

**PERSONAL INFORMATION****Marina Martello**

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Web of Science Researcher ID: AAB-9369-2022

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Date and Place of birth 29/10/1983, Castel San Pietro Terme (BO) | Nationality Italian

**JOB POSITION Fixed-term Researcher SSD MED/15 DIMEC****WORK EXPERIENCES****2022 Post-doctoral fellow**

Institute of Hematology and Oncologic Sciences "L. and A. Seràgnoli", Bologna – Laboratory of Molecular Biology, Prof. Michele Cavo

**Translational research on Lymphoproliferative diseases, particularly focusing on Multiple Myeloma genomic and immunophenotypic characterization and minimal residual disease analyses, by means the most innovative approaches such as liquid biopsy and artificial intelligence**

**2019 Post-doctoral fellow** on the project AIRC IG-2019: "StreaMMing: the dynamics of Multiple Myeloma minimal residual disease in the peripheral blood stream" - Institute of Hematology and Oncologic Sciences "L. and A. Seràgnoli", Bologna

**2017-2018 Post-doctoral fellow** on the project: "Global analysis of plasma cell differentiation stages and the role of Hedgehog pathway in Multiple Myeloma patients: a biological and clinical perspective" - Institute of Hematology and Oncologic Sciences "L. and A. Seràgnoli", Bologna

**2015-2016 Post-doctoral fellow** on the project: "High-resolution molecular characterization of Acute Myeloid Leukemia: towards a precision medicine approach" - Institute of Hematology and Oncologic Sciences "L. and A. Seràgnoli", Bologna

**2014 Post-doctoral fellow** on the project: "Study of clonal evolution in Multiple Myeloma through genomic characterization of cellular ecosystem" - Institute of Hematology and Oncologic Sciences "L. and A. Seràgnoli", Bologna

**2007-2008 Trainee** at the Industrial Microbiology Laboratory, University of Bologna - Prof. Brigidi. Main activities: To develop a DNA microarray for the characterization of the diversity of human gut microbiota

**2000 Trainee** at ISTE Institute – Ecophysiology of Fruit Trees, CNR – Consiglio Nazionale delle Ricerche. Main activities: Banking of rare cultures of fruit trees and studying the cure for pathological diseases of olive trees

**EDUCATION AND TRAINING**

**2017-2018 International II level Master on Nutrition and Diet at Università delle Marche**  
Thesis title: "Influence of diet on the composition of gut microbiota and its implications in cancer".  
Tutor: Prof. Battino M.

**2016 Visiting fellow at Dana Farber Cancer Center (Boston, MA)**

Selected scientist at the "Translational Workshop for Basic Scientists" organized by AACR, and visiting fellow at Dana Farber Cancer Center and Massachussets General Hospital in Boston

**2011-2013 PhD in Biomedical Sciences at University of Bologna**

Thesis title: "The search for Multiple Myeloma Stem Cells: molecular characterization and self-renewal mechanisms involved in the disease persistence". Tutor: Prof. Martinelli G.

**2008-2010 Master degree cum laude in Pharmaceutical Biotechnology at University of Bologna**

Thesis title: "Molecular characterization of CD138+ tumoral plasma cells of newly diagnosed patients with Multiple Myeloma by SNP array". Tutor: Prof. Capranico G

**2003-2008 Bachelor degree in Molecular Biotechnology at University of Bologna**

Thesis title: "Development of a DNA microarray for the characterization of human gut microbiota".  
Tutor: Prof. Brigidi P.

**PROJECTS**

<b>EU Project</b>	DT-TDS-04: AI for Genomics and Personalised Medicine, Title: " <b>GENOMED4ALL: Genomics and Personalized Medicine for all though Artificial Intelligence in Haematological Diseases</b> "
<b>AIRC IG2019</b>	Title: " <b>StreaMMing: the dynamics of Multiple Myeloma minimal residual disease in the peripheral blood stream</b> "
<b>AIRC IG2014</b>	Title: " <b>Unravelling the impact of different treatment strategies on intra-clonal heterogeneity in Multiple Myeloma</b> "
<b>BERLUCCI IG2014</b>	Title: " <b>Definition of a Multiple Myeloma (MM) panel for the characterization and optimal selection of MM patients</b> "

**HONOURS and AWARDS**

Registered to the **FNOB – Federazione Nazionale Ordine Biologi** (n. AA084102) since 2020  
 Participation to international and national congresses as a speaker  
 Author, co-author and reviewer for international scientific journals  
 Guest editor of **PLOS ONE Editorial Board** since 2023  
 Member of European Society of Cancer Research (EACR) since 2020  
 Member of Italian Society of Hematology (SIE and SIES) since 2011  
 Member of European Hematology Association (EHA) since 2012  
 Associate Member of American Association of Cancer Research (AACR) since 2012

<b>2021</b>	<b>IMS Young Investigator Award for Exemplary Abstract, IMW 2021, Wien</b>
<b>2019</b>	<b>ASH abstract achievement award, 61<sup>st</sup> ASH Annual Meeting, Orlando</b>
<b>2019</b>	<b>EHA Travel grant - 24<sup>th</sup> European Hematology Congress, Amsterdam</b>
<b>2019</b>	<b>Early Career Award - 2<sup>nd</sup> How to Diagnose and Treat Myeloma, Berlin</b>
<b>2018</b>	<b>EHA Travel grant - 23<sup>th</sup> European Hematology Congress, Stockholm</b>
<b>2015</b>	<b>Rising Star award at the 15<sup>th</sup> International Myeloma Workshop, Rome</b>
<b>2014</b>	<b>AACR-Pezcoller Foundation Scholar-in-Training Award at AACR Meeting, San Diego</b>

**EXTRA-ACADEMIC EDUCATION**

<b>2018</b>	Training promoted by Cytognos " <b>Analysis of MM MRD samples using the EuroFlow NGF methodology</b> " - Policlinico S. Orsola – Malpighi, Bologna
<b>2016</b>	Training course " <b>R for basic users</b> ", Università Studi Milano - Bicocca
<b>2014</b>	Training course " <b>Flow citometry: methods and applications</b> ", Policlinico S. Orsola – Malpighi, Bologna
<b>2014</b>	Training course " <b>Introduction to the System Biology</b> " – Corso Alta Formazione, Università dell'Insubria, Prof M. Fasano
<b>2010</b>	<b>Art&amp;Science Workshop</b> – in collaboration with Fondazione Marino Golinelli and MaMbo – Galleria d'Arte Moderna, Bologna

Mother tongue      Italian

Other language(s)	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
<b>English</b>	C1	C1	C1	C1	C1
<b>French</b>	A2	A2	A2	A2	A2

**Lab skills** Minimal residual disease analysis by using Next-generation sequencing (Illumina and Ion Torrent platform), Immunosequencing with Adaptive Clonoseq method, Whole genome and exome sequencing, Targeted Gene Panel sequencing, Single cell sequencing, SNP array, Microarray for gene expression analysis, Digital PCR, RT-PCR for quantitative analysis, Flow cytometry

**Job skills** Group discussions, Lab meetings and Bioinformatic analysis of results.  
 Active participation to international projects and European clinical trials.

Educational activities	<b>Faculty member for Master I livello “Management del paziente con Mieloma Multiplo”, Università degli Studi di Torino since 2019</b>
	<b>Faculty member for Educational Stages on Multiple Myeloma sponsored by Celgene, Takeda, Bristol-Myers Squibb, Sanofi Aventis, Janssen Pharmaceutical and GlaxoSmithKline since 2013</b>
	<b>Teaching on a behalf of Prof. Zamagni E. during the course “Genetica Onco ematologica e delle emopatie” SSD: MED15, A.A.: 2018/2019 – Alma Mater Studiorum, Bologna</b>

Digital skills	SELF-ASSESSMENT				
	Information processing	Communication	Content creation	Safety	Problem solving
	Independent	Independent	Independent	Independent	Independent

- R as a basic user
- good command of office suite (word processor, excel, access, power point)
- good command of photo and video editing software

## SELECTED PUBLICATIONS

1. Borsi E, Mazzocchetti G, Dico AF, Vigliotta I, **Martello M**, Poletti A, Solli V, Armuzzi S, Taurisano B, Kanapari A, Pistis I, Zamagni E, Tacchetti P, Pantani L, Mancuso K, Rocchi S, Rizzello I, Cavo M, Terragna C. **High levels of CRBN isoform lacking IMiDs binding domain predicts for a worse response to IMiDs-based upfront therapy in newly diagnosed myeloma patients.** Clin Exp Med. 2023 Oct 10. doi: 10.1007/s10238-023-01205-y. Epub ahead of print. PMID: 37815734. IF: 5.057.
2. Mancuso K, Zamagni E, Solli V, Gabrielli L, Leone M, Pantani L, Rocchi S, Rizzello I, Tacchetti P, Ghibellini S, Favero E, Ursi M, Talarico M, Barbato S, Kanapari A, Bigi F, Puppi M, Terragna C, Borsi E, **Martello M**, Poletti A, Scatà A, Nepoti G, Ruffini B, Lazzarotto T, Cavo M. **Long term follow-up of humoral and cellular response to mRNA-based vaccines for sars-CoV2 in patients with active Multiple Myeloma.** Frontiers in Oncology, Volume 13 - 2023 | doi: 10.3389/fonc.2023.1208741. IF: 6.244
3. **Martello M**, Solli V, Termini R, Kanapari A, Remondini D, Borsi E, Poletti A, Armuzzi S, Taurisano B, Vigliotta I, Mazzocchetti G, Merlotti A, Zamagni E, Tacchetti P, Pantani L, Rocchi S, Rizzello I, Mancuso K, Cavo M, Terragna C. **Identification of a Maturation plasma cell index through a highly sensitive droplet digital PCR assay gene expression signature validation in newly diagnosed Multiple Myeloma patients.** International Journal of Molecular Sciences Oct 2022. IF: 6.208
4. Vigliotta I, Armuzzi S, Barone M, Solli V, Pistis I, Borsi E, Taurisano B, Mazzocchetti G, **Martello M**, Poletti A, Sartor C, Rizzello I, Pantani L, Tacchetti P, Papayannidis C, Mancuso K, Rocchi S, Zamagni E, Curti A, Arpinati M, Cavo M, Terragna C. **The ALLgorithMM: How to define the hemodilution of bone marrow samples in lymphoproliferative diseases.** Front Oncol. 2022 Oct 6;12:1001048. doi: 10.3389/fonc.2022.1001048. PMID: 36276072; PMCID: PMC9582597. IF: 5.738
5. **Martello M.** **NEW GENOMIC, TRANSCRIPTOMIC AND CELLULAR RISK FACTORS IN MULTIPLE MYELOMA.** Haematologica, Mar 2022 107, pp.5-6. ISSN:0390-6078
6. **Martello M**, Poletti A, Borsi E, Solli V, Dozza L, Barbato S, Zamagni E, Tacchetti P, Pantani L, Mancuso K, Vigliotta I, Rizzello I, Rocchi S, Armuzzi S, Testoni N, Marzocchi G, Martinelli G, Cavo M, Terragna C. **Clonal and subclonal TP53 molecular impairment is associated with prognosis and progression in multiple myeloma.** Blood Cancer J. 2022 Jan 26;12(1):15. doi: 10.1038/s41408-022-00610-y. PMID: 35082295; PMCID: PMC8791929. IF: 11.037
7. G. Mazzocchetti, A. Poletti, V. Solli, E. Borsi, **M. Martello**, I. Vigliotta, S. Armuzzi, B. Taurisano, E. Zamagni, M. Cavo, C. Terragna. **BoBafit: A copy number clustering tool designed to refit and recalibrate the baseline region of tumors' profiles.** Computational and Structural Biotechnology Journal, Volume 20, 2022, Pages 3718-3728, ISSN 2001-0370, <https://doi.org/10.1016/j.csbj.2022.06.062>. IF: 7.271
8. Broccoli A, Terragna C, Nanni L, **Martello M**, Armuzzi S, Agostinelli C, Morigi A, Casadei B, Pellegrini C, Stefanò V, Sabattini E, Argnani L, Zinzani PL. **Droplet digital polymerase chain reaction for the assessment of disease burden in hairy cell leukemia.** Hematol Oncol. 2021 Oct 15. doi: 10.1002/hon.2932. Epub ahead of print. PMID: 34653277. IF: 5.271
9. Rocchi S, Tacchetti P, Pantani L, Mancuso K, Rizzello I, di Giovanni Bezzi C, Scalese M, Dozza L, Marzocchi G, **Martello M**, Barilà G, Antonioli E, Staderini M, Buda G, Petrini M, Ceia M, Quaresima M, Furlan A, Bonalumi A, Cavo M, Zamagni E. **A real-world efficacy and safety analysis of combined carfilzomib, lenalidomide, and dexamethasone (KRd) in relapsed/refractory multiple myeloma.** Hematol Oncol. 2020 Oct 21. doi: 10.1002/hon.2820. Epub ahead of print. PMID: 33085797. IF: 5.271
10. Forte D, Fanelli F, Mezzullo M, Barone M, Corradi G, Auteri G, Bartoletti D, **Martello M**, Ottaviani E, Terragna C, Curti A, Pagotto U, Palandri F, Cavo M, Catani L. **Disease-Specific Derangement of Circulating Endocannabinoids and N-Acylethanolamines in Myeloproliferative Neoplasms.** Int J Mol Sci. 2020 May 11;21(9):3399. doi: 10.3390/ijms21093399. PMID: 32403407; PMCID: PMC7246996. IF: 6.208
11. Bolli N, Genuardi E, Ziccheddu B, **Martello M**, Oliva S, Terragna C. **Next-Generation Sequencing for Clinical Management of Multiple Myeloma: Ready for Prime Time?** Front Oncol. 2020;10:189. Published 2020 Feb 25. doi:10.3389/fonc.2020.00189. IF: 5.738
12. Ziccheddu B, Biancon G, Bagnoli F, De Philippis C, Maura F, Rustad EH, Dugo M, Devecchi A, De Cecco L, Sensi M, Terragna C, **Martello M**, Bagratuni T, Kastritis E, Dimopoulos MA, Cavo M, Camiti C, Montefusco V, Corradini P, Bolli N. **Integrative analysis of the genomic and transcriptomic landscape of double-refractory multiple myeloma.** Blood Adv. 2020 Mar 10;4(5):830-844. doi: 10.1182/bloodadvances.2019000779. PMID: 32126144; PMCID: PMC7065476. IF: 7.367
13. Mancuso K, Tacchetti P, Pantani L, Rocchi S, Rizzello I, Caratozzolo I, De Cicco G, Fusco A, Testoni N, Terragna C, Marzocchi G, **Martello M**, Borsi E, Dozza L, Cavo M, Zamagni E. **Maintenance therapy with bortezomib and dexamethasone after autotransplantation for high-risk multiple myeloma.** Bone Marrow Transplant. 2020 Sep;55(9):1865-1867. doi: 10.1038/s41409-020-0844-2. Epub 2020 Feb 26. PMID: 32103147. IF: 5.483
14. Romano A, Palumbo GA, Parrinello NL, Conticello C, **Martello M**, Terragna C. **Minimal Residual Disease Assessment Within the Bone Marrow of Multiple Myeloma: A Review of Caveats, Clinical Significance and Future Perspectives.** Front Oncol. 2019 Aug 20;9:699. doi: 10.3389/fonc.2019.00699. PMID: 31482061; PMCID: PMC6710454. IF: 5.738
15. Borsi E, **Martello M**, Santacroce B, Zamagni E, Tacchetti P, Pantani L, Mancuso K, Rocchi S, Cavo M, Terragna C. **Treatment optimization for multiple myeloma: schedule-dependent synergistic cytotoxicity of pomalidomide and carfilzomib in *in vitro* and *ex vivo* models.** Haematologica. 2018 Dec;103(12):e602-e606. doi: 10.3324/haematol.2017.186924. Epub 2018 Jul 19. PMID: 30026343; PMCID: PMC6269297. IF: 9.941
16. Zannetti B. A., Tacchetti P, Pantani L, Gamberi B, Tosi P, Rocchi S, Cellini C, Ronconi S, Pezzi A., Mancuso K, Rizzello I, Caratozzolo I, **Martello M**, Dozza L, Cavo M. and Zamagni E. **Novel agent-based salvage autologous stem cell transplantation for relapsed multiple myeloma.** Annals of hematology. 2017;96(12):2071-8. IF: 3.673

17. Martello M, Remondini D, Borsi E, Santacroce B, Procacci M, Pezzi A, Dico FA, Martinelli G, Zamagni E, Tacchetti P, Pantani L, Marzocchi G, Rocchi S, Zannetti BA, Mancuso K, Cavo M, Terragna C. **Opposite activation of the Hedgehog pathway in CD138+ plasma cells and CD138-CD19+ B cells identifies two subgroups of patients with Multiple Myeloma and different prognosis.** *Leukemia*. 2016 Apr 14. doi: 10.1038/leu.2016.77. PubMed PMID: 27074969. IF:10.431
18. Tacchetti P, Cavo M, Rocchi S, Pezzi A, Pantani L, Brioli A, Testoni N, Terragna C, Zannetti BA, Mancuso K, Marzocchi G, Borsi E, Martello M, Rizzello I, Zamagni E. **Prognostic impact of serial measurements of serum-free light chain assay throughout the course of newly diagnosed multiple myeloma treated with bortezomib-based regimens.** *Leuk Lymphoma*. 2016 Jan 14:1-7. PubMed PMID: 26763357. IF:2.891
19. Pantani L, Brioli A, Tacchetti P, Zannetti BA, Mancuso K, Rocchi S, Martello M, Rizzello I, Terragna C, Zamagni E, Cavo M. **Current and emerging triplet combination therapies for relapsed and refractory multiple myeloma.** *Expert Rev Hematol.* 2016 Mar;9(3):31523. doi:10.1586/17474086.2016.1127754. Epub 2015 Dec 28. PubMed PMID: 26634945. IF:2.070
20. Terragna C, Remondini D, Martello M, Zamagni E, Pantani L, Patriarca F, Pezzi A, Levi G, Ofidiani M, Proserpio I, De Sabbata G, Tacchetti P, Cangialosi C, Ciambelli F, Vigano CV, Dico FA, Santacroce B, Borsi E, Brioli A, Marzocchi G, Castellani G, Martinelli G, Palumbo A, Cavo M. **The genetic and genomic background of multiple myeloma patients achieving complete response after induction therapy with bortezomib, thalidomide and dexamethasone (VTD).** *Oncotarget*. 2016 Mar 1;7(9):9666-79. doi: 10.18632/oncotarget.5718. PubMed PMID: 26575327. IF:6.539
21. Martello M, Remondini D, Borsi E, Santacroce B, Procacci M, Dico AF et al., **Hedgehog pathway activation in CD138+ cells identifies a subtype of Multiple Myeloma patients with unfavourable outcome.** Rising Star Award at 15<sup>th</sup> International Myeloma Workshop 2015; *Clinical Lymphoma, Myeloma and Leukemia*, Volume 15, Supplement 3, e38. 57th ASH Annual Meeting, Publication number 2961, *Blood supplemental volume*, December 2015.
22. Zamagni E, Nanni C, Mancuso K, Tacchetti P, Pezzi A, Pantani L, Zannetti B, Rambaldi I, Brioli A, Rocchi S, Terragna C, Martello M, Marzocchi G, Borsi E, Rizzello I, Fanti S, Cavo M. **PET/CT Improves the Definition of Complete Response and Allows to Detect Otherwise Unidentifiable Skeletal Progression in Multiple Myeloma.** *Clin Cancer Res.* 2015 Oct 1;21(19):4384-90. doi: 10.1158/1078-0432.CCR-15-0396. Epub 2015 Jun 15. PubMed PMID: 26078390. IF:8.722
23. Martello M, B.Santacroce, F.Dico, T.Haferlach, A.Kholmann, F.Mignone, I.Saggese, C.Accorsi, E.Borsi, E.Zamagni, P.Tacchetti, L.Pantani, A.Brioli, Beatrice Anna Zannetti, S.Rocchi, K.Mancuso, N.Testoni, G.Marzocchi, G.Ameli, A.Pezzi, M.Cavo, G.Martinelli and C. Terragna **A Long Tail of Sub-Clonal TP53 Mutations Emerged By Ultra-Deep Sequencing of Newly Diagnosed Multiple Myeloma (MM).** *Blood supplemental volume*, ASH annual meeting - Dec 2014.
24. Martello M, Angela Flores Dico, Daniel Remondini, Giovanni Martinelli, Enrica Borsi, Barbara Santacroce, Lucia Pantani, Elena Zamagni, Paola Tacchetti, Annamaria Brioli, Beatrice Anna Zannetti, Katia Mancuso, Serena Rocchi, Nicoletta Testoni, Giulia Marzocchi, Gaia Ameli, Michele Cavo, Carolina Terragna **High-Throughput Molecular Profiling of Multiple Myeloma (MM) Clonotypic CD19+ B Cells Highlights Pathways Potentially Involved in the Disease Endurance.** *Blood supplemental volume*, ASH annual meeting - Dec 2014.
25. Borsi E, Terragna C, Brioli A, Tacchetti P, Martello M, Cavo M. **Therapeutic targeting of hypoxia and hypoxia-inducible factor 1 alpha in multiple myeloma.** *Transl Res.* 2015 Jun;165(6):641-50. doi: 10.1016/j.trsl.2014.12.001. Epub 2014 Dec 11. Review. PubMed PMID: 25553605. IF:5.030
26. Borsi E, Perrone G, Terragna C, Martello M, Zamagni E, Tacchetti P, Pantani L, Brioli A, Dico AF, Zannetti BA, Rocchi S, Cavo **HIF-1α inhibition blocks the cross talk between multiple myeloma plasma cells and tumor microenvironment.** *Exp Cell Res.* 2014 Nov 1;328(2):444-55. doi: 10.1016/j.yexcr.2014.09.018. Epub 2014 Sep 26. PubMed PMID: 25257607. IF:3.246
27. Tacchetti P, Terragna C, Galli M, Zamagni E, Petrucci MT, Pezzi A, Montefusco V, Martello M, Tosi P, Baldini L, Peccatori J, Ruggieri M, Pantani L, Lazzaro A, Elice F, Rocchi S, Gozzetti A, Cavalletti G, Palumbo A, Cavo M. **Bortezomib- and thalidomide-induced peripheral neuropathy in multiple myeloma: clinical and molecular analyses of a phase 3 study.** *Am J Hematol.* 2014 Dec;89(12):1085-91. doi: 10.1002/ajh.23835. Epub 2014 Sep 17. PubMed PMID: 25159313. IF:3.789
28. Borsi E, Perrone G, Terragna C, Martello M, Dico AF, Solaini G, Baracca A, Sgarbi G, Pasquinelli G, Valente S, Zamagni E, Tacchetti P, Martinelli G, Cavo M. **Hypoxia inducible factor-1 alpha as a therapeutic target in multiple myeloma.** *Oncotarget.* 2014 Apr 15;5(7):1779-92. PubMed PMID: 24732040; PubMed Central PMCID: PMC4039126. IF:6.359
29. Terragna C, Renzulli M, Remondini D, Tagliafico E, Di Raimondo F, Patriarca F, Martinelli G, Roncaglia E, Masini L, Tosi P, Zamagni E, Tacchetti P, Ledda A, Brioli A, Angelucci E, Testoni N, Marzocchi G, Galieni P, Gozzetti A, Martello M, Dico F, Mancuso K, Cavo M. **Correlation between eight-gene expression profiling and response to therapy of newly diagnosed multiple myeloma patients treated with thalidomide-dexamethasone incorporated into double autologous transplantation.** *Ann Hematol.* 2013 Sep;92(9):1271-80. doi: 10.1007/s00277-013-1757-6. Epub 2013 May 10. PubMed PMID: 23660628. IF:2.634

Autorizzo il trattamento dei miei dati personali presenti nel curriculum vitae ai sensi del Decreto Legislativo 30 giugno 2003, n. 196 e del GDPR (Regolamento UE 2016/679)

Bologna, 30/10/2023

In fede,  
Dr. Marina Martello

