CURRICULUM VITAE

OLIVIA MARINI
OMISSIS

Work experience

December 2021 – To date: Scientific research fellowship
University of Padova, Department of Women's and Children's health, Haematology-Oncology Clinic and Laboratory. Tasks: Pre-clinical manufacturing and functional validation of novel Chimeric Antigen Receptor (CAR)-T cells for the treatment of pediatric acute myeloid leukemia. Mentors: Prof. Martina Pigazzi and Prof. Alessandra Biffi

July 2019 – September 2021: Scientific research fellowship
Bambin Gesù Children Hospital, Department of Oncoematology and cellular and genic therapy, Oncoematology.
Tasks: 1) Immune reconstitution monitoring of pediatric patients following hematopoietic stem cell transplantation. 2) Disease onset diagnosis and Minimal Residual Disease (MRD) monitoring in pediatric patients suffering acute lymphoblastic leukemia and acute myeloid leukemia with multiparametric flow-cytometry. 3) CAR-T cell immune-monitoring in pediatric patients affected by refractory lymphoblastic B cell leukemia, lymphoma and neuroblastoma. 4) Immune-monitoring of the impact of splenectomy on a cohort of pediatric patients suffering hereditary Spherocytosis. 5) Phenotypical evaluation of the activation status of lymphoid and myeloid cell subsets in pediatric patients suffering Sickle cell disease. Tutor: Valentina Bertaina/ Prof. Franco Locatelli

January 2018 – July 2019: AIRC Postdoctoral Research fellowship
University of Verona, Department of Medicine, General Pathology.
Tasks: Characterizing the role and clinical significance of tissue-associated neutrophils. Characterizing the transcriptome, extracellular vesicle, and lipid mediator profile of human suppressive neutrophils. Mentor: Patrizia Scapini/ Prof. Marco A. Cassatella.

March 2016 – December 2017: Postdoctoral research fellowship
University of Verona, Department of Medicine, Hematology.
Tasks: Characterizing the reconstitution dynamics and the functional properties of neutrophils and T cells after allogeneic hematopoietic stem cell transplantation. Mentor: Patrizia Scapini/ Prof. Marco A. Cassatella.

February 2015 - January 2016: "Associazione Donatori Midollo Osseo e Ricerca" Postdoctoral research fellowship
University of Verona, Department of Medicine, Hematology.
Tasks: Characterizing the reconstitution dynamics and the functional properties of neutrophils and T cells after allogeneic hematopoietic stem cell transplantation. Mentor: Patrizia Scapini/ Prof. Marco A. Cassatella.

January 2012 - December 2014: PhD fellowship in "Molecular and Cellular Biology and Pathology"
University of Verona, Department of Pathology and Diagnostics, General Pathology.
Tasks: Characterizing the phenotype, gene expression and immunoregulatory properties of circulating neutrophils from peripheral blood stem cell donors. Investigating the role and reconstitution kinetics of dendritic cells and macrophages in the peripheral blood and bone marrow of patients after allogeneic hematopoietic stem cell transplantation. Tutor: Patrizia Scapini/ Prof. Marco A. Cassatella.

October 2009 – December 2011: Master degree training
LURM laboratories, Policlinico "G.B. Rossi", Hematology.
Tasks: Phenotypical and functional identification of monocytic and granulocytic myeloid-derived suppressor cells in the peripheral blood of patients suffering from Hodgkin and non-Hodgkin lymphoma and multiple myeloma. Tutor: Cristina Tecchio/ Roberto Chignola.

Education and training

2012 - 2014: University of Verona - PhD in Molecular and Cellular Biology and Pathology
2009 - 2011: University of Verona - Specialized Degree in Molecular and Industrial Biotechniques (score 110/110 cum laude)
2006 - 2009: University of Verona - Bachelor Degree in Agro-Industrial Biotechnology (score 109/110)
2001 - 2006: "Liceo Scientifico Statale A. Messedaglia" (Verona, Italy) - Scientific High School degree
2004 - 2004: Mercedes College (Perth, Western Australia) - Intercultural exchange program

Tutto quanto dichiarato in questo documento corrisponde a verità, ai sensi degli articoli 46 e 47 del D.P.R. n. 445 del 2000. Autorizzo il trattamento dei miei dati personali ai sensi del D.lgs. n. 196 del 30 giugno 2003.

Technical skills and competences

Languages: Italian (native); English (TOEFLibt score 102/120); German (A2 level). Used to live and work in international environments

Cellular biology: Sterile/aseptic techniques, cell counting, freezing and thawing cell samples;
Sterile culturing adherent and suspension human cell lines and primary human cells;
Sterile isolation of leukocytes (neutrophils, monocytes, lymphocytes, dendritic cells) from human and murine specimens (peripheral blood, cord blood, bone marrow, splenic and hepatic tissue, tumorigenic tissue);
Purification leukocytes by immunomagnetic beads and fluorescence-activated cell sorting (BD FACSAria IIIu and BD FACSAria Fusion) under strictly aseptic conditions, Lentiviral production, Lentiviral transduction, immunological assays (cell-to-cell interactions).

Molecular biology: Cloning, RNA purification and quantification, PCR, Real Time – PCR, ddPCR, Sanger Sequencing.

Immunological techniques: Analysis of cell membrane and/or intracellular associated markers by multiparametric flow-cytometry by different flow-cytometers (BD LSRFortessa X-20, BD Celesta, Miltenyi MACSQuant Analyzer, BD FACS Canto, Beckman Coulter Cytoflex, Beckman Coulter Dxflex), cytokine secretion assays, apoptosis and cell proliferation assays by flow-cytometry; protein analysis by ELISA; protein analysis by Western Blotting; enzymatic activity assays.

***In vivo* disease models:** Ability to write IACUC protocols and to follow compliance protocols. Develop and execute mice study design animal welfare & 3Rs related *in vivo* projects (focus on 3Rs, humane endpoints, and avoidance of adverse effects), experience working with small laboratory animals (mice) and with *in vivo* dosing, bleeding, and handling techniques, performing of drug/treatment injections and infusions via multiple routes (intravenous, intramuscular, subcutaneous, peritoneal and oral), necropsies for biodistribution studies, anesthesia and euthanasia support.

Data analysis: MS Office package, Flow-cytometry data analysis; statistical analysis and graphical representation of experimental data, Adobe Photoshop and Adobe Illustrator software.

Scientific publications

- Mimiola E., **Marini O**., et al.. *Rapid Reconstitution of functionally active 6-sulfoLacNAc Dendritic Cells (slanDCs) of donor origin following allogeneic hematopoietic stem cell transplant.* Clin Exp Immunol 2014 Oct; 178: 129-41. Impact Factor 3.41
- **Marini O.**, et al.. *Identification of granulocytic myeloid-derived suppressor cells (G-MDSCs) in the peripheral blood of Hodgkin and non-Hodgkin lymphoma patients*. Oncotarget. 2016 May 10;7(19):27676-88. Impact Factor 5.17.
- Scapini P., Marini O., et al.. *Human neutrophils in the saga of cellular heterogeneity: insights and open questions*. Immunol Rev. 2016 Sep;273(1):48-60. doi: 10.1111/imr.12448. Review. Impact Factor 9.61.
- **Marini O**., et al.. *Mature CD10+ and immature CD10- neutrophils present in G-CSF-treated donors display opposite effects on T cells*. Blood 2017 129:1343-1356. Impact Factor 13.16.
- Costa S., **Marini O.**, et al.. *Role of MyD88 signaling in the imiquimod-induced mouse model of psoriasis: focus on innate myeloid cells.* Journal of leukocytes biology June 22, 2017, doi:10.1189/jlb.3MA0217-054RRjlb. 3MA0217-054RR. Impact Factor 4.29.
- Cassetta L., Baekkevold E.S., Brandau S., Bujko A., Cassatella M.A., Dorhoi A., Umansky V., Krieg C., Lin A., Loré K., **Marini O.**, Pollard J.W., Roussel M., Scapini P., Adema G.J. *Deciphering myeloid-derived suppressor cells: isolation and markers in humans, mice and non-human primates.* Cancer Immunology, Immunotherapy. 2019 Jan 25. doi: 10.1007/s00262-019-02302-2. Impact factor 4.85
- Lonardi S, Missale F, Calza S, Bugatti M, Vescovi R, Debora B, Uppaluri R, Egloff AM, Mattavelli D, Lombardi D, Benerini Gatta L, **Marini O.**, Tamassia N, Gardiman E, Cassatella MA, Scapini P, Nicolai P, Vermi W. *Tumor-associated neutrophils (TANs) in human carcinoma-draining lymph nodes: a novel TAN compartment. Clin Transl* Immunology 2021 Feb 16;10(2):e1252. doi: 10.1002/cti2.1252. Impact factor 6.46.
- Marchesani S., Sabatini L., Bertaina V., **Marini O.**, Ambrosi M., Di Mauro M., Cossutta M., Schettini L., Lodi M., Rotulo G. A., Palma P., Palumbo G., Ceglie G. *Immunological profile in a pediatric population of patients with spherocytosis. A single-center experience.* Blood Cells Mol Dis. 2022 Aug 27;98:102700. doi: 10.1016/j.bcmd.2022.102700. Impact factor 3.04
- Marchesani S., Bertaina V., **Marini O.**, Cossutta M., Di Mauro M., Rotulo G. A., Palma P., Sabatini L., Petrone M. I., Frati G., Monteleone G., Palumbo G., Ceglie G. *Inflammatory status in pediatric sickle cell disease:*

Unravelling the role of immune cell subsets. Frontiers in Molecular Biosciences. 2023 Jan. doi: 10.3389/fmolb.2022.1075686. Impact factor 4.62

- Pettinella F, Lattanzi C, Donini M, Caveggion E, **Marini O**, Iannoto G, Costa S, Zenaro E, Fortunato TM, Gasperini S, Giani M, Belluomini L, Sposito M, Insolda J, Scaglione IM, Milella M, Adamo A, Poffe O, Bronte V, Dusi S, Cassatella MA, Ugel S, Pilotto S, Scapini P. *Plasmacytoid Dendritic Cell, Slan+-Monocyte and Natural Killer Cell Counts Function as Blood Cell-Based Biomarkers for Predicting Responses to Immune Checkpoint Inhibitor Monotherapy in Non-Small Cell Lung Cancer Patients*. Cancers (Basel). 2023 Nov 3;15(21):5285. doi: 10.3390/cancers15215285. Impact factor 5.2

Selected presentations

- **Marini O**, et al.. *Identification of granulocytic myeloid-derived suppressor cells (G-MDSCs) in the peripheral blood of Hodgkin and non-Hodgkin lymphoma patients. Regulatory Myeloid Suppressor Cells: from basic discovery to therapeutic application.* The Wistar Institute, Philadelphia, (PA). 16-19 June 2016. Poster presentation.
- **Marini O**, et al.. *Identification of granulocytic myeloid-derived suppressor cells (G-MDSCs) in the peripheral blood of Hodgkin and non-Hodgkin lymphoma patients*. 58th Annual meeting of the Italian Cancer Society – Revolutionary road Accelerating Conversion of Cancer Biology into Personalized Clinical Oncology. Verona (Italy), 5-8 September 2016. Oral Presentation.
- **Marini O**, et al.. *Identification of granulocytic myeloid-derived suppressor cells (G-MDSCs) in the peripheral blood of Hodgkin and non-Hodgkin lymphoma patients*. The Society For Leukocyte Biology's 49th Annual Meeting and "Neutrophil 2016. Verona, Italy. 15-17 September 2016. Poster presentation.
- **Marini O**, et al.. *Identification of granulocytic myeloid-derived suppressor cells (G-MDSCs) in the peripheral blood of Hodgkin and non-Hodgkin lymphoma patients*. Selected presentation at the Final Contest "Under40 in Hematology 2016". Verona, Italy. 17-18 November 2016. Oral presentation.
- **Marini O**, et al.. *Mature CD10+ and immature CD10- neutrophils present in G-CSF-treated donors display opposite effects on T cells*. Selected presentation at the Final Contest "Under40 in Hematology 2017". Verona, Italy. 17-18 November 201.7 Oral presentation.
- **Marini O**, et al.. *Mature CD10+ and immature CD10- neutrophils present in G-CSF-treated donors display opposite effects on T cells*. Selected presentation at the European Congress of Immunology. Amsterdam, Netherlands. 2-5 September 2018. Oral presentation.
- **Marini O**, et al.. *Low-density neutrophils expansion is associated with acute graft versus host disease in allogeneic hematopoietic stem cell transplant patients*. 45th Annual Meeting of the European Society for Blood and Marrow Transplantation. Frankfurt, Germany. 24-27 March 2019. Poster presentation.
- **Bertaina V, Marini O**, et al.. *Correlation between CD3+ T-cells in CSF samples of Blinatumomab treated B acute Lymphoblastic Leukemia pediatric patients and neurological toxicity*. 25th Congress of the European Hematology Association (EHA), Frankfurt, Germany. 11-14 June 2020. Poster presentation.
- **Marini O.,** *FlowFix Webinar Series: Scopri come impostare un esperimento di citofluorimetria scegliendo i giusti controlli sperimentali e reagenti. Il ruolo dei controlli sperimentali nell'immuno-monitoraggio di pazienti pediatrici.* Invited speaker for Miltenyi Biotec Virtual training Webinars. 11 June 2021. Oral presentation.
- **Bertaina V,** et al. *La determinazione della popolazione CD8+CD38high HLADR+ è un ausilio diagnostico sensibile e specifico in pazienti pediatrici affetti da linfoistiocitosi emofagocitica (HLH) o patologie HLH-like*. XLVI Congresso Nazionale Associazione Italiana Ematologia Oncologia Pediatrica (AIEOP). 3-8 Ottobre 2021. Poster presentation.
- **Ceglie G,** et al. *Analisi citofluorimetrica del profilo immunologico in pazienti pediatrici affetti da sferocitosi ereditaria*. XLVI Congresso Nazionale Associazione Italiana Ematologia Oncologia Pediatrica (AIEOP). 3-8 Ottobre 2021. Poster presentation.
- **Marchesani S.,** et al. *Immunological profile in a pediatric population of patients with sickle cell disease*. 77° Congresso della Società Italiana di Pediatria (SIP) 2022. 18-21 Maggio 2022, Sorrento (IT). Poster presentation.
- **Pigazzi M, Marini O**, et al. *Preclinical Development of a CAR-T Cell Approach Targeting the CD84 Antigen Associated to Pediatric Acute Myeloid Leukemia*. 64th ASH Annual Meeting & Exposition. December 10-13, 2022, New Orleans, Louisiana (USA). Poster presentation.

Additional information

Mobility: Full European Driving License B
Abilitazione professionale e iscrizione Albo Professionale Ordine dei Biologi (Dicembre 2020)

Padova, lì 15/11/2023

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