Tazzari Marcella, PhD

Personal Information

e-mail marcella.tazzari@irst.emr.it
Place & Date of Birth Lugo, 25th September 1984

Work Experience

01.07.2020 – at present Junior PI at **IRCCS Istituto Romagnolo per lo Studio dei Tumori (IRST) "Dino Amadori" S.r.l.**, Unit of Immunotherapy – Cell Therapy and Biobank. Coordinator of the *Immune-Microenvironment, Adoptive and Vaccine Approaches Program.*

19.06.2017 - 01.07.2020 Postdoctoral Fellow at **IRCCS Istituto Romagnolo per lo Studio dei Tumori (IRST) "Dino Amadori" S.r.l.**, Unit of Immunotherapy – Cell Therapy and Biobank, Coordinator Massimo Guidoboni.

01.06.2016 - 31.12.2017 Postdoctoral Fellow in the Tumor Immmunology Lab headed by Prof. Carl Figdor, Department of Tumor Immunology, **Radboud Institute for Molecular Life Sciences** (RIMLS, Radboudumc, Nijmegen, The Netherlands).

25.06.2014 - 15.05.2016 Postdoctoral Fellow at **Fondazione IRCCS Istituto Nazionale dei Tumori**, Milan (Italy), Unit of Immunotherapy of Human Tumors (Licia Rivoltini's Lab), Department of Experimental Oncology and Molecular Medicine.

01.01.2011 - 24.06.2014 PhD Student at **Fondazione IRCCS Istituto Nazionale dei Tumori**, Milan (Italy), Unit of Immunotherapy of Human Tumors (Licia Rivoltini's Lab), Department of Experimental Oncology and Molecular Medicine.

01.11.2009 - 31.12.2010 Graduate Student at **Fondazione IRCCS Istituto Nazionale dei Tumori**, Milan (Italy), Unit of Immunotherapy of Human Tumors (Licia Rivoltini's Lab), Department of Experimental Oncology and Molecular Medicine.

15.05.2008 - 15.02.2009 Master –Thesis Student in Prof. Rolf Kiessling's Lab, Department of Oncology-Pathology, **Cancer Center Karolinska**, Karolinska Hospital (Sweden).

Education and Training

01.01.2011 - 24.06.2014 PhD School in Biological and Molecular Sciences in collaboration with the University of Milan.

06.2009 Professional Qualification in Pharmacy.

09.2003 - 03.2009 Master Degree in Chemistry and Pharmaceutical Technology, 110/110 cum laude. University of Ferrara (Italy)

09.1998 - 06-2003 Scientific High School Diploma (100/100 cum laude). Scientific High School "G. Ricci Curbastro", Lugo (RA), Italy

Technical Skills

Cellular biology: tumor specimen processing for lymphocyte extraction and tumor cells isolation, tumor cell culture, proliferation assays (MTT, CFSE staining), eucariotic cell transfection, peripheral blood mononuclear cell separation, culture and stimulation of human lymphocytes, MHC-class I reconstitution assay, Enzyme-Linked Immunoassorbent Assay (ELISA), Elispot, surface and intracellular multi-parametric flow cytometry, evaluation of anti-tumor (antigen-specific) T cell response, Cytometric-Bead-Array (CBA), magnetic separation and culture of different subsets of human lymphocytes (including regulatory T cells, CD8+ T cells), magnetic separation and culture of human monocytes and of different human dendritic cell subsets, *in vitro* suppression assay, immunofluorescence staining in 2D and 3D, generation of multi-cellular immunocompetent 3D systems (e.g. spheroids, decellularized scaffold, organoids), standard and multiplex/sequential immunohistochemistry (including the TSA/OPAL technology), Flow Cytometry Cell Sorting with the FACSMelody (BD) Platform.
Molecular biology: Nucleic acids extractions from tissue and cells, retrotranscription and cDNA manipulation, PCR, SYBR Green and Taqman real-time PCR, Western Blot, quantification of arginase activity in plasma and cell/tissue lysate samples. Library preparation & sequencing for bulk and singe-cell RNA sequencing (RNAseq and scRNAseq).

Computer Skills: Competent with most of Microsoft Windows Office™ tools, statistical analysis with GraphPad Prism 9, analysis of DNA and protein sequences, flow cytometry data analysis with FlowJo, SPICE, SPADE, Kaluza software (Beckman Coulter) and FCS Express. Image Processing Analysis with ImageJ/FIJI, FCSExpress, QuPath, Aperio ImageScope and DSH4 Image Alignment. NetMHC 4.0 software for the binding of epitopes to MHC Class I complex. scRNAseq analysis using Loupe Browser and gene expression data analysis using QIAGEN'S Ingenuity Pathway Analysis (IPA).

Mother Tongue: Italian
Other Language(s): English
Understanding Indipendent user
Speaking Indipendent user
Writing Proficient user

Awards

Triennial fellowship (January 2013-December 2015) sponsored by the Italian Foundation for Cancer Research (FIRC) with a program entitled *"Targeted-therapies in soft tissue sarcoma patients: immune mechanisms as co-players of the anti-tumor response"*.

Annual Fellowship for abroad 2015 sponsored by the Italian Foundation for Cancer Research (FIRC) for the year 2016, with a project entitled *"A novel human skin organoid model to investigate myeloid cell-tumor cell interactions in the melanoma microenvironment"*.

My first Grant AIRC (January 2022) sponsored by the Italian *Association* for Cancer Research (*AIRC*) with a *project* entitled *"Unveiling the function of tertiary lymphoid structures and associated CXCL13 to enhance immunotherapy in solid tumors".*

2022 NIBIT Clinical Best Paper on Melanoma, XX NIBIT Virtual meeting, 13-15 October 2022

Publications

h-Index: 12 (Scopus)
ORCID ID: http://orcid.org/0000-0002-8112-1773
ResearcherID: D-7885-2017

1. Pancisi, E.; Granato, A.M.; Scarpi, E.; Ridolfi, L.; Carloni, S.; Moretti, C.; Guidoboni, M.; De Rosa, F.; Pignatta, S.; Piccinini, C.; Soldati, V.; Calabrò, L.; Framarini, M.; Stefanelli, M.; Bulgarelli, J.; **Tazzari, M**.; Fanini, F.; Petrini, M. Stability Program in Dendritic Cell Vaccines: A "Real-World" Experience in the Immuno-Gene Therapy Factory of Romagna Cancer Center. Vaccines 2022, 10, 999. doi.org/10.3390/vaccines10070999

2. Baldi GG, Gronchi A, **Tazzari M**, Stacchiotti S. Immunotherapy in soft tissue sarcoma: current evidence and future perspectives in a variegated family of different tumor. Expert Rev Anticancer Ther. 2022 Apr 26:1-13. doi: 10.1080/14737140.2022.2065986.

3. **Tazzari M**, Bergamaschi L, De Vita A, Collini P, Barisella M, Bertolotti A, Ibrahim T, Pasquali S, Castelli C, Vallacchi V. Molecular Determinants of Soft Tissue Sarcoma Immunity: Targets for Immune Intervention. Int J Mol Sci. (2021) 13;22(14):7518. doi: 10.3390/ijms22147518.

4. Turroni S, Petracci E, Edefonti V, Giudetti AM, D'Amico F, Paganelli L, Giovannetti G, Del Coco L, Fanizzi FP, Rampelli S, Guerra D, Rengucci C, Bulgarelli J, **Tazzari M**, Pellegrini N, Ferraroni M, Nanni O, Serra P. Effects of a Diet Based on Foods from Symbiotic Agriculture on the Gut Microbiota of Subjects at Risk for Metabolic Syndrome. Nutrients (2021) Jun 17;13(6):2081. doi: 10.3390/nu13062081.

5. Huber V, Di Guardo L, Lalli L, Giardiello D, Cova A, Squarcina P, Frati P, Di Giacomo AM, Pilla L, **Tazzari M**, Camisaschi C, Arienti F, Castelli C, Rodolfo M, Beretta V, Di Nicola M, Maio M, Del Vecchio M, de Braud F, Mariani L, Rivoltini L. Back to simplicity: a four-marker blood cell score to quantify prognostically relevant myeloid cells in melanoma patients (2021). Feb;9(2):e001167.J Immunother Cancer. doi: 10.1136/jitc-2020-001167.

6. Nicolini F, Bravaccini S, Mazza M, Gruszka AM, **Tazzari M**, Martín-Antonio B, Juan M, Ibrahim T, Maltoni R, Martinelli G, Cerchione C. CAR T cells targeting options in the fight against multiple myeloma (2020). Panminerva Med doi: 10.23736/S0031-0808.20.04146-4.

7. Di Blasio S, van Wigcheren GF, Becker A, van Duffelen A, Gorris M, Verrijp K, Stefanini I, Bakker GJ, Bloemendal M, Halilovic A, Vasaturo A, Bakdash G, Hato SV, de Wilt JHW, Schalkwijk J, de Vries IJM, Textor JC, van den Bogaard EH, **Tazzari M***, Figdor CG*.The tumour microenvironment shapes dendritic cell plasticity in a human organotypic melanoma culture. Nat Commun (2020) 2;11(1):2749. doi: 10.1038/s41467-020-16583-0. [doi] *Corresponding-Authors

8. Bulgarelli J, **Tazzari M***, Granato AM, Ridolfi L, Maiocchi S, de Rosa F, et al. Dendritic Cell Vaccination in Metastatic Melanoma Turns "Non-T Cell Inflamed" Into "T-Cell Inflamed" Tumors. Front Immunol (2019) **10**:2353. doi: 10.3389/fimmu.2019.02353 [doi]. *Corresponding-Author

9. **Tazzari M**, Brich S, Tuccitto A, Bozzi F, Beretta V, Spagnuolo RD, et al. Complex Immune Contextures Characterise Malignant Peritoneal Mesothelioma: Loss of Adaptive Immunological Signature in the More Aggressive Histological Types. J Immunol Res (2018) **2018**:5804230. doi: 10.1155/2018/5804230 [doi].

10. Camisaschi C, Vallacchi V, Vergani E, **Tazzari M**, Ferro S, Tuccitto A, Kuchuk O, Shahaj E, Sulsenti R, Castelli C, Rodolfo M, Rivoltini L, Huber V (2016) Targeting Immune Regulatory Networks to Counteract Immune Suppression in Cancer. *Vaccines (Basel)* **4**: E38, doi:E38 [pii]

11. **Tazzari M**, Indio V, Vergani B, De Cecco L, Rini F, Negri T, Camisaschi C, Fiore M, Stacchiotti S, Dagrada GP, Casali PG, Gronchi A, Astolfi A, Pantaleo MA, Villa A, Lombardo C, Arienti F, Pilotti S, Rivoltini L, Castelli C (2016) Adaptive Immunity in Fibrosarcomatous Dermatofibrosarcoma Protuberans and Response to Imatinib Treatment. *J Invest Dermatol*, doi:S0022-202X(16)32355-7 [pii]

12. Tuccitto A, **Tazzari M**, Beretta V, Rini F, Miranda C, Greco A, Santinami M, Patuzzo R, Vergani B, Villa A, Manenti G, Cleris L, Giardiello D, Alison M, Rivoltini L, Castelli C, Perego M (2016) Immunomodulatory Factors Control the Fate of Melanoma Tumor Initiating Cells. *Stem Cells* **34**: 2449-2460, doi:10.1002/stem.2413 [doi]

13. Spagnuolo RD, Brich S, Bozzi F, Conca E, Castelli C, **Tazzari M**, Maestro R, Brenca M, Gualeni AV, Gloghini A, Stacchiotti S, Pierotti MA, Pilotti S, Negri T (2016) Sunitinib-induced morpho-functional changes and drug effectiveness in malignant solitary fibrous tumours. *Oncotarget*, doi:10.18632/oncotarget.7523 [doi]

14. Stacchiotti S, Astolfi A, Gronchi A, Fontana A, Pantaleo MA, Negri T, Brenca M, **Tazzari M**, Urbini M, Indio V, Colombo C, Radaelli S, Brich S, Dei Tos AP, Casali PG, Castelli C, Dagrada GP, Pilotti S, Maestro R (2016) Evolution of Dermatofibrosarcoma Protuberans to DFSP-Derived Fibrosarcoma: An Event Marked by Epithelial-Mesenchymal Transition-like Process and 22q Loss. *Mol Cancer Res* **14**: 820-829, doi:10.1158/1541-7786.MCR-16-0068 [doi]

15. Stacchiotti S, Pantaleo MA, Negri T, Astolfi A, **Tazzari M**, Dagrada GP, Urbini M, Indio V, Maestro R, Gronchi A, Fiore M, Dei Tos AP, Conca E, Palassini E, Vincenzi B, Grosso F, Pilotti S, Castelli C, Casali PG (2016) Efficacy and Biological Activity of Imatinib in Metastatic Dermatofibrosarcoma Protuberans (DFSP). *Clin Cancer Res* **22**: 837-846, doi:10.1158/1078-0432.CCR-15-1243 [doi]

16. Castelli C, Rivoltini L, Rodolfo M, **Tazzari M**, Belgiovine C, Allavena P (2015) Modulation of the myeloid compartment of the immune system by angiogenic- and kinase inhibitor-targeted anti-cancer therapies. *Cancer Immunol Immunother* **64**: 83-89, doi:10.1007/s00262-014-1576-1 [doi]

17. **Tazzari M**, Palassini E, Vergani B, Villa A, Rini F, Negri T, Colombo C, Crippa F, Morosi C, Casali PG, Pilotti S, Stacchiotti S, Rivoltini L, Castelli C (2015) Melan-A/MART-1 immunity in a EWS-ATF1 translocated clear cell sarcoma patient treated with sunitinib: a case report. *BMC Cancer* **15**: 58-015-1044-0, doi:10.1186/s12885-015-1044-0 [doi]

18. **Tazzari M**, Negri T, Rini F, Vergani B, Huber V, Villa A, Dagrada P, Colombo C, Fiore M, Gronchi A, Stacchiotti S, Casali PG, Pilotti S, Rivoltini L, Castelli C (2014) Adaptive immune contexture at the tumour site and downmodulation of circulating myeloid-derived suppressor cells in the response of solitary fibrous tumour patients to anti-angiogenic therapy. *Br J Cancer* **111**: 1350-1362, doi:10.1038/bjc.2014.437 [doi]

19. Stacchiotti S, Pantaleo MA, Astolfi A, Dagrada GP, Negri T, Dei Tos AP, Indio V, Morosi C, Gronchi A, Colombo C, Conca E, Toffolatti L, **Tazzari M**, Crippa F, Maestro R, Pilotti S, Casali PG (2014) Activity of sunitinib in extraskeletal myxoid chondrosarcoma. *Eur J Cancer* **50**: 1657-1664, doi:10.1016/j.ejca.2014.03.013 [doi]

20. Camisaschi C, Filipazzi P, **Tazzari M**, Casati C, Beretta V, Pilla L, Patuzzo R, Maurichi A, Cova A, Maio M, Chiarion-Sileni V, Tragni G, Santinami M, Vergani B, Villa A, Berti E, Umansky L, Beckhove P, Umansky V, Parmiani G, Rivoltini L, Castelli C (2013) Effects of cyclophosphamide and IL-2 on regulatory CD4+ T cell frequency and function in melanoma patients vaccinated with HLA-class I peptides: impact on the antigen-specific T cell response. *Cancer Immunol Immunother* **62**: 897-908, doi:10.1007/s00262-013-1397-7 [doi]

21. Castelli C, **Tazzari M**, Negri T, Vergani B, Rivoltini L, Stacchiotti S, Pilotti S (2013) Structured myeloid cells and anti-angiogenic therapy in alveolar soft part sarcoma. *J Transl Med* **11**: 237-5876-11-237, doi:10.1186/1479-5876-11-237 [doi]

22. Lladser A, Ljungberg K, Tufvesson H, **Tazzari M**, Roos AK, Quest AF, Kiessling R (2010) Intradermal DNA electroporation induces survivin-specific CTLs, suppresses angiogenesis and confers protection against mouse melanoma. *Cancer Immunol Immunother* **59**: 81-92, doi:10.1007/s00262-009-0725-4 [doi]

Book Chapters:

1. Camisaschi C, **Tazzari M**, Rivoltini L, Castelli C (2014) Monitoring the frequency and function of regulatory T cells and summary of the approaches currently used to inhibit regulatory T cells in cancer patients. *Methods Mol Biol* **1139**: 201-221, doi:10.1007/978-1-4939-0345-0_18 [doi]

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Meldola, 24/10/2022