



FABRIZIO RUSSO MD, PhD

Date of birth: June 25th, 1988
Address: Via Giolito De Ferrari 96, 00128 Rome - Italy
Mobile: +39 349 3601908
E-mail: fabriz.russo@gmail.com; fabrizio.russo@policlinicocampus.it

EDUCATION AND TRAINING

2/2021 - Present **Assistant Professor (RTDA)**
Campus Bio-Medico University, Rome, Italy

8/2018 - Present **Orthopedic and Trauma Surgeon**
Campus Bio-Medico Foundation, Rome, Italy

10/2017 - 6/2021 **Doctor of Philosophy (PhD)**. Integrated Biomedical Sciences and Bioethics - Osteo-Oncological Diseases
Campus Bio-Medico University, Rome, Italy

8/2013 - 7/2018 **Orthopaedic and Trauma Surgery Residency Program**
Campus Bio-Medico University, Rome, Italy
Grade: 50/50 cum laude

9/2006 - 7/2012: **Doctor of Medicine - MD**. School of Medicine and Surgery
Campus Bio-Medico University, Rome, Italy
Grade: 110/110 cum laude

LICENSURE AND BOARD CERTIFICATION

2023 **Abilitazione Scientifica Nazionale II Fascia**. Malattie Apparato Locomotore e Medicina Fisica e Riabilitativa (06/F4)

2022 **EuroSpine Diploma** by the Spine Society of Europe (EUROSPINE)

2013 **Italian Medical License**
OMCeO RC 8792

2013 **Italian Board Certification of Medicine Exam**
Campus Bio-Medico University, Rome, Italy
Grade: 270/270.

PROFESSIONAL EXPERIENCE

- 01/2023 - 02/2023 **AOSpine Surgery Fellow**
The Scientific Education and Research Foundation and Center for Spine and Orthopaedics. Denver, Colorado – USA. Directed by Prof. Dr. Michael E. Janssen, DO
- 05/2017 - 11/2017 **Research Fellow**
Orthopedic Trauma Institute, Zuckerberg San Francisco General Hospital and Trauma Center / University of California - San Francisco, California – USA. Directed by Prof. T. Miclau, MD
- 03/2017 - 04/2017 **AOTrauma Surgery Fellow**
R Adams Cowley Shock Trauma Center, University of Maryland, Baltimore, Maryland – USA. Directed by Prof. R. O'Toole, MD
- 10/2016 **Medical Observer**
Joint Replacement and Sports Medicine, Department of Orthopaedic Surgery, Stanford University, Palo Alto, California - USA. Directed by Prof. W. J. Maloney, MD.
- 2013 - 2016 **Research Fellow**
Preclinical *in vivo* studies for Intervertebral Disc Regeneration - Veterinary Teaching Hospital, Production and Health, University of Padua, Padua, Italy. Directed by Prof. R. Busetto
- 02/2013 - 05/2013 **Research Fellow**
Ferguson Laboratory for Orthopaedic and Spine Research, Department of Orthopaedic Surgery, University of Pittsburgh. Pittsburgh, Pennsylvania - USA. Directed by Dr. James D. Kang, MD
- 08/2012 - 10/2012 **North America Spine Society (NASS) Research Fellow**
Ferguson Laboratory for Orthopaedic and Spine Research, Department of Orthopaedic Surgery, University of Pittsburgh. Pittsburgh, Pennsylvania - USA. Directed by Dr. James D. Kang, MD
- 10/2014 - 02/2015;
06/2014; 04/2014;
02/2013;
12/2011; 04/2012;
08/2011 - 10/2011. **Medical Fellow**
AO Research Institute (ARI), Davos, Switzerland; Musculoskeletal Regeneration Program – Intervertebral Disc Regeneration. Directed by Prof. M. Alini, PhD

HONORS AND AWARDS

- 2022 **Premio Italia Giovane** - <https://premioitaliagiovane.it/edizione-2022/premiati/>
- 2022 **Best Oral Presentation** at the 3rd International Conference of Biomaterials and Novel Technologies for Healthcare (BioMaH)
- 2019 **Clinical Traveling Fellowship Award** of AOSpine
- 2019 **Ortho Regeneration Network (ON) / International Combined Orthopaedic Research Societies (ICORS) Education Scholarship**
- 2018 **AAOS Honorary Mention.** Orthopaedic Video Theater, American Academy of Orthopaedic Surgeons (AAOS) annual meeting, New Orleans, LA, USA

- 2017 **AAOS Honorary Mention.** Orthopaedic Video Theater, American Academy of Orthopaedic Surgeons (AAOS) annual meeting, San Diego, CA, USA
- 2016 **Clinical Traveling Fellowship Award** of AOTrauma
- 2016 **2nd Level Scholarship** by the Italian Society of Orthopedic and Traumatology (SIOT)
- 2016 **Best Paper Award**, International Society for the Study of the Lumbar Spine (ISSLS) Annual Meeting, SpineWeek 2016, Singapore
- 2015 **NIRA (New Investigator Recognition Awards) Finalist.** Orthopedic Research Society (ORS) Annual Meeting, Las Vegas, NV, USA
- 2015 **1st Level Scholarship** by the Italian Society of Orthopedic and Traumatology (SIOT)
- 2013 **Biospina Award** by the Italian Society of Spinal Surgery and Italian Scoliosis Group (SICV&GIS)
- 2012 **Research Traveling Fellowship Award** of the North American Spine Society (NASS)

RESEARCH GRANTS

- 2022 **Collaborative Research Project (BRIC) - Italian Workers Compensation Authority (INAIL).** Active and healthy ageing at work: an analysis of the current situation and of barriers and facilitators in the Italian labour force. €90.000 UCBM unit. €239.958,36 Total. PI UCBM unit
- 2022 PNRR-MAD-2022-12376692. An artificial intelligence approach for risk assessment and prevention of low back pain: towards precision spine care. €1.000.000 Total. **Co-Investigator** UCBM unit
- 2021 **Collaborative Research Project (BRIC) - Italian Workers Compensation Authority (INAIL).** Development of an innovative, multidisciplinary and integrated approach for workers suffering from degenerative pathologies of the lumbar spine based on advanced technologies, capacity building, and feasibility analysis for the creation of a reference center for prevention, diagnosis, treatment, and professional reintegration (SPINE 4.0). € 1.196.000 UCBM unit, € 1.300.000 total; 2 years; **Co-Investigator** UCBM unit
- 2020 **Fondo per la Crescita Sostenibile - Sportello "Fabbrica Intelligente" PON Imprese & Competitività 2014-2020**, di cui al D.M. 5 marzo 2018 Capo III. Prog. n. F/190096/01-02X44. TOTAl Ergonomics Measurement (TOTEM). €100.000 UCBM unit; 1.842.762,50 total; **Co-Investigator** UCBM unit
- 2019 **ON Pilot Grant by ON Foundation (Orthoregeneration Network; 18-070).**
Project title: Intraarticular injection of a hyaluronic acid and irisin blend may promote cartilage regeneration in a mouse model of osteoarthritis
25.000,00 CHF; 2 years; **Co-Investigator**
- 2019 **Research Grant of National Interest (PRIN) of the Italian Minister of Education, University and Research (MIUR) (2017SZ5WZB).**
Project title: Advanced injectable nano-composite biomaterials with dual therapeutic/regenerative behaviors for bone cancer (ACTION).
€ 142.556,31 UCBM unit; € 430.540,00 total; 3 years; **Co-Investigator** UCBM unit
- 2018 **Collaborative Research Project (BRIC) - Italian Workers Compensation Authority (INAIL).**

Development of a Multidisciplinary and Integrated Approach, for the management of the worker affected by degenerative spine pathologies: study of the occupational aspects and an innovative regenerative treatment of the intervertebral disc to favor return to work (ACTIVE)
€ 660.000 UCBM unit, € 1.000.000 total; 2 years; **Co-Investigator** UCBM unit

- 2018 **Horizon 2020-SC1-BHC-09-2018; Proposal number: SEP-210513542**
Project title: Induced pluripotent stem cell-based therapy for spinal regeneration (iPSpine)
€ 557.975 UCBM unit, € 15.396.031 total; 4 years; **Co-Investigator** UCBM unit
<https://ipspine.eu/>
- 2016 **Horizon 2020-SC1-2016-2017; Proposal number: 732163**
Project title: REgenerative therapy of intervertebral disc: a double blind phase 2b trial of intradiscal injection of mesenchymal stromal cells in degenerative disc disease of the lumbar SPINE unresponsive to conventional therapy (RESPINE)
€ 331.362 UCBM unit, € 5.555.836 total; 4 years; **Co-Investigator** UCBM unit
<http://www.chu-montpellier.fr/en/respine/project/>
- 2014 **Short-Term Scientific Mission Grant (STSM) of COST (European Cooperation in Science and Technology) action. MP1301: NEWGEN**
Project title: New Generation Biomimetic and Customized Implants for Bone Engineering
€ 5.000, 1 year; **Principal Investigator**
- 2012 **Research Travel Grant of Campus Bio-Medico University**
€ 2.000, 1 year; **Principal Investigator**

PUBLICATIONS IN PEER REVIEWED JOURNALS

1. Cicione C, Vadalà G, Di Giacomo G, Tilotta V, Ambrosio L, **Russo F**, Zampogna B, Cannata F, Papalia R, Denaro V. Micro-fragmented and nanofat adipose tissue derivatives: In vitro qualitative and quantitative analysis. *Front Bioeng Biotechnol.* 2023 Jan 17;11:911600. doi: 10.3389/fbioe.2023.911600. PMID: 36733959; PMCID: PMC9887143.
2. Ambrosio L, Vadalà G, **Russo F**, Pascarella G, De Salvatore S, Papalia GF, Ruggiero A, Di Folco M, Carassiti M, Papalia R, Denaro V. Interventional Minimally Invasive Treatments for Chronic Low Back Pain Caused by Lumbar Facet Joint Syndrome: A Systematic Review. *Global Spine J.* 2022 Dec 1:21925682221142264. doi: 10.1177/21925682221142264. Epub ahead of print. PMID: 36458366.
3. Papalia GF, **Russo F**, Vadalà G, Pascarella G, De Salvatore S, Ambrosio L, Di Martino S, Sammartini D, Sammartini E, Carassiti M, Papalia R, Denaro V. Non-Invasive Treatments for Failed Back Surgery Syndrome: A Systematic Review. *Global Spine J.* 2022 Nov 22:21925682221141385. doi: 10.1177/21925682221141385. Epub ahead of print. PMID: 36412047.
4. Eliodoro Faiella, Giuseppina Pacella, Carlo Altomare, Caterina Bernetti, Marina Sarli, Laura Cea, **Fabrizio Russo**, Gianluca Vadalà, Bruno Beomonte Zobel, Rosario Francesco Grasso. Percutaneous Vertebroplasty: A Minimally Invasive Procedure for the Management of Vertebral Compression Fractures. *Osteology* 2022, 2(4), 139-151; doi: 10.3390/osteology2040017.
5. Vadalà G, Di Giacomo G, Ambrosio L, Cicione C, Tilotta V, **Russo F**, Papalia R, Denaro V. The Effect of Irisin on Human Nucleus Pulposus Cells: New Insights into the Biological Crosstalk between the Muscle and Intervertebral Disc. *Spine (Phila Pa 1976).* 2022 Sep 20. doi: 10.1097/BRS.0000000000004488. Epub ahead of print. PMID: 36149858.
6. Bacco L, **Russo F**, Ambrosio L, D'Antoni F, Vollero L, Vadalà G, Dell'Orletta F, Merone M, Papalia R, Denaro V. Natural language processing in low back pain and spine diseases: A systematic review.

- Front Surg. 2022 Jul 14;9:957085. doi: 10.3389/fsurg.2022.957085. PMID: 35910476; PMCID: PMC9329654.
7. D'Antoni F, **Russo F**, Ambrosio L, Bacco L, Vollero L, Vadalà G, Merone M, Papalia R, Denaro V. Artificial Intelligence and Computer Aided Diagnosis in Chronic Low Back Pain: A Systematic Review. *Int J Environ Res Public Health*. 2022 May 14;19(10):5971. doi: 10.3390/ijerph19105971. PMID: 35627508; PMCID: PMC9141006.
 8. Papalia GF, Petrucci G, **Russo F**, Ambrosio L, Vadalà G, Iavicoli S, Papalia R, Denaro V. COVID-19 Pandemic Increases the Impact of Low Back Pain: A Systematic Review and Metanalysis. *Int J Environ Res Public Health*. 2022 Apr 11;19(8):4599. doi: 10.3390/ijerph19084599. PMID: 35457462; PMCID: PMC9027663.
 9. Mallio CA, Vadalà G, **Russo F**, Bernetti C, Ambrosio L, Zobel BB, Quattrocchi CC, Papalia R, Denaro V. Novel Magnetic Resonance Imaging Tools for the Diagnosis of Degenerative Disc Disease: A Narrative Review. *Diagnostics (Basel)*. 2022 Feb 6;12(2):420. doi: 10.3390/diagnostics12020420. PMID: 35204509; PMCID: PMC8870820.
 10. Faiella E, Santucci D, Calabrese A, **Russo F**, Vadalà G, Zobel BB, Soda P, Iannello G, de Felice C, Denaro V. Artificial Intelligence in Bone Metastases: An MRI and CT Imaging Review. *Int J Environ Res Public Health*. 2022 Feb 8;19(3):1880. doi: 10.3390/ijerph19031880. PMID: 35162902; PMCID: PMC8834956.
 11. Carassiti M, Pascarella G, Strumia A, **Russo F**, Papalia GF, Cataldo R, Gargano F, Costa F, Pierri M, De Tommasi F, Massaroni C, Schena E, Agrò FE. Epidural Steroid Injections for Low Back Pain: A Narrative Review. *Int J Environ Res Public Health*. 2021 Dec 26;19(1):231. doi: 10.3390/ijerph19010231. PMID: 35010492; PMCID: PMC8744824.
 12. Petrucci G, Papalia GF, **Russo F**, Vadalà G, Piredda M, De Marinis MG, Papalia R, Denaro V. Psychological Approaches for the Integrative Care of Chronic Low Back Pain: A Systematic Review and Metanalysis. *Int J Environ Res Public Health*. 2021 Dec 22;19(1):60. doi: 10.3390/ijerph19010060. PMID: 35010319; PMCID: PMC8751135.
 13. Cannata F, Laudisio A, Ambrosio L, Vadalà G, **Russo F**, Zampogna B, Napoli N, Papalia R. The Association of Body Mass Index with Surgical Time Is Mediated by Comorbidity in Patients Undergoing Total Hip Arthroplasty. *J Clin Med*. 2021 Nov 28;10(23):5600. doi: 10.3390/jcm10235600. PMID: 34884302; PMCID: PMC8658336.
 14. **Russo F**, Papalia GF, Vadalà G, Fontana L, Iavicoli S, Papalia R, Denaro V. The Effects of Workplace Interventions on Low Back Pain in Workers: A Systematic Review and Meta-Analysis. *Int J Environ Res Public Health*. 2021 Nov 30;18(23):12614. doi: 10.3390/ijerph182312614. PMID: 34886343; PMCID: PMC8657220.
 15. Veronica Tilotta, Gianluca Vadalà, Luca Ambrosio, **Fabrizio Russo**, Claudia Cicione, Giuseppina Di Giacomo, Rocco Papalia and Vincenzo Denaro. Mesenchymal Stem Cell-Derived Exosomes: The New Frontier for the Treatment of Intervertebral Disc Degeneration. *Appl. Sci*. 2021, 11, 11222. <https://doi.org/10.3390/app112311222>
 16. D'Antoni F, **Russo F**, Ambrosio L, Vollero L, Vadalà G, Merone M, Papalia R, Denaro V. Artificial Intelligence and Computer Vision in Low Back Pain: A Systematic Review. *Int J Environ Res Public Health*. 2021 Oct 17;18(20):10909. doi: 10.3390/ijerph182010909. PMID: 34682647; PMCID: PMC8535895.
 17. Fosca M, Basoli V, Della Bella E, **Russo F**, Vadalà G, Alini M, Rau JV, Verrier S. Raman Spectroscopy in Skeletal Tissue Disorders and Tissue Engineering: Present and Prospective. *Tissue Eng Part B Rev*. 2022 Jan 5. doi: 10.1089/ten.TEB.2021.0139. Epub ahead of print. PMID: 34579558.

18. Cannata F, Laudisio A, Russo F, Ambrosio L, Vadalà G, Cardinale ME, Bartolomei C, Iannone G, Napoli N, Papalia R. Weight Loss in Patients Waiting for Total Hip Arthroplasty: Fiber-Enriched High Carbohydrate Diet Improves Hip Function and Decreases Pain before Surgery. *J Clin Med*. 2021 Sep 17;10(18):4203. doi: 10.3390/jcm10184203. PMID: 34575314; PMCID: PMC8467056.
19. Papalia R, Cicione C, **Russo F**, Ambrosio L, Di Giacomo G, Vadalà G, Denaro V. Does Vancomycin Wrapping in Anterior Cruciate Ligament Reconstruction Affect Tenocyte Activity In Vitro? *Antibiotics (Basel)*. 2021 Sep 8;10(9):1087. doi: 10.3390/antibiotics10091087. PMID: 34572669; PMCID: PMC8466500.
20. Fadeeva IV, Goldberg MA, Preobrazhensky II, Mamin GV, Davidova GA, Agafonova NV, Fosca M, Russo F, Barinov SM, Cavalu S, Rau JV. Improved cytocompatibility and antibacterial properties of zinc-substituted brushite bone cement based on β -tricalcium phosphate. *J Mater Sci Mater Med*. 2021 Aug 18;32(9):99. doi: 10.1007/s10856-021-06575-x. PMID: 34406523; PMCID: PMC8373736.
21. **Russo F**, De Salvatore S, Ambrosio L, Vadalà G, Fontana L, Papalia R, Rantanen J, Iavicoli S, Denaro V. Does Workers' Compensation Status Affect Outcomes after Lumbar Spine Surgery? A Systematic Review and Meta-Analysis. *Int J Environ Res Public Health*. 2021 Jun 7;18(11):6165. doi: 10.3390/ijerph18116165. PMID: 34200483; PMCID: PMC8201180.
22. Vadalà G, Ambrosio L, **Russo F**, Papalia R, Denaro V. Stem Cells and Intervertebral Disc Regeneration Overview-What They Can and Can't Do. *Int J Spine Surg*. April 2021. doi: 10.14444/8054.
23. De Salvatore S, Vadalà G, Oggiano L, **Russo F**, Ambrosio L, Costici P. Virtual Reality in Preoperative Planning of Adolescent Idiopathic Scoliosis Surgery Using Google Cardboard. *Neurospine*. March 2021. 18(1):199-205. doi: 10.14245/ns.2040574.287
24. **Russo F**, Ambrosio L, Peroglio M, Guo W, Wangler S, Gewiess J, Grad S, Alini M, Papalia R, Vadalà G, Denaro V. A Hyaluronan and Platelet-Rich Plasma Hydrogel for Mesenchymal Stem Cell Delivery in the Intervertebral Disc: An Organ Culture Study. *Int J Mol Sci*. March 2021. 22(6):2963. doi: 10.3390/ijms22062963.
25. Rivera KO, **Russo F**, Boileau RM, Tomlinson RE, Miclau T, Marcucio RS, Desai TA, Bahney CS. Local injections of β -NGF accelerates endochondral fracture repair by promoting cartilage to bone conversion. *Sci Rep*. 2020 Dec 17;10(1):22241. doi: 10.1038/s41598-020-78983-y. PMID: 33335129; PMCID:PMC7747641.
26. Ambrosio L, Vadalà G, **Russo F**, Papalia R, Denaro V. The role of the orthopaedic surgeon in the COVID-19 era: cautions and perspectives. *J Exp Orthop*. 2020 May 27;7(1):35. doi: 10.1186/s40634-020-00255-5. PMID: 32458150.
27. **Russo F**, Di Tecco C, Fontana L, Adamo G, Papale A, Denaro V, Iavicoli S. Prevalence of work related musculoskeletal disorders in Italian workers: is there an underestimation of the related occupational risk factors? *BMC Musculoskelet Disord*. 2020 Nov 12;21(1):738. doi: 10.1186/s12891-020-03742-z. PMID: 33183245; PMCID: PMC7659235.
28. Cannata F, Vadalà G, **Russo F**, Papalia R, Napoli N, Pozzilli P. Beneficial Effects of Physical Activity in Diabetic Patients. *J Funct Morphol Kinesiol*. September 2020. 5(3):70. doi: 10.3390/jfkm5030070
29. Papalia R, Zampogna B, **Russo F**, Vasta S, Campi S, Saccone L, Di Giacomo G, Vadalà G, Denaro V. Adipose-derived stromal vascular fraction processed with different systems for the treatment of knee osteoarthritis: a pilot study on cell proliferation and clinical results. *J Biol Regul Homeost Agents*. 2020 Sep-Oct;34(5 Suppl. 1):113-119. IORS Special Issue on Orthopedics. PMID: 33739015.
30. Piccoli A, Cannata F, Strollo R, Pedone C, Leanza G, **Russo F**, Greto V, Isgrò C, Quattrocchi CC, Massaroni C, Silvestri S, Vadalà G, Bisogno T, Denaro V, Pozzilli P, Tang SY, Silva MJ, Conte C,

- Papalia R, Maccarrone M, Napoli N. Sclerostin Regulation, Microarchitecture, and Advanced Glycation End-Products in the Bone of Elderly Women With Type 2 Diabetes. *J Bone Miner Res.* 2020 Dec;35(12):2415-2422. doi: 10.1002/jbmr.4153. Epub 2020 Oct 2. PMID: 32777114.
31. Cancilleri F, **Russo F***, Torre G, Vadalà G, Marineo G, Papalia R, Denaro V. Weil osteotomy for the treatment of grade III hallux rigidus: a case series. *J Biol Regul Homeost Agents.* 2020 Jul-Aug;34(4 Suppl. 3):337-343. Congress of the Italian Orthopaedic Research Society. PMID: 33261298.
 32. Vadalà G, Ambrosio L, Portaccio I, Accoto D, **Russo F**, De Salvatore S, Papalia R, Denaro V. Validation of a novel smart drilling system to monitor bone impedance during transpedicular screw placement: a pilot study. *J Biol Regul Homeost Agents.* 2020 Jul-Aug;34(4 Suppl. 3):251-257. Congress of the Italian Orthopaedic Research Society. PMID: 33261286.
 33. Vadalà G, **Russo F***, De Salvatore S, Cortina G, Albo E, Papalia R, Denaro V. Physical Activity for the Treatment of Chronic Low Back Pain in Elderly Patients: A Systematic Review. *J Clin Med.* 2020 Apr 5;9(4). pii: E1023. doi: 10.3390/jcm9041023. Review. PubMed PMID: 32260488.
 34. Vadalà G, De Salvatore S, Ambrosio L, **Russo F***, Papalia R, Denaro V. Robotic Spine Surgery and Augmented Reality Systems: A State of the Art. *Neurospine.* 2020 Mar;17(1):88-100. doi: 10.14245/ns.2040060.030. Epub 2020 Mar 31. PubMed PMID: 32252158; PubMed Central PMCID: PMC7136092.
 35. Vadalà G, Ambrosio L, **Russo F**, Papalia R, Denaro V. Interaction between Mesenchymal Stem Cells and Intervertebral Disc Microenvironment: From Cell Therapy to Tissue Engineering. *Stem Cells International.* 2019. <https://doi.org/10.1155/2019/2376172>.
 36. **Russo F**, Ambrosio L, Ngo K, Vadalà G, Denaro V, Fan Y, Sowa G, Kang JD, Vo N. The Role of Type I Diabetes in Intervertebral Disc Degeneration. *Spine (Phila Pa 1976).* 2019 Sep 1;44(17):1177-1185. doi: 10.1097/BRS.0000000000003054. PubMed PMID: 30973512; PubMed Central PMCID: PMC6697217.
 37. Papalia R, Zampogna B, **Russo F**, Torre G, De Salvatore S, Nobile C, Tirindelli MC, Grasso A, Vadalà G, Denaro V. The combined use of platelet rich plasma and hyaluronic acid: prospective results for the treatment of knee osteoarthritis. *J Biol Regul Homeost Agents.* 2019 Mar-Apr;33(2 Suppl. 1):21-28. PubMed PMID: 31168999.
 38. Vadalà G, **Russo F**, Musumeci M, Giacalone A, Papalia R, Denaro V. Targeting VEGF-A in cartilage repair and regeneration: state of the art and perspectives. *J Biol Regul Homeost Agents.* 2018 Nov-Dec;32(6 Suppl. 1):217-224. PubMed PMID: 30644305.
 39. Vadalà G, **Russo F**, De Strobel F, Bernardini M, De Benedictis GM, Cattani C, Denaro L, D'Este M, Eglin D, Alini M, Denaro V. Novel stepwise model of intervertebral disc degeneration with intact annulus fibrosus to test regeneration strategies. *J Orthop Res.* 2018 Mar 30. doi: 10.1002/jor.23905. [Epub ahead of print] PubMed PMID: 29603340. **IF: 2.807**
 40. L. Ciriaco, M. Ferlazzo, B. Zampogna, S. Vasta, **F. Russo**. Clinical Results After Total Hip Prosthesis: Anterior Versus Anterolateral Surgical Approach. *Acta Orthopeda Italica* 2018. Volume n. 41: Pages 106-116.
 41. Papalia R, Papalia G, **Russo F**, Diaz LA, Bressi F, Sterzi S, Denaro V. Meniscal extrusion as booster of osteoarthritis. *J Biol Regul Homeost Agents.* 2017 Dec 4;31(4 Suppl 2). [Epub ahead of print] PubMed PMID: 29202561. **IF: 2.04**
 42. Papalia R, Tecame A, Vadalà G, **Russo F**, Perna M, Papalia G, Bressi F, Sterzi S, Denaro V. The use of hyaluronic acid in the treatment of shoulder capsulitis: a systematic review. *J Biol Regul Homeost Agents.* 2017 Dec 4;31(4 Suppl 2). [Epub ahead of print] PubMed PMID: 29202560. **IF: 2.04**

43. Papalia R, **Russo F**, Torre G, Albo E, Grimaldi V, Papalia G, Sterzi S, Vadalà G, Bressi F, Denaro V. Hybrid hyaluronic acid versus high molecular weight hyaluronic acid for the treatment of osteoarthritis in obese patients. *J Biol Regul Homeost Agents*. 2017 Dec 4;31(4 Suppl 2). [Epub ahead of print] PubMed PMID: 29202568. **IF: 2.04**
44. Papalia R, Albo E, **Russo F**, Tecame A, Torre G, Sterzi S, Bressi F, Denaro V. The use of hyaluronic acid in the treatment of ankle osteoarthritis: a review of the evidence. *J Biol Regul Homeost Agents*. 2017 Dec 4;31(4 Suppl 2). [Epub ahead of print] PubMed PMID: 29202567. **IF: 2.04**
45. Vadalà G, Accoto D, **Russo F**, Portaccio I, Rossini M, Valentini S, Papalia R, Denaro V. A new surgical positioning system for robotic assisted minimally invasive spine surgery and transpedicular approach to the disc. *J Biol Regul Homeost Agents*. 2017 Oct-Dec;31(4 suppl 1):159-165. PubMed PMID: 29188679. **IF: 2.04**
46. Di Martino A, **Russo F**, Denaro L, Denaro V. How to treat lumbar disc herniation in pregnancy? A systematic review on current standards. *Eur Spine J*. 2017 Apr 20. doi: 10.1007/s00586-017-5040-8. [Epub ahead of print] Review. PubMed PMID: 28429143. **IF: 2.132**
47. Vadalà G, **Russo F**, Musumeci M, D'Este M, Cattani C, Catanzaro G, Tirindelli MC, Lazzari L, Alini M, Giordano R, Denaro V. A clinically relevant hydrogel based on hyaluronic acid and platelet rich plasma as a carrier for mesenchymal stem cells: Rheological and biological characterization. *J Orthop Res*. 2016 Dec 26. doi: 10.1002/jor.23509. [Epub ahead of print] PubMed PMID: 28019703. **IF: 2.807**
48. Vadalà G, Papalia R, La Verde L, **Russo F**, Denaro V, Rosa MA. Bone marrow concentrated cells and stromal vascular fraction cells injections for osteoarthritis treatment: a systematic review. *J Biol Regul Homeost Agents*. 2016 Oct-Dec;30(4 Suppl 1):69-76. PubMed PMID: 28002902. **IF: 2.04**
49. Papalia R, Zampogna B, **Russo F**, Vasta S, Tirindelli MC, Nobile C, Di Martino AC, Vadalà G, Denaro V. Comparing hybrid hyaluronic acid with PRP in end career athletes with degenerative cartilage lesions of the knee. *J Biol Regul Homeost Agents*. 2016 Oct-Dec;30(4 Suppl 1):17-23. PubMed PMID: 28002896. **IF: 2.04**
50. Vadalà G, Di Martino A, **Russo F**, Tirindelli MC, De Felice L, Agostini F, Papalia R, Denaro V. Autologous bone marrow concentrate combined with platelet-rich plasma enhance bone allograft potential to induce spinal fusion. *J Biol Regul Homeost Agents*. 2016 Oct-Dec;30(4 Suppl 1):165-172. PubMed PMID: 28002915. **IF: 2.04**
51. Vadalà G, **Russo F**, Ambrosio L, Papalia R, Denaro V. Mesenchymal stem cells for intervertebral disc regeneration. *J Biol Regul Homeost Agents*. 2016 Oct-Dec;30(4 Suppl 1):173-179. PubMed PMID: 28002916. **IF: 2.04**
52. **Russo F**, Hartman RA, Bell KM, Vo N, Sowa GA, Kang JD, Vadalà G, Denaro V. Biomechanical Evaluation of Transpedicular Nucleotomy with Intact Annulus Fibrosus. *Spine (Phila Pa 1976)*. 2016 Jul 7. [Epub ahead of print] PubMed PMID: 27390913. **IF: 2.451**
53. **Russo F**, D'Este M, Vadalà G, Cattani C, Papalia R, Alini M, Denaro V. Platelet Rich Plasma and Hyaluronic Acid Blend for the Treatment of Osteoarthritis: Rheological and Biological Evaluation. *PLoS One*. 2016 Jun 16;11(6):e0157048. doi: 10.1371/journal.pone.0157048. eCollection 2016. PubMed PMID: 27310019. **IF: 3.234**
54. Portaccio I, Valentini S, Tagliamonte NL, Angiolari A, **Russo F**, Papalia R, Denaro V, Vadalà G, Accoto D. Design of a positioning system for orienting surgical cannulae during Minimally Invasive Spine Surgery. *Conf Proc IEEE Eng Med Biol Soc*. 2016: 476-481
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BOOK CHAPTERS

- Gianluca Vadalà, **Fabrizio Russo**, Vincenzo Denaro. Closed Cervical Traction Reduction Techniques. "Spine Surgery: Tricks of the Trade, 3E". 2015
- Gianluca Vadalà, **Fabrizio Russo**, Luca Ambrosio, Vincenzo Denaro. Bioceramics and Biocomposites in Spine Surgery. *Handbook of Bioceramics and Biocomposites*, Springer International. 2015

RESEARCHER UNIQUE IDENTIFIERS

Scopus Author ID: 55220439500; Researcher ID: K-5557-2018; ORCID: 0000-0002-8566-8952

INTERNATIONAL MEETING ABSTRACTS

ORAL PRESENTATIONS

- Veronica Tilotta, Giuseppina Di Giacomo, Claudia Cicione, Luca Ambrosio, **Fabrizio Russo**, Gianluca Vadalà, Russo Papalia, Vincenzo Denaro. Esosomi da cellule stromali mesenchimali della gelatina di

Wharton del cordone ombelicale: approccio innovativo per la rigenerazione del disco intervertebrale. Italian Orthopaedic Research Society (IORS). Bologna, Italy. 10 – 11 June 2022.

- Luca Ambrosio, **Fabrizio Russo**, Gianluca Vadalà, Cristina Di Tecco, Sergio Iavicoli, Rocco Papalia, Vincenzo Denaro. Il ruolo dello smart-working nei pazienti aetti da lombalgia durante la pandemia da COVID-19: uno studio cross-sectional. Italian Orthopaedic Research Society (IORS). Bologna, Italy. 10 – 11 June 2022.
- Gianluca Vadalà, Claudia Cicione, Veronica Tilotta, Giuseppina Di Giacomo, Luca Ambrosio, **Fabrizio Russo**, Rocco Papalia, Vincenzo Denaro. Rigenerazione del disco con progenitori mesendodermici derivati da staminali pluripotenti indotte in un modello ovino: uno studio preliminare di sopravvivenza. Italian Orthopaedic Research Society (IORS). Bologna, Italy. 10 – 11 June 2022.
- Gianluca Vadalà, **Fabrizio Russo**, Giuseppe Francesco Papalia, Luca Ambrosio, Sergio De Salvatore, Rocco Papalia, Vincenzo Denaro. Artrodesi per via posteriore con viti transpeduncolari guidate da navigazione 3D vs fluoroscopia 2D nella spondilolistesi ad un singolo livello. Italian Orthopaedic Research Society (IORS). Bologna, Italy. 10 – 11 June 2022.
- Gianluca Vadalà, Giuseppina Di Giacomo, Veronica Tilotta, Claudia Cicione, Luca Ambrosio, **Fabrizio Russo**, Rocco Papalia, Vincenzo Denaro. L'irisina stimola l'anabolismo e la sintesi di matrice extracellulare nelle cellule del nucleo polposo umano in vitro. Italian Orthopaedic Research Society (IORS). Bologna, Italy. 10 – 11 June 2022.
- G. Vadalà, G. Di Giacomo, C. Cicione, V. Tilotta, **F. Russo**, L. Ambrosio, R. Papalia, V. Denaro. L'irisina stimola l'anabolismo e la sintesi di matrice extracellulare nelle cellule del nucleo polposo umano in vitro: nuove prospettive nel cross-talk tra muscolo e disco intervertebrale. 43° Congresso della Società Italiana di Chirurgia Vertebrale e Gruppo Italiano Scoliosi (SICV&GIS). Bologna, Italy. 12 – 14 May 2022.
- G. Vadala, **F. Russo**, G. Papalia, L. Ambrosio, S. De Salvatore, R. Papalia, V. Denaro. Artrodesi per via posteriore con viti transpeduncolari guidate da navigazione con immagini 3d intraoperatorie vs fluoroscopia 2d nel trattamento della spondilolistesi ad un singolo livello. 43° Congresso della Società Italiana di Chirurgia Vertebrale e Gruppo Italiano Scoliosi (SICV&GIS). Bologna, Italy. 12 – 14 May 2022.
- G. Vadalà, G. Di Giacomo, Luca Ambrosio, C. Cicione, V. Tilotta, **F. Russo**, R. Papalia, V. Denaro. Irisin stimulates anabolism and matrix synthesis in human nucleopulpocytes in vitro: new insights into a cross-talk between the muscle and the intervertebral disc. 48th Annual Meeting of the International Society for the Study of the Lumbar Spine (ISSLS). Boston, USA. May 9 - 13, 2022
- Gianluca Vadala, V. Tilotta, C. Cicione, G. Di Giacomo, L. Ambrosio, **F. Russo**, R. Papalia, V. Denaro. Effects of exosomes from mesenchymal stem cells on nucleus pulposus cells: a potential cell-free therapy. ISSLS 2021
- Veronica Tilotta, Claudia Cicione, Giuseppina Di Giacomo, Luca Ambrosio, **Fabrizio Russo**, Rocco Papalia, Gianluca Vadalà, Vincenzo Denaro (Rome - Italy). The in vitro effects of MSC secretome on human nucleus pulposus cells in a 3D culture model. 29th Annual Meeting of the European Orthopaedic Research Society (EORS). Rome, Italy. 15-17 September 2021.
- Claudia Cicione, Rocco Papalia, Giuseppina Di Giacomo, Veronica Tilotta, Luca Ambrosio, **Fabrizio Russo**, Sebastiano Vasta, Gianluca Vadalà, Vincenzo Denaro. Characterization and comparison of different methods to obtain minimally manipulated adipose tissue for the treatment of osteoarthritis. 29th Annual Meeting of the European Orthopaedic Research Society (EORS). Rome, Italy. 15-17 September 2021.
- Giuseppina Di Giacomo, Gianluca Vadalà, Claudia Cicione, Veronica Tilotta, Luca Ambrosio, **Fabrizio Russo**, Vincenzo Denaro, Rocco Papalia. Regulation of inflammatory signaling pathways by irisin in human chondrocytes in vitro. 29th Annual Meeting of the European Orthopaedic Research Society (EORS). Rome, Italy. 15-17 September 2021.
- **Fabrizio Russo**. The Role of Type I Diabetes in Intervertebral Disc Degeneration. 27th Annual Meeting of the European Orthopaedic Research Society (EORS). Maastricht, Netherlands. 2-4 October 2019.

- **Russo F**, Ambrosio L, Vadalà G, Ngo K, Fan Y, Sowa G, Vo N, Kang JD, Denaro V. The role of Type I Diabetes in intervertebral disc degeneration. 7th International Congress on Biotechnologies for Spinal Surgery. Rome, Italy, April 2019
- G. Vadalà, **F. Russo**, S. De Salvatore, G. Lupica, I. Portaccio, M. Accoto, V. Denaro. Validazione di un innovativo sistema di perforazione per l'inserimento di viti transpeduncolari mediante monitoraggio dell'impedenza ossea. Società Italiana di Chirurgia Vertebrale e Gruppo Italiano Scoliosi (SICV&GIS), Venezia, Italy, June 2019
- Rivera KO; **Russo F**; Miclau T III; Bahney CS. Therapeutic delivery of Nerve Growth Factor Accelerates Cartilage to Bone Conversion during Fracture Healing. Orthopaedic Research Society, Austin, Texas – USA, February 2019
- G. Vadalà, B. Zampogna, S. Vasta, **F. Russo**, R. Papalia, V. Denaro (Roma). Le cellule della frazione vascolare stromale del tessuto adiposo nel trattamento conservativo dell'osteoartrosi: studio comparativo dei principali kit di processazione meccanica intraoperatori. Italian Orthopaedic Research Society (IORS), Pavia, Italy, November 2018
- Protesi D'anca – Approccio Antero-Laterale. R. Papalia, G. Vadalà, A. Di Martino, **F. Russo**, S. De Salvatore, B. Zampogna, V. Denaro (Roma). Italian Society of Orthopaedics and Traumatology (SIOT), Bari, Italy. November 2018
- G. Vadalà, **F. Russo**, D. Accoto, I. Portaccio, S. Valentini, M. Rossini, V. Denaro (Roma). Un nuovo sistema di posizionamento chirurgico per la chirurgia mininvasiva della colonna vertebrale assistita da robot. Società Italiana di Chirurgia Vertebrale e Gruppo Italiano Scoliosi (SICV&GIS). Cagliari, Italy, Maggio 2018
- **F. Russo**, M. D'Este, G. Vadalà, C. Cattani, R. Papalia, M. Alini, V. Denaro. Platelet Rich Plasma and Hyaluronic Acid Blend for the Treatment of Osteoarthritis: Rheological and Biological Evaluation. Società Italiana Ginocchio Artroscopia Sport Cartilagine Tecnologie Ortopediche (SIGASCOT), Florence, Italy, September 2016
- Vadala G., **Russo F.**, Musumeci M., De Strobel F., Bernardini M., Denaro L., D'Avella D., Giordano R., Denaro V. Disc regeneration using MSC transplanted via the endplate route. International Society for the Study of the Lumbar Spine (ISSLS), Singapore, May 2016
- **F. Russo**, G. Vadalà, R. Hartman, K. Bell, G. Sowa, N. Vo, J. Kang, V. Denaro. Biomechanical Evaluation of the Transpedicular Nucleotomy with Intact Anulus Fibrosus. Global Spine Congress (GSC), Dubai, UAE, April 2016
- G. Vadalà, **F. Russo**, M. Musumeci, A. Valentini, M. Bernardini, L. Denaro, D. D'Avella, R. Giordano, V. Denaro. Disc regeneration using MSC transplanted via the endplate route. World Forum for Spine Research (WFSR), Dubai, UAE, April 2016
- **F. Russo**, G. Vadalà, K. Ngo, Y. Fan, M. Trucco, G. Sowa, J. Kang, N. Vo, V. Denaro. The Role Of Diabetes Type I In Intervertebral Disc Degeneration. World Forum for Spine Research (WFSR), Dubai, UAE, April 2016
- Vadala G, **Russo F**, Giacalone A, Musumeci M, Cattani C, Denaro V. Intra-articular Injection of Humanized Monoclonal Anti-vegf Antibody In An Osteoarthritis Rabbit Model Is Related To Positive Restorative Changes on Cartilage. Orthopaedic Research Society (ORS), Orlando, Florida, March 2016
- **Russo F**, D'Este M, Vadalà G, Papalia R, Alini M, Denaro V. Platelet Rich Plasma and Hyaluronic Acid Blend for the Treatment of Osteoarthritis: Rheological Evaluation. Orthopaedic Research Society (ORS), Orlando, Florida, March 2016

- **F. Russo**, G. Vadalà, R.A. Hartman, K.M. Bell, G. Sowa, N. Vo, J.D. Kang, V. Denaro. Biomechanical evaluation of the transpedicular nucleotomy with intact anulus fibrosus. Italian Orthopaedic Research Society (IORS), Bari, Italy, December 2015.
- **F. Russo**, G. Vadalà, K. Ngo, M. Trucco, G. Sowa, J. Kang, N. Vo, V. Denaro. The role of diabetes type I in intervertebral disc degeneration. Italian Orthopaedic Research Society (IORS), Bari, Italy, December 2015
- **F. Russo**, M. D'Este, G. Vadalà, R. Papalia, M. Alini, V. Denaro. Platelet rich plasma and hyaluronic acid blend for the treatment of osteoarthritis: rheological evaluation. Italian Orthopaedic Research Society (IORS), Bari, Italy, December 2015
- F. Cancilleri, **F. Russo**, a. Lanotte, R. Papalia, V. Denaro. L'Osteotomia di Weil Vs Osteotomia ed Emiartroplastica per il Trattamento dell' Alluce Rigido di Grado III. Italian Society of Orthopaedics and Traumatology (SIOT), Rome, Italy, November 2015
- G. Vadalà, **F. Russo**, M. Musumeci, M. Bernardini, M. Alini, R. Giordano, L. Denaro, D. D'Avella, V. Denaro. Rigenerazione del disco intervertebrale mediante trapianto di cellule staminali mesenchimali attraverso il piatto vertebrale. Società Italiana di Chirurgia Vertebrale e Gruppo Italiano Scoliosi (SICV&GIS)
- Vadala G, **Russo F**, Musumeci M, De Strobel F, Bernardini M, De Benedictis G, Denaro L, D'Avella D, Giordano R, Denaro V. "Disc Regeneration using MSC Transplanted via the Endplate Route". European Orthopaedic Research Society (EORS), Bristol, UK, September 2015
- G. Vadalà, M. Musumeci, **F. Russo**, MC. Tirindelli, R. Giordano, M. D'Este, M. Alini, V. Denaro. "A novel clinical relevant hydrogel for mesenchymal stromal/stem cells mediated intervertebral disc regeneration and cartilage repair." Italian Orthopaedic Research Society (IORS), Ferrara, Italy, October 2014
- G. Vadalà, L. La Verde, **F. Russo**, MA. Rosa, V. Denaro. "MSC for Osteoarthritis treatment: a systematic review". Italian Orthopaedic Research Society (IORS), Ferrara, Italy, October 2014
- G Vadalà, **F Russo**, F De Strobel, M Bernardini, G De Benedictis, M Musumeci, D Eglin, L Denaro, M Alini, D D'Avella, R Busetto, V Denaro. "Reproducible disc degeneration scale in a large animal model". European Orthopaedic Research Society (EORS), Nantes, France, July 2014
- **Russo F**, Vadala G, Hartman RA, Bell KM, Sowa GA, Vo N, Kang J, Denaro V. "Biomechanical Evaluation of the Transpedicular Nucleotomy with Intact Anulus Fibrosus". European Orthopaedic Research Society (EORS), Nantes, France, July 2014
- Vadalà G, **Russo F**, De Strobel F, Bernardini M, Eglin D, Denaro L, Alini M, Busetto R, D'Avella D, Denaro V. "Reproducible Disc Degeneration Scale In A Large Animal Model". Terminis EU 2014 Congress, Genova, Italy. June 2014
- Vadala G, **Russo F**, De Strobel F, Bernardini M, De Benedictis G, Musumeci M, Eglin D, Denaro L, Alini M, Denaro V. "Reproducible disc degeneration scale in a large animal model". International Society for the Study of the Lumbar Spine (ISSLS), Seoul, South Korea, June 2014
- **Russo F**, Vadala G, Hartman RA, Bell KM, Sowa GA, Vo N, Kang JD, Denaro V; "Biomechanical Evaluation of the Transpedicular Nucleotomy with Intact Anulus Fibrosus". International Society for the Study of the Lumbar Spine (ISSLS), Seoul, South Korea, June 2014

- Vadalà G, **Russo F**, De Strobel F, Bernardini M, Eglin D, Denaro L, Alini M, Busetto R, D'Avella D, Denaro V. "Reproducible Disc Degeneration Scale In A Large Animal Model". Orthopaedic Research Society (ORS). New Orleans, LA – USA. March 2014
- G. Vadalà, **F. Russo**, F. De Strobel*, M. Bernardini, L. Denaro, D. D'Avella*, V. Denaro. "Nuovo modello animale di degenerazione discale graduale: caratterizzazione in vivo". Congresso Nazionale Società Italiana di Chirurgia Vertebrale e Gruppo Italiano Scoliosi (SICV&GIS). Milano, Italy, May 2014
- **F Russo, M.D.** "The role of diabetes type I in intervertebral disc degeneration." Philadelphia Spine Research Society (PSRS), Philadelphia, PA – USA, November 2013
- G. Vadalà, M. Musumeci, A. Giacalone, **F. Russo**, V. Denaro. "VEGF-signaling inhibition as a target of osteoarthritis O43.4 treatment: an in vivo study on osteoarthritis rabbit model". Combined Orthopedic Research Society (CORS), Venice, Italy, October 2013
- Vadalà G, **Russo F**, Pattappa G, Peroglio M, Grad S, Stadelmann V, Alini M, Denaro V. "A novel nucleotomy model, with intact annulus fibrosus, to test intervertebral disc regeneration strategies". Combined Orthopedic Research Society (CORS), Venice, Italy, October 2013
- **F. Russo**, K. Ngo 2, T. Yurube, G. Vadalà, Q. Dong, Y. Fan, M. Trucco, G. Sowa, J. Kang, N. Vo.. "The role of Diabetes type I in intervertebral disc degeneration". International Society for the Study of the Lumbar Spine (ISSLS), Scottsdale, AZ – USA, May 2013
- **F. Russo**, V. Denaro, G. Vadalà, K. Ngo, T. Yurube, Q. Dong, Y. Fan, M. Trucco, G. Sowa, J. Kang, N. Vo. "The role of Diabetes type I in intervertebral disc degeneration". Italian Society of Spinal Surgery (GIS), Rome, Italy, May 2013
- G. Vadalà, **F. Russo**, G. Patappa, D. Schiuma, M. Peroglio, S. Grad, L. Benneker, M. Alini, V. Denaro. "L'approccio transpeduncolare per la rigenerazione del disco intervertebrale". Italian Society of Orthopaedics and Traumatology (SIOT), Rome, Italy, November 2012
- Gianluca Vadalà, Bruno Beomonte Zobel, Riccardo Del Vescovo, Sofia Battisti, **Fabrizio Russo**, Arijit Borthakur, Vincenzo Denaro. "T1rho magnetic resonance imaging quantification of early lumbar intervertebral disc degeneration in healthy young 15:12 adults". European Orthopaedic Research Society (EORS). Amsterdam, Netherlands, September 2012
- G. Vadalà, **F. Russo**, G. Patappa, D. Schiuma, M. Peroglio, S. Grad, L. Benneker, M. Alini, V. Denaro. "L'approccio transpeduncolare per la rigenerazione del disco intervertebrale". Italian Orthopaedic Research Society (IORS), Brescia, Italy, June 2012
- G. Vadalà, **F. Russo**, G. Patappa, D. Schiuma, M. Peroglio, S. Grad, L. Benneker, M. Alini, V. Denaro. "The transpedicular approach as new route for intervertebral disc regeneration and biological fusion". Italian Society of Spinal Surgery (GIS), Rome, Italy, May 2012

POSTER PRESENTATIONS

- Giuseppina Di Giacomo, Gianluca Vadalà, Veronica Tilotta, Claudia Cicione, Luca Ambrosio, **Fabrizio Russo**, Rocco Papalia, Vincenzo Denaro. Irisina e tendinopatia: ruolo della miochina nell'infiammazione dei tenociti in un modello in vitro. Italian Orthopaedic Research Society (IORS). Bologna, Italy. 10 – 11 June 2022.
- Claudia Cicione, Gianluca Vadalà, Veronica Tilotta, Giuseppina Di Giacomo, Luca Ambrosio, **Fabrizio Russo**, Rocco Papalia, Vincenzo Denaro. Analisi qualitativa e quantitativa in vitro di tessuto adiposo minimamente manipolato ottenuto con due diverse metodiche. Italian Orthopaedic Research Society (IORS). Bologna, Italy. 10 – 11 June 2022.

- Rivera KO; **Russo F**; Boileau R; Desai TA; Bahney CS. Local and Sustained Delivery Of Recombinant Nerve Growth Factor Promotes Endochondral Fracture Repair By Inducing Cd31 Cell Infiltration And Activating Wnt Signaling In Hypertrophic Cartilage. Orthopaedic Research Society Annual Meeting (ORS). Phoenix, Arizona – USA, February 2020
- KO Rivera, **F. Russo**, T. Miclau, III, T. A. Desai, C. S. Bahney. Local Injections Of Nerve Growth Factor Accelerates Cartilage To Bone Conversion During Fracture Repair. Tissue Engineering and Regenerative Medicine International Society (TERMIS) AM Conference. Orlando, Florida – USA. December 2019
- Vadalà G, **Russo F**, De Salvatore S, Portaccio I, Accoto D, Papalia R, Denaro V. Smart surgical platform for the transpedicular delivery of advanced regenerative therapies into the intervertebral disc space. 7th International Congress on Biotechnologies for Spinal Surgery. Rome, Italy, April 2019
- G. Vadalà, **F. Russo**, A. Giacalone, R. Papalia, V. Denaro. Intra-articular injection of humanized monoclonal anti-VEGF antibody in an osteoarthritis rabbit model is related to positive restorative changes on cartilage. Società Italiana Ginocchio Artroscopia Sport Cartilagine Tecnologie Ortopediche (SIGASCOT), Florence, Italy, September 2016
- **Russo F**, Pohl P, Ngo K, Yurube T, Dong Q, Fan Y, Massimo T, Sowa G, Kang J, Vo N; The role of diabetes Type I in intervertebral disc degeneration. International Society for the Study of the Lumbar Spine (ISSLS), Seoul, South Korea, June 2014
- **F. Russo**, G. Vadalà, R.A. Hartman, K.M. Bell, G.A. Sowa, N. Vo, J.D. Kang, V. Denaro “L'instabilità Segmentaria Nella Degenerazione Discale: Studio Biomeccanico Su Modello Di Nucleotomia Transpeduncolare”. Congresso Nazionale Società Italiana di Chirurgia Vertebrale e Gruppo Italiano Scoliosi (SICV&GIS). Milano, Italy, May 2014
- Vadala Gianluca; **Russo Fabrizio**; De Strobel Francesca; Marco Bernardini; Peroglio Marianna; Alini Mauro; Denaro Vincenzo. “The Transpedicular Approach For The Study Of Intervertebral Disc Regeneration Strategies: In Vitro And In Vivo Characterisation”. European Federation of National Associations of Orthopaedics and Traumatology (EFORT). London, UK, June 2014
- **F. Russo**, G. Vadalà, R.A. Hartman, K. Bell, G. Sowa, N. Vo, V. Denaro, J. Kang. “Biomechanical evaluation of the transpedicular nucleotomy with intact annulus fibrosus”. Orthopaedic Research Society (ORS). New Orleans, LA – USA. March 2014
- **F. Russo**, V. Denaro, G. Vadalà, K. Ngo, T. Yurube, Q. Dong, Y. Fan, M. Trucco, G. Sowa, J. Kang, N. Vo. “The role of Diabetes type I in intervertebral disc degeneration”. Combined Orthopedic Research Society (CORS), Venice, Italy, October 2013
- G. Vadalà, **F. Russo**, G. Patappa, M. Peroglio, S. Grad, V. Stadelmann, M. Alini, V. Denaro. “A novel nucleotomy model with intact annulus fibrosus to test intervertebral disc regeneration strategies”. Italian Society of Spinal Surgery (GIS), Rome, Italy, May 2013
- G. Vadalà, **F. Russo**, G. Pattappa, D. Schiuma, M. Peroglio, S. Grad, L. M. Benneker, M. Alini, V. Denaro. “The transpedicular approach as new route for intervertebral disc regeneration”. International Society for the Study of the Lumbar Spine (ISSLS), Scottsdale, AZ – USA, May 2013
- G. Vadalà, **F. Russo**, G. Patappa, M. Peroglio, S. Grad, V. Stadelmann, M. Alini, V. Denaro. “A novel nucleotomy model with intact annulus fibrosus to test intervertebral disc regeneration strategies”. International Society for the Study of the Lumbar Spine (ISSLS), Scottsdale, AZ – USA, May 2013
- G. Vadalà, **F. Russo**, G. Pattappa, D. Schiuma, M. Peroglio, S. Grad, L. M. Benneker, M. Alini, V. Denaro. “The transpedicular approach as new route for intervertebral disc regeneration”. European Orthopaedic Research Society (EORS). Amsterdam, September 2012

- G. Vadalà, **F. Russo**, G. Pattappa, D. Schiuma, M. Peroglio, S. Grad, L. M. Benneker, M. Alini, V. Denaro. "The transpedicular approach as new route for intervertebral disc regeneration and biological fusion". World Forum for Spine Research (WFSR), Helsinki, Finland, June 2012

PRACTICAL COURSES

- 2016 SIGASCOT Cadaver Lab – Hands-On Lab for Young Surgeons, Arezzo – Italy
- 2016 SIGASCOT Hands-On Cartilage Laboratory Course - Bridging The Gap Between Surgery And Biology, Milan –Italy
- 2016 Basic Life Support and Defibrillation (BLS-D) Course, Rome - Italy
- 2015 AOTrauma Course - Advanced Principles of Fracture Management, Davos – Switzerland
- 2014 AOTrauma Course - Basic Principles of Fracture Management, Davos – Switzerland
- 2014 AO Clinical Investigation and Documentation (AOCID) Good Clinical Practice (GCP) Course, Davos – Switzerland

TEACHING POSITIONS

- Since 2022 **Personal Tutor. CdLM Medicine and Surgery - MedTech**
- Since 2021 **Personal Tutor. CdLM a Ciclo Unico in Medicina e Chirurgia - II triennio**
- Since 2020 **Orientation and tutoring activities. Residency School in Orthopaedics and Traumatology.** Campus Bio-Medico University, Rome – Italy. Directed by Prof. Rocco Papalia.
- 2019 **Teaching assignment for the Master's Degree Course in Nursing and Instrumentation in the Operating Room - 7th edition,** at the Postgraduate Training Service of the University Campus Bio-Medico, Rome – Italy.

PROFESSIONAL AND SCIENTIFIC SOCIETY MEMBERSHIPS

- Society for Minimally Invasive Spine Surgery (SMISS)
- AO SPINE
- AO TRAUMA
- Orthopaedic Research Society (ORS)
- Osteoarthritis Research Society International (OARSI)
- European Orthopedic Research Society (EORS)
- Italian Orthopedic Research Society (IORS)
- Italian Society of Orthopedics and Traumatology (SIOT)

- Società Italiana Ginocchio Artroscopia Sport Cartilagine Tecnologie Ortopediche (SIAGASCOT)
- Federation of Orthopaedic Trainees in Europe (FORTE)

PROFESSIONAL AND SCIENTIFIC SOCIETY COMMITTEES AND APPOINTMENTS

- **2023 Education Committee** of European Orthopaedic Research Society
- **Moderator** at the “ROBOTICS, NAVIGATION AND VIRTUAL REALITY” session at 29th Annual Meeting of the European Orthopaedic Research Society, Rome, Italy, 15-17 September 2021
- **Organizing Committee** of the 29th Annual Meeting of the European Orthopaedic Research Society, Rome, Italy, 15-17 September 2021
- **Organizing Committee** of the Orthopedics and Rheumatology World Forum, Toronto – Canada, 2020
- **Organizing Committee** of the International Congress on Biotechnologies for Spinal Surgery - Biospine 7th. Rome, Italy. April 3-5, 2019.
- **Organizing Committee** Series of Arthroplasty Conferences (12th and 13th International Conference on Arthroplasty), 2018 - 2019
- **Organizing Committee** Biospine 7th – International Congress on Biotechnologies for Spinal Surgery. Rome, Italy. April 3-5, 2019.
- **Moderator** at The 32nd International Congress on Occupational Health, Dublin – Ireland, 2018.
- **Scientific Committee** XVIII Congresso Nazionale Italian Orthopaedic Research Society (IORS). Rome, Italy. 9-10 Dicembre 2016

APPOINTMENTS FOR INTERNATIONAL PEER-REVIEWED JOURNALS

- **Editorial Board Member** of Journal of Clinical Medicina
- **Editorial Board Member** of Archives of Orthopedics and Rheumatology
- **Editorial Board Member** of Journal of Orthopaedics and Physiotherapy (JOP)
- **Editorial Board Member** of Archives of Physical Health and Sports Medicine
- **Editorial Board Member** of Current Advances in Rheumatology (CAR)
- **Editorial Board Member** of CPQ Orthopaedics
- **Editorial Board Member** of BMC Research Notes
- **Editorial Board Member** of BMC Musculoskeletal Disorders
- **Editorial Board Member** Journal of Surgical Case Reports and Images
- **Editorial Board Member** of Health Sciences BMC Research Notes
- **Editorial Board Member** of Journal Intelligent Surgery

- **Associate Editor** of Orthopedics, Traumatology and Sports Medicine International Journal (OTSMIJ)
- **Academic Editor** of Archives of Orthopaedics (AO)
- **Topic Editor** of International Journal of Environmental Research and Public Health (IJERPH)
- **Reviewer** for Journal of Tissue Engineering
- **Reviewer** for BioResearch Open Access
- **Reviewer** for BMC Musculoskeletal Disorders
- **Guest Editor** of the Special Issue of the 29th Annual Meeting of the European Orthopaedic Research Society (EORS 2021) on Applied Sciences
- **Guest Editor** of the Special Issue “Low Back Pain (LBP)” on International Journal of Environmental Research and Public Health
- **Guest Editor** of the Special Issue “2nd Edition: Low Back Pain (LBP)” on International Journal of Environmental Research and Public Health
- **Guest Editor** of the Special Issue “New Perspectives and Innovative Techniques in Contemporary Spine Surgery” on Frontiers in Surgery
- **Guest Editor** of the Special Issue “Biomaterials and Novel Technologies for Healthcare” on in vitro models