europass

Michela Felaco

EXPERTISE

Experimental oncology/pancreatic cancer/cancer genetics

WORK EXPERIENCE

[Jun 2022 – May 2023]

Reasearch Fellow

Institute of Biochemistry and Cell Biology, National Research Council

City: Monterotondo
Country: Italy

[Feb 2021 – Apr 2022]

Curricular internship for degree thesis' elaboration

Institute of Biochemistry and Cell Biology, National Research Council

City: Monterotondo
Country: Italy

BRIEF DESCRIPTION OF RESEARCH ACTIVITY

Project title: Study of molecular mechanisms of KRAS-dependent pancreatic tumors' response to decitabine

Mutant KRAS is present in approximately 90% of pancreatic cancers and it is still considered as undruggable. Computational repositioning of FDA-approved drugs that could counteract the oncogenic activity of KRAS allowed to identify decitabine, an analogue of cytidine, as a potential growth inhibitor of PDAC tumors that are dependent on the oncogene. In my research activity, molecular mechanisms of response to decitabine, as DNA-damage and regulation of DNA methylation/demethylation were examined. The opportunity and the effect of a combined treatment of Decitabine with Olaparib, a PARP inhibitor, has also been studied. Next, the molecular mechanism underlying KRAS dependency and the sensitivity to decitabine of KRAS-dep PDAC tumor cells was explored. These studies allowed me to acquirenew expertise in cancer genetics and molecular oncology.

TECHNICAL SKILLS

Cellular and molecular biology techniques

Maintenance of cancer cell culture; fluorescence microscope usage; confocal microscopy; Immunofluorescences; nucleic acid quantification (Nanodrop); protein transfection; RNA extraction; cDNA synthesis; qPCR; assessment of DNA damage with Comet Assay; evaluation of pharmacological interaction with Combination Index; Crystal violet assay for determining cell viability of cultured cells.

EDUCATION AND TRAINING

[Oct 2019 – 21 Apr 2022]

Master's Degree

Università degli Studi di Roma Tor Vergata

Address: Roma, Italy
Field(s) of study: Cellular and Molecular Biology and Biomedical Sciences – Molecular Cellular Curriculum (LM-6 DM-270)
Final grade: Summa cum Laude
Thesis: Study of molecular mechanisms of KRAS-dependent pancreatic tumors' response to decitabine

[Oct 2016 – 16 Jul 2019]

Bachelor's Degree

Università degli Studi di Roma Tor Vergata

Address: Roma, Italy
Field(s) of study: Biotechnology (L-2 DM- 270)
Final grade: Summa cum Laude

[Sep 2011 – Jul 2016]

Science and Math's High School Diploma

Liceo Scientifico "Francesco Severi"

Address: 03100, Frosinone, Italy

LANGUAGE SKILLS

Mother tongue(s): Italian

Other language(s):

English

LISTENING B2 **READING** B2 **WRITING** B2

SPOKEN PRODUCTION B2 **SPOKEN INTERACTION** B2

COMMUNICATION AND INTERPERSONAL SKILLS

Personal 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.

CONFERENCES AND SEMINARS

[Nov 2022]

62th annual Meeting of the Italian Cancer Society, "The exciting path from preclinical research to clinical application"

Venice (Italy)

Poster presentation.

[Mar 2023] **EACR-AACR basic and translational research conference, "Immune Responses & DNA Repair"**

Florence (Italy)

Poster presentation.

MEMBERSHIP

[2022 – Current] **Italian Cancer Society (SIC)**

[2023 – Current] **European Association for Cancer Research (EACR)**