Superiore di Sanità (ISS), Rome, with hands-on experience in HIV experimental virology, including transfection, titration, and infection assays using both pseudoviruses and replication-competent HIV strains.

11/2025 – CURRENT

Postdoctoral research fellowship

University of Ferrara

Research fellowship focused on studying antibody functionality against HIV Tat and Env proteins through ADCC assays. Activities include evaluating human/animal sera and monoclonal antibodies in experimental settings funded by the Gates Foundation CAVD project. Hosted at University of Ferrara's DISAP Department for 6 months under Prof. Francesco Nicoli.

PROFESSIONAL SKILLS

Cell Culture

Cell culture expertise encompassing adherent and suspension cultures of primary cells and immortalized lines (e.g., Jurkat, HEK293T, PBMCs, TZMBL). Proficient in assessing cell proliferation (e.g., MTT), in vitro priming/expansion of naive/memory T and B cells, and routine maintenance/propagation. Experienced with FACS analysis for viability, phenotyping, and functional readouts.

Molecular Biology

- Cloning,
- Bacterial transformation

Flow cytometry

- Surface, intracellular, intranuclear and phosphoflow staining
- Immunological assays:
 - evaluation of antibody titers (IgA, IgG, IgM)
 - ELISA assays
 - detection of cytokine release (ELISpot, intracellular cytokines staining),
 - immunophenotyping
 - analysis of epitope-specific CD8 +T cells
 - assessment of cellular metabolism

Fluorescence Microscopy

for cellular imaging and analysis

Confocal Microscopy

- for cellular imaging and analysis
- for live-cell time-lapse

Animal Handling

Mice immunization, necropsy, collection of sera (according to DM 05/08/2021)

Virology

- Experience working in Biosafety Level 3 (BSL-3) laboratories
- Experienced in performing transfections with both HIV pseudoviruses and replication-competent viruses
- Skilled in virus titration using pseudoviruses and replication-competent HIV strains.
- Proficient in conducting infection assays with pseudoviruses and replication-competent HIV.

Safety training

High level (chemical, biological and physical risk) 29/05/2024

Performing statistical analysis of results

groups comparison with parametrical and non-parametrical statistic test and linear regression

Designing in vitro and in vivo experimental protocols

Software

- BD FACSDiva
- FlowJo software
- GraphPrism
- BioRender
- Fiji

● KEY RESEARCH PROJECTS

2019 – 2024

T cell lipid metabolism as marker of HIV disease progression (MET-HIV)

Funding: GILEAD-Fellowship Program
PI: Professor Antonella Caputo (University of Ferrara)

2019 – 2024

Evaluation of protective cellular immune responses against West Nile Virus (RICEPROWNV)

Funding: AVIS
PI: Prof. Riccardo Gavioli (University of Ferrara)

SARS-CoV-2-specific immune responses induced by Pfizer and AstraZeneca vaccines in subjects of different age groups (RIV)

Funding: University of Ferrara
PI: Prof. Riccardo Gavioli (University of Ferrara)

2022 – 2024

Evaluation of Tat and Tat-Env as targets for HIV interventions

Funding: Bill and Melinda Gates Foundation
PI: Prof. Riccardo Gavioli (University of Ferrara) and MD Ensoli Barbara (Istituto Superiore di Sanità)

2024 – 2025

Effect of physical activity on accelerated ageing trajectories: impact on cardiovascular diseases and ageing biomarkers

Funding: PNRR- Italian Ministry of University and research
PI: Prof. Francesco Nicoli (University of Ferrara)

2025 – 2026

Arboviral diseases in Brazil, Italy and Tanzania: towards a comprehensive One Health strategy for the virological, epidemiological, entomological and immunological profiling

Funding: CIHLMU One Health Network Funds
PI: Mkunde Chachage, CIH-Alumna (1University of Dar es Salaam-Mbeya College of Health and Allied Sciences; 2NIMR-Mbeya Medical Research Center, Tanzania)

2025 – 2028

Tat immunogens for HIV vaccines in Africa

Funding: Bill and Melinda Gates Foundation
PI: Prof. Riccardo Gavioli (University of Ferrara) Dr.ssa Ensoli Barbara (Istituto Superiore di Sanità)

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