Domenico LIGUORO – CV

EDUCATION
-Mar 2022: Ph.D in Experimental Medicine, "Sapienza" University of Rome. Title of Thesis: *"miR-579-3p restrains tumor heterogeneity to overcome resistance to target therapies in metastatic melanoma"*.
- Ago 2020: Qualification as a Professional Biologist, University of Salento.
-Dec 2017: Master's degree in Genetics and Molecular Biology, "Sapienza" University of Rome, final grade 110/110 cum laude. Title of thesis: *"The interplay between miR-579-3p and MITF transcription factor affects melanoma development and drug resistance"*
-July 2015: Bachelor's degree in Biological Science, "Federico II" University of Naples, final grade 101/110. Title of Thesis: *"Sequencing of di ITS1 e ITS2 in Phaseolus Spp."*

RESEARCH EXPERIENCE
- From Feb 2022 to present: Post Doctoral Researcher at Department of Clinical and Molecular Medicine. "Sapienza" University of Rome, Italy. Research of interest: study of microRNAs involved in resistance to BRAF / MEK inhibitors in metastatic melanoma. Identify the interplay between miR-579-3p and microphtalmia- associated trascriptional factor (MITF) in the development and resistance to BRAF/ MEK inhibitors in melanoma.
- From Nov 2018 to Jen 2022: Ph.D. Student in Experimental Medicine at Department of Clinical and Molecular Medicine. "Sapienza" University of Rome. Research of interest: study of microRNAs involved in resistance to BRAF / MEK inhibitors in metastatic melanoma. Assess, on primary cultures, whether targeting deregulated miRNAs in human BRAF mutated melanoma cells is able to impair the degree of tumor heterogeneity in order to overcome the resistance to targeted therapies.

TECHNICAL SKILLS AND COMPETENCES
Molecular Biology Skills: DNA cloning in plasmids (restriction endonucleasis), DNA Sequencing, Bacterial transformation, Lentiviral transduction, Isolation of RNA and DNA (Phenol extraction or Ethanol Precipitation) from cell cultures and formalin-fixed paraffin embeded tissue, Nucleic-Acid Gel Electrophoresis, Polymerase- Chain Reaction (PCR), Reverse Transcription Polymerase-Chain Reaction (RT-PCR), Real-Time PCR. Luciferase assay. RNA-Sequencing.
Biochemical Skills: Extraction and Quantification of Protein extraction from cell cultures and tissue samples, SDS-PAGE, Electrophoresis and Western Blotting, Elisa Test.
Cytofluorimetry Skills: Use of the Cytofluorimeter CYTOFLEX BECKAM COULTER. Use of Mass Cytometer CyTOF2 Fluidigm. Panel Design for multi-parameter flow cytometry and mass cytometry. Titration of the antibodies.
Staining for surface or intracellular antigens. Compensation protocols with or without the beads for cytofluorometry.
Cell Biology Skills: Manteinance of adherent and suspension cell cultures. Isolation of cancer cells from mice tumor tissue samples. Freezing and thawing cells. Cell transfections with microRNAs or Plasmid DNA. Drug Treatments.
Computer Skills: Word™, Excel™ and PowerPoint™. CytoFlex Software, CytoBank, Kaluza, FlowJo, NovoExpress. Blast, PrimerBLAST, Primer3, ClustalW. miRBASE, TargetScan. PhotoShop™, ImageJ™, GraphPad.