13/05/2022

Allegato 5 al DR n. 1175 del 7 luglio 2020

europass Curriculum Vitae Giorgia Anastasio

PERSONAL INFORMATION

Giorgia Anastasio

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Sex Female | Nationality Italian

EXPERTISE Experimental oncology/pancreatic cancer/cancer genetics

EDUCATION

October 2019 - April 2022
Master's Degree in Cellular and Molecular Biology and Biomedical Sciences – Molecular Cellular Curriculum (LM-6 DM-270)
Università degli Studi di Roma Tor Vergata (RM) – Italy; 110/110 cum Laude

October 2016 – October 2019
Bachelor's Degree in Biotechnology (L-2 DM- 270)
Università degli Studi di Roma Tor Vergata (RM) – Italy; 110/110

September 2011 – July 2016
Science and Math's High School Diploma
Liceo Scientifico "E. Majorana", Girifalco (CZ) – Italy; 100/100 cum Laude

RESEARCH EXPERIENCE

October 2020 – April 2022
Curricular internship for degree thesis' elaboration
Dr. Luca Cardone laboratory, Institute of Biochemistry and Cell Biology, National Research Council (CNR) (Via Ercole Ramarini 32, Monterotondo, Italy).

BRIEF DESCRIPTION OF THE RESEARCH ACTIVITY

Project title: Antitumoral effect of pharmacological synergy between decitabine and olaparib: a new possible therapeutic strategy in pancreatic cancers dependent on KRAS oncogene.

Pancreatic ductal adenocarcinoma (PDAC) represents a leading cause of cancer death, with a five-year overall survival rate of less than 5%. A KRAS oncogene mutation is the initial genetic event required to drive PDAC development and tumor maintenance. However, despite global research efforts, KRAS oncogene is still considered undruggable. In my thesis work I verified and consolidated the selective effect of decitabine on the induction of DNA damage in pancreatic ductal adenocarcinoma lines dependent on the activation of the KRAS oncogene. Also, I studied the involvement of PARP1 protein in the repair of decitabine-induced DNA damage and investigated the role of the NAD+ molecule in the activation of the DNA damage response. Furthermore, I analyzed the degree of drug interaction (synergism, antagonism or additivity) between decitabine and olaparib, a PARP1 inhibitor used in the clinic in oncological diseases, hypothesizing a potential combinatorial use of the two drugs for the treatment of PDAC KRAS-dep lines, in order to block the ability to repair DNA damage induced by decitabine.

TECHNICAL SKILLS

Maintenance of cancer cell culture; protein extraction from cellular pellet; protein purification and quantification (Bradford Assay); Western blotting analysis; fluorescence microscope usage; Nucleic acid quantification (Nanodrop); cell cycle analysis by FACS; Plasmidic DNA transfection; assessment of DNA damage by Comet Assay; evaluation of pharmacological interaction by the Combination Index method; Crystal violet assay for the determination of cell viability.

PERSONAL SKILLS

Mother tongue(s)	Italian
Other languages	English (level B1)
Other skills	Good relational skills in different contexts, ability to work in group, methodical organizational skills of the assigned work, knowledge of principal bioinformatic browsers and databases, remarkable knowledge of Office suite.