Curriculum vitae

Name: KATIA GRILLONE
Gender: Female
Date of Birth: January 23rd , 1990
Place of Birth: Catanzaro, Italy
Citizenship: Italian
Home address: [redacted]
Work address: University "Magna Graecia" of Catanzaro, S. Venuta Campus, 88100, Germaneto (CZ), Italy.
Tel: -
Mail [redacted]

Perso
Fast l[redacted]orker; experience in working independently in the laboratory; ability to manage different research projects and to work in a team

Education:
2014- 2017: PhD in Molecular and Translational Oncology, University "Magna Graecia" of Catanzaro (UniCZ)
2012 – 2014: Master's Degree: Medical Biotechnologies (LM-9), University of Torino, final grade: 110/110.
2009 – 2012: Bachelor's Degree: Biological Science and Technologies (L-2), University of Calabria, final grade 110/110 with honors.

Research experience:

- ***2014 – 2017*:** Molecular Oncology laboratory, UniCZ

Main focus of the PhD research activity (Molecular Oncology Laboratory): Genetic characterization of colon cancer 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.

Supervisor: Prof. Giuseppe Viglietto
Full professor of General Pathology, Department of Experimental and Clinical Medicine, University Magna Graecia of Catanzaro. Mail address: viglietto@unicz.it

International stage:

- ***April 2017-July 2017 :*** internship period at the Wellcome Trust Sanger Institute. Main research activity: Investigation of patient-specific genetic vulnerabilities through genome-wide CRISPR-Cas9 "essentiality screening" performed on patients-derived 3D colon organoids.

Supervisor: Dr. Mathew Garnett, PhD, Faculty Group Leader of the Translational Cancer Genomics team, Wellcome Trust Sanger Institute (Cambridge, UK). Mail address: mg12@sanger.ac.uk

- ***2012 – 2014** master thesis:* Institute for Cancer Research and Treatment -IRCCS (Candiolo)

Thesis title: "Identification of NEDD8 pathway inhibition as an effective therapeutic strategy for colorectal cancer" concerning in a targeted pharmacological screening on a panel of 48 CRC cell lines to evaluate the efficacy of four candidate compounds affecting different pathways involved in tumor maintenance and then in the characterization of cell line response to the most active compound tested (MLN4924) in particular assessing apoptosis, cell cycle deregulation and clonogenic cell survival.

Supervisor: Prof. Enzo Medico, M.D., PhD
Associate professor, University of Torino. Mail address: enzo.medico@unito.it

- ***2012:** internship* at the Institute for Membrane Technology (CNR), Rende (CS)

Preparation of Chitosan and Polycaprolactone membranes as biomaterials for regenerative medicine purposes.

Technical skills and competences:

Cellular biology
2D cell cultures: transfection, drug screening, cell viability assay, apoptosis assay, clonogenic assay, rereplication assay, soft agar assay.

3D cell cultures: 3D-colon organoids derivation, culture, transduction, genetic manipulation through CRISPR-Cas9 technology, drug screening, cell viability assay, niche-factors dependency profiling.

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 (mini- and maxipreps), DNA purification, DNA gel analysis- quantification and extraction, PCR; RNA extraction, reverse transcription, real time-PCR; DNA Cloning, protein extraction and quantification, WB analysis; genomic library preparation for NGS; template preparation for NGS on Ion Chef system, sequencing on Ion Proton system.

Computer Skills
Good knowledge of Microsoft ® Windows environments, Office package (Word, Excel, PowerPoint), database as NCBI, Ensembl, COSMIC, cBio Portal etc. Software as Image J, FichTV etc.

Languages:
Italian, English.

Publications:

Picco G.; Petti C.; Sassi F.; **Grillone K.**; Migliardi G.; Rossi T.; Isella C.; Di Nicolantonio F.; Sarotto I.; Sapino A.; Bardelli A.; Trusolino L.; Bertotti A.; Medico E.: *Efficacy of NEDD8 Pathway Inhibition in Preclinical Models of Poorly Differentiated, Clinically Aggressive Colorectal Cancer*, J Natl Cancer Inst., 2016, 109(2),10.1093/jnci/djw209.

Grillone K. et al.: *Colorectal Carcinoma and subsequent Kidney tumor: report of a rare case genetically characterized by NGS analysis.* Pathologica, 2017, 239, ISSN 0031-2983. (Abstract)

Oliveira DM., Laudanna C., Migliozzi S., Malanga D., Zoppoli P., Santamaria G., **Grillone K.**, Elia L., Mignogna C., Biamonte F., Sacco R., Rizzuto A. and Viglietto G.: *Identification of different mutational profiles in cancers arising in specific colon segments by Next Generation Sequencing,* Oncotarget, 2017 (under revision).