europass

CURRICULUM VITAE

PERSONAL INFORMATION	Name and Surname: Nadia Rucci Department of Biotechnological and Applied Clinical Sciences (DISCAB) Address (work): via Vetoio, Coppito 2 City: L'Aquila postal code: 67100 Nation: Italy E-mail address (work):**nadia.rucci@univaq.it**
CURRENT POSITION	Full Professor of Histology (SSDBIO17) and Head of the Skeletal Diseases Laboratory (SDL), University of L'Aquila.
EDUCATION OTHER QUALIFICATIONS	**Education:** **2003:** Specialization in Clinical Pathology, University of L'Aquila, Italy; **1999:** PhD in Endocrinology and Metabolic Diseases, University of L'Aquila; **1997:** Qualified as Biologist, University of L'Aquila; **1994**: Bachelor's in Biology, Sapienza University of Rome, Italy. **Stages:** **2003:** (August-October) Exchange Scholarship Grant, Leiden University Medical Centre (LUMC), The Netherlands; **2001** (January) Department of Medicine, Division of Endocrinology, University of Texas Health Science Centre at San Antonio, TX, USA. **Awards:** **2009:** International Bone Research Association (IBRA) Robert Schenk Research Prize, "In recognition of her outstanding scientific achievement in the field of bone research"; **2004:** Novartis Young Investigator Award, European Symposium on Calcified Tissues, Nice, France; **2003**: 1) Novartis Young Investigator Award, European Symposium on Calcified Tissues, Rome, Italy; 2) Exchange Scholarship Grant, European Calcified Tissue Society; **2001**: Travel grant, International Bone and Mineral Society and European Calcified Tissue Society, Madrid, Spain.
ACADEMIC APPOINTMENTS	**2021:** member of the joint committee, University of L'Aquila; **2018-2020:** member of the Academic Senate, University of L'Aquila; **2015-present:** Head of the Welfare Animal Committee, University of L'Aquila; **2014-present:** Member of the Board of the PhD in Experimental Medicine, University of L'Aquila.
CLINIC APPOINTMENTS	

europass

TEACHING EXPERIENCE	**2019-present:** Course of **Histology,** School of Medicine and Surgery, University of L'Aquila; **2018-2019:** Course of **Functional Anatomy**, School of Sport Science and Technology, University of L'Aquila, Italy; **2012-present:** Course of **Experimental Biotechnological Models**, School of Medical Biotechnologies, University of L'Aquila, Italy; **2012-2011**: Course of **Stem cells and tissue regeneration**, School of Biotechnology, University of L'Aquila, Italy; **2011-2010:** Course of **Molecular Diagnostic**, School of Biotechnology, University of L'Aquila, Italy; **2009-2008:**Course of **Integrated Laboratory 3**, School of Biotechnology, University of L'Aquila, Italy.

RESEARCH ACTIVITIES	**Research field:** Prof Nadia Rucci research is mainly focused on bone physiopathology, with regards to oncologic (i.e. bone metastases and osteosarcoma), metabolic (i.e. postmenopausal and mechanical unloading related osteoporosis) and genetic diseases (i.e. Duchenne muscle dystrophy and osteopetrosis). During the last years, the following research projects have been developed: 1) Study of the molecular mechanisms involved in bone loss occurring in patients affected by Duchenne Muscle Dystrophy (DMD). 2) Study of the molecular mechanisms regulating bone metastases development: identification of new prognostic markers and molecular targets to develop alternative therapeutic approaches. 2.1 Extracellular vesicles as a new approach to target tumour cells in the bone microenvironment. 2.2 Role of Haemoglobin beta (HbB) in breast cancer. 3) Study of the effects of mechanical unloading on bone tissue: unveiling new bone mass regulators. 3.1 Lipocalin 2 (Lcn2) as biomarker of unloading induced bone loss. 3.2 Role of Lcn2 in bone metabolism. 3.3 Role of Preproenkephalin 1(Penk1) in bone metabolism. **Research Support as Principal Investigator (PI):** **2020-on going**: Italian Association of Cancer Research (AIRC) for the research project: "Tumour extracellular vesicles educate the bone to promote their growth and metastasis: finding targetable pathways" **2016-2018:** The French Muscular dystrophy Association (AFM)-Téléthon for the research project: "Bone phenotype in Duchenne muscular dystrophy: unveiling the role of LCN2 and implications for therapy"; **2015-2018**: AIRC funding for the research project "Extracellular vesicles as new therapeutic approach to target bone tumour cells"; **2014-2011**: AIRC funding for the research project: "Role of Haemoglobin B in breast cancer: regulation of oxidative stress response and metastasis organotropism"; **2012:** CARISPAQ foundation for the research project: "Role of haemoglobin-B (HBB) in breast cancer: regulation of the response to the oxidative stress and of metastatic organotropism"; **2012-2011:** 5th Research award STRODER/SIOMMMS for the research

	project: "Role of lipocalin 2 in bone metabolism and potential therapeutic applications"; **2003:** Young Researcher Grant (FI-GI-RI), Department of Experimental Medicine, University of L'Aquila, Italy. **Research Support as Co-PI/Research unit:** **2018-2021**: Italian Space Agency (ASI) for the research project: "MARS-PRE: biological and functional MARkers for astronautics and precision medicine"; **2013:** My First AIRC Grant (MFAG) PI Dr. Sofia Avnet, Rizzoli Orthopaedic Institute, Bologna for the research project: "Photodynamic therapy and proton pump inhibitors for the treatment of pain in patients with bone metastases"; **Research Support as Supervisor:** **2020-2022:** Supervisor of Dr Marco Ponzetti, recipient of the AIRC fellowship (2 years) for the project: "Role of extracellular vesicles shuttled miRNAs in the reprogramming of breast cancer bone metastatic microenvironment"; **2019:** Supervisor of Dr Marco Ponzetti, recipient of the AIRC fellowship(1 year) for the project: "Role of extracellular vesicles shuttled miRNAs in the reprogramming of breast cancer bone metastatic microenvironment"; **2015**: Supervisor of Dr Alfredo Cappariello, ECTS-New Investigator Research Grant for the research project: "Extracellular vesicles as mediators of osteoporosis onset and progression". **International Patent:** "Small interfering RNA (siRNA) for the therapy of type 2 (ADO2) Autosomal Dominant Osteopetrosis caused by CLCN7(ADO2 CLCN7-dependent) gene mutation" (code N. WO2015177743A1, publication date 26/11/2015). Europe: EP3145553A1, 29-03-2017; Canada: CA2949345A1, 26-11-2015; USA: US20170101644, 13-04-2017; Japan: JP2017521094 (A), 03-08-2017. Role: co-inventor.

RESPONSIBILITY IN ACADEMIC ACTIVITIES	
EDITORIAL BOARD, EDITORIAL ACTIVITIES, SOCIETY MEMBERSHIP	**Guest Editor: 2019-** Biomolecules Journal, Special issue: "Connecting the Bone with Other Organs: A Reciprocal Cross-Talk". **2013-** Inflammation & Allergy – Drug Targets, Special issue: "Bone and Immune System cross-talk" **International Scientific Societies:** American Society for Bone and Mineral Research (ASBMR); European Calcified Tissues Society (ECTS); European Association for Cancer Research (EACR). **Reviewer for international Journals:** Acta Biomaterialia; Aging Clinical Experimental Research; Archives Biochemistry and Biophysics; American J Physiology Cell Physiology; Anticancer Therapy; Biochimica et Biophysica Acta-Biomembranes (BBA-BMB); Biochemical Journal; Biologia; Biotechnology and Applied Biochemistry; BioMedCentral Cancer; BioMedCentral Veterinary Research; BMC-Cancer; Bone; Breast Cancer Research and Treatment; British J Pharmacology; Calcified Tissue International; Cancers; Cancer Biomarkers; Cellular and Molecular Life Sciences; Clinical Cancer Research; Clinical and Development Immunology;

	Clinical Experimental Metastasis; Clinical Investigation; International Journal Molecular Science; Frontiers in Endocrinology; Future Oncology; J Bone and Mineral Research; J Bone Oncology; J Cellular Biochemistry; J of Cellular Physiology; J Endocrinology Investigation; J Experimental & Clinical Cancer Research; J Orthopaedic Research; Medical Principles and Practice; Microgravity Science and Technology; Osteoporosis International; PLOSONE; Recent Patent on Biomarkers. **Grants Reviewer:** Austrian Science Fund; BONE CANCER RESEARCH TRUST; 2017 ECTS Fellowship; 2014 ECTS/Amgen Bone Biology Fellowship Award; Canadian Space Agency Life Science program; NOW/SRON User Support Programme Space Research, The Netherlands; ECTS/AMGEN Bone Biology Fellowship; The French National Research Agency (ANR). **Organisation of meetings:** **2019:** 13th European Calcified Tissue Society (ECTS) PhD Training Course, Bologna 7-10 September 2019; **2018-present:** "Cancer and Bone Working Group" ECTS pre meeting; **2016:** Local committee for the 43th Annual European Calcified Tissue Society Congress, Rome, 14-16 May 2016; **2012:** ECTS Training Course: "Cancer and Bone: A guide for in vivo experiments", L'Aquila 12-14 September 2012.

SCIENTIFIC ACHIEVEMENTS BIBLIOMETRIC INDICATORS	**Scopus Author ID:** **http://orcid.org/0000-0002-1371-8252** H index: **35**; cytations: **3376**; Number of publications: **81** **Invited Lectures*:*** **2020:** 1) *"Osteoclast in Bone Metastases: Player and Target";* 47th European Calcified Tissue Society Congress, pre meeting, Marseille, France; 2) *"Bone metastases: from Stephen Paget to 2020";* German Priority Program µbone, Dresden, Germany. **2018: "***Basic Science Update: Osteoclasts";* 45th European Calcified Tissue Society Congress, Valencia, Spain. **2016:** *"Data Reproducibility and Good Laboratory Practice for Animal Studies";* RUBICON Webinar. **2015: "***Animal Models for Osteotropic Tumours and Metastases";* ECTS-IBMS Post Doc Training, Rotterdam, The Netherlands. **2014:**1) "Bone Fragility: Physiopathology of Mineral Metabolism, Physiopathology of Bone Tissue"; School of Specialization in Geriatrics, "Sapienza" University of Rome, Italy; 2) *"Bone and CKD-MBD"; Ca-P School, "*Sapienza" University of Rome,Italy; 3) *"Osteoporosis: a question of (un)balance";* SYBIL satellite symposium meeting, Rotterdam, The Netherlands; 4) "Cancer Stemness and Bone (The Dark Side of Stemness)"; INTERBONE Annual Symposium, Prague, Czech Republic. **2012:** 1) *"Cancer and bone, a guide for in vivo experiments";* ECTS training workshop, L'Aquila, Italy; 3) "Osteoporosis", Meeting **"**Tra cuore e rene c'è di mezzo l'osso?" Policlinico Umberto I, Rome, Italy. **2011:** 1) *"Biological Bases of Skeletal Damage";* Symposium on Bone and Gastrointestinal Disease, SIOMMMS, XI National Congress, Rome, Italy;

	2) *"Mechanisms of Bone Destruction by Cancer Cells";* Meeting "Osteotropic cancers: new pathogenic and clinical aspects", School of Specialization in Medical Oncology, University of Bari "Aldo Moro", Italy. **2010:** *"Biology of Bone Metastases and New Pharmacological Targets";* IRCCS Istituto Tumori Giovanni Paolo II, Bari, Italy. **2009:** *"PRELP Inhibits the NF-kappaB Signalling and Impairs Osteoclastogenesis"*; 3rd IBRA (International Bone Research Association) Scientific Seminar, Basel, Switzerland. **2007:** *"Molecular Biology of Bone Remodelling"***;** Bone and Heart Meeting, Florence, Italy. **2006:** *"Biology of Metastasis";* Mediterranean School of Oncology, Rome, Italy. **2005:** *"c-Src as a therapeutic target for bone metastases treatment"; Novartis Pharma, Basel, Switzerland.* **2002:** "Bone Remodelling"**;** University of Brescia, Faculty of Pharmacology, Brescia, Italy. **Oral Presentations:** **2015:**1) 4th Joint Meeting European Calcified Tissue Society (ECTS) & the International Bone and Mineral Society (IBMS), Rotterdam, The Netherlands; 2) International Society of Cancer Metabolism (ISCaM), Venice, Italy; 3) Austrian Society for Bone and Mineral Research (AuSBMR) meeting, Vienna, Austria. **2012:** 1) Austrian Society of Bone and Mineral Research (AusBMR) meeting, Vien, Austria; 2) SIOMMMS, XII National Congress, Bologna, Italy; 3) Cancer Induced Bone Diseases (CIBD) meeting, Lyon, France; 4) Italian Society for Space Biomedicine and Biotechnology (ISSBB) VI National Congress, Brindisi, Italy; 5) European Symposium on Calcified Tissues, Stockholm, Sweden; 6) 2nd IOF-ESCEO pre-clinical symposium, Bordeaux, France; 7) XI Forum in Bone and Mineral Research, Gazzada Schianno, Varese, Italy. **2011:** 1) American Society of Bone and Mineral Research (ASBMR) 33rd Annual Meeting, San Diego, USA; 2) 3rd Joint Meeting European Calcified Tissue Society & the International Bone and Mineral Society, Athens, Greece; **2010:** 1) SIOMMMS, X National Congress, Brescia, Italy; 2) XI Forum in Bone and Mineral Research, Milan, Italy. **2009:** 2nd IBMS Davos Workshop: Bone Biology & Therapeutics, Davos, Switzerland. **2008:** 1) IV Forum in Bone and Mineral Research, Naples, Italy; 2) European Symposium on Calcified Tissues, Barcelona, Spain. **2006:** 1) International Conference on Progress in Bone and Mineral Research, Vien, Austria; 2) ASBMR 28th Annual Meeting, Philadelphia, USA; 3) European Symposium on Calcified Tissues, Prague, Czech Republic. **2005:** 1) European Symposium on Calcified Tissues, Geneve, Switzerland; 2) I Forum in Bone and Mineral Research, Torino, Italy. **2004:** 1) European Symposium on Calcified Tissues, Nice, France;

	2) Frontiers of Skeletal Biology, Davos, Switzerland. **2003:**1) International Conference on Progress in Bone and Mineral Research, Vien, Austria.

SELECTED PUBLICATIONS	**Last Author:** 1. Ponzetti M, **Rucci N**. Switching homes: how cancer moves to bone. Int J Mol Sci. 21:4124;2020. **IF:4.183**. doi: 10.1177/1559325820931262. 2. Loftus A, Cappariello A, George C, Ucci A, Shefferd K, Green A, Paone R, Ponzetti M, Delle Monache S, Muraca M, Teti A, **Rucci N**. Extracellular vesicles from osteotropic breast cancer cells affect bone resident cells. J Bone Miner Res. 35:396-412;2020. **IF:5.711**. doi: 10.1002/jbmr.3891. 3. Cappariello A, **Rucci N**. Tumour-derived extracellular vesicles (EVs): a dangerous "message in a bottle" for bone. Int J Mol Sci. 20:4805;2019. **IF:4.183**. doi: 10.3390/ijms20194805. 4. Aielli F, Ponzetti M, **Rucci N***. Bone metastasis pain, from the bench to the bedside. Int J Mol Sci. 20:280;2019. **IF:4.183**. doi: 10.3390/ijms20020280. *corresponding author. 5. Ponzetti M, **Rucci N**. Updates on osteoimmunology: what is new on the crosstalk between bone and immune system. Front Endocrinol. 10:236;2019. **IF: 3.634**. doi: 10.3389/fendo.2019.00236. 6. Maurizi A, **Rucci N**. The osteoclast in bone metastasis: player and target. Cancers 10:218;2018. **IF: 6.162**. doi: 10.3390/cancers10070218. 7. Capulli M, Ponzetti M, Maurizi A, Gemini-Piperni S, Berger T, Mak TW, Teti A, **Rucci N**. A complex role for Lipocalin 2 in bone metabolism: global ablation in mice induces osteopenia caused by an altered energy metabolism. J Bone Miner Res. 33:1141-1153;2018. **IF:5.711**. doi: 10.1002/jbmr.3406. 8. Ponzetti M, Capulli M, Angelucci A, Ventura L, Monache SD, Mercurio C, Calgani A, Sanità P, Teti A, **Rucci N**. Non-conventional role of haemoglobin beta in breast malignancy. Br J Cancer. 117:994-1006;2017. **IF: 5.922**. doi: 10.1038/bjc.2017.247. 9. Cappariello A, Ponzetti M, **Rucci N**. The "soft" side of the bone: unveiling its endocrine functions. Horm Mol Biol Clin Investig. 28:5-20;2016. doi: 10.1038/srep29880. 10. Capulli M, Olstad OK, Önnerfjord P, Tillgren V, Muraca M, Gautvik KM, Heinegård D, **Rucci N***+, Teti A+. The C-terminal domain of chondroadherin: a new regulator of osteoclast motility counteracting bone loss. J Bone Miner Res. 29:1833-1846;2014. **IF: 5.711**. *Corresponding author; +Equal contributors. doi: 10.1002/jbmr.2206. 11. Capulli M, Paone R, **Rucci N**. Osteoblast and osteocyte: games without frontiers. Arch Biochem Biophys. 561:3-12;2014. **IF: 3.559**. doi: 10.1016/j.abb.2014.05.003. 12. Capulli M, Angelucci A, Driouch K, Garcia T, Clement-Lacroix P, Martella F, Ventura L, Bologna M, Flamini S, Moreschini O, Lidereau R, Ricevuto E, Muraca M, Teti A, **Rucci N**. Increased expression of a set of genes enriched in oxygen binding function discloses a predisposition of

breast cancer bone metastases to generate metastasis spread in multiple organs. J Bone Miner Res. 27:2387-2398;2012. IF: **5.711**. doi: 10.1002/jbmr.1686.

13. Del Fattore A, Teti A, **Rucci N**. Bone cells and the mechanisms of bone remodelling. Front Biosci. (Elite Ed.) 4:2302-2321;2012; **IF: 2.214**.

14. Del Fattore A, Capannolo M, **Rucci N**. Bone and bone marrow: the same organ. Arch Biochem Biophys. 503:28-34;2010. **IF:3.559**. doi: 10.1016/j.abb.2010.07.020.

15. Teti A, **Rucci N**. The unexpected links between bone and immune system. Medicographia 32:341-348;2010.

16. Capulli M, Rufo A, Teti A, **Rucci N**. Global transcriptome analysis in mouse calvarial osteoblasts highlights sets of genes regulated by modeled microgravity and identifies a "mechanoresponsive ostoblast gene signature". J Cell Biochem. 107:240-252;2009. **IF:3.448**. doi: 10.1002/jcb.22120.

17. Del Fattore A, Teti A, **Rucci N**. Osteoclast receptors and signaling. Arch Biochem Biophys. 473:147-160;2008. **IF:3.559**. doi: 10.1016/j.abb.2008.01.011.

18. **Rucci N**. Molecular biology of bone remodelling. Clin Cases Miner Bone Metab.V:49-56;2008.

First Author:

19. **Rucci N**, Zallone A, Teti A. Isolation and generation of osteoclasts. Methods Mol Biol. 1914:3-19;2019. doi: 10.1007/978-1-4939-8997-3_1.

20. **Rucci N**, Teti A. Osteomimicry: how the seed grows in the soil. Calcif Tissue Int. 102:131-140;2018. **IF:3.265**. doi: 10.1007/s00223-017-0365-1.

21. **Rucci N**, Teti A. The "love-hate" relationship between osteoclasts and bone matrix. Matrix Biol. 52-54:176-190;2016. **IF:6.986**. doi: 10.1016/j.matbio.2016.02.009.

22. **Rucci N*,** Capulli M, Olstad OK, Önnerfjord P, Tillgren V, Gautvik KM, Heinegård D, Teti A. The α2β1 binding domain of chondroadherin inhibits breast cancer-induced bone metastases and impairs primary tumour growth: a preclinical study. Cancer Lett. 358:67-75;2015. **IF:6.508**. *Corresponding author. doi: 10.1016/j.canlet.2014.12.032.

23. **Rucci N**, Capulli M, Piperni SG, Cappariello A, Lau P, Frings-Meuthen P, Heer M, Teti A. Lipocalin 2: a new mechanoresponding gene regulating bone homeostasis. J Bone Miner Res. 30:357-368;2015. IF: **5.711.** doi: 10.1002/jbmr.2341.

24. **Rucci N**, Sanità P, Delle Monache S, Alesse E, Angelucci A. Molecular pathogenesis of bone metastases in breast cancer: proven and emerging therapeutic targets. World J Clin Oncol. 5:335-347;2014. **IF:2.810**. doi: 10.5306/wjco.v5.i3.335.

25. **Rucci N**, Angelucci A. Prostate cancer and bone: the elective affinities. Biomed Res Int. 2014:167035;2014. **IF:2.197**. doi: 10.1155/2014/167035.

26. **Rucci N**, Capulli M, Ventura L, Angelucci A, Peruzzi B, Tillgren V Muraca M, Heinegård D, Teti A. Proline/arginine-rich end leucine-rich repeat protein N-terminus is a novel osteoclast antagonist that counteracts bone loss. J Bone Miner Res. 28:1912-1924;2013. **IF:5.711**. doi:

10.1002/jbmr.1951.

27. **Rucci N**, Sanità P, Angelucci A. Role of metalloproteinases in metastatic niche. Curr Mol Med. 11:609-622;2011. **IF:2.196**.

28. **Rucci N**, Millimaggi D, Mari M, Del Fattore A, Bologna M, Teti A, Angelucci A, Dolo V. Receptor activator of NFkB ligand enhances breast cancer-induced osteolytic lesions through upregulation of extracellular matrix metalloproteinase inducer/CD147. Cancer Res. 70:6150-6160;2010. **IF: 9.130**. doi: 10.1158/0008-5472.CAN-09-2758.

29. **Rucci N**, Teti A. Osteomimicry: how tumor cells try to deceive the bone. Front Biosci. (Schol Ed.) 2:907-915;2010. **IF:2.214.**

30. **Rucci N**, Rufo A, Alamanou M, Capulli M, Del Fattore A, Åhrman E, Capece D, Iansante V, Zazzeroni F, Alesse E, Heinegård D, Teti A. The glycosaminoglycan-binding domain of PRELP acts as a cell type-specific NF-kappaB inhibitor that impairs osteoclastogenesis. J Cell Biol. 187:669-683;2009. **IF: 8.891**. doi: 10.1083/jcb.200906014.

31. **Rucci N**, Capulli M, Rufo A, Teti A. The effect of microgravity on osteoblast metabolism. Basic Applied Myology. 19:139-149;2009.

32. **Rucci N**, Susa M, Teti A. inhibition of protein kinase c-Src as a therapeutic approach for cancer and bone metastases. Anticancer Agents Med Chem. 8:342-349;2008. **IF:2.180**.

33. **Rucci N**, Rufo A, Alamanou M, Teti A. Modeled microgravity stimulates osteoclastogenesis and bone resorption by increasing osteoblast RANKL/OPG ratio. J Cell Biochem. 100:464-473;2007. **IF:3.448**.

34. **Rucci N**, Recchia I, Angelucci A, Alamanou M, Del Fattore A, Fortunati D, Susa M, Fabbro D, Bologna M, Teti A. Inhibition of protein kinase c-Src reduces breast cancer metastases and increases survival in mice. J Pharmacol Exp Ther. 318:161-172;2006. **IF:3.706**.

35. **Rucci N**, Di Giacinto C, Orrù L, Millimaggi D, Baron R, Teti A. A novel protein kinase C alpha-dependent signal to ERK1/2 activated by alphaVbeta3 integrin in osteoclasts and chinese hamster ovary (CHO) cells. J Cell Sci. 118:3263-3275;2005. **IF:4.401**.

36. **Rucci N**, Ricevuto E, Ficorella C, Longo M, Perez M, Di Giacinto C, Funari A, Teti A, Migliaccio S. In vivo bone metastases, osteoclastogenic ability and phenotypic characterization of human breast cancer cells. Bone. 34:697-709;2004. **IF:4.360**.

37. **Rucci N**, Migliaccio S, Zani BM, Taranta A, Teti A. Characterization of the osteoblast-like cell phenotype under microgravity conditions in the NASA-approved rotating wall vessel bioreactor (RWV). J Cell Biochem. 85:167-179;2002. **IF:3.448**.

Co-author:

39. Maurizi A, Capulli M, Curle A, Patel R, Ucci A, Côrtes JA, Oxford H, Lamandé SR, Bateman JF, **Rucci N**, Teti A. Extra-skeletal manifestations in mice affected by Clcn7-dependent autosomal dominant osteopetrosis type 2 clinical and therapeutic implications. Bone Res. 7:17;2019. **IF:12.354**. doi: 10.1038/s41413-019-0055-x.

40. Marino S, de Ridder D, Bishop RT, Renema N, Ponzetti M, Sophocleous A, Capulli M, Aljeffery A, Carrasco G, Gens MD, Khogeer A,

	Ralston SH, Gertsch J, Lamoureux F, Heymann D, **Rucci N**, Idris AI. Paradoxical effects of JZL184, an inhibitor of monoacylglycerol lipase, on bone remodelling in healthy and cancer-bearing mice. EBioMedicine. 44:452-466; 2019. **IF:6.680**. doi: 10.1016/j.ebiom.2019.05.048. 42. Marino S, Bishop RT, Capulli M, Sophocleous A, Logan JG, Mollat P, Mognetti B, Ventura L, Sims AH, **Rucci N**, Ralston SH, Idris AI. Regulation of breast cancer induced bone disease by cancer specific IKKβ. Oncotarget. 9:16134-16148;2018. **IF:3.710**. doi: 10.18632/oncotarget.24743. 44. Peramuhendige P, Marino S, Bishop RT, de Ridder D, Khogeer A, Baldini I, Capulli M, **Rucci N**, Idris AI. TRAF2 in osteotropic breast cancer cells enhances skeletal tumour growth and promotes osteolysis. Sci Rep. 8:39;2018. **IF:4.122**. doi: 10.1038/s41598-017-18327-5. 45. Cappariello A, Loftus A, Muraca M, Maurizi A, **Rucci N**, Teti A. Osteoblast-derived extracellular vesicles are biological tools for the delivery of active molecules to bone. J Bone Miner Res. 33:517-533;2018. **IF: 5.711**. doi: 10.1002/jbmr.3332. 46. Di Pompo G, Lemma S, Canti L, **Rucci N**, Ponzetti M, Errani C, Donati DM, Russell S, Gillies R, Chano T, Baldini N, Avnet S. Intratumoral acidosis fosters cancer-induced bone pain through the activation of the mesenchymal tumor-associated stroma in bone metastasis from breast carcinoma. Oncotarget. 8:54478-54496;2017. **IF:3.710**. doi: 10.18632/oncotarget.17091. 47. Wright LE, Ottewell PD, **Rucci N**, Peyruchaud O, Pagnotti GM, Chiechi A, Buijs JT, Sterling JA. Murine models of breast cancer bone metastasis. BoneKey Rep. 5:804; 2016. 49. Thaler R, Maurizi A, Roschger P, Sturmlechner I, Khani F, Spitzer S, Rumpler M, Zwerina J, Karlic H, Dudakovic A, Klaushofer K, Teti A, **Rucci N**, Varga F, van Wijnen AJ. Anabolic and antiresorptive modulation of bone homeostasis by the epigenetic modulator sulforaphane, a naturally occurring isothiocyanate. J Biol Chem. 291:6754-6771;2016. **IF:5.328**. doi: 10.1074/jbc.M115.678235. 51. Cappariello A, Paone R, Maurizi A, Capulli M, **Rucci N**, Muraca M, Teti A. Biotechnological approach for systemic delivery of membrane Receptor Activator of NF-κB Ligand (RANKL) active domain into the circulation. Biomaterials. 46:58-69;2015. **IF:10.273**. doi: 10.1016/j.biomaterials.2014.12.033. 53. Cardone RA, Greco MR, Capulli M, Weinman EJ, Busco G, Bellizzi A, Casavola V, Antelmi E, Ambruosi B, Dell'Aquila ME, Paradiso A, Teti A, **Rucci N**, Reshkin SJ. NHERF1 acts as a molecular switch to program metastatic behavior and organotropism via its PDZ domains. Mol Biol Cell. 23:2028-2040;2012. **IF:3.905**. doi: 10.1091/mbc.E11-11-0911. 54. Peruzzi B, Cappariello A, Del Fattore A, **Rucci N**, De Benedetti F, Teti A. c-Src and IL-6 inhibit osteoblast differentiation and integrate IGFBP5 signalling. Nat Commun. 3:630;2012. IF:11.878. doi: 10.1038/ncomms1651. 55. Rufo A, Del Fattore A, Capulli M, Carvello F, De Pasquale L, Ferrari S, Pierroz D, Morandi L, De Simone M, **Rucci N**, Bertini E, Bianchi ML, De Benedetti F, Teti A. Mechanisms inducing low bone density in Duchenne muscular dystrophy in mice and humans. J Bone Miner Res. 26:1891-

	1903;2011. **IF: 5.711**. doi: 10.1002/jbmr.410. 56. Salerno M, Cenni E, Fotia C, Avnet S, Granchi D, Castelli F, Micieli D, Pignatello R, Capulli M, **Rucci N**, Angelucci A, Del Fattore A, Teti A, Zini N, Giunti A, Baldini N. Bone-targeted doxorubicin-loaded nanoparticles as a tool for the treatment of skeletal metastases. Curr Cancer Drug Targets. 10:649-659;2010. **IF:2.720**. 58. Pierroz DD, Rufo A, Glatt V, Capulli M, Rucci N, Rizzoli R, Teti A, Bouxsein ML, Ferrari SL. Beta-Arrestin2 regulates RANKL and Ephrins gene expression in response to bone remodeling in mice. J Bone Miner Res. 24:775-784;2009. **IF:5.711**. doi: 10.1359/jbmr.081237. 59. Landemaine T, Jackson A, Bellahcène A, **Rucci N**, Sin S, Abad SM, Sierra A, Boudinet A, Guinebretière JM, Ricevuto E, Noguès C, Briffod M, Bièche I, Cherel P, Garcia T, Castronovo V, Teti A, Lidereau R, Driouch K. A six-gene signature predicting breast cancer lung metastasis. Cancer Res. 68:6092-6099;2008. **IF:9.130**. doi: 10.1158/0008-5472.CAN-08-0436. 62. De Benedetti F, **Rucci N**, Del Fattore A, Peruzzi B, Paro R, Longo M, Vivarelli M, Muratori F, Berni S, Ballanti P, Ferrari S, Teti A. Impaired skeletal development in interleukin-6 transgenic mice. A model for the impact of chronic inflammation on the growing skeletal system. Arthritis Rheum. 54:3551-3563;2006. **IF:8.955**. 63. Angelucci A, Gravina GL, **Rucci N**, Millimaggi D, Festuccia C, Muzi P, Teti A, Vicentini C, Bologna M. Suppression of EGF-R signaling reduces the incidence of prostate cancer metastasis in nude mice. Endocr Relat Cancer.13:197-210;2006. **IF:4.774**. 64. Millimaggi D, Festuccia C, Angelucci A, D'Ascenzo S, **Rucci N**, Flati S, Bologna M, Teti A, Pavan A, Dolo E. Osteoblast-conditioned media stimulate membrane shedding in prostate cancer cells. Int J Oncol. 28:909-914;2006. **IF:3.751**. 67. Angelucci A, Gravina GL, **Rucci N**, Festuccia C, Muzi P, Vicentini C, Teti A, Bologna M. Evaluation of metastatic potential in prostate carcinoma: an in vivomodel. Int J Oncol. 25:1713-1720;2004. **IF:3.571**. 68. Tacconelli A, Farina AR, Cappabianca L, DeSantis G, Tessitore A, Vetuschi A, Sferra R, **Rucci N**, Argenti B, Screpanti I, Gulino A, Mackay AR. TrkA alternative splicing: a regulated tumor-promoting switch in human neuroblastoma. Cancer Cell. 6:347-360;2004. **IF:23.916**. 72. Recchia I, **Rucci N**, Funari A, Migliaccio S, Taranta A, Longo M, Kneissel M, Susa M, Fabbro D, Teti A. Reduction of c-Src activity by substituted 5,7-diphenyl-pyrrolo[2,3-d]-pyrimidines induces osteoclast apoptosis in vivo and in vitro. Involvement of ERK1/2 pathway. Bone. 34:65-79;2004. **IF:4.360**. 73. Recchia I, **Rucci N**, Festuccia C, Bologna M, Mackay AR, Migliaccio S, Longo M, Susa M, Fabbro D, Teti A. Pyrrolopyrimidine c-Src inhibitors reduce growth, adhesion, motility and invasion of prostate cancer cells in vitro. Eur J Cancer. 39:1927-1935;2003. **IF:6.680**.

L'AQUILA, 18TH FEBRUARY 2021