

EMANUELA MENSÀ

Bologna · 0039-3476187343

Emanuela.mensa@unibo.it · [Emanuela Mensà | LinkedIn](#)

WORK EXPERIENCE

09/2022 - ONGOING

POST-DOCTORAL RESEARCHER, UNIVERSITÀ DI BOLOGNA-ITALY

Study of 3D models in colorectal cancer. Analysis of spheroids by confocal and cytofluorimetric assays to analyse the chemotherapeutic drug effects.

12/2019 - 08/2022

RESEARCH ASSOCIATE, IMPERIAL COLLEGE, LONDON-UK

Study of the molecular mechanisms underlying the associations between breast cancer and ageing. Use of cellular breast models and ageing models to study the epigenetic reprogramming of the chromatin landscape including DNA methylation and histone modifications. Study of dormant cells in matched samples of breast from patient treated with long term neo-adjuvant hormone therapy by CODEX technology. Experiments of cellular barcoding to disentangle the mechanism of ageing.

06/2018 - 05/2019

POST-DOCTORAL RESEARCHER, UNIVERSITÀ POLITECNICA DELLE MARCHE-ITALY

Study of inflamma-miRs exosome-associated in plasma from patients affected by T2DM. Analysis of telomere length and hybrid DNA/RNA in cells under different condition of glucose. From January 2019 to May 2019 I spent part of my contract in London, at Imperial College in the department of Surgery and Cancer to learn some sequencing techniques.

01/2017 - 12/2017

WINNER OF ONE POST-DOCTORAL FELLOWSHIP-YEAR 2017 "UMBERTO VERONESI"

Secretion of exosomal inflamma-microRNAs in senescent endothelial cells in normal and hyperglycemic conditions.

06/2016 - 04/2017

POSTDOCTORAL RESEARCHER CENTER OF CLINICAL PATHOLOGY AND INNOVATIVE THERAPY, NATIONAL INSTITUTE INRCA-IRCCS, ANCONA, ITALY

Isolation and characterisation exosomes (RNA and microRNAs, DNA and proteins) from culture media of endothelial cells and from human serum. Analysis exosomes by Nanosight and electron microscopy.

12/2014 - 05/2016

POSTDOCTORAL RESEARCHER CENTER OF CLINICAL PATHOLOGY AND INNOVATIVE THERAPY, NATIONAL INSTITUTE INRCA-IRCCS, ANCONA, ITALY

Ageing of endothelial cells in vivo and in vitro. Isolation exosomes from endothelial cell media. Participation in diabetic foot amputations and collection of material for studies of senescence

(collaboration with IDI-IRCSS Rome). Analysis of microRNA expression. Immunofluorescence of endothelial cells in replicative senescence. Management of biological material's banks both cryoboxes and database.

01/2011 - 03/2014

DOCTORAL DEGREE UNIVERSITÀ POLITECNICA DELLE MARCHE-ITALY

Collection freezing microtome and vibratome slices and processing of rat brain tissue for immunocytochemical studies, immunofluorescence and Western Blotting. Participation in intracerebral iontophoretic injections of anterograde tracers and in electrophysiological recording experiments from rat hippocampus slices. Electron microscopy. Using camera lucida and cryostat. Staining of tissues samples (Nissl, cytochrome oxydase, neutral red).

EDUCATION

03/2014

PHD IN MEDICINE, PREVENTION AND PERINATOLOGY, UNIVERSITÀ POLITECNICA DELLE MARCHE-ITALY

PhD project: Postnatal developmet of the substance P receptor (NK1) in the somatosensory cortex of the rat.

Regional winner in Famelab, talent show of popular science.

03/2008 - 07/2010

MASTER OF SCIENCE IN APPLIED BIOLOGY, UNIVERSITÀ POLITECNICA DELLE MARCHE-ITALY

Final Grade: 110/110 Cum Laude

MS thesis title: Morphological and bio-molecular study of High-Temperature Requirement protein A1 in urothelial carcinoma of the bladder: possible role as a tumor marker early.

09/2004 -03/2008

BACHELOR DEGREE IN BIOLOGY, UNIVERSITÀ POLITECNICA DELLE MARCHE-ITALY

Final Grade: 110/110 Cum Laude

Thesis title: The ghrelin in the reproductive biology.

SKILLS

- Job-related skills: use of confocal microscopy, image acquisition and image processing camera to the computer.
- Good ability in leadership, project management and coordination of project obtained through numerous group work performed within the courses of University.
- High ability to learn quickly.
- Excellent ability to adapt to multicultural environments thanks to the period in the Imperial College
- Excellent ability to interact with others in the university environment (collaboration and realization of project of the group), sports (dance, volleyball, latin american dancing,

- Good communication skills (regional winner in Famelab)
- Experience with photography and main photo editing softwares (Adobe Lightroom and Photoshop)
- High team spirit, team-working capacity and proactivity

ballet), leisure (travel) and work (customer interaction during my experience as salesperson and cashier).

PUBLICATIONS

Barozzi I, Slaven N, Canale E et al., A functional survey of the regulatory landscape of estrogen-receptor-positive breast cancer evolution. *Cancer Discov.* 2024 May 16. doi: 10.1158/2159-8290.CD-23-1157. Online ahead of print. PMID: 38753319 JIF: 29.1 [A functional survey of the regulatory landscape of estrogen-receptor-positive breast cancer evolution - PubMed \(nih.gov\)](#)

Ramini D, Giuliani A, Kwiatkowska KM et al., Replicative senescence and high glucose induce the accrual of self-derived cytosolic nucleic acids in human endothelial cells. *Cell Death Discov.* 2024 Apr 20;10(1):184. doi: 10.1038/s41420-024-01954-z. JIF: 7.0 [Replicative senescence and high glucose induce the accrual of self-derived cytosolic nucleic acids in human endothelial cells - PubMed \(nih.gov\)](#)

Tartagni O, Borók A, Mensà E et al., Microstructured soft devices for the growth and analysis of populations of homogenous multicellular tumor spheroids. *Cell Mol Life Sci.* 2023 Mar 16;80(4):93. doi: 10.1007/s00018-023-04748-1. JIF: 8.0. Citations: 3 [Microstructured soft devices for the growth and analysis of populations of homogenous multicellular tumor spheroids - PubMed \(nih.gov\)](#)

Giuliani A, Sabbatinelli J, Amatori S et al., MiR-422a promotes adipogenesis via MeCP2 downregulation in human bone marrow mesenchymal stem cells. *Cell Mol Life Sci.* 2023 Feb 27;80(3):75. doi: 10.1007/s00018-023-04719-6. JIF: 8.0. Citations: 2 [MiR-422a promotes adipogenesis via MeCP2 downregulation in human bone marrow mesenchymal stem cells - PubMed \(nih.gov\)](#)

Giuliani A, Bacalini MG, Ramini D et al., Genome-Wide Methylation Changes Associated with Replicative Senescence and Differentiation in Endothelial and Bone Marrow Mesenchymal Stromal Cells. *Cells.* 2023 Jan 11;12(2):285. doi: 10.3390/cells12020285. JIF: 6.0. Citations: 3 [Genome-Wide Methylation Changes Associated with Replicative Senescence and Differentiation in Endothelial and Bone Marrow Mesenchymal Stromal Cells - PubMed \(nih.gov\)](#)

Ramini D, Latini S, Giuliani A et al., Replicative Senescence-Associated LINE1 Methylation and LINE1-Alu Expression Levels in Human Endothelial Cells. *Cells.* 2022 Nov 27;11(23):3799. doi: 10.3390/cells11233799. JIF: 6.0. Citations: 2 [Replicative Senescence-Associated LINE1 Methylation and LINE1-Alu Expression Levels in Human Endothelial Cells - PubMed \(nih.gov\)](#)

Giuliani A, Londin E, Ferracin M et al., Long-term exposure of human endothelial cells to metformin modulates miRNAs and isomiRs. *Sci Rep.* 2020 Dec 11;10(1):21782. JIF: 4.380. Citations: 11 [Long-term exposure of human endothelial cells to metformin modulates miRNAs and isomiRs - PubMed \(nih.gov\)](#)

Licini C, Avellini C, Picchiassi E et al., Pre-eclampsia predictive ability of maternal miR-125b: a clinical and experimental study. *Transl Res.* 2021 Feb;228:13-27. JIF: 10.171. Citations: 42 [Pre-eclampsia predictive ability of maternal miR-125b: a clinical and experimental study - PubMed \(nih.gov\)](#)

Mensà E, Guescini M, Giuliani A, et al., Small extracellular vesicles deliver miR-21 and miR-217 as pro-senescence effectors to endothelial cells. *J Extracell Vesicles.* 2020 Feb 18;9(1):1725285. JIF: 25.841. Citations: 103 [Small extracellular vesicles deliver miR-21 and miR-217 as pro-senescence effectors to endothelial cells - PubMed \(nih.gov\)](#)

Prattichizzo F, Giuliani A, Sabbatinelli J Extracellular vesicles circulating in young organisms promote healthy longevity Mensà E, De Nigris V, La Sala L, de Candia P, Olivieri F, Ceriello A. J Extracell Vesicles. JIF: 14.976. Citations: 37 [Extracellular vesicles circulating in young organisms promote healthy longevity - PubMed \(nih.gov\)](#)

Del Coco L, Vergara D, De Matteis S, et al., NMR-Based Metabolomic Approach Tracks Potential Serum Biomarkers of Disease Progression in Patients with Type 2 Diabetes Mellitus. J Clin Med. 2019 May 21;8(5):720. JIF:3.303. Citations: 48 [NMR-Based Metabolomic Approach Tracks Potential Serum Biomarkers of Disease Progression in Patients with Type 2 Diabetes Mellitus - PubMed \(nih.gov\)](#)

Scavello F, Zeni F, Tedesco CC, et al., Modulation of soluble receptor for advanced glycation end-products (RAGE) isoforms and their ligands in healthy aging. Aging (Albany NY). 2019 Mar 23;11(6):1648-1663. JIF: 4.831. Citations: 30 [Modulation of soluble receptor for advanced glycation end-products \(RAGE\) isoforms and their ligands in healthy aging - PubMed \(nih.gov\)](#)

Mensà E, Giuliani A, Maticchione G, et al., Circulating miR-146a in healthy aging and type 2 diabetes: Age- and gender-specific trajectories. Mech Ageing Dev. 2019 Jun;180:1-10. JIF: 4.304. Citations: 59 [Circulating miR-146a in healthy aging and type 2 diabetes: Age- and gender-specific trajectories - PubMed \(nih.gov\)](#)

Barbaresi P, Mensà E, Sagrati A, et al., Postnatal development of the distribution of nitric oxide-producing neurons in the rat corpus callosum. Neurosci Res. 2020 Feb;151:15-30. JIF: 3.322. Citations: 1 [Postnatal development of the distribution of nitric oxide-producing neurons in the rat corpus callosum - PubMed \(nih.gov\)](#)

Storci G, De Carolis S, Papi A, et al., Genomic stability, anti-inflammatory phenotype, and up-regulation of the RNaseH2 in cells from centenarians. Cell Death Differ. 2019 Sep;26(9):1845-1858. JIF: 10.717. Citations: 37 [Genomic stability, anti-inflammatory phenotype, and up-regulation of the RNaseH2 in cells from centenarians - PubMed \(nih.gov\)](#)

Mensà E, Latini S, Ramini D, et al., The telomere world and aging: Analytical challenges and future perspectives. Ageing Res Rev. 2019 Mar;50:27-42. JIF: 10.616. Citations: 47 [The telomere world and aging: Analytical challenges and future perspectives - PubMed \(nih.gov\)](#)

Giuliani A, Cirilli I, Prattichizzo F, et al., The mitomiR/Bcl-2 axis affects mitochondrial function and autophagic vacuole formation in senescent endothelial cells Aging (Albany NY). 2018 Oct 21;10(10):2855-2873. JIF: 5.515. Citations: 35 [The mitomiR/Bcl-2 axis affects mitochondrial function and autophagic vacuole formation in senescent endothelial cells - PubMed \(nih.gov\)](#)

Prattichizzo F, Giuliani A, Mensà E, et al., Pleiotropic effects of metformin: Shaping the microbiome to manage type 2 diabetes and postpone ageing. Ageing Res Rev. 2018 Dec;48:87-98. JIF: 10.390. Citations: 78 [Pleiotropic effects of metformin: Shaping the microbiome to manage type 2 diabetes and postpone ageing - PubMed \(nih.gov\)](#)

Russo A, Bartolini D, Mensà E, et al., Physical Activity Modulates the Overexpression of the Inflammatory miR-146a-5p in Obese Patients. IUBMB Life. 2018 Oct;70(10):1012-1022. JIF: 3.051. Citations: 28 [Physical Activity Modulates the Overexpression of the Inflammatory miR-146a-5p in Obese Patients - PubMed \(nih.gov\)](#)

Mensà E, Recchioni R, Marcheselli F, et al., MiR-146a-5p correlates with clinical efficacy in patients with psoriasis treated with the tumour necrosis factor-alpha inhibitor adalimumab. Br J Dermatol. 2018 Sep;179(3):787-789. JIF: 6.714. Citations: 19 [MiR-146a-5p correlates with clinical efficacy in patients with psoriasis treated with the tumour necrosis factor-alpha inhibitor adalimumab - PubMed \(nih.gov\)](#)

Spazzafumo L, Mensà E, Maticchione G, et al., Age-related modulation of plasmatic beta-Galactosidase activity in healthy subjects and in patients affected by T2DM. Oncotarget. 2017 Oct 16;8(55):93338-93348. JIF: 4.66. Citations: 20 [Age-related modulation of plasmatic beta-Galactosidase activity in healthy subjects and in patients affected by T2DM - PubMed \(nih.gov\)](#)

Recchioni R, Marcheselli F, Antonicelli R, et al., Epigenetic effects of physical activity in elderly patients with cardiovascular disease. *Exp Gerontol*. 2017 Dec 15;100:17-27. JIF: 3.224. Citations: 16 [Epigenetic effects of physical activity in elderly patients with cardiovascular disease - PubMed \(nih.gov\)](#)

Barbaresi P, Mensà E, Bastioli G, et al., Substance P NK1 receptor in the rat corpus callosum during postnatal development. *Brain Behav*. 2017 May 2;7(6):e00713. JIF: 2.219. Citations: 3 [Substance P NK1 receptor in the rat corpus callosum during postnatal development - PubMed \(nih.gov\)](#)

Mattiucci D, Maurizi G, Izzi V, et al., Bone marrow adipocytes support hematopoietic stem cell survival. *J Cell Physiol*. 2018 Feb;233(2):1500-1511. JIF: 4.522. Citations: 73 [Bone marrow adipocytes support hematopoietic stem cell survival - PubMed \(nih.gov\)](#)

Prattichizzo F, Micolucci L, Cricca M, et al., Exosome-based immunomodulation during aging: A nano-perspective on inflamm-aging. *Mech Ageing Dev*. 2017 Dec;168:44-53. JIF: 3.748. Citations: 60 [Exosome-based immunomodulation during aging: A nano-perspective on inflamm-aging - PubMed \(nih.gov\)](#)

Recchioni R, Marcheselli F, Antonicelli R, et al., Physical activity and progenitor cell-mediated endothelial repair in chronic heart failure: Is there a role for epigenetics? *Mech Ageing Dev*. 2016 Oct;159:71-80. JIF: 3.087. Citations: 25 [Physical activity and progenitor cell-mediated endothelial repair in chronic heart failure: Is there a role for epigenetics? - PubMed \(nih.gov\)](#)

Bonfigli AR, Spazzafumo L, Prattichizzo F, et al., Leukocyte telomere length and mortality risk in patients with type 2 diabetes. *Oncotarget*. 2016 Aug 9;7(32):50835-50844. JIF: 5.168. Citations: 41 [Leukocyte telomere length and mortality risk in patients with type 2 diabetes - PubMed \(nih.gov\)](#)

Barbaresi P, Mensà E. Connections from the rat dorsal column nuclei (DCN) to the periaqueductal gray matter (PAG). *Neurosci Res*. 2016 Aug;109:35-47. JIF: 2.060. Citations: 5 [Connections from the rat dorsal column nuclei \(DCN\) to the periaqueductal gray matter \(PAG\) - PubMed \(nih.gov\)](#)

Olivieri F, Spazzafumo L, Bonafè M, et al., MiR-21-5p and miR-126a-3p levels in plasma and circulating angiogenic cells: relationship with type 2 diabetes complications. *Oncotarget*. 2015 Nov 3;6(34):35372-82. JIF: 5.008. Citations: 102 [MiR-21-5p and miR-126a-3p levels in plasma and circulating angiogenic cells: relationship with type 2 diabetes complications - PubMed \(nih.gov\)](#)

Barbaresi P, Mensà E, Lariccia V, et al., Intracallosal neuronal nitric oxide synthase neurons colocalize with neurokinin 1 substance P receptor in the rat. *J Comp Neurol*. 2015 Mar 1;523(4):589-607. JIF: 3.331. Citations: 6 [Intracallosal neuronal nitric oxide synthase neurons colocalize with neurokinin 1 substance P receptor in the rat - PubMed \(nih.gov\)](#)

Barbaresi P, Fabri M, Mensà E. Characterization of NO-producing neurons in the rat corpus callosum. *Brain Behav*. 2014 May;4(3):317-36. JIF: 2.243. Citations: 27 [Characterization of NO-producing neurons in the rat corpus callosum - PubMed \(nih.gov\)](#)

Barbaresi P, Mensà E, Lariccia V, et al., Differential distribution of parvalbumin- and calbindin-D28K-immunoreactive neurons in the rat periaqueductal gray matter and their colocalization with enzymes producing nitric oxide. *Brain Res Bull*. 2013 Oct;99:48-62. JIF: 2.974. Citations: 6 [Differential distribution of parvalbumin- and calbindin-D28K-immunoreactive neurons in the rat periaqueductal gray matter and their colocalization with enzymes producing nitric oxide - PubMed \(nih.gov\)](#)

Lorenzi T, Lorenzi M, Altobelli E, et al., HtrA1 in human urothelial bladder cancer: a secreted protein and a potential novel biomarker. *Int J Cancer*. 2013 Dec 1;133(11):2650-61. JIF: 5.007. Citations: 35 [HtrA1 in human urothelial bladder cancer: a secreted protein and a potential novel biomarker - PubMed \(nih.gov\)](#)

Barbaresi P, Quaranta A, Amoroso S, et al., Immunocytochemical localization of calretinin-containing neurons in the rat periaqueductal gray and colocalization with enzymes producing nitric oxide: a double, double-labeling study. *Synapse*. 2012 Apr;66(4):291-307. JIF: 2.310. Citations: 11.