Federica Zonca

Interests and purpose

As a young doctor and researcher with a keen interest in pediatric oncology, my main aim is to acquire the knowledge and expertise to help children affected by cancer both as a scientist working in wet lab and as a clinician. In particular, I have a strong interest for immunotherapy and for the development of novel CAR-T cell therapies for the treatment of solid tumors in children.

Research experience

RESEARCHER | ISTITUTO NAZIONALE DEI TUMORI OF MILAN (IT) | 11/2023-ONGOING

Implementation of a translational research program of adoptive cell therapy with the aim to develop and manufacture novel CAR-T cells for the treatment of solid tumors.

THESIS INTERNSHIP | ISTITUTO NAZIONALE DEI TUMORI OF MILAN (IT) | 09/2022-07/2023

Manufacture and preliminary studies of CAR-T cells targeting a globo-series glycosphingolipid antigen expressed on the outer membrane of cancer cells.

RESEARCH FELLOWSHIP | PRINSES MAXIMA CENTRUM (UTRECHT, NL) | 11/2021-ONGOING

Literature revision about the late effects of radiotherapy in survivors treated for Wilms tumor and neuroblastoma on behalf of SIOPEN and SIOP-RTSG.

RESEARCH ASSISTANT | POLICLINICO SAN DONATO (MILAN, IT) | 12/2020-03/2021

Revision of a radiological database collecting breast biopsies' reports of patients in order to create a diagnostic algorithm based on Machine learning.

Education

MEDICAL DOCTOR | 10/07/2023 | UNIVERSITY OF MILAN (IT)

Master's degree in Medicine and Surgery.
Thesis title: "Adoptive cell therapy in solid tumors: development of novel anti-tumor CAR-T cells".
Final evaluation: 108/110.

Laboratory skills

· Cell culture in adhesion and in suspension
· Transformation of competent cells
· Transfection of packaging cell lines with retroviral constructs
· Activation of PBMCs and transduction of lymphocytes through retroviral supernatants and lentiviral particles
· Co-culture assays for the evaluation of CAR-T cells functionality -e.g. XCELLigence, CellTiterGlo
· Cell sorting
· Basic use of flow cytometry for the phenotypic characterization of CAR-T cells and analysis of the data with FlowJo
· Use of GraphPad Prism for statistical analysis and graphics.

Additional course and skills

SAFETY USE OF LIQUID NITROGEN | ISTITUTO NAZIONALE DEI TUMORI OF MILAN | 03/2024

GENERAL AND SPECIFIC COURSE ON OCCUPATIONAL SAFETY | ISTITUTO NAZIONALE DEI TUMORI OF MILAN | 11/2023

STUDENT REPRESENTATIVE AND COLLABORATOR | UNIVERSITY OF MILAN | 09/2020-07/2023
· Communication with professors, secretaries and faculty's chief
· Organization of the internships' schedule for all the students in my course
· Participation in institutional meetings
· Supplementary teaching in subjects' area requiring support for training activities.

ALS (ADVANCED LIFE SUPPORT) | 2023

BLS (BASIC LIFE SUPPORT) | 2018

CAE (CERTIFICATION OF ADVANCED ENGLISH) | 2015
Level C1.
Already planned to take another exam for IELTS certification in the next weeks.