Katia Grillone

ABOUT ME

Fast learner, motivated and a good worker; experience in working independently in the laboratory; ability to manage different research projects and to work in a team, good communication skills. Strong passion and interest in oncogenomic studies.

EDUCATION AND TRAINING

[2019 – Current] **Postgraduate Specialization in Medical Genetics**

University Magna Graecia of Catanzaro

[2014 – 2017] **PhD in Molecular and Translational Oncology**

University Magna Graecia of Catanzaro

[2012 – 2014] **Master's Degree in Medical Biotechnologies (LM-9), final grade: 110/110**

University of Torino

[2009 – 2012] **Bachelor's Degree in Biological Science and Technologies (L-2), final grade 110/110 with honors**

University of Calabria

WORK EXPERIENCE

[2018 – Current] **Postdoctoral Research Fellow**

Medical Oncology laboratory, University Magna Graecia

City: Catanzaro

Country: Italy

Main activities and responsibilities:
Functional characterization of mechanisms involved in Multiple Myeloma progression and drug response, including functional studies concerning the role of selected lncRNAs in the tumorigenesis through the application of CRISPR-Cas9 technology to induce the knock-out of the lncRNAs whose function need to be explored.

[2014 – 2017] **PhD in Molecular Oncology**

University Magna Graecia

City: Catanzaro

Country: Italy

Main activities and responsibilities:
Genetic characterization of colorectal cancer (CRC) patients through Ion Torrent Next Generation Sequencing technology; detection of new genomic variants involved in CRC initiation, progression and metastatization and their *in vitro* functional validation.

[04/2017 – 07/2017] **Visiting PhD student at the Translational Cancer Genomics laboratory**

Wellcome Trust Sanger Institute

City: Cambridge

Country: United Kingdom

Main activities and responsibilities:
Investigation of patient-specific genetic vulnerabilities through genome wide CRISPR-Cas9 "essentiality screening" performed on patients-derived 3D colon organoids.

[2012 – 2014] **Master thesis**

Oncogenomics laboratory at the Institute for Cancer Research and Treatment - IRCCS

City: Candiolo

Country: Italy

Main activities and responsibilities:
Pharmacological profiling of new biologically active compounds on a panel of 48 colorectal cancer (CRC) cell lines representative of clinically relevant alterations common in CRC patients; characterization of the molecular mechanisms involved in response to these drugs.

Thesis title: "Identification of NEDD8 pathway inhibition as an effective therapeutic strategy for colorectal cancer"

TECHNICAL SKILLS AND COMPETENCES

Cellular biology

2D and 3D cell cultures: transfection, drug screening, cell viability assays, apoptosis assays, clonogenic assay, soft agar assay, genetic manipulation through CRISPR-Cas9 technology. Electroporation and gymnosys of single-stranded antisense oligonucleotide (ASO). Lentivirus production and infection of 2D and 3D cell lines. Microbiology: liquid and solid culture of bacteria, isolation and transformation.

Molecular biology

DNA extraction from tissue- FFPE- peripheral blood and cell lines, plasmid DNA extraction, DNA purification, DNA gel analysis- quantification and extraction, PCR; RNA extraction, reverse transcription, real time-PCR; protein extraction and quantification, WB analysis; genomic library preparation for NGS; template preparation for NGS on Ion Chef system, sequencing on Ion Proton system.

europass

Cytogenetics

Cell culture preparation for karyotype analysis, conventional chromosomal banding, acquisition of banded chromosome images and karyotype analysis by using Cyto Vision software.

DIGITAL SKILLS

Good knowledge of Microsoft ® Windows environments, Office package | Microsoft Word | Microsoft Excel | Micosoft powerpoint | database as NCBI, Ensembl, COSMIC, cBio Portal etc. | Software as Image J, FichTV, GraphPad Prism

LANGUAGE SKILLS

Mother tongue(s): Italian

Other language(s):

English

LISTENING C1 **READING** C1 **WRITING** C1

SPOKEN PRODUCTION C1 **SPOKEN INTERACTION** C1

REFEREE FOR INTERNATIONAL JOURNALS

Journal of Experimental & Clinical Cancer Research (BMC, part of springer Nature)

Frontiers in Cell and Developmental Biology (Switzerland)

Cancers (MDPI, Switzerland)

PUBLICATIONS

[2016]

Efficacy of NEDD8 Pathway Inhibition in Preclinical Models of Poorly Differentiated, Clinically Aggressive Colorectal Cancer

https://pubmed.ncbi.nlm.nih.gov/27771609/

[2018]

Next-generation sequencing analysis of receptor-type tyrosine kinase genes in surgically resected colon cancer: identification of gain-of-function mutations in the RET proto-oncogene

https://pubmed.ncbi.nlm.nih.gov/29665843/

[2018]

Identification of different mutational profiles in cancers arising in specific colon segments by next generation sequencing

https://pubmed.ncbi.nlm.nih.gov/29844865/

[2018]

From Single Level Analysis to Multi-Omics Integrative Approaches: A Powerful Strategy towards the Precision Oncology

https://pubmed.ncbi.nlm.nih.gov/30373182/

[2019]

Trabectedin triggers direct and NK-mediated cytotoxicity in multiple myeloma

https://pubmed.ncbi.nlm.nih.gov/30898137/

[2019]

Anti-tumor Activity and Epigenetic Impact of the Polyphenol Oleacein in Multiple Myeloma

https://pubmed.ncbi.nlm.nih.gov/31315220/

[2020]

Non-coding RNAs in cancer: platforms and strategies for investigating the genomic "dark matter"

https://pubmed.ncbi.nlm.nih.gov/32563270/

[2020]

Generation of iPSC lines from two patients affected by febrile seizure due to inherited missense mutation in SCN1A gene

https://pubmed.ncbi.nlm.nih.gov/33370868/

[2021]

Exploiting MYC-induced PARPness to target genomic instability in multiple myeloma

https://pubmed.ncbi.nlm.nih.gov/32079692/

[2021]

Therapeutic afucosylated monoclonal antibody and bispecific T-cell engagers for T-cell acute lymphoblastic leukemia

https://pubmed.ncbi.nlm.nih.gov/33597219/

[2021]

miRNAs and lncRNAs as Novel Therapeutic Targets to Improve Cancer Immunotherapy

https://pubmed.ncbi.nlm.nih.gov/33808190/

[2021]

Generation of human induced pluripotent stem cell lines (UNIMGi003-A and UNIMGi004-A) from two Italian siblings affected by Unverricht-Lundborg disease

https://pubmed.ncbi.nlm.nih.gov/33865103/

[2021]

miR-22 Modulates Lenalidomide Activity by Counteracting MYC Addiction in Multiple Myeloma

https://pubmed.ncbi.nlm.nih.gov/34503175/

POSTER PRESENTATION

[2017] **Anatomical Pathology Conferences SIAPeC-IAP 2017 (Naples)**

Colorectal Carcinoma and subsequent kidney tumour: report of a rare case genetically characterized by NGS analysis

Katia Grillone, Chiara Mignogna, Carmelo Laudanna, Gabriella Cardillo, Duarte Mendes Oliveira, Donatella Malanga, Antonia Rizzuto, Giuseppe Viglietto

[2021] **Italian Cancer Society (SIC virtual meeting)**

Microtubule-Targeting Agent SIX2G induces Immunogenic Cell Death in Multiple Myeloma

Katia Grillone and Caterina Riillo, Roverta Rocca, Serena Ascrizzi, Nicoletta Polerà, Scionti, Annalisa Maruca, Virginia Spanò, Giada Juli, Daniele Caracciolo, Maria Teresa Di Martino, Paola Barraja, Stefano Alcaro, Pierosandro Tagliaferri, Pierfrancesco Tassone

NETWORKS AND MEMBERSHIPS

Enrolled on the Register of Biologists (Section A)

Membership of the "Società Italiana di Cancerologia" (SIC)

Membership of **European Association for Cancer Research (EACR)** (now in place through the membership of the SIC)

Catanzaro, 29/11/2021