

Gloria Lazoi

PhD Student in Genetics, Molecular and Cell Biology
University of Pavia, Italy

Professional profil

Biotechnologist with a Master's degree in Experimental and Applied Biology and current PhD training in Genetics, Molecular and Cell Biology at the University of Pavia. Research experience in molecular and cellular biology, with a particular focus on RNA splicing regulation, genomic stability, and cellular models of amyotrophic lateral sclerosis (ALS). Hands-on experience with mammalian cell culture, gene expression analysis, gene modulation, protein level analysis at single cell level by immunofluorescence. Motivated to investigate molecular mechanisms underlying disease and contribute to biomedical research.

Education

CURRENT | UNIVERSITY OF PAVIA

PhD in Genetics, Molecular and Cell Biology. Research training in molecular and cellular biology.
Laboratory supervisor: Dr. Sofia Francia, Institute of Molecular Genetics (IGM-CNR), Luigi Luca Cavalli-Sforza, Pavia, Italy.
Co-supervisor: Dr. Natalia Simona Pellegata.
Title of PhD project: Targeting DNA repair defects in FUS pathological forms.

MARCH 2026 | UNIVERSITY OF PAVIA

Master's Degree in Experimental and Applied Biology (LM-6)
Biomedical and Molecular Biology Curriculum
Final grade: 107/110
Master's thesis: Role of CHK1 Splicing Regulation in Maintaining Genomic Stability in ALS Cell Models
Supervisor: Dr. Anna Christina Kajaste-Rudnitski
Co-supervisor: Dr. Sofia Francia, Institute of Molecular Genetics (IGM-CNR), Luigi Luca Cavalli-Sforza, Pavia, Italy.

APRIL 2023 | UNIVERSITY OF UNISALENTO

Bachelor's Degree in Biotechnology
Final grade: 105/110
Bachelor's thesis: Modulation of the Receptors Involved in the Metabolism of Dendritic Cells
Supervisor: Dr. Marcello Chieppa, Department of Experimental Medicine, University of Salento.

JUNE 2019 | GALATINA

Scientific High School Diploma
Liceo Scientifico A. Vallone
Final grade: 82/100

Contacts

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Personal Informations

***Nationality*: Italian**

***Date of birth*: 17 August 2000**

***Place of birth*: Galatina (LE), Italy.**

Courses and Certifications

Computer-Aided Design (CAD) Course.

Intermediate English Course.

Basic French Course.

Latin Language Course.

General e-Learning Training in Workplace Health and Safety — 4 hours, pursuant to Italian Legislative Decree 81/2008.

Research experience

PhD Student Genetics, Molecular and Cellular Biology University of Pavia, Italy | 1st October 2026-present

Laboratory supervisor: Dr. Sofia Francia
Conduct research in molecular and cellular biology, with a focus on mechanisms involved in genomic stability.
Apply molecular biology and cell biology techniques to investigate physiological and disease-associated mechanisms related to DNA damage response and DNA repair in Cancer and Neurodegeneration in ALS

Research Intern | Institute of Molecular Genetics (IGM-CNR), Luigi Luca Cavalli-Sforza Pavia, Italy |
March 2025 – March 2026

Laboratory supervisor: Dr. Sofia Francia

- Investigated CHK1 regulation, RNA splicing, and genomic stability in cellular models of ALS.
- Performed molecular biology experiments, including RNA and DNA extraction, RT-PCR, RT-qPCR, Western blotting, and analysis of alternative splicing.
- Worked with mammalian cellular models and performed gene modulation experiments using plasmid transfection and siRNA-mediated gene silencing.
- Prepared cellular samples for immunofluorescence and performed fluorescence microscopy and image analysis by automated software CellProfiler.
- Participated in RNA immunoprecipitation (RIP) and chromatin immunoprecipitation (ChIP) experiments.
- Attended scientific seminars on genome replication, DNA damage responses, cell-cycle regulation, alternative splicing deregulation in oncogenesis and molecular mechanisms of genomic stability.

Research Intern — Pathology and Immunology Laboratory |University of Salento, Italy |
October 2022 – April 2023

Laboratory supervisor: Dr. Marcello Chieppa

- Contributed to a research project investigating dendritic cell metabolism following lipopolysaccharide (LPS) stimulation.
- Gained practical experience in molecular and cellular biology methodologies.
- Evaluated provided RNA-seq datasets to investigate gene expression profiles and associated metabolic pathways.

Publications

Modafferi, S., Silenzi, V., Garbelli, A., **Lazoi, G**., Scarian, E., D'Uva, S., Santini, T., Riccardi, A., Cozzolin Pansarasa, O., D'Ambrosi, N., Sabbioneda, S., Morlando, M., & Francia, S. (2026). Proteasomal-deper degradation leads to DNA damage accumulation in ALS cellular model systems. Cell Death & Disea *https://doi.org/10.1038/s41419-026-08603-6.*
Cell Death & Disease Impact Factor 2026: 12.2; 5-years IF:11.4.
Q1 in Cancer Research, Molecular Biology, and Epidemiology [1, 2, 3, 4]

Technical Skills

Molecular Biology

- Nucleic acid extraction and purification: DNA and RNA extraction and purification.
- Gene expression analysis: Reverse transcription (RT), conventional PCR, and quantitative real-time PCR (RT-qPCR).
- RNA splicing analysis: Detection and analysis of alternative splicing variants by RT-PCR and agarose gel electrophoresis.

- Gene modulation: Plasmid transfection and siRNA-mediated gene silencing.
- Protein analysis: Protein extraction, quantification, and Western blotting.
- Immunoprecipitation techniques: RNA immunoprecipitation (RIP) and chromatin immunoprecipitation (ChIP).
- Molecular cloning and microbiology: Bacterial transformation and plasmid DNA preparation using MidiPrep.
- Transcriptomics: Evaluated provided RNA-seq datasets, gene expression profiling, and investigation of associated metabolic pathways.

Cell Biology

- **Mammalian cell culture**: Maintenance and handling of immortalized, primary, and cancer cell lines.
- **Cellular treatments:** Plasmid transfection, siRNA-mediated gene silencing, and pharmacological treatments.
- **Immunofluorescence:** Preparation and staining of cellular samples for fluorescence microscopy.
- **Microscopy:** Fluorescence microscopy and supervised experience with confocal microscopy.
- **Image analysis:** Image processing and quantitative analysis using ImageJ and CellProfiler.
- **Statistical analyses** with GraphPad prism

Cellular Models

- **Human cancer cells:** HeLa cervical cancer cell line.
- **Neural cell models:** Mouse hippocampal HT-22 cells; human and mouse motor neuron progenitors (hMNPs/mMNPs); differentiated mouse motor neurons (mMNs).
- **Porcine cell models:** Primary pig fibroblasts and pig endothelial cells.

Bioinformatic Skills

- **Programming & Scripting**: R, Bash
- **Image Processing & Graphic Design:** Fiji (ImageJ), Canva
- **Office & Productivity Suite:** Microsoft Office (Excel, Word, PowerPoint)

Additional Professional Experience

Operations and Logistics Support Staff — Birra & Sound Food and Beverage Festival
Galatina (LE), Italy | 1–9 August 2026
Supported operational activities and service delivery in a high-volume event environment.
Helped coordinate crowd flow and maintain efficient operations during peak periods.
Followed applicable hygiene, HACCP, and workplace safety procedures.
Developed teamwork, time management, problem-solving, and stress-management skills.

Quality Control and Compliance Assistant — Mail Boxes
Galatone (LE), Italy | 20 July – 31 August 2023
Conducted product inspections and conformity checks according to technical specifications and established procedures.
Identified, monitored, and reported non-conformities and production anomalies.
Applied attention to detail, accuracy, and procedural compliance in quality control activities.

Healthcare and Patient Care Volunteer — Clinica San Francesco
Galatina (LE), Italy | June – August 2019
Assisted with reception, patient orientation, and general operational support in a clinical setting.
Supported communication with patients and visitors with professionalism and empathy.
Observed confidentiality requirements and applicable patient privacy procedures.

School-to-Work Training Programme (PCTO)
Galatina (LE), Italy | 2018

- **Clinical Laboratory — Clinica San Francesco**

Observed biological sample reception, handling, and preparation procedures.
Gained introductory exposure to laboratory practices and biosafety protocols.

- **Pharmaceutical Sector — Farmacia Sabato**

Assisted with stock organisation, inventory activities, and pharmaceutical product cataloguing. Observed front-office operations and customer service procedures.

- **Social and Educational Sector — Preschool/Kindergarten**

Supported the organisation of educational and recreational activities for young children. Developed communication, interpersonal, and group-support skills.

Scientific Seminars

Attended online or in person during the research internship at IGM-CNR, Pavia:

Wolfgang Bergmeier, University of North Carolina at Chapel Hill, USA — New Insights into Platelet G Protein Signaling and Integrin Affinity Regulation.

Annabel Quinet, CEA-INSERM-Université Paris Cité and Université Paris-Saclay, France — Repriming by PRIMPOL as a Key Mechanism in the Replication Stress Response.

Kumar Somyajit, University of Southern Denmark, Odense, Denmark — Built-in Limits of Genome Replication.

Barbara Mellone, Department of Molecular and Cell Biology, University of Connecticut, USA — Intrinsic Centromere Targeting of a Metazoan Non-LTR Retroelement.

Michele Pagano, NYU School of Medicine and Howard Hughes Medical Institute, USA, and Gergely Róna, NYU School of Medicine, USA, and Institute of Molecular Life Sciences, RCNS, Hungary — CDK-independent Role of D-type Cyclins in Regulating DNA Mismatch Repair.

Languages

Italian: Native.
English: Intermediate.