



CLAUDIA DI MARZIO

Biotechnologist — Molecular and Cell Biology

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PROFILE

Biotechnologist with a Master of Science in Advanced Biotechnology (110/110) and more than four years of laboratory experience in a university research centre, spanning molecular diagnostics and preclinical neuroscience. Independent in running in vitro and in vivo experiments, iPSC-derived cell cultures, protein analysis and automated instrumentation, with a strong focus on data quality, methodological rigour and biosafety standards (Biosafety Level 2, Good Laboratory Practice). Skilled in the analysis and interpretation of experimental data, with growing expertise in bioinformatics tools and single-cell dataset analysis. Co-author of two scientific publications.

TECHNICAL SKILLS

Molecular and diagnostic assays: RT-qPCR, PCR, Western blot, ELISA, RNA and DNA extraction (high sample throughput)

Cell culture: iPSC and iMGL, neurons and stem cells — culture, validation and quality control; FACS; immunofluorescence

Instrumentation: Automated platforms (KingFisher Flex, GeneXpert, Maxwell RSC), Quant Studio 5/7 thermocyclers, confocal (LSM800) and TEM microscopy, LUMIPULSE G600II, SpectraMax ID5

Quality and biosafety: Biosafety Level 2 operations under Good Laboratory Practice; full traceability and documentation of pre-analytical and analytical phases

Data analysis: Data analysis and interpretation of results using bioinformatics tools; Python (machine learning, bioinformatics), R (chemometrics), GraphPad; single-cell dataset analysis (clustering, UMAP)

PROFESSIONAL EXPERIENCE

Research Assistant | C.A.S.T. — Center for Advanced Studies and Technology, University of Chieti (February 2022 – Present)

Molecular Neurology (June 2023 – Present)

- Independently manage culture and quality control of iPSC/iMGL cell lines under Good Laboratory Practice.
- Protein quantification by Western blot and immunofluorescence analysis.
- In vivo experiments on transgenic mouse models of Alzheimer's disease.
- PBMC isolation from whole blood and fluorescence microscopy.

COVID-19 Molecular Diagnostics (February 2022 – May 2023)

- High-throughput RT-qPCR for SARS-CoV-2 detection; nucleic acid extraction and PCR set-up in sterile conditions.
- Validation of diagnostic methods for viral variant identification.
- Automated systems (KingFisher, GeneXpert) and data traceability in a Biosafety Level 2 environment.

EDUCATION

Master of Science in Advanced Biotechnology — 110/110 | University of Teramo 2022 – 2026

Thesis: human-derived models for neurological diseases — validation of an iPSC microglia line.

Bachelor of Science in Biological Sciences — 96/110 | University of L'Aquila 2014 – 2021

PEER-REVIEWED PUBLICATIONS

Granzotto A., ... Di Marzio C., et al. Off-target interaction of the amyloid PET imaging tracer PiB with acetylcholinesterase. *bioRxiv*, 2025.

Damiani V., ... Di Marzio C., et al. Detection of SARS-CoV-2 Nucleocapsid Antibodies on Dried Blood Spot by DELFIA Immunoassay. *Diagnostics*, 2023.

LANGUAGES AND CERTIFICATIONS

Languages: Italian (native), English (B2 — CLA 2025). **Certifications:** Medium-risk biosafety training (Biosciences); workplace safety.

Driving licence: B (own car).