NADIA DOMENICA MILITO

EDUCATION AND TRAINING

- **April 2021-June 2021:** Fellowship at Istituto Pasteur Italia, Fondazione Cenci Bolognetti
- **May 2021:** PhD in "Innovation in immuno-mediated and hematological disorders", Sapienza University of Rome.
- **July 2018:** Qualification to practice professional activities (section A), University of L'Aquila.
- **October 2017:** Master degree in "Medical Biotechnologies", Sapienza University of Rome (110/110 cum laude)
- **December 2015:** Bachelor degree in "Biotechnologies", Sapienza University of Rome (110/110 cum laude)

RESEARCH EXPERIENCE

- **November 2017- May 2021: PhD student,** Dept. of Molecular Medicine, Sapienza University of Rome. Main activities: Investigate the contribution of post-translational modifications in regulating Natural Killer effector functions against tumors; understand the role of mast cell-derived exosomes in allergic response; dissect the role of mast cells in colorectal cancer progression (murine models).
- **September 2015-October 2017:** Research training at the laboratory of "Molecular Immunology and Immunopathology", Dept. Of Molecular Medicine, Sapienza University of Rome.
  Main activities: Study of post-translational modifications (Sumoylation and Ubiquitination) controlling Natural Killer cell activating ligand expression on tumor cells.

TECHNICAL SKILLS AND COMPETENCES

- Basic cell culture technique. Routine maintenance of cell culture including adherent cells and storage of cell lines. Human leukocyte purification from the peripheral blood.
- Mice: Isolation of mast cell progenitors from bone marrow and primary mast cell cultures; Bone marrow, spleen, lung and intestine harvesting and leukocyte isolation, chemically-induced cancer (AOM/DSS); Intra-peritoneal injection.
- Immunofluorescent staining, Fluorescence Microscopy (competence in analysis by ImageJ) and FACS analysis (profound experience in analysis by FlowJo™ Software); immunohistochemistry (IHC); protein-protein interaction (proximity ligation assay, PLA).
- Protein extraction from cell lines and tissues; SDS-PAGE; Western Blot analysis form total cell lysates and upon immuno-precipitation (IP); Luminex technology; ELISA; exosome isolation and purification from the conditioned media of cell lines.
- RNA/DNA extraction and quantization (using Nanodrop instrument); evaluation of gene expression using quantitative real time PCR or PCR; Electrophoresis of nucleic acids.
- Cytotoxicity assays: ^{51}Cr-release assay, 7-AAD and degranulation assay (CD-107a); multiplex cytokine assay.
- Good knowledge of Microsoft Windows and Apple Mac iOS operating systems (Microsoft OfficeTM, GraphPad PrismTM, Adobe®).

PUBBLICATIONS

- Molfetta R, **Milito ND**, Zitti B, Lecce M, Fionda C, Cippitelli M, Santoni A and Paolini R. **The Ubiquitin pathway regulates Nectin2/CD112 expression and impairs NK cell recognition and killing**. Eur J Immunol. 2019 Jun;49(6):873-883. doi:10.1002/eji.201847848.
- Molfetta R, Lecce M, Quatrini L, Caracciolo G, Digiacomo L, Masuelli L, **Milito ND**, Vulpis E, Zingoni A, Galandrini R, Santoni A, Paolini R. **Immune complexes exposed on mast cell-derived nanovesicles amplify allergic inflammation**. Allergy. 2020 Nov 12. doi:10.1111/all.14103.
- Molfetta R, Zitti B, Lecce M, **Milito ND**, Stabile H, Fionda C, Cippitelli M, Gismondi A, Santoni A and Paolini R. **CD155: A Multi-Functional Molecule in Tumor Progression.** Int J Mol Sci, 2020.
- Lecce M, Molfetta R, **Milito ND**, Santoni A and Paolini R. **FcεRI Signaling in the Modulation of Allergic Response: Role of Mast Cell-Derived Exosomes**. Int J Mol Sci, 2020.

POSTER

- **Milito ND**. **Ubiquitin and Ubiquitin like modifiers modulate NK cell- mediated recognition and killing of tumour cells**. Poster at Joint Meeting of the German and Italian Society of Immunology and Allergology, September 2019, Munich, Germany.

FIRMATO
NADIA DOMENICA MILITO