

PERSONAL INFORMATION



📍 **Monica Mottes**

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Sex F | Date of birth 08/04/1954 | Nationality ITALIAN

WORK EXPERIENCE

dates 2005-present
Full professor of Applied Biology @UniVR.it
<http://www.dsnm.univr.it/?ent=sezione&ent=sezione&id=31&lang=en>
1998-2004
Associate Professor of Applied Biology @ UniVR.it
1988-1998
Assistant Professor of Applied Biology @UniVR.it
1985-1988
Research collaborator @ National Research Council, Inst. of Evol. Genetics in Pavia (IT)
1989

VISITING FELLOW EXPERIENCE

Visiting assistant professor
Division of Biology, Calif Insitute of Technology, Pasadena USA

1983
Visiting research fellow
Laboratoire de Genetique Moleculaire, Istitut Jacques Monod, Paris, France

1979-1982
EMBO research fellow
Division of Biology, California Institute of Technology, Pasadena, USA

EDUCATION AND TRAINING

1984
Diploma triennale di perfezionamento (PhD –equivalent) in Genetics *cum laude*
University of Pavia, Italy

1977
Degree in Biological Sciences (B.Sc.) *cum laude*
University of Pavia, Italy

1973
Classical high school Diploma
Liceo classico "G Prati" Trento, Italy

Mother Tongue

Italian

Other languages spoken

English (fluent)

ACADEMIC APPOINTMENTS

2018-2021
Chairperson/ Council for the Degree course in Techniques of Accident Prevention in the Workplace

2016-present
Chairperson/ Student files commission

2016-present
Member/ Dept. AQ commission (Assicurazione della Qualità)

2016-present
Member/ Council of PHD School of Applied Sciences of Life and Health

2016-present Director of Biology & Genetics Section/Dept. of Neurosciences, Biomedicine and Sport Sciences

Organisational / managerial skills

- Member/International Consortium for Osteogenesis Imperfecta (OI)
- Member/ Scientific Committee of AsITOI (Italian Association of OI patients)
- Member/ Italian Association of Biology&Genetics Experts (AIBG)
- Member/ Editorial board Open Acces Journal of Genetics and Genomes
- Member/ editorial board Current Chemical Genomics and Translational Medicine ISSN 2213-9885
- Referee for various scientific journals, e.g. J Bone & Mineral research, Oncotarget, Scientific Reports, J Pediatric Genetics, J of Endocrinology, Int J of Molecular Sciences

RESEARCH ACTIVITY**Research interests:**

Human molecular genetics; molecular and cellular bases of genetic diseases involving osteoarticular defects; Ex vivo and in vitro studies of chondrogenic/osteogenic commitment of progenitor cells

Grants and financial support:

Italian Ministry of Education and Research (MIUR); University of Verona; Abiogen Pharma SpA

Scientific production:

Co-author of >80 publications on international journals cited in PubMed; co-author of scientific textbooks (2); author of international (1) and national (3) books chapters

<https://www.ncbi.nlm.nih.gov/pubmed/?term=MOTTES+M>

(Details of publications from 2009 to 2019 can be found below)

TEACHING ACTIVITY

>30 years continuative experience of *ex-cathedra* teaching in Cell Biology, General Biology, Genetics, Molecular Genetics in courses of Verona School of Medicine

<http://www.dsnm.univr.it/?ent=persona&id=1018#tab-didattica>

PUBLICATIONS (2019-2009)

1: Dalle Carbonare L, Mottes M, Cheri S, Deiana M, Zamboni F, Gabbiani D, Schena F, Salvagno GL, Lippi G, Valenti MT. Increased Gene Expression of RUNX2 and SOX9 in Mesenchymal Circulating Progenitors Is Associated with Autophagy during Physical Activity. *Oxid Med Cell Longev*. 2019 Oct 15;2019:8426259. doi: 10.1155/2019/8426259. eCollection 2019. PubMed PMID: 31737174; PubMed Central PMCID: PMC6815530.

2: Deiana M, Malerba G, Dalle Carbonare L, Cheri S, Patuzzo C, Tsenov G, Moron Dalla Tor L, Mori A, Saviola G, Zipeto D, Schena F, Mottes M, Valenti MT. Physical Activity Prevents Cartilage Degradation: A Metabolomics Study Pinpoints the Involvement of Vitamin B6. *Cells*. 2019 Nov 1;8(11). pii: E1374. doi: 10.3390/cells8111374. PubMed PMID: 31683926.

3: Valenti MT, Deiana M, Cheri S, Dotta M, Zamboni F, Gabbiani D, Schena F, Dalle Carbonare L, Mottes M. Physical Exercise Modulates miR-21-5p, miR-129-5p, miR-378-5p, and miR-188-5p Expression in Progenitor Cells Promoting Osteogenesis. *Cells*. 2019 Jul 19;8(7). pii: E742. doi: 10.3390/cells8070742. PubMed PMID: 31330975; PubMed Central PMCID: PMC6678390.

4: Besio R, Garibaldi N, Leoni L, Cipolla L, Sabbioneda S, Biggiogera M, Mottes M, Aglan M, Otaify GA, Temtamy SA, Rossi A, Forlino A. Cellular stress due to impairment of collagen prolyl hydroxylation complex is rescued by the chaperone 4-phenylbutyrate. *Dis Model Mech*. 2019 Jun 20;12(6). pii: dmm038521. doi: 10.1242/dmm.038521. PubMed PMID: 31171565; PubMed Central PMCID: PMC6602311.

5: Cecconi D, Brandi J, Manfredi M, Serena M, Carbonare LD, Deiana M, Cheri S, Parolini F, Gandini A, Marchetto G, Innamorati G, Avanzi F, Antoniazzi F, Marengo E, Tiso N, Mottes M, Zipeto D, Valenti MT. Runx2 stimulates neoangiogenesis through the Runt domain in melanoma. *Sci Rep*. 2019 May 29;9(1):8052. doi: 10.1038/s41598-019-44552-1. PubMed PMID: 31142788; PubMed Central PMCID: PMC6541657.

6: Dalla Grana E, Rigo F, Lanzafame M, Lattuada E, Suardi S, Mottes M, Valenti MT, Dalle Carbonare L. Relationship Between Vertebral Fractures, Bone Mineral Density, and Osteometabolic Profile in HIV and Hepatitis B and C-Infected Patients Treated With ART. *Front Endocrinol (Lausanne)*. 2019 May 14;10:302. doi: 10.3389/fendo.2019.00302. eCollection 2019. PubMed PMID: 31139152; PubMed Central PMCID: PMC6527878.

7: Dalle Carbonare L, Mottes M, Brunelli A, Deiana M, Cheri S, Suardi S, Valenti MT. Effects of Oral Anticoagulant Therapy on Gene Expression in Crosstalk between Osteogenic Progenitor Cells and Endothelial Cells. *J Clin Med*. 2019 Mar 8;8(3). pii: E329. doi: 10.3390/jcm8030329. PubMed PMID: 30857168; PubMed Central PMCID: PMC6462930.

8: Deiana M, Dalle Carbonare L, Serena M, Cheri S, Parolini F, Gandini A, Marchetto G, Innamorati G, Manfredi M, Marengo E, Brandi J, Cecconi D, Mori A, Mina MM, Antoniazzi F, Mottes M, Tiso N, Malerba G, Zipeto D, Valenti MT. New Insights into the Runt Domain of RUNX2 in Melanoma Cell Proliferation and Migration. *Cells*. 2018 Nov 20;7(11). pii: E220. doi: 10.3390/cells7110220. PubMed PMID: 30463392; PubMed Central PMCID: PMC6262450.

9: Valenti MT, Dalle Carbonare L, Mottes M. Ectopic expression of the osteogenic master gene RUNX2 in melanoma. *World J Stem Cells*. 2018 Jul 26;10(7):78-81. doi: 10.4252/wjsc.v10.i7.78. PubMed PMID: 30079129; PubMed Central PMCID: PMC6068731.

10: Cecconi D, Carbonare LD, Mori A, Cheri S, Deiana M, Brandi J, Degaetano V, Masiero V, Innamorati G, Mottes M, Malerba G, Valenti MT. An integrated approach identifies new oncotargets in melanoma. *Oncotarget*. 2017 Dec 15;9(14):11489-11502. doi: 10.18632/oncotarget.23727. eCollection 2018 Feb 20. PubMed PMID: 29545914; PubMed Central PMCID: PMC5837771.

11: Valenti MT, Dalle Carbonare L, Mottes M. Role of microRNAs in progenitor cell

commitment and osteogenic differentiation in health and disease (Review). *Int J Mol Med*. 2018 May;41(5):2441-2449. doi: 10.3892/ijmm.2018.3452. Epub 2018 Feb 1. Review. PubMed PMID: 29393379.

12: Valenti MT, Mottes M, Cheri S, Deiana M, Micheletti V, Cosaro E, Davi MV, Francia G, Dalle Carbonare L. Runx2 overexpression compromises bone quality in acromegalic patients. *Endocr Relat Cancer*. 2018 Mar;25(3):269-277. doi: 10.1530/ERC-17-0523. Epub 2018 Jan 2. PubMed PMID: 29295822.

13: Valenti MT, Mottes M, Biotti A, Perduca M, Pisani A, Bovi M, Deiana M, Cheri S, Dalle Carbonare L. Clodronate as a Therapeutic Strategy against Osteoarthritis. *Int J Mol Sci*. 2017 Dec 13;18(12). pii: E2696. doi: 10.3390/ijms18122696. PubMed PMID: 29236045; PubMed Central PMCID: PMC5751297.

14: Dalle Carbonare L, Micheletti V, Cosaro E, Valenti MT, Mottes M, Francia G, Davi MV. Bone histomorphometry in acromegaly patients with fragility vertebral fractures. *Pituitary*. 2018 Feb;21(1):56-64. doi: 10.1007/s11102-017-0847-1. PubMed PMID: 29214508.

15: Dalle Carbonare L, Manfredi M, Caviglia G, Conte E, Robotti E, Marengo E, Cheri S, Zamboni F, Gabbiani D, Deiana M, Cecconi D, Schena F, Mottes M, Valenti MT. Can half-marathon affect overall health? The yin-yang of sport. *J Proteomics*. 2018 Jan 6;170:80-87. doi: 10.1016/j.jprot.2017.09.004. Epub 2017 Sep 6. PubMed PMID: 28887210.

16: Dalle Carbonare L, Mottes M, Malerba G, Mori A, Zaninotto M, Plebani M, Dellantonio A, Valenti MT. Enhanced Osteogenic Differentiation in Zoledronate-Treated Osteoporotic Patients. *Int J Mol Sci*. 2017 Jun 13;18(6). pii: E1261. doi: 10.3390/ijms18061261. PubMed PMID: 28608802; PubMed Central PMCID: PMC5486083.

17: Valenti MT, Dalle Carbonare L, Mottes M. Role of autophagy in bone and muscle biology. *World J Stem Cells*. 2016 Dec 26;8(12):396-398. doi: 10.4252/wjsc.v8.i12.396. PubMed PMID: 28074123; PubMed Central PMCID: PMC5183986.

18: Valenti MT, Dalle Carbonare L, Mottes M. Osteogenic Differentiation in Healthy and Pathological Conditions. *Int J Mol Sci*. 2016 Dec 27;18(1). pii: E41. doi: 10.3390/ijms18010041. Review. PubMed PMID: 28035992; PubMed Central PMCID: PMC5297676.

19: Corradi M, Monti E, Venturi G, Gandini A, Mottes M, Antoniazzi F. The recurrent causal mutation for osteogenesis imperfecta type V occurs at a highly methylated CpG dinucleotide within the IFITM5 gene. *J Pediatr Genet*. 2014 Mar;3(1):35-9. doi: 10.3233/PGE-14079. PubMed PMID: 27625865; PubMed Central PMCID: PMC5020982.

20: Venturi G, Gandini A, Monti E, Dalle Carbonare L, Corradi M, Vincenzi M, Valenti MT, Valli M, Pelilli E, Boner A, Mottes M, Antoniazzi F. Lack of expression of SERPINF1, the gene coding for pigment epithelium-derived factor, causes progressively deforming osteogenesis imperfecta with normal type I collagen. *J Bone Miner Res.* 2012 Mar;27(3):723-8. doi: 10.1002/jbmr.1480. PubMed PMID: 22113968.

21: Valli M, Barnes AM, Gallanti A, Cabral WA, Viglio S, Weis MA, Makareeva E, Eyre D, Leikin S, Antoniazzi F, Marini JC, Mottes M. Deficiency of CRTAP in non-lethal recessive osteogenesis imperfecta reduces collagen deposition into matrix. *Clin Genet.* 2012 Nov;82(5):453-9. doi: 10.1111/j.1399-0004.2011.01794.x. Epub 2011 Oct 19. PubMed PMID: 21955071; PubMed Central PMCID: PMC3748815.

22: Kaneko H, Kitoh H, Matsuura T, Masuda A, Ito M, Mottes M, Rauch F, Ishiguro N, Ohno K. Hyperuricemia cosegregating with osteogenesis imperfecta is associated with a mutation in GPATCH8. *Hum Genet.* 2011 Nov;130(5):671-83. doi: 10.1007/s00439-011-1006-9. Epub 2011 May 19. PubMed PMID: 21594610.

23: Monti E, Mottes M, Fraschini P, Brunelli P, Forlino A, Venturi G, Doro F, Perlino S, Cavarzere P, Antoniazzi F. Current and emerging treatments for the management of osteogenesis imperfecta. *Ther Clin Risk Manag.* 2010 Sep 7;6:367-81. PubMed PMID: 20856683; PubMed Central PMCID: PMC2940745.

24: Romanelli MG, Lorenzi P, Sangalli A, Diani E, Mottes M. Characterization and functional analysis of cis-acting elements of the human farnesyl diphosphate synthetase (FDPS) gene 5' flanking region. *Genomics.* 2009 Mar;93(3):227-34. doi: 10.1016/j.ygeno.2008.11.002. Epub 2008 Dec 12. PubMed PMID: 19056481.

Verona, Oct. 30th, 2019

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