



UNIVERSITÀ
di VERONA

CURRICULUM VITAE Maria Grazia Romanelli

Present Affiliation

Laboratory of Applied Biology, Section of Biology and Genetics, Department of Neurosciences, Biomedicine and Movement Sciences, University of Verona, Strada le Grazie 8, 34134 Verona, Italy
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Full Professor of Experimental biology

<http://www.dnbm.univr.it/?ent=persona&id=1117&lang=en#tab-presentazione>

EDUCATION BACKGROUND

1985: MASTER DEGREE IN BIOLOGICAL SCIENCES with full mark, University of Ferrara

1986: PROFESSIONAL BIOLOGIST QUALIFICATION

ACADEMIC AND SCIENTIFIC EXPERIENCE

May 1985 - October 1987: Postgraduate Research fellow

Institute of Biological Science, University of Verona, Italy

November 1987: Research Associate

Institute of Biological Science, University of Verona, Italy

September 1988- September 1990: Visiting research

Dep. Molecular Genetics and Cellular Biology, Viral Oncology Laboratories, University of Chicago, USA.

September 1990: Permanent Research Associate

Institute of Biological Science, University of Verona, Italy

December 1991-January 1992: Visiting Associate

Dep. Molecular Genetics and Cellular Biology, Viral Oncology Laboratories, University of Chicago, USA.

October 1996 Visiting Associate

Howard Hughes Medical Institute Research Laboratories directed by Dr Gideon Dreyfuss University of Pennsylvania, USA

January 2011: Associate Professor of Applied Biology

Department of Life and Reproduction Science University of Verona, Italy

June-July 2016: Honorary fellow

Department of Genetics, University of Leicester, UK.

October 2023 Full professor

University of Verona Department of Neurosciences, Biomedicine and Movement Sciences.

RESEARCH INTERESTS

- Human gene expression regulation
- Cell pathways deregulation and cancer
- Virus- host interaction

Actual research interests:

- a) Post-transcriptional gene expression regulation: alternative splicing, ribonucleoproteins, and miRNA
- b) Cell models in cancer and cardiovascular diseases
- c) Cell signalling (NF- κ B pathway)
- d) Virus – host interaction: human T-cell lymphotropic virus type 1 and 2 (HTLV-1 and HTLV-2); HSV; HIV.

She has a consolidated experience in the field of cellular biology, gene expression regulation and virus-host interaction, as shown by several first-, last-, or corresponding -author research papers in international peer-reviewed scientific journals. She is the coordinator of the Applied Biology laboratory at the Department of Neurosciences, Biomedicine and Movement Sciences and is a member of the HTLV European Research Network.

ACADEMIC TEACHING

Teaching of Applied Biology and Genetics at School of Medicine, School of Dentistry and Degree courses in health, prevention and rehabilitation, Movement Sciences and Sport. Doctoral Program (Ph.D) in Applied Life and Health Sciences Professor

AWARDS AND FUNDING

Awards grants:

- 1991: Italia-USA programs: grant for research activity at the Dep. Molecular Genetics and Cellular Biology, Viral Oncology Laboratories, University of Chicago, USA
- 1995 “Short-term fellowship” CNR program: grant for research activity at the Howard Hughes Medical Institute Research Laboratories, Philadelphia.
- 2015 CooperInt grant

Research Grants as Principal Investigator

- 1995: CNR grants finalized to research in biology and medicine.
- 2001: Grant Consorzio interuniversitario: “Gene expression regulation”.
- 2001 Grant IZO “Virus Aujeszky”
- 2011: Programma Operativo F.S.E. Obiettivo Competitività Regionale e Occupazione
- 2012 Joint Project Cancer Biomarkers induced by the HTLV Tax oncoprotein ;
- 2013 Unit P.I. AIRC –Cariverona n. 6599 “Virus-induced lymphoid neoplasms”
- MIUR ex 60%- FUR 1994-2019
- 2017 Joint project University of Verona – IOV “Production of CRISPR-edited Lymphocyte cell lines for the study of lymphoproliferative diseases”.

Research Grants as research group member:

- 1997 PRIN “Studio di proteine associate all’RNA eterogeneo nucleare”
- 1999 Finanziamento Istituto Superiore Sanità progetto: Influenza della coinfezione da HTLV-II sulla progressione della malattia da HIV-1.
- 2003 PRIN progetto: Studio dei fattori con azione regolatoria sui processi proliferativi ed apoptotici indotti da HTLV nei precursori ematopoietici CD34+.
- FIRB 2003 Finanziamento: “Malattie complesse”.
- 2005 PRIN Studio dell’infezione e delle strategie terapeutiche legate al virus T-linfotropico umano di

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tipo II (HTLV-II) in coorti italiane e dell'azione trasformante della proteina Tax di HTLV-II

- 2005 Fondazione Cariverona Studio dell'influenza dei retrovirus oncogeni umani "Human T-cell Leukemia Virus" (HTLV) sui processi patogenetici indotti in cellule ematopoietiche e del ruolo del citomegalovirus umano (CMV) sull'insorgenza di adenocarcinomi.
- 2007 PRIN Studio dei processi patogenetici indotti in cellule umane dalla oncoproteina Tax dei retrovirus leucemogeni umani HTLV-1 e HTLV-2
- 2008 Fondazione Cariverona Studio dell'azione proinfiammatoria delle proteine Tax dei retrovirus linfotropici umani HTLV 2009 Fondazione Cariverona: "Malattie cardiovascolari".
- 2017 Italian Ministry of Research and University (MIUR) Competitive project "Behaviors and well-being: a multidisciplinary approach to promote the quality of life in vulnerable conditions"

MEMBERSHIP IN PROFESSIONAL SOCIETIES

Associazione Italiana Biologia e Genetica

Associazione genetica italiana

RNA society

PEER REVIEWER FOR THE FOLLOWING JOURNAL:

Gene, Genomics, Frontiers in Microbiology, Journal of Virology, The FEBS Journal, Viruses, Journal of Medical Virology; International Journal of Molecular Sciences

She is co-author of more than 100 peer-reviewed publications with Impact factors in the area of human genetics, retrovirology, viruses, cell biology, molecular biology and biochemistry, cancer.

H-index (Scopus): 25

First/last and corresponding author: 49% of the published paper

Selectected publications of last three years

1. Dalle Carbonare L, Cominacini M, Trabetti E, Bombieri C, Pessoa J, Romanelli MG, Valenti MT. The bone microenvironment: new insights into the role of stem cells and cell communication in bone regeneration. *Stem Cell Res Ther.* 2025 Apr 12;16(1):169. doi: 10.1186/s13287-025-04288-4. PMID: 40221779; PMCID: PMC11993959.
2. Bombieri C, Corsi A, Trabetti E, Ruggiero A, Marchetto G, Vattemi G, Valenti MT, Zipeto D, Romanelli MG. *Int J Mol Sci. Advanced Cellular Models for Rare Disease Study: Exploring Neural, Muscle and Skeletal Organoids.* 2024 Jan 13;25(2):1014. doi: 10.3390/ijms25021014.
3. Dalle Carbonare L, Minoia A, Braggio M, Piritore FC, Vareschi A, Cominacini M, Gandini A, Antoniazzi F, Cui D, Romanelli MG, Valenti MT. Extracellular Vesicles in Osteogenesis: Comparative Analysis of Stem Cell Sources, Conditioning Strategies, and In Vitro Models Toward Advanced Bone Regeneration. *Cells.* 2025 Dec 23;15(1):27. doi: 10.3390/cells15010027. PMID: 41511311; PMCID:PMC12786284.
4. Ben Khelifa E, Campese A, Corsi A, Bombieri C, Romanelli MG, Valenti MT, Zipeto D, Castelli M, Lievens PM, Ruggiero A. Post-Translational Modifications in Respiratory Virus Infection: Recent Insights into the Development of In Vitro Models. *Int J Mol Sci.* 2025 Dec 18;26(24):12174. doi: 10.3390/ijms262412174. PMID: 41465600; PMCID:
5. Voi M, Sangalli A, Milano EG, De Martinis C, Orlandi E, Tamburin S, Mantovani E, Federico A, Lanzafame M, Lattuada E, Argañaraz GA, Da Silva BCM, Da Silva Duarte AJ, Casseb J, Argañaraz ER, Malena M, Albani M, Ruggiero A, Romanelli MG, Valenti MT, Grazioso G, Zipeto D. Computational characterization of peptide binding stability to HLA-C allotypes and its association with HIV-1 infection progression and HIV-1 related neurocognitive impairment. *Front Immunol.* 2025 Dec 11;16:1703026. doi: 10.3389/fimmu.2025.1703026. PMID: 41459481; PMCID: PMC12738900.
6. Galeone A, Minoia A, Braggio M, Cominacini M, Romanelli MG, Dalle Carbonare, L, Faggian G, Luciani GB, Valenti MT. Molecular Network Analysis of Circulating microRNAs Highlights miR-17-5p and miR-29a-3p as Potential Biomarkers of Aortic Valve Calcification. *Int J Mol Sci.* 2025 Nov 7;26(22):10813. doi: 10.3390/ijms262210813. PMID: 41303301; PMCID: PMC12652765.

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7. Dalle Carbonare L, Minoia A, Zouari S, Braggio M, Cominacini M, Gaglio SC, Piritore FC, Lorenzi P, Meneghel M, Dervishi K, Corsi A, Pedrinolla A, Giuriato G, Fiore A, Celesia A, Guerricchio L, Venturelli M, Schena F, Donadelli M, Mottes M, Romanelli MG, Perduca M, Guardavaccaro D, Crisafulli E, Zipeto D, Barile L, Valenti MT. Extracellular vesicles from long COVID patients promote RUNX2-mediated cellular stress via dysregulated miR-204 and p53 pathway activation. *Cell Commun Signal*. 2025 Nov 26;23(1):508. doi: 10.1186/s12964-025-02502-7. PMID: 41299665; PMCID: PMC12659154.
8. Orlandi E, De Tomi E, Belpinati F, Menegazzi M, Gomez-Lira M, Romanelli MG, Trabetti E. Circular RNA circ_0001591 Contributes to Melanoma Cell Migration Through AXL and FRA1 Proteins by Targeting miR-20a-3p and miR-34a-5p. *Genes (Basel)*. 2025 Jul 30;16(8):921. doi: 10.3390/genes16080921. PMID: 40869968; PMCID: PMC12385530.
9. Corsi A, De Simone T, Valentino A, Orlandi E, Stefani C, Patuzzo C, Fochi S, Bruno MG, Trabetti E, Rotondo JC, Mazziotto C, Valenti MT, Ruggiero A, Zipeto D, Bombieri C, Romanelli MG. MALAT1 Expression Is Deregulated in miR-34a Knockout Cell Lines. *Noncoding RNA*. 2025 Aug 5;11(4):60. doi: 10.3390/ncrna11040060. PMID: 40863726; PMCID: PMC12388995.
10. Minoia A, Piritore FC, Bolognin S, Pessoa J, Bernardes de Jesus B, Tiso N, Romanelli MG, Schwamborn JC, Dalle Carbonare L, Valenti MT. Antioxidant Osteogenic, and Neuroprotective Effects of Homotaurine in Aging and Parkinson's Disease Models. *Antioxidants (Basel)*. 2025 Feb 21;14(3):249. doi: 10.3390/antiox14030249. PMID: 40227236; PMCID: PMC11939455.
11. Dalle Carbonare L, Cominacini M, Trabetti E, Bombieri C, Pessoa J, Romanelli MG, Valenti MT. The bone microenvironment: new insights into the role of stem cells and cell communication in bone regeneration. *Stem Cell Res Ther*. 2025 Apr 12;16(1):169. doi: 10.1186/s13287-025-04288-4. PMID: 40221779; PMCID: PMC11993959.
12. Dalle Carbonare L, Minoia A, Gandini A, Piritore FC, Patuzzo C, Ceretti L, Vareschi A, Aparo A, Cominacini M, Malerba G, Romanelli MG, Pessoa J, Guardavaccaro D, Antoniazzi F, Valenti MT. Unraveling RUNX2 mutation in a cleidocranial dysplasia patient: Molecular insights into osteogenesis and proteostasis. *Genes Dis*. 2024 Nov 6;12(4):101449. doi: 10.1016/j.gendis.2024.101449. PMID: 40177069; PMCID: PMC11960636.
13. Dalle Carbonare L, Braggio M, Minoia A, Cominacini M, Romanelli MG, Pessoa J, Tiso N, Valenti MT. Modeling Musculoskeletal Disorders in Zebrafish: Advancements in Muscle and Bone Research. *Cells*. 2024 Dec 30;14(1):28. doi: 10.3390/cells14010028. PMID: 39791729; PMCID: PMC11719663.
14. Galasso M, Salaorni V, Moia R, Mozzo V, Lovato E, Cosentino C, Perbellini O, Gambino S, Lovato O, Carazzolo ME, Ferrarini I, Quaglia FM, Donadelli M, Romanelli MG, Visco C, Krampera M, Gaidano G, Scupoli MT. CAT rs1001179 Single Nucleotide Polymorphism Identifies an Aggressive Clinical Behavior in Chronic Lymphocytic Leukemia. *Hematol Oncol*. 2024 Nov;42(6):e70002. doi: 10.1002/hon.70002. PMID: 39540258; PMCID: PMC11590045.
15. Giuriato G, Barbi C, Laginestra FG, Andani ME, Favaretto T, Martignon C, Pedrinolla A, Vernillo G, Moro T, Franchi M, Romanelli MG, Schena F, Venturelli M. Mitochondrial Influence on Performance Fatigability: Considering Sex Variability. *Med Sci Sports Exerc*. 2025 Feb 1;57(2):376-389. doi: 10.1249/MSS.0000000000003558. Epub 2024 Sep 4. PMID: 39231737.
16. Orlandi E, Ceccuzzi L, Belpinati F, Rodolfo M, Malerba G, Trabetti E, Gomez-Lira M, Romanelli MG. Sex-dependent interaction of PTGS2 with miR-146a as risk factor for melanoma and the impact of sex hormones in gene expression in skin cells. *Melanoma Res*. 2024 Aug 1;34(4):296-306. doi: 10.1097/CMR.0000000000000978. Epub 2024 May 27. PMID: 38934060.
17. Dalle Carbonare L, Minoia A, Vareschi A, Piritore FC, Zouari S, Gandini A, Meneghel M, Elia R, Lorenzi P, Antoniazzi F, Pessoa J, Zipeto D, Romanelli MG, Guardavaccaro D, Valenti MT. Exploring the Interplay of RUNX2 and CXCR4 in Melanoma Progression. *Cells*. 2024 Feb 27;13(5):408. doi: 10.3390/cells13050408. PMID: 38474372; PMCID: PMC10930675.
18. Giuriato G, Romanelli MG, Bartolini D, Vernillo G, Pedrinolla A, Moro T, Franchi M, Locatelli E, Andani ME, Laginestra FG, Barbi C, Aloisi GF, Cavedon V, Milanese C, Orlandi E, De Simone T, Fochi S, Patuzzo C, Malerba G, Fabene P, Donadelli M, Stabile AM, Pistilli A, Rende M, Galli F, Schena F, Venturelli M. Sex differences in neuromuscular and biological determinants of isometric maximal force. *Acta Physiol (Oxf)*. 2024 Apr;240(4):e14118. doi: 10.1111/apha.14118. Epub 2024 Feb 22. PMID: 38385696.
19. Bombieri C, Corsi A, Trabetti E, Ruggiero A, Marchetto G, Vattemi G, Valenti MT, Zipeto D, Romanelli MG. Advanced Cellular Models for Rare Disease Study: Exploring Neural, Muscle and Skeletal Organoids. *Int J Mol Sci*. 2024 Jan 13;25(2):1014. doi: 10.3390/ijms25021014. PMID: 38256087; PMCID: PMC10815694.

20. Dalle Carbonare L, Minoia A, Braggio M, Bertacco J, Piritore FC, Zouari S, Vareschi A, Elia R, Vedovi E, Scumà C, Carlucci M, Bhandary L, Mottes M, Romanelli MG, Valenti MT. Modulation of miR-146b Expression during Aging and the Impact of Physical Activity on Its Expression and Chondrogenic Progenitors. *Int J Mol Sci.* 2023 Aug 24;24(17):13163. doi: 10.3390/ijms241713163. PMID: 37685971; PMCID: PMC10488278.
21. Dalle Carbonare L, Minoia A, Zouari S, Piritore FC, Vareschi A, Romanelli MG, Valenti MT. Crosstalk between Bone and Muscles during Physical Activity. *Cells.* 2023 Aug 18;12(16):2088. doi: 10.3390/cells12162088. PMID: 37626898; PMCID: PMC10453939.

January 20026

