

**Project title:** Omics approaches to identify disease biomarkers and selection signatures

**Supervisor:** Professor Alessandro Achilli, Doctor Stella Gagliardi

**Reviewer:** Professor Antonio Torroni

## **RESEARCH AND LABORATORY EXPERIENCE**

### **IRCCS Mondino Foundation, Pavia, Italy**

Molecular Biology and Transcriptomics Unit

Supervisor: Dr. Stella Gagliardi

*PhD Student, 2022-Present*

*Junior Researcher, February 2022- September 2022*

*Graduate Student, 2019-2022*

### **Department of Biology and Biotechnology “L. Spallanzani”, University of Pavia, Pavia, Italy**

Human Population Genomics Laboratory

Supervisor: Professor Alessandro Achilli

*PhD Student, 2022-Present*

## **EDUCATION**

PhD Program, Genetics, Molecular and Cellular Biology

### **University of Pavia, Italy**

*Project title: “Omics approaches to identify disease biomarkers and selection signatures”*

*2022-Present*

Master's Degree, Molecular Biology and Genetics (110/110 *cum laude*)

### **University of Pavia, Italy**

*Thesis: “Identification of putative G-quadruplex structures in Parkinson’s Disease associated  $\alpha$ -synuclein-encoding gene”*

*2019-2022*

Bachelor's Degree, Biological Science (101/110)

### **University of Milano-Bicocca, Italy**

*Thesis: “A RhoA-YAP-c-Myc signaling axis promotes the development of polycystic kidney disease”*

*2014-2019*

## **LABORATORY TECHNIQUES AND PROFESSIONAL SKILLS**

**Cell Biology:** Adherent, in suspension and primary cell culture; cell treatment; cell viability assay (Trypan blue, MTT); cell transfection with plasmids and siRNAs;

**Molecular Biology:** Peripheral Blood Mononuclear Cells isolation from blood sample; isolation of extracellular vesicles from plasma; DNA extraction and quantification; PCR; plasmid cloning; electrophoresis; RNA extraction; RNA quantification; cDNA synthesis and Real Time PCR; total, nuclear and cytoplasmic protein extraction and quantification; Western Blot; nanoparticle tracking analysis; libraries construction for RNA-seq, RIP-seq, miRNA-seq.

**Informatics and bioinformatics skills:** Pathways and gene ontology analysis (KEGG, Gene Ontology); UCSC Genome Browser; NCBI database; ENSEMBL Genome database; UniProt database; GraphPad.