

CURRICULUM VITAE MELAIU OMBRETTA



OMBRETTA MELAIU

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ATTUALE POSIZIONE LAVORATIVA:

Professore Associato presso Università di Roma "Tor Vergata", Dipartimento di Scienze Cliniche e Medicina Traslazionale, Roma, Italia dal 1° febbraio 2025.

POSIZIONI LAVORATIVE PRECEDENTI:

Febbraio 2022- Gennaio 2025: Ricercatore a tempo determinato di tipo B (RTDB) presso Università di Roma "Tor Vergata", Dipartimento di Scienze Cliniche e Medicina Traslazionale, Roma, Italia dal 1° febbraio 2022.

Giugno 2020-Gennaio 2022: Ricercatore presso Ospedale Pediatrico Bambino Gesù, Dipartimento di Oncoematologia, Roma, Italia. Attività di ricerca: Dissezione dell'eterogeneità immunitaria del microambiente del neuroblastoma per migliorare la stratificazione del rischio e la terapia dei pazienti.

Giugno 2017-maggio 2020: Ricercatore a tempo determinato di tipo A (RTDA) presso Università di Pisa, Pisa Italia. Attività di ricerca: Caratterizzazione di geni coinvolti nel mesotelioma pleurico maligno; studio della predisposizione genetica del mieloma multiplo.

Giugno 2017-maggio 2020: Ricercatore affiliato presso Ospedale Pediatrico Bambino Gesù, Dipartimento di Oncoematologia, Roma, Italia. Attività di ricerca: Dissezione dell'eterogeneità immunitaria del microambiente del neuroblastoma per migliorare la stratificazione del rischio e la terapia dei pazienti.

Maggio 2015-maggio 2017: Borsa di ricerca presso Ospedale Pediatrico Bambino Gesù, Dipartimento di Oncoematologia, Roma, Italia. Attività di ricerca: Caratterizzazione dei linfociti T infiltranti il tumore in pazienti con neuroblastoma resistenti alla terapia. La ricerca è stata sostenuta dalla borsa di studio individuale Fondazione Umberto Veronesi (2017).

Aprile 2013-Aprile 2015: Assegno di ricerca presso Università di Pisa, Dipartimento di Biologia, Genetica, Pisa, Italia. Attività di ricerca: Studio di nuovi biomarcatori per la sorveglianza clinica dei lavoratori precedentemente esposti ad amianto.

Aprile 2012-dicembre 2012: Visiting scientist presso Imperial College, Dipartimento di Oncologia e Chirurgia, Londra, Regno Unito; Attività di ricerca: Identificazione e caratterizzazione di geni coinvolti nel mesotelioma pleurico maligno.

EDUCAZIONE:

2017: Specializzazione (50/50 con lode) in Patologia e Biochimica Clinica presso Università di Roma "Tor Vergata", Roma, Italia.

2013: Dottorato di ricerca in Scienze Biologiche e Molecolari presso Università di Pisa, Pisa, Italia.

2009: Laurea magistrale (110/110 e lode) in Scienze Fisiopatologiche Generali - classe Biologia 6/S presso Università di Pisa, Pisa, Italia.

2007: Laurea (110/110 e lode) in Scienze Biologiche e Molecolari presso Università di Pisa, Pisa, Italia.

PARTECIPAZIONE A CONFERENZE COME PRESENTATORE ORALE:

2023: The Medicine and Technological Singularity 4th International Symposium on the Advances on Regenerative Medicine. Title: Organoids and organs-on-a-chip: new frontiers for predicting response and resistance to immunotherapy in cancer patients.

2021: 17th international conference on computational intelligence methods for bioinformatics and biostatistics CIBB. Title: Cellular and gene signatures of tumor-infiltrating dendritic cells and natural killer cells predict favorable clinical outcome of neuroblastoma.

2021: Advances in Neuroblastoma Research (ANR). Title: Cellular and gene signatures of tumor-infiltrating dendritic cells and natural killer cells predict favorable clinical outcome of neuroblastoma.

2017: Giornata Romana di Immunologia. Rome. Title: Dissecting the tumor immune microenvironment in neuroblastoma.

2015: IV Workshop AIEOP in lab. Napoli. Title: Ruolo dei linfociti T infiltranti il tumore come potenziali marcatori prognostici e terapeutici in pazienti affetti da forme aggressive di neuroblastoma.

2013: Osservatorio Nazionale Amianto (ONA) Convegno giuridico-scientifico. Pisa. Title: Le ultime acquisizioni scientifiche in materia di mesotelioma.

2013: Società Italiana di Mutagenesi Ambientale. Padova. Title: Comparative Genomic Hybridization Studies on Mesothelioma show a Parallel Fate of 1p21-1p22 and 9p21 Bands and a Chromosomally Stable Sub-Group.

2011: Società Italiana di Mutagenesi Ambientale. Parma. Title: Identification and characterization of genes involved in the malignant pleural mesothelioma.

PREMI:

- 1) 2024: Vincitrice del International Award: "The Golden Rose" - Women at the Center.
- 1) 2023: Menzione di merito per la ricerca assegnata dalla Fondazione Aiace.
- 2) 2022: Premio "Contributi premiali per ricercatori e assegnisti di ricerca per rafforzare il loro status professionale e valorizzare il sistema della ricerca nel Lazio - Obiettivo politico 4 "Un'Europa più sociale".
- 3) ASN professore di seconda fascia nei seguenti SSD: 06/N1 - Scienze Delle Professioni Sanitarie E Delle Tecnologie Mediche Applicate (ASN sessione 2021/2023); 06/A2 Patologia Generale e Clinica (ASN sessione 2021/2023); 05/I1 Genetica (sessione ASN 2021/2023).
- 4) 2021: Vincitore di concorso come RTDB presso l'Università degli Studi La Sapienza, Roma nel SSD 06/N1.
- 5) 2021: Premio Fondazione Umberto Veronesi.
- 6) 2018: TRAVEL GRANT per il Congresso Europeo di Immunologia 2018 (Amsterdam).
- 7) 2014: Premio per la migliore presentazione di un poster al XIII Congresso della Federazione Italiana di Scienze della Vita (Pisa, Italia. Titolo: Are MSLN, CFB and CCNO cancer genes of mesothelioma?).

ATTIVITA' EDITORIALE

- 1) Editore dello Special Topic "Cell network in antitumor immunity of pediatric and adult solid tumors?" Volume I and II, *Frontiers in Immunology* 2022/2023; Review Editor per *Frontiers in Immunology* dal 2023;
- 2) Editore dello Special Topic "Cell network in antitumor immunity of pediatric and adult solid tumors?" Volume II" (*Frontiers in Immunology* 2023);
- 3) Revisore dal 2020 per le seguenti riviste: *Cancers*, *Diagnostics*, *Mutagenesis*, *International Journal of Molecular Science*.

SOCIETÀ SCIENTIFICHE

Membro della SIICA (Società Italiana di Immunologia e Allergologia) dal 2018;

Socio ordinario della SIOOC (Società Italiana Organi su Chip) dal 2022.

ELENCO DELLE PUBBLICAZIONI

- 1) Rosado MM, Timperi E, **Melaiu O**, Vitale S, Bachy S, Grimaldi A, Corrado M, Mancini V, Leonti G, Conti F, Cammarata I, Celardo I, Kucykowicz S, Aidoo-Micah G, Gragera P, Accapezzato D, Del Ben M, D'Oria V, De Stefanis C, Forcina L, Frattaroli F, Picchetto A, Chiaretti M, D'Ambrosio G, Giannini G, Belardinilli F, Scarinci A, Grazi GL, Musarò A, Maini MK, Fiori ME, Fruci D, Hennino A, Barnaba V. Transforming growth factor β induced as a novel secreted immune checkpoint counterinhibiting human tumor-associated T cells. *J Immunother Cancer*. 2026 Apr 2;14(4):e012668. doi: 10.1136/jitc-2025-012668.
- 2) Ielpo S, Barberini F, Gaiba A, Baronti C, Greppi M, Obino V, Ravera S, Bussola N, De Ninno A, Businaro L, Mussi V, Pomella S, Agolini E, Benvenuto M, Focaccetti C, Marcenaro E, Bei R, Barillari G, Pesce S, Cifaldi L, **Melaiu O**. Lactate-mediated NK cell dysfunction as a prognostic marker and therapeutic target in breast cancer. *Cell Death Discov*. 2026 Mar 27.
- 3) Laudisi F, Serra MA, Tomassini L, Fantini MC, Monasterio G, He N, Sommella EM, Ortenzi A, Sica GS, Zorzi F, Pacifico T, **Melaiu O**, De Stefanis C, D'Oria V, Stolfi C, Monteleone I, Villablanca EJ, Monteleone G. Intestinal epithelial Smad7 drives purine metabolic dysregulation and ileal inflammation. *J Biomed Sci*. 2026 Feb 17;33(1):18.
- 4) Pomella S, Bei R, **Melaiu O**, Barillari G. Fibronectin Is a Likely Therapeutic Target Shared by Oral and Breast Carcinomas. *Int J Mol Sci*. 2026 Jan 23;27(3):1148.
- 5) **Melaiu O**, Chierici M, Gragera P, Lazzaro N, Petrilli LL, Wienke J, Bergsma FJ, Verhoeven BM, De Stefanis C, D'Oria V, Benedetti MC, Barillari G, Alaggio R, De Ioris MA, Vinci M, Baryawno N, Carsetti R, Jurman G, Molenaar JJ, Locatelli F, Fruci D. Mapping B cells and the immune landscape of tertiary lymphoid structures reveals their clinical impact in neuroblastoma. *J Immunother Cancer*. 2025 Nov 11;13(11):e012860.

- 6) Barberini F, Pietroni R, Ielpo S, Lucarini V, Nardozi D, **Melaiu O**, Benvenuto M, Focaccetti C, Palumbo C, Rossin F, Fruci D, Olive D, Masuelli L, Bei R, Cifaldi L. Combined IFN- γ and TNF- α treatment enhances the susceptibility of breast cancer cells and spheroids to Natural Killer cell-mediated killing. *Cell Death Dis.* 2025 Oct 16;16(1):729.
- 7) Greppi M, Tabellini G, Patrizi O, Obino V, Bozzo M, Rutigliani M, Gorlero F, Di Luca M, Paleari L, **Melaiu O**, Paudice M, Loiacono F, Castagnola P, Vellone VG, André P, Mavilio D, Ubezio G, Candiani S, Jandus C, Moretta L, De Censi A, Olive D, Sivori S, Vivier E, Rampinelli F, Parolini S, Pesce S, Marcenaro E. PD-1+ NK cell subsets in high grade serous ovarian cancer: an indicator of disease severity and a target for combined immune-checkpoint blockade. *J Exp Clin Cancer Res.* 2025 Aug 29;44(1):258.
- 8) Pomella S, D'Archivio L, Cassandri M, Aiello FA, **Melaiu O**, Marampon F, Rota R, Barillari G. The HIV Protease Inhibitor Ritonavir Reverts the Mesenchymal Phenotype Induced by Inflammatory Cytokines in Normal and Tumor Oral Keratinocytes to an Epithelial One, Increasing the Radiosensitivity of Tumor Oral Keratinocytes. *Cancers (Basel).* 2025 Jul 30;17(15):2519.
- 9) **Melaiu O**, Bernson E, Pesce S. Editorial: Community series in cell network in antitumor immunity of pediatric and adult solid tumors, volume II. *Front Immunol.* 2025 Jun 27;16:1649643.
- 10) De Mitri F, Giansanti M, **Melaiu O**, Haas D, Ebert S, Tumino N, Vulpis E, Gatto F, Martuscelli B, Antonioli M, Sangiuliano E, Caruso S, Scarsella M, De Stefanis C, Marabitti V, Campello S, Fruci D, Vacca P, Caruana I, Nazio F. Inhibition of autophagy enhances the antitumor efficacy of T/CAR T cell against neuroblastoma. *J Exp Clin Cancer Res.* 2025 Jul 3;44(1):185.
- 11) Romania P, Cifaldi L, Gragera P, D'Alicandro V, Caforio M, Folgiero V, Lucarini V, **Melaiu O**, Bei R, Locatelli F, Fruci D. A genome-wide shRNA screen uncovers a novel potential ligand for NK cell activating receptors. *Front Immunol.* 2025 Jun 18;16:1537876.
- 12) Crecca E, Di Giuseppe G, Camplone C, Vigiano Benedetti V, **Melaiu O**, Mezza T, Cencioni C, Spallotta F. The multifaceted role of agents counteracting metabolic syndrome: A new hope for gastrointestinal cancer therapy. *Pharmacol Ther.* 2025 Jun;270:108847.
- 13) Lucarini V, **Melaiu O**, Gragera P, Król K, Scaldaferri V, Damiani V, De Ninno A, Nardozi D, Businaro L, Masuelli L, Bei R, Cifaldi L, Fruci D. Immunogenic Cell Death Inducers in Cancer Immunotherapy to Turn Cold Tumors into Hot Tumors. *Int J Mol Sci.* 2025 Feb 14;26(4):1613.
- 14) Ielpo S, Barberini F, Dabbagh Moghaddam F, Pesce S, Cencioni C, Spallotta F, De Ninno A, Businaro L, Marcenaro E, Bei R, Cifaldi L, Barillari G, **Melaiu O**. Crosstalk and communication of cancer-associated fibroblasts with natural killer and dendritic cells: New frontiers and unveiled opportunities for cancer immunotherapy. *Cancer Treat Rev.* 2024 Dec;131:102843.
- 15) Tempora P, D'Amico S, Gragera P, Damiani V, Krol K, Scaldaferri V, Pandey K, Chung S, Lucarini V, Giorda E, Scarsella M, Volpe G, Pezzullo M, De Stefanis C, D'Oria V, De Angelis L, Giovannoni R, De Ioris MA, **Melaiu O**, Purcell AW, Locatelli F, Fruci D. Combining ERAP1 silencing and entinostat therapy to overcome resistance to cancer immunotherapy in neuroblastoma. *J Exp Clin Cancer Res.* 2024 Oct 22;43(1):292.
- 16) Rebaudi F, De Franco F, Goda R, Obino V, Vita G, Baronti C, Iannone E, Pitto F, Massa B, Fenoglio D, Jandus C, Poggio F, Fregatti P, **Melaiu O**, Bozzo M, Candiani S, Papaccio F, Greppi M, Pesce S, Marcenaro E. The landscape of combining immune checkpoint inhibitors with novel Therapies: Secret alliances against breast cancer. *Cancer Treat Rev.* 2024 Nov;130:102831.
- 17) Greppi M, De Franco F, Obino V, Rebaudi F, Goda R, Frumento D, Vita G, Baronti C, **Melaiu O**, Bozzo M, Candiani S, Vellone VG, Papaccio F, Pesce S, Marcenaro E. NK cell receptors in anti-tumor and healthy tissue protection: Mechanisms and therapeutic advances. *Immunol Lett.* 2024 Dec;270:106932.
- 18) Pomella S, **Melaiu O**, Cifaldi L, Bei R, Gargari M, Campanella V, Barillari G. Biomarkers Identification in the Microenvironment of Oral Squamous Cell Carcinoma: A Systematic Review of Proteomic Studies. *Int J Mol Sci.* 2024 Aug 16;25(16):8929.
- 19) Pomella S, **Melaiu O**, Dri M, Martelli M, Gargari M, Barillari G. Effects of Angiogenic Factors on the Epithelial-to-Mesenchymal Transition and Their Impact on the Onset and Progression of Oral Squamous Cell Carcinoma: An Overview. *Cells.* 2024 Jul 31;13(15):1294.
- 20) Focaccetti C, Palumbo C, Benvenuto M, Carrano R, **Melaiu O**, Nardozi D, Angiolini V, Lucarini V, Kärpi B, Masuelli L, Cifaldi L, Bei R. The Combination of Bioavailable Concentrations of Curcumin and Resveratrol Shapes Immune Responses While Retaining the Ability to Reduce Cancer Cell Survival. *Int J Mol Sci.* 2023 Dec 23;25(1):232.

- 21) D'Amico S, Tempora P, Gragera P, Król K, **Melaiu O**, De Ioris MA, Locatelli F, Fruci D. Two bullets in the gun: combining immunotherapy with chemotherapy to defeat neuroblastoma by targeting adrenergic-mesenchymal plasticity. *Front Immunol*. 2023 Oct 2;14:1268645.
- 22) Ceroni G, **Melaiu O**, Chicco D. Clinical Feature Ranking Based on Ensemble Machine Learning Reveals Top Survival Factors for Glioblastoma Multiforme. *J Healthc Inform Res*. 2023 Sep 20;8(1):1-18.
- 23) Pesce S, **Melaiu O**. Editorial: Cell network in antitumor immunity of pediatric and adult solid tumors. *Front Immunol*. 2023 Jul 6;14:1246695.
- 24) Cifaldi L, **Melaiu O**, Giovannoni R, Benvenuto M, Focaccetti C, Nardozi D, Barillari G, Bei R. DNAM-1 chimeric receptor-engineered NK cells: a new frontier for CAR-NK cell-based immunotherapy. *Front Immunol*. 2023 Jun 8;14:1197053.
- 25) **Melaiu O***, Vanni G, Portarena I, Pistolese CA, Anemona L, Pomella S, Bei R, Buonomo OC, Roselli M, Mauriello A, Barillari G*. The combination of immune checkpoint blockade with tumor vessel normalization as a promising therapeutic strategy for breast cancer: an overview of preclinical and clinical studies. *Corresponding author. *Int J Mol Sci*. 2023 Feb 6;24(4):3226.
- 26) Pomella S†, Cassandri M†, **Melaiu O**, Marampon F, Gargari M, Campanella V, Rota R, Barillari G. DNA Damage Response Gene Signature as Potential Treatment Markers for Oral Squamous Cell Carcinoma. *Int J Mol Sci*. 2023 Jan 31;24(3):2673.
- 27) Lucarini V. #, **Melaiu O** #, D'Amico S, Pastorino F, Tempora P, Scarsella M, Pezzullo M, De Ninno A, D'Oria V, Cilli M, Emionite L, Infante P, Di Marcotullio L, De Ioris MA, Barillari G, Alaggio R, Businaro L, Ponzoni M, Locatelli F, Fruci D. Lucarini V. Combined mitoxantrone and anti-TGFβ treatment with PD-1 blockade enhances antitumor immunity by remodelling the tumor immune landscape in neuroblastoma. *J Exp Clin Cancer Res*. 2022 Nov 17;41(1):326. #, **Melaiu O** # **joint first position**.
- 28) Barillari G, **Melaiu O**, Gargari M, Pomella S, Bei R, Campanella V. The Multiple Roles of CD147 in the Development and Progression of Oral Squamous Cell Carcinoma: An Overview. *Int J Mol Sci*. 2022 Jul 28;23(15):8336.
- 29) D'Amico S, Tempora P, **Melaiu O**, Lucarini V, Cifaldi L, Locatelli F, Fruci D. Targeting the antigen processing and presentation pathway to overcome resistance to immune checkpoint therapy. *Front Immunol*. 2022 Jul 22;13:948297.
- 30) Vanni G, Pellicciaro M, Materazzo M, **Melaiu O**, Longo B, Cervelli V, Buonomo OC. Neoadjuvant Treatment as a Risk Factor for Variation of Upper Limb Lymph Node Drainage During Axillary Reverse Mapping in Breast Cancer: A Prospective Observational Study. *Anticancer Res*. 2022 Aug;42(8):3879-3888.
- 31) D'Amico S, D'Alicandro V, Compagnone M, Tempora P, Guida G, Romania P, Lucarini V, **Melaiu O**, Falco M, Algeri M, Pende D, Cifaldi L, Fruci D. ERAP1 Controls the Interaction of the Inhibitory Receptor KIR3DL1 With HLA-B51:01 by Affecting Natural Killer Cell Function. *Front Immunol*. 2021 Nov 30;12:778103.
- 32) Bussola N*, Papa B*, **Melaiu O**, Castellano A, Fruci D, Jurman G. Quantification of the Immune Content in Neuroblastoma: Deep Learning and Topological Data Analysis in Digital Pathology. *Int J Mol Sci*. 2021 Aug 16;22(16):8804. *First authors.
- 33) Morani F, Bisceglia L, Rosini G, Mutti L, **Melaiu O**, Landi S, Gemignani F. Identification of Overexpressed Genes in Malignant Pleural Mesothelioma. *Int J Mol Sci*. 2021 Mar 8;22(5):2738.
- 34) D'Amico S, Tempora P, Lucarini V, **Melaiu O**, Gaspari S, Algeri M, Fruci D. ERAP1 and ERAP2 enzymes: a protective shield for RAS against COVID-19? *Int J Mol Sci*. 2021 Feb 8;22(4):1705.
- 35) Lucarini V†, **Melaiu O**†, Tempora P, D'Amico S, Locatelli F, Fruci D. Dendritic Cells: Behind the Scenes of T-Cell Infiltration into the Tumor Microenvironment. *Cancers (Basel)*. 2021 Jan 23;13(3):433. † = **first author equally contributed**.
- 36) Veneziani I, Infante P, Ferretti E, **Melaiu O**, Battistelli C, Lucarini V, Compagnone M, Nicoletti C, Castellano A, Petrini S, Ognibene M, Pezzolo A, Di Marcotullio L, Bei R, Moretta L, Pistoia V, Fruci D, Barnaba V, Locatelli F, Cifaldi L. Nutlin-3a Enhances Natural Killer Cell-Mediated Killing of Neuroblastoma by Restoring p53-Dependent Expression of Ligands for NKG2D and DNAM-1 Receptors. *Cancer Immunol Res*. 2021 Feb;9(2):170-183.
- 37) Dell'Anno I, Martin SA, Barbarino M, Melani A, Silvestri R, Bottaro M, Paolicchi E, Corrado A, Cipollini M, **Melaiu O**, Giordano A, Luzzi L, Gemignani F, Landi S. Drug-repositioning screening

- identified fludarabine and risedronic acid as potential therapeutic compounds for malignant pleural mesothelioma. *Invest New Drugs*. 2020 Dec 9.
- 38) **Melaiu O**, Chierici M, Lucarini V, Jurman G, Conti LA, De Vito R, Boldrini R, Cifaldi L, Castellano A, Furlanello C, Barnaba V, Locatelli F, Fruci D. Cellular and gene signatures of tumor-infiltrating dendritic cells and natural-killer cells predict prognosis of neuroblastoma. *Nat Commun*. 2020 Nov 25;11(1):5992.
 - 39) **Melaiu O**, Macaudo A, Sainz J, Calvetti D, Facioni MS, Maccari G, Ter Horst R, Netea MG, Li Y, Grząsko N, Moreno V, Jurczyszyn A, Jerez A, Watek M, Varkonyi J, Garcia-Sanz R, Kruszekowski M, Dudziński M, Kadar K, Jacobsen SEH, Mazur G, Andersen V, Rybicka M, Zawirska D, Rażny M, Zaucha JM, Ostrovsky O, Iskierka-Jazdzewska E, Reis RM, Stępień A, Beider K, Nagler A, Druzd-Sitek A, Marques H, Martinez-Lopez J, Lesueur F, Avet-Loiseau H, Vangsted AJ, Krawczyk-Kulis M, Butrym A, Jamrozak K, Dumontet C, Vogel U, Rymko M, Pelosini M, Subocz E, Szombath G, Sarasquete ME, Silvestri R, Morani F, Landi S, Campa D, Canzian F, Gemignani F. Common gene variants within 3'-untranslated regions as modulators of multiple myeloma risk and survival. *Int J Cancer*. 2020 Nov 5.
 - 40) **Melaiu O**, D'Amico S, Tempora P, Lucarini V, Fruci D. Impact of Natural Occurring ERAP1 Single Nucleotide Polymorphisms within miRNA-Binding Sites on HCMV Infection. *Int J Mol Sci*. 2020 Aug 15;21(16):5861.
 - 41) Dell'Anno I, Barbarino M, Barone E, Giordano A, Luzzi L, Bottaro M, Migliore L, Agostini S, Melani A, **Melaiu O**, Catalano C, Cipollini M, Silvestri R, Corrado A, Gemignani F, Landi S. EIF4G1 and RAN as Possible Drivers for Malignant Pleural Mesothelioma. *Int J Mol Sci*. 2020 Jul 9;21(14):4856.
 - 42) **Melaiu O**, Lucarini V, Giovannoni R, Fruci D, Gemignani F. News on immune checkpoint inhibitors as immunotherapy strategies in adult and pediatric solid tumors. *Semin Cancer Biol*. 2020 Jul 10:S1044-579X(20)30156-5.
 - 43) Gallerano D, Ciminati S, Grimaldi A, Piconese S, Cammarata I, Focaccetti C, Pacella I, Accapezzato D, Lancellotti F, Sacco L, Caronna R, **Melaiu O**, Fruci D, D'Oria V, Manzi E, Sagnotta A, Parrino C, Coletta D, Peruzzi G, Terenzi V, Battisti A, Cassoni A, Fadda MT, Brozzetti S, Fazzi K, Grazi GL, Valentini V, Chirletti P, Polimeni A, Barnaba V, Timperi E. Genetically driven CD39 expression shapes human tumor-infiltrating CD8⁺ T-cell functions. *Int J Cancer*. 2020 Nov 1;147(9):2597-2610.
 - 44) Gemignani F, Romei C, Ciampi R, Corrado A, **Melaiu O**, Figlioli G, Bonotti A, Foddìs R, Cristaudo A, Pellegrini G, Vivaldi A, Cipollini M, Landi S, Elisei R. Polymorphisms within the RET proto-oncogene and risk of sporadic medullary thyroid carcinoma. *Thyroid*. 2020 Mar 31. doi: 10.1089/thy.2019.0352.
 - 45) **Melaiu O**, Lucarini V, Cifaldi L, Fruci D. Influence of the Tumor Microenvironment on NK Cell Function in Solid Tumors. *Front Immunol*. 2020 Jan 21;10:3038.
 - 46) Bufalieri F, Infante P, Bernardi F, Caimano M, Romania P, Moretti M, Severini L, Talbot J, **Melaiu O**, Tanori M, Di Magno L, Bellavia D, Puget S, De Smaele E, Canettieri G, Guardavaccaro D, Busino L, Peschiaroli A, Pazzaglia S, Giannini G, Melino G, Locatelli F, Gulino A, Ayrault O, Doriana Fruci D,* Di Marcotullio L. ERAP1 promotes Hedgehog-dependent tumorigenesis by controlling USP47-mediated degradation of β TrCP. *Nat Commun*. 2019 Jul 24;10(1):3304.
 - 47) Cipollini M, Luisi S, Piomboni P, Luddi A, Landi D, **Melaiu O**, Figlioli G, Garritano S, Cappelli V, Viganò P, Gemignani F, Petraglia F, Landi S. Functional polymorphism within NUP210 encoding for nucleoporin GP210 is associated with the risk of endometriosis. *Fertil Steril*. 2019 Aug;112(2):343-352.e1.
 - 48) Cammarata I, Martire C, Citroa A, Raimondo D, Fruci D, **Melaiu O**, D'Oria V, Carone C, Peruzzi G, Cerboni C, Santoni A, JSidney J, Sette A, Paroli M, Caccavale R, Milanetti E, Riminucci M, Timperi E, Piconese S, Manzo A, Montecucco C, Scrivo R, Valesini G, Cariani E, Barnaba V. Journal of autoimmunity. Counter-regulation of regulatory T cells by autoreactive CD8⁺ T cells in rheumatoid arthritis. *J Autoimmun*. 2019 May;99:81-97.
 - 49) Boldrini R*, De Pasquale MD*, **Melaiu O***, Chierici M, Jurman G, Benedetti MC, Salfi NC, Castellano A, Collini P, Furlanello C, Pistoia V, Cifaldi L, Terenziani M, Fruci D. Tumor-infiltrating T cells and PD-L1 expression in childhood malignant extracranial germ-cell tumors. *Oncoimmunology*. 2018 Dec 13;8(2):e1542245. *Equally contribution.

- 50) D'Alicandro V, Romania P, **Melaiu O**, Fruci D. Role of genetic variations on MHC class I antigen-processing genes in human cancer and viral-mediated diseases. *Mol Immunol*. 2018 Apr 3. pii: S0161-5890(18)30103-2.
- 51) **Melaiu O**, Gemignani F, Landi S. The genetic susceptibility in the development of malignant pleural mesothelioma. *J Thorac Dis*. 2018 Jan;10(Suppl 2):S246-S252.
- 52) Romania P, Cifaldi L, Pignoloni B, Starc N, D'Alicandro V, **Melaiu O**, Li Pira G, Giorda E, Carrozzo R, Bergvall M, Bergström T, Alfredsson L, Olsson T, Kockum I, Seppälä I, Lehtimäki T, Hurme MA, Hengel H, Santoni A, Cerboni C, Locatelli F, D'Amato M, Fruci D. Identification of a Genetic Variation in ERAP1 Aminopeptidase that Prevents Human Cytomegalovirus miR-UL112-5p-Mediated Immuno-evasion. *Cell Rep*. 2017 Jul 25;20(4):846-853.
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Roma, 22/04/2026

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