CURRICULUM VITAE

PERSONAL DATA

Name **MARIA CHIARA SARUBBI**

EDUCATION AND TRAINING

• 01/05/2021- ongoing

Ph.D. student in Molecular and Translational Oncology, P.I. Professor Donatella Malanga, Magna Graecia University of Catanzaro.

Research Activity

.

PhD research project "Epigenetic Signatures in Gastric Cancer". The aim of the activity is to investigate the epigenetic modifications that can lead to the onset of Gastric Cancer, in particular obtain the characterization of the epigenetic profile given by the histone mark H3K4me3 based on the tissue histological subtype, therefore investigating how the accessibility to chromatin can change in the different histological subtypes of gastric cancer: signet ring type, intestinal type and mixed type compared to normal mucosa. In order to realize this, perform a chip-seq of the FFPE patient's samples, divided into different groups, to highlight epigenetic differences in the histological subtypes and if any differences how affect the transcriptome.

Collaboration with the Neurology group for the study and modeling of the protein PRRT2 involved in neurological diseases of paroxysmal type. Creation of PRRT2 mutants to study cell location and its function.

Collaboration in the activity with research groups studying parkinson's disease (PD), use of new generation sequencing of samples of PD patients to identify the variants involved.

Participation in the activities of an Immunology research group aimed characterization of PCa-derived TILs via T-Cell Receptor (TCR) sequencing and in silico analysis, and aims at the identification of TCRs that could be used for therapeutic purposes, such as the development of chimeric CAR-T.

• 01/2020-12/2020

Internal Student, Postgraduate Internship,
P.I. Prof. Cesare Indiveri, Full Professor of Biochemistry,
Laboratory of Biochemistry and Molecular Biotechnology
University of Calabria.

Research Activity	Research project: protein production and expression in bacteria of membrane transport systems such as ASCT2 (SLC1A5), CT2 (SLC22A16), XCT (SLC11A7) and SNAT2 and optimization of human protein production in bacteria and purification.
EDUCATION AND TRAINING	
• 01/03/2019-17/12/2019	Internal Student, P.I. Prof. Cesare Indiveri, Full Professor of Biochemistry, Laboratory of Biochemistry and Molecular Biotechnology University of Calabria.
Research Activity	Research project "Heterologous expression of the human amino acid transporter ASCT2 in *E. coli*".
SKILLS	• Next Generation Sequencing Technologies: Generation of libraries (DNA and RNA) for Next Generation Sequencing platforms like Ion Torrent. Use of platforms for Next Generation Sequencing and mutational analysis of gene panels. Application of NGS-based approaches to the study of the molecular basis of human diseases (DNA and RNA levels and epigenetic mechanisms) like human cancer, PD alterations and epilepsy, neurogenetics disease. Development and implementation of next generation sequencing-based protocol for diagnostic purposes.
	• Cellular biology: Maintenance of primary and immortalized cell lines in culture, gain and loss of function assay, transfection techniques, direct site mutagenesis of target genes, isolation of cells from tissue. 3D cell culture, organoid generations from biopsies of CRC patients. Use of DEPArray technology for the isolation of single CTCs and genetic analysis of these cells to provide a completer and more dynamic picture of tumor biology.
	• Molecular biology: Extraction, qualitative and quantitative analysis of DNA, RNA and proteins from cells and tissues (fresh, frozen and FFPE), PCR, qRT- PCR, gel electrophoresis (agarose gel and polyacrylamide gel), growth of different bacterial strains, biochemical techniques such as sonication, centrifugation, protein quantification, SDS PAGE, westen-blotting and immunodecoration, protein purification by nickel column affinity chromatography.
	• Microscopy: use of the optical microscope, use of the fluorescence microscope.
	• Immunostaining techniques: preparation of FFPE tissues and immunohistochemical processing.
	• Immunofluorescence techniques: preparation and fixation of cells for target investigation by immunofluorescence.

• 2016-2019	Master's degree in biology, University of Calabria, Department of Biology, Ecology and Earth Sciences.
• 2012-2016	Bachelor's degree in biology, University of Calabria, Department of Biology, Ecology and Earth Sciences
SOFT SKILLS	Ability to work in a team. Empathy and flexibility. Ability to work independently.
Main Language	Italian
Other Language	English
Reading Writing Oral expression	Good Good Average

SCIENTIFIC PUBLICATIONS:

1. Galluccio M, Mazza T, Scalise M, **Sarubbi MC**, Indiveri C. Bacterial over- expression of functionally active human CT2 (SLC22A16) carnitine transporter. Mol Biol Rep. 2022 Aug;49(8):8185-8193. doi: 10.1007/s11033-022-07491-1. Epub 2022 May 24. PMID: 35608746.
2. Procopio R, Fortunato F, Gagliardi M, Talarico M, Sammarra I, **Sarubbi MC**, Malanga D, Annesi G, Gambardella A. Phenotypic Variability in Novel Doublecortin Gene Variants Associated with Subcortical Band Heterotopia. Int J Mol Sci. 2024 May 18;25(10):5505. doi: 10.3390/ijms25105505. PMID: 38791543; PMCID:PMC11122195.

The undersigned, aware that - pursuant to art. 76 of the Presidential Decree 445/2000 – false statements, false documents and the use of false documents are punished under the penal code and special laws, declares that the information is true. Regarding the processing of personal data, the undersigned expresses my consent to the processing of the same in compliance with the purposes and methods set out in Legislative Decree No. 196/2003.