

Martina Minisini

EDUCATION

- 1 November 2019 to 31 December 2022 **PhD in Biomedical and Biotechnological Sciences** cum laude at **University of Udine**, Udine, Italy
- December 2016 to October 2018: **Master of Science in Molecular Biotechnology** 110/110 cum laude; **University of Udine**, Udine, Italy
- October 2013 to November 2016: **Bachelor of Science in Medical laboratory technicians** 110/110 cum laude; **University of Trieste**, Trieste, Italy
- September 2008 to July 2013 **High school Diploma in Classics**; “Liceo Classico Statale Jacopo Stellini”, Udine, Italy

ADDITIONAL COURSES

May 2022/ May 2022	AALAS learning library - How to work with mice and other animals in research	CHOP Institute of Philadelphia	Philadelphia - United States of America
Feb 2022/ Apr 2022	Immunology of Cancer - Cancer immunology	University of Udine and Professor B. Bonavida	Online course
Sep 2021/ Sep 2021	Practical course Human Genome Browsers: Gateways to Multi-OMICS Discovery . - Human Genome Browsers	University of Udine - DAME	Udine - Italy
May 2021/ May 2021	6th International Joint CCS-CLL Workshop - Workshop on cancer research	CANCER CLUSTER SALZBURG	Online course
Dec 2020/ Dec 2020	The CRISPR COURSE: The CRISPR discovery: the immune response in bacteria, The genome editing and the technology revolution, Biotinformatics tool to design a gene editing project - CRISPR-CAS technology	University of Udine	Online course

RESEARCH EXPERIENCE

- May 2022 to November 2022: during PhD period I spent six months in the laboratory of Professor Wayne Hancock, CHOP Institute, Philadelphia, US. My project was about the study of Chd4, an epigenetic regulator, in the context of T regulatory cells.
- November 2019 to December 2022 **PhD in Biomedical and Biotechnological Sciences** in the laboratory of Professor Claudio Brancolini, Dipartimento di Area medica (DAME), “Università

degli Studi di Udine", Udine, Italy, Understanding and targeting epigenetic mechanisms to sustain the therapeutic response".

- November 2018 to October 2019: **Pre Doc fellowship** in the laboratory of Professor Claudio Brancolini, Dipartimento di Area medica (DAME), "Università degli Studi di Udine", Udine, Italy
- March 2018 to October 2018: **Training of master's thesis** in the laboratory of Professor Claudio Brancolini Dipartimento di Area medica (DAME), "Università degli Studi di Udine", Udine, Italy, Thesis title: "HDAC7 and control of the microenvironment"
- February 2016 to November 2016: **Training of bachelor's thesis** in the laboratory of Professor Giuliana Decorti, Dipartimento di Scienze della Vita, Fondazione Callerio, "Università degli Studi di Trieste", Trieste, Italy, Thesis title: "Relationship between pharmacocynetics and pharmacogenomics of TPMT enzyme in the intestinal chronic inflammatory diseases and in the leukemia acute lymphophytics in pediatric patients in therapy with thiopurins"
- January 2014 to January 2016: **Teaching training** at the Hospital of Trieste labs

TECHNICAL SKILLS AND COMPETENCES

Molecular Biology and Biochemistry: Total RNA extraction, Genomic and Plasmidic DNA extraction, Gene cloning techniques, PCR, RT-PCR, Real time PCR, Cytofluorimetric and fluorimetric analysis, fluorescence microscopy techniques, CO-IP, ChIP, GST-Pull Down, SDS page, western blot, Immunofluorescence, HPLC, Mass-spectrometry preparation, bisulfite conversion.

Cell Biology: maintenance cell culture, drug treatment, three-dimensional morphogenetic and mammosphere formation assays, lenti viral infection, siRNA silencing, isolation of T regulatory or teffector cells, clonogenic assay, generation of short hairpin (knockdown) cells.

In vivo (mice studies): training for six months with mice in the animal facility in USA (euthanasia, isolation of lymph nodes and spleen, isolation of organs and tumors, drug injection).

Computer: Good knowledge of Windows OS, Linux OS and Macintosh OS.

PARTECIPATION TO CONFERENCES

June 21, 2021: **32nd Pezcoller Symposium 2021** (virtual)- Poster session - Evaluation of a series of pimeloylanilide o- aminoanilide (PAOA) derivatives as inhibitors of the MEF2- HDAC axis in leiomyosarcomas

October 6-8, 2022: **AACR Special Conference on Cancer Epigenomics- Washington DC** – Poster session - The role of HDAC-MEF2 axis in the epigenetic control of immune tumoral microenvironment.

AWARDS:

Prize in memory of Paolo Rizzo a.a. 2016-2017, University of Trieste.

PUBBLICATIONS

Di Giorgio E, Dalla E, Franforte E, Paluvai H, **Minisini M**, Trevisanut M, Picco R, Brancolini C. Different class IIa HDACs repressive complexes regulate specific epigenetic responses

related to cell survival in leiomyosarcoma cells. *Nucleic Acids Res.* 2020 Jan 24;48(2):646-664. doi: 10.1093/nar/gkz1120. PMID:31754707; PMCID: PMC6954409.

Giorgio ED, Cutano V, **Minisini M**, Tolotto V, Dalla E, Brancolini C. Aregulative epigenetic circuit supervised by HDAC7 represses IGFBP6 and IGFBP7 expression to sustain mammary stemness. *Epigenomics.* 2021 May;13(9):683-698. doi: 10.2217/epi- 2020-0347. Epub 2021 Apr 21. PMID: 33878891.

Di Giorgio E, Paluvai H, Dalla E, Ranzino L, Renzini A, Moresi V, **Minisini M**, Picco R, Brancolini C. HDAC4 degradation during senescence unleashes an epigenetic program driven by AP-1/p300 at selected enhancers and super-enhancers. *Genome Biol.* 2021 May 10;22(1):129. doi: 10.1186/s13059-021-02340-z. PMID: 33966634; PMCID: PMC8108360.

Iuliano L, Drioli S, Pignochino Y, Cafiero CM, **Minisini M**, D'Este F, Picco R, Dalla E, Giordano G, Grignani G, Di Giorgio E, Benedetti F, Felluga F, Brancolini C. Enhancing Proteotoxic Stress in Leiomyosarcoma Cells Triggers Mitochondrial Dysfunctions, Cell Death, and Antitumor Activity *in vivo*. *Mol Cancer Ther.* 2021 Jun;20(6):1039- 1051. doi: 10.1158/1535-7163.MCT-20-0521. Epub 2021 Mar 30. PMID: 33785653.

Minisini M, Di Giorgio E, Kerschbamer E, Dalla E, Faggiani M, Franforte E, Meyer- Almes FJ, Ragno R, Antonini L, Mai A, Fiorentino F, Rotili D, Chinellato M, Perin S, Cendron L, Weichenberger CX, Angelini A, Brancolini C. Transcriptomic and genomic studies classify NKL54 as a histone deacetylase inhibitor with indirect influence on MEF2-dependent transcription. *Nucleic Acids Res.* 2022 Mar 21;50(5):2566-2586. doi: 10.1093/nar/gkac081. PMID: 35150567; PMCID: PMC8934631.

Brancolini C, Gagliano T, **Minisini M**. HDACs and the epigenetic plasticity of cancer cells: Target the complexity. *Pharmacol Ther.* 2022 Oct;238:108190. doi: 10.1016/j.pharmthera.2022.108190. Epub 2022 Apr 14. PMID: 35430294.

Iuliano L, Dalla E, Picco R, Mallavarapu S, **Minisini M**, Malavasi E, Brancolini C. Proteotoxic stress-induced apoptosis in cancer cells: understanding the susceptibility and enhancing the potency. *Cell Death Discov.* 2022 Oct 4;8(1):407. doi: 10.1038/s41420-022-01202-2. PMID: 36195608; PMCID:PMC9531228.

Vida V, **Minisini M**, Mardirossian M, Brancolini C, Scocchi M, Forzato C, Berti F. Novel synthesis of 1,2-diaza-1,3-dienes with potential biological activity from cinnamic acids and diazonium salts of anilines. *RSC Adv.* 2022 Dec 21;13(1):456-463. doi: 10.1039/d2ra07515f. PMID: 36605622; PMCID: PMC9769088.

Minisini M, Cricchi E, Brancolini C. Acetylation and Phosphorylation in the Regulation of Hypoxia-Inducible Factor Activities: Additional Options to Modulate Adaptations to Changes in Oxygen Levels. *Life (Basel).* 2023;14(1):20. Published 2023 Dec 21. doi:10.3390/life14010020.

Gagliano, T., Kerschbamer, E., Baccarani, U., **Minisini, M.**, Di Giorgio, E., Dalla, E., Weichenberger, C. X., Cherichi, V., Terrosu, G., & Brancolini, C. (2024). Changes in chromatin accessibility and transcriptional landscape induced by HDAC inhibitors in TP53 mutated patient-derived colon cancer organoids. *Biomedicine & pharmacotherapy = Biomedecine & pharmacotherapie*, 173, 116374. Advance online publication. <https://doi.org/10.1016/j.biopha.2024.116374>

