SILVIA PANSERI, PhD

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My research activity has always been characterized by a multi and interdisciplinary approach, at the interfaces between nanotechnology and regenerative medicine; this allowed tackling scientific challenges that required a broad knowledge that exceed one specific field of interest. My interests are focused on novel approaches in tissue engineering and nanomedicine, and I had acquired expertise in *in vitro* 3D cell culture with several biomaterials and *in vivo* regenerative medicine.

Moreover in the last 4 years, I have been trained in BioEntrepreneurship, and recently I have started to re-think my approach to science communication.

CURRENT POSITION

2013 - present **Group leader.** National Research Council of Italy, Institute of Science and Technology for Ceramics, ISTEC-CNR (Faenza, Italy). **I set up the first Cell/Biomaterial Interaction Lab of the Institute that I still manage.** *Research field: nanostructured biomaterials and cell/biomaterial interaction (3D and nanoparticles): design and characterization.*

PREVIOUS POSITIONS

2009 - 2012 **Postdoctoral fellow.** Bologna University in collaboration with Rizzoli Orthopaedic Institute Bologna, Italy. *Research field: focus on magnetic materials for tissue engineering (in vivo evaluations)*

EDUCATION

2019 **Master post lauream in "Science Communication"**
University of Ferrara (Italy). Final grade: *30 cum laude*. Thesis "Science communication evolution: from the first Framework Program towards Horizon Europe" *Learning how to communicate science to the non-expert audience.*

2018 **Business Planning Bootcamp** of the Business Idea Competition 2018 organized by EIT RawMaterials. Anacapri (NA, Italy) 20-22 June 2018.

2016 **Workshop "Soft skills with a special focus on team bulding for H2020 Projects"**. London (UK). *Exploring what are high performing teams and the importance of the relational component in forming those teams.*

2015 **Advanced short course on BioEntrepreneurship "BioBusiness"**
Università della Svizzera Italiana, Lugano (CH) November 23-27 2015.

2013 **Short course on Horizon 2020** - "Verso H2020. Elementi di discontinuità e novità del nuovo programma di finanziamento", Faenza (RA). 11-15 Nov 2013. *Learning how to write a successful proposal and to manage a project.*

2009 **PhD in Biology**
University of Milano-Bicocca, Department of Biotechnologies and Biosciences. Stem Cell Research Institute, San Raffaele Scientific Institute, Milan – Italy.
PhD thesis: "Central and peripheral nervous system regeneration via nano-structured scaffolds" PhD supervisor Prof. Angelo L. Vescovi. *Research field: biomaterials and stem cells for central and peripheral nervous system regeneration.*

2009 **National qualification** to pursue professional works as biologist at the University of Urbino " Carlo Bo".

2005 **M.Sc in Biology**
University of Milano-Bicocca Department of Biotechnologies and Biosciences.

FELLOWSHIPS and AWARDS

2018 **Young Investigator Award -** *Honorable Mention.*
Dep. of Chemical Science and Materials Technology - National Research Council.

2013 **Best Research Ideas for the Market Competition**
2nd Prize: "Magnetic Bioactive and Biodegradable Micro-Nano beads". MiMe Int. Conf.

2011 **Marco Polo Fellowship.** Columbia University, Department of Biomedical Engineering, Cellular Engineering Laboratory, New York (USA). *Magnetic materials in medicine*

2011 **2011 Materials Today cover competition.** Inspired by nature: Bio-inspired artificial scaffolds and the quest to replicate biology. *Materials Today 2012, 15(5): 223*

2010 **Best PhD Thesis of 2009 in Biological Field -** SIBS award (Italian Society Sperimental Biology)

2006 Keck Center for Collaborative Neuroscience – Rutgers University, Piscataway, New Jersey (USA). (Short stay) *Learning spinal cord injury research methods*

2005 Brain Research Institute, Laboratory of Neural Regeneration and Repair – University of Zurich and Swiss Federal Institute of Technology Zurich (Prof. Schwab's Lab) – Switzerland. (Short stay). *Learning different aspects of spinal cord injury*

ORGANISATION OF SCIENTIFIC MEETINGS

Member of Organizing Committee of "BioCeramics 32 – Annual Meeting of the International Society for Ceramics in Medicine", 20-23 October 2020, Venice, Italy.

Member of Organizing Committee of "Materials in Medicine International Conference", 8-11 October 2013, Faenza (RA), Italy.

TEACHING ACTIVITIES

2018 Lesson on Bioceramics in regenerative medicine (2 hours/year). PhD students in Chemistry - Faculty of Industrial Chemistry. University of Bologna.

2018 – present Practical course (4 hours/y), high school students. Supervisor of high school students for 3 weeks/y, 2 students/y.

2019 – present Lesson on Nanotechnology + Practical course (40 hours/y), high school students. (STEAM Outreach program).

SUPERVISION OF STUDENTS

Institutions	**Undergraduates**		**Master student**		**PhD students**		**Postdoctoral Fellows**	
	Ongoing	Completed	Ong.	Compl.	Ong.	Compl.	Ong.	Compl.
Bologna University (Italy)	0	4	0	2			0	1
Ferrara University (Italy)			0	2				

Chieti-Pescara University (Italy)					0	1		

INSTITUTIONAL RESPONSIBILITIES

2013 – present Head of Cell/material interaction Laboratory at ISTEC-CNR

2013 – present In charge of technical relationship with private companies in the biomedical field (FinCeramica spa and GreenBone Ortho srl) for biological evaluations.

2016 – 2019 Scientific manager of the formal collaboration with Rizzoli Ortophaedic Institute, Bologna (Italy) for ISTEC-CNR.

EDITORIAL ACTIVITIES

2019 – present Guest Editor. Special issue "Cell-Instructive Microenvironment to Direct Stem Cell Fate", Stem Cell International. (ISSN 1687-9678).

2018 – present Guest Editor. Special issue "Cell – Biomaterial Interaction", International Journal of Molecular Sciences; section "Biomaterial Sciences". (ISSN 1422-0067).

2015 Editor of the eBook 'Biomimetic approaches for tissue healing', Ed. Panseri S, Taraballi F, Cunha C. Publisher: OMICS Group International. (ISBN No: 978-1-63278-053-9).

2015 Guest Editor of the Research Topic "Microenvironment modulation of multipotent stem cells", Front. Bioeng. Biotechnol, section Stem Cell Research. (ISSN: 2296-4185).

2011 Editorial board member of Am. Journal of Biomedical Engineering (ISSN: 2163-1077).

2014 Review Editor of Front. Bioeng. Biotechnol (Tiss Eng and Regen Med section)

2011 - present Peer-reviewer for several journals (e.g. Nature Comm, Biomaterials, Nanomedicine, Tissue Engineering, ACS nano).

ONGOING GRANTS

Project Title	*Funding source*	*Amount (Euros)*	*Period*	*Role*
A multistage model of thyroid gland function for screening endocrine-disrupting chemicals in a biologically sex-specific manner SCREENED SC1-BHC-27-2018-825745	European Commission	5,655,088 (400,000 for my unit)	2019-2023	Key staff member
Innovative technology to regenerate spinal cord lesions	Italian Ministry of Defence	190,000	2019-2021	Principal Investigator
Multifunctional biomaterials for tissues and organs self-repair	Regional Funding – POR FESR Emilia-Romagna	1,117,015 (84,000 for my unit)	2019-2021	Unit Coordinator

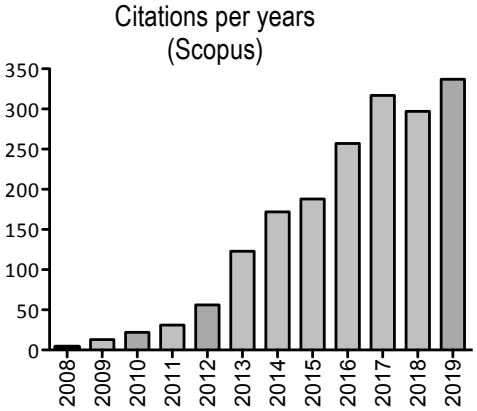
PREVIOUS GRANTS

Project Title	*Funding source*	*Amount (Euros)*	*Period*	*Role*
La natura ispira processi innovativi per lo sviluppo di impianti per la medicina rigenerativa a elevato grado di	Regional Funding – POR FESR Emilia-	999,767 (455,250 for my unit)	2016-2018	Key staff member

vascolarizzazione e performance meccaniche	Romagna			
BioTechMA: Teaching biotechnology for human health: from the bench to the market ERASMUS+ 2014-1-IT02-KA203-003482	European Commission FP7	295,627 (24,678 for my unit)	2015-2017	Key staff member
Porous silica nanoparticles as controlled drug delivery system in osteoporosis	Fond. Del Monte di Bologna e Ravenna	10,000	2015-2016	Principal Investigator
SMILEY: Smart nano-structured devices hierarchically assembled by biomineralization processes NMP4-SL-2012-310637	European Commission FP7	3,996,130 (1,417,360 for my unit)	2013-2015	Key staff member
OPHIS: Composite phenotypic triggers for bone and cartilage repair FP7-NMP-2009-SMALL-3-246373	European Commission FP7	3,939,927 (704,427 for my unit)	2010-2013	Key staff member
MAGISTER: MAGnetIc Scaffolds for in vivo Tissue EngineeRing - NMP3- LA-2008-214685	European Commission FP7	11,085,124 (1,993,388 for my unit)	2009-2012	Key staff member
Nano-structured biomaterial functionalization to treat cartilage defects	Fond. Cariplo	350,000 (150,000 for my unit)	2011-2012	Unit Coordinator

SCIENTIFIC TRACK RECORD

Publications in peer-reviewed journals	58
H-index (based on Scopus)	22
First Author Papers	12
Papers as corresponding	10
Numbers of Citations	1845
Citations excluding self-citations	1622 (>90%)
Book chapters	12
Patents	2
Invited talks	6
Articles of Science Communication	5 (including La.Repubblica.it)



PUBLICATIONS IN PEER-REVIEWED JOURNALS

** = Corresponding author, # = shared first authorship*

1. Tampieri A, Sandri M, Iafisco M, **Panseri S**, Motesi M, Adamiano A, Dapporto M, Campodoni E, Dozio SM, Degli Esposti L, Sprio S. Nanotechnological approach and bio-inspired materials to face degenerative diseases in aging. **Aging Clin Exp Res 2019 https://doi.org/10.1007/s40520-019-01365-6**
2. Sprio S, **Panseri S**, Montesi M, Dapporto M, Ruffini A, Dozio SM, Cavuoto R, Misseroni D, Paggi M, Bigoni D, Tampieri A. Hierarchical porosity inherited by natural sources affects the mechanical and biological behaviour of bone scaffolds. **JECS 2019. In press.**
3. Dozio SM, Montesi M, Campodoni E, Sandri E, Piattelli A, Tampieri A, **Panseri S**. Differences in osteogenic induction of Human Mesenchymal Stem cells between a tailored 3D hybrid scaffold and a 2D standard culture. **J Mater Sci Mater Med. 2019, 30:136 https://doi.org/10.1007/s10856-019-6346-3**

4. Sprio S, Preti L, Montesi M, **Panseri S**, Adamiano A, Vandini A, Pugno N, Tampieri A. Surface phenomena enhancing the antibacterial and osteogenic ability of nanocrystalline hydroxyapatite, activated by multiple ions doping. **ACS Biomater. Sci. Eng. 2019, 5, 11, 5947-5959 DOI: 10.1021/acsbiomaterials.9b00893**

5. Fernandes Patrício TM*, **Panseri S*[#],** Montesi M, Iafisco M, Sandri M, Tampieri A, Sprio S. Superparamagnetic hybrid microspheres affecting osteoblasts behaviour. **Mater Sci Eng C. 2019 96:234-247. doi: 10.1016/j.msec.2018.11.014**

6. Tampieri A, Ruffini A, Ballardini A, Montesi M, **Panseri S**, Salamanna F, Fini M, Sprio S. Heterogeneous chemistry in the 3-D state: an original approach to generate bioactive, mechanically-competent bone scaffold. **Biomater. Sci. 2019, 7, 307 DOI:10.1039/C8BM01145A.**

7. Sarda S, Iafisco M, Pascaud-Mathieu P, Adamiano A, Montesi M, **Panseri S**, Marsan O, Thouron C, Dupret-Bories A, Tampieri A, Drouet C. Interaction of folic acid with nanocrystalline apatites and extension to methotrexate (antifolate) in view of anticancer applications. **Langmuir 2018. 34, 12036−12048. DOI: 10.1021/acs.langmuir.8b02602**

8. Krishnakumar GS, Gostynska N, Dapporto M, Campodoni E, Montesi M, **Panseri S**, Tampieri A, Kon E, Marcacci M, Sprio S, Sandri M. Evaluation of different crosslinking agents on hybrid biomimetic collagen-hydroxyapatite composites for regenerative medicine. **Int J Biol Macromol. 2018 Jan;106:739-748. doi: 10.1016/j.ijbiomac.2017.08.076.**

9. Ballardini A, Montesi M, **Panseri S**, Vandini A, Tampieri A, Sprio S. New hydroxyapatite nanophases with enhanced osteogenic and antibacterial activity. **J Biomed Mater Res A. 2018 Feb;106(2):521-530. doi: 10.1002/jbm.a.36249.**

10. Montesi M, **Panseri S**, Dapporto M, Tampieri A, Sprio S. Sr-substituted bone cements direct mesenchymal stem cells, osteoblasts and osteoclasts cell fate. **PLoS One. 2017 Feb 14;12(2):e0172100. doi: 10.1371/journal.pone.0172100.**

11. Shankar K G, Gostynska N, Montesi M, **Panseri S**, Sprio S, Kon E, Marcacci M, Tampieri A and Sandri M. Investigation of different cross-linking approaches on 3D gelatin scaffolds for tissue engineering application: a comparative analysis. **Int J Biol Macromol. 2017 Feb;95:1199-1209 doi: 10.1016/j.ijbiomac.2016.11.010.**

12. Krishnakumar GS, Gostynska N, Campodoni E, Dapporto M, Montesi M, Panseri S, Tampieri A, Kon E, Marcacci M, Sprio S, Sandri M. Ribose mediated crosslinking of collagen-hydroxyapatite hybrid scaffolds for bone tissue regeneration using biomimetic strategies. **Mater Sci Eng C. 2017. 77,594-605. http://dx.doi.org/10.1016/j.msec.2017.03.255.**

13. Fernandes Patrício TM, **Panseri S**, Sandri M, Tampieri A, Sprio S. New bioactive bone-like microspheres with intrinsic magnetic properties obtained by bio-inspired mineralisation process. **Mater Sci Eng C. 2017. 77, 613-623. http://dx.doi.org/10.1016/j.msec.2017.03.258.**

14. Iannotti V, Adamiano A, Ausanio G, Lanotte L, Aquilanti G, Coey M, Lantieri M, Spina G, Fittipaldi M, Margaris G, Trohidou K, Sprio S, Montesi M, **Panseri S**, Sandri M, Iafisco M, Tampieri A. Fe Doping Induced Magnetism in Nano-Hydroxyapatites. **Inorg. Chem. 2017, 56, 4446−4458. doi: 10.1021/acs.inorgchem.6b03143**

15. Neri G, Micale N, Scala A, Fazio E, Mazzaglia A, Mineo PG, Montesi M, **Panseri S**, Tampieri A, Grassi G' Piperno A. Silibinin-Conjugated Graphene Nanoplatform: Synthesis, Characterization and Biological Evaluation. **FlatChem 2017. 1, 34-41. dx.doi.org/10.1016/j.flatc.2016.10.002**

16. Pistone A, Iannazzo D, Espro C, Galvagno S, Tampieri A, Montesi M, **Panseri S**, Sandri M, Tethering of Gly-Arg-Gly-Asp-Ser-Pro-Lys Peptides on Mg-Doped Hydroxyapatite. **Engineering 3. 2017, 55-59. http://dx.doi.org/10.1016/J.ENG.2017.01.007**

17. Sprio S, **Panseri S**, Adamiano A, Sandri M, Uhlarz M, Herrmannsdorfer T, Landi E, Pineiro-Remondo Y, Tampieri A. Porous hydroxyapatite-magnetite composites as carriers for guided bone regeneration. **Frontiers in Nanoscience and Nanotechnology. 2017. 3(1):1-9. doi: 10.15761/FNN.1000145**

18. Piccirillo P, Adamiano A, Tobaldi D, Montalti M, Manzi J, Castro PM, **Panseri S**, Montesi M, Sprio S, Tampieri A, Iafisco M. Luminescent calcium phosphate bioceramics doped with europium derived from fish industry by-products. **J Amer Ceram Soc. 2017. Doi: 10.1111/jace.14884**

19. Gostynska N, Shankar K G, Campodoni E, **Panseri S**, Montesi M, Sprio S, Kon E, Marcacci M, Tampieri A, Sandri M. 3D porous collagen scaffolds reinforced by glycation with ribose for tissue engineering application. **Biomed Mater. 2017. Aug 21;12(5):055002. doi: 10.1088/1748-605X/aa7694.**

20. Ramírez-Rodríguez GB, Montesi M, **Panseri S**, Sprio S, Tampieri A, Sandri S. Biomineralized recombinant collagen-based scaffold mimicking native bone enhances mesenchymal stem cell interaction and differentiation. **Tissue Eng. 2017 Dec;23(23-24):1423-1435. doi: 10.1089/ten.TEA.2017.0028. Epub 2017 Aug 4.**

21. **Panseri S***, Montesi M, Sandri M, Iafisco M, Adamiano A, Ghetti M, Cenacchi G, Tampieri A. Magnetic labelling of mesenchymal stem cells with iron-doped hydroxyapatite nanoparticles as tool for cell therapy. **J Biomed Nanotechnol. 2016. 12, 909-921. doi:10.1166/jbn.2016.2248.**

22. Sprio S, Dapporto M, Montesi M, **Panseri S**, Lattanzi W, Pola E, Logroscino G, Tampieri A. Novel osteointegrative Sr-substituted apatitic cements enriched with alginate. **Materials. 2016. 9, 763; doi:10.3390/ma9090763.**

23. **Panseri S***, Montesi M, Dozio SM, Savini E, Tampieri A, Sandri M. Biomimetic scaffold with aligned microporosity designed for dentin regeneration. **Front. Bioeng. Biotechnol. 2016. 4:48. doi: 10.3389/fbioe.2016.00048.**

24. Sgambato A, Russo L, Montesi M, **Panseri S**, Marcacci M, Caravà E, Raspanti M, Cipolla L. Different sialoside epitopes on collagen film surfaces direct mesenchymal stem cell fate. **ACS Appl Mater Interfaces. 2016. DOI: 10.1021/acsami.5b08270.**

25. Sandri M, Filardo G, Kon E, **Panseri S**, Montesi M, Iafisco M, Savini E, Sprio S, Cunha C, Giavaresi G, Veronesi F, Fini M, Salvatore L, Sannino A, Marcacci M, Tampieri A. Fabrication and pilot in vivo study of a Collagen-BDDGE-elastin core-shell scaffold for tendon regeneration. **Front. Bioeng. Biotechnol. 2016. *4:52.* doi: 10.3389/fbioe.2016.00052.**

26. Campodoni E, Adamiano A, Dozio SM, **Panseri S**, Monica M, Sprio S, Tampieri A, Sandri M. Development of innovative hybrid and intrinsically magnetic nanobeads as drug delivery system. **Nanomedicine (Lond). 2016 doi:10.2217/nnm-2016-0101**

27. Iafisco M, Drouet C, Adamiano A, Pascaud P, Montesi M, **Panseri S**, Sarda S, Tampieri A. Superparamagnetic iron-doped nanocrystalline apatite as delivery system for doxorubicin. **J Mater Chem B. 2016, 4, 57-70. DOI: 10.1039/C5TB01524C**

28. Russo A, Bianchi M, Sartori M, Parrilli A, **Panseri S**, Ortolani A, Sandri M, Boi M, Salter DM, Maltarello MC, Giavaresi G, Fini M, Dediu V, Tampieri A, Marcacci M. Magnetic forces and magnetized biomaterials provide dynamic flux information during bone regeneration. **J Mater Sci: Mater Med. 2016 27:51. DOI: 10.1007/s10856-015-5659-0**

29. Sprio S, Sandri M, Iafisco M, **Panseri S**, Adamiano A, Montesi M, Campodoni E, Tampieri A. Bio-inspired assembling/mineralization process as a flexible approach to develop new smart scaffolds for the regeneration of complex anatomical regions. **J Eur Ceram Soc. 2016. 36: 2857-2867. doi:10.1016/j.jeurceramsoc.2016.01.005**

30. Boanini E, **Panseri S**, Arroyo F, Montesi M, Rubini K, Tampieri A, Covarrubias C, Bigi A. Alendronate Functionalized Mesoporous Bioactive Glass Nanospheres. **Materials. 2016, 9(3), 135. doi:10.3390/ma9030135**

31. Bianchi M, Gambardella A, Berni M, **Panseri S**, Montesi M, Lopomo L, Tampieri A, Marcacci M, Russo A. Surface morphology, tribological properties and in-vitro biocompatibility of nanostructured zirconia thin films. **J Mater Sci Mater Med. 2016. May;27(5):96. doi: 10.1007/s10856-016-5707-4.**

32. Montesi M, **Panseri S**, Iafisco M, Adamiano A, Tampieri A. Coupling Hydrxyapatite nanocrystals with

lactoferrin as a promising strategy to fine regulate bonehomeostasis. **PLoS One. 2015 Jul 6;10(7):e0132633. doi: 10.1371/journal.pone.0132633. eCollection 2015.**

33. De Santis R, Russo A, Gloria A, D'Amora U, Russo T, **Panseri S**, Sandri M, Tampieri A, Marcacci M, Dediu VA, Wilde CJ, Ambrosio L. Towards the design of 3D fiber-deposited poly(ε-caprolactone)/iron-doped hydroxyapatite nanocomposite magnetic scaffolds for bone regeneration. **J Biomed Nanotechnol. 2015 Jul;11(7):1236-46.**

34. Montesi M, **Panseri S**, Iafisco M, Adamiano A, Tampieri A. Effect of hydroxyapatite nanocrystals functionalized with lactoferrin in osteogenic differentiation of mesenchymal stem cells. **J Biomed Mater Res A. 2015 Jan;103(1):224-34. doi:10.1002/jbm.a.35170.**

35. **Panseri S***, Russo L, Montesi M, Taraballi F, Cunha C, Marcacci, Cipolla L. Bioactivity of surface tethered Osteogenic Growth Peptide motifs**. Med Chem Commun 2014**, **5, 899-903 DOI: 10.1039/C4MD00112E.**

36. Tampieri T, Iafisco M, Sandri M, **Panseri S**, Cunha C, Sprio S, Savini E, Uhlarz M, Herrmannsdörfer T. Magnetic bio-inspired hybrid nanostructured collagen-hydroxyapatite scaffolds supporting cell proliferation and tuning regenerative process. **ACS Appl Mater Interfaces. 2014 Sep 24;6(18):15697-707. DOI: 10.1021/am5050967.**

37. Fiorani A, Gualandi C, **Panseri S**, Montesi M, Marcacci M, Focarete ML, Bigi A. Comparative performance of collagen nanofibers electrospun from different solvents and stabilized by different crosslinkers. **J Mater Sci Mater Med 2014 Oct;25(10):2313-21. doi: 10.1007/s10856-014-5196-2.**

38. Bassani P, **Panseri S**, Ruffini A, Montesi M, Ghetti M, Zanotti C, Tampieri A, Tuissi A. Porous NiTi shape memory alloys produced by SHS: microstructure and biocompatibility in comparison with Ti2Ni and TiNi3. **J Mater Sci Mater Med 2014 Oct;25(10):2277-85. doi: 10.1007/s10856-014-5253-x.**

39. Pistone A, Iannazzo D, **Panseri S**, Montesi M, Tampieri A, Galvagno S. Hydroxyapatite-Magnetite-MWCNT Nanocomposite as Biocompatible Multifunctional Drug Delivery System for Bone Tissue Engineering. **Nanotechnology 25 (2014) 425701. doi:10.1088/0957-4484/25/42/425701.**

40. **Panseri S***, Russo A, Sartori M. Giavaresi G, Sandri M, Fini M, Maltarello MC, Shelyakova T, Ortolani A, Visani A, Dediu V, Tampieri A, Marcacci M. Modifying bone scaffold architecture *in vivo* with permanent magnets to facilitate fixation of magnetic scaffolds. **Bone 2013, 56:432-439. http://dx.doi.org/10.1016/j.bone.2013.07.015.**

41. Iafisco M, Sandri M, **Panseri S**, Delgado-López JM, Gómez-Morales J, Tampieri A. Magnetic bioactive and biodegradable hollow Fe-doped hy-droxyapatite coated poly(L-lactic) acid micro-nanospheres for medical applications. **Chem Mater. 2013, 25(13), 2610-2617. doi: 10.1021/cm4007298.**

42. Makhaniok A, Haranava Y, Goranov V, **Panseri S**, Semerikhina S, Russo A, Marcacci M, Dediu V. In silico prediction of the cell proliferation in porous scaffold usingmodel of effective pore. **BioSystem 2013. Dec;114(3):227-37. doi: 10.1016/j.biosystems.2013.10.001**.

43. Incerti Parenti S, **Panseri S**, Gracco A, Sandri M, Tampieri A, Alessandri Bonetti G. Effect of low-level laser irradiation on osteoblast-like cells cultured on porous hydroxyapatite scaffolds. **Ann Ist Super Sanità 2013. 49(3).** *Featured as journal cover issue.*

44. Cunha C, Sprio S, **Panseri S**, Dapporto M, Marcacci M, Tampieri A. High biocompatibility and improved osteogenic potential in novel macroporous beta-tricalcium phosphate/titania scaffolds designed for regeneration of load-bearing bones. **J Biomed Mater Res A. 2013. Vol 101A(6):1612. doi: 10.1002/jbm.a.34479.** *Featured as journal cover issue.*

45. Taraballi F, Zanini S, Lupo C, **Panseri S**, Cunha C, Riccardi C, Marcacci M, Campione M, Cipolla L. Amino and carboxyl plasma functionalization of collagen films for tissue engineering applications. **Journal of Colloid and Interface Science 2013 15;394:590-7. doi: http://dx.doi.org/10.1016/j.jcis.2012.11.041**

46. **Panseri S***, Cunha C, D'Alessandro T, Sandri M, Giavaresi G, Marcacci M, Hung CT, Tampieri A. Intrinsically superparamagnetic Fe-Hydroxyapatite nanoparticles positively influence osteoblast-like cell behaviour. **Journal of Nanobiotechnology. 2012, 10:32. doi:10.1186/1477-3155-10-32.**

47. **Panseri S***, Cunha C, D'Alessandro T, Sandri M, Russo A, Giavaresi G, Marcacci M, Hung C.T, Tampieri A. Magnetic Hydroxyapatite Bone Substitutes to Enhance Tissue Regeneration: Evaluation *in vitro* using Osteoblast-like Cells and *in vivo* in a Bone Defect. **PLoS One. 2012;7(6):e38710.**

48. **Panseri S***, Russo A, Giavaresi G, Sartori M, Veronesi F, Fini M, Salter DM, Ortolani A, Strazzari A, Visani A, Dionigi C, Bock N, Sandri M, Tampieri A, Marcacci M. Innovative magnetic scaffolds for orthopedic tissue engineering. **J Biomed Mater Res A. 2012Sep;100(9):2278-86 doi: 10.1002/jbm.a.34167.**

49. **Panseri S***, Russo A, Cunha C, Bondi A, Di Martino A, Patella S, Kon E. Osteochondral Current Surgical Treatments and Innovative Perspective in Tissue Engineering Approaches. **Knee Surgery Sports Traumatology Arthroscopy Journal, (2012) 20:1182–1191.**

50. Cunha C, **Panseri S**, Sandri M, Marcacci M, Tampieri A. Inspired by nature: Bio-inspired artificial scaffolds and the quest to replicate biology. **Materials Today 2012, 15(5): 223.** *Featured as journal cover issue.*

51. Cunha C, **Panseri S**, Iannazzo D, Piperno A, Pistone A, Fazio M, Russo A, Marcacci M, Galvagno S Hybrid composites made of multiwalled carbon nanotubes functionalized with Fe_3O_4 nanoparticles for tissue engineering applications. **Nanotechnology. 2012. Nov 23;23(46):465102. doi: 10.1088/0957-4484/23/46/465102.**

52. Sprio S, Sandri M, **Panseri S**, Cunha C, Tampieri A. Hybrid scaffolds for tissue regeneration: chemotaxis and physical confinement as sources of biomimesis. **Journal of Nanomaterials. Volume 2012, Article ID 418281, 10 pages, 2012 doi:10.1155/2012/418281**

53. Tampieri A, D'Alessandro T, Sandri M, Sprio S, Landi E, Bertinetti L, **Panseri S**, Pepponi G, Goettlicher J, Bañobre-López M, Rivas J. Intrinsic magnetism and hyperthermia in bioactive Fe-doped hydroxyapatite. **Acta Biomaterialia 2012 Feb;8(2):843-51**

54. Braic V, Balaceanu M, Braic M, Vladescu A, **Panseri S**, Russo A. Characterization of multi-principal-element (TiZrNbHfTa)N and (TiZrNbHfTa)C coatings for biomedical applications. **Journal of the mechanical behavior of biomedical Materials 2012, 10: 197-205.**

55. Cunha C, **Panseri S**, Marcacci M, Tampieri A. Evaluation of the effects of a moderate intensity static magnetic field application on human osteoblast-like cells. **American Journal of Biomedical Engineering 2012 Vol. 2 No. 6, 2012, pp. 263-268. doi: 10.5923/j.ajbe.20120206.05.**

56. Sprio S, Ruffini A, Valentini F, D'Alessandro T, Sandri M, **Panseri S**, Tampieri A. Biomimesis and biomorphic transformations: New concepts applied to bone regeneration. **Journal Biotechnology 2011 Dec 20;156(4):347-55.**

57. Cunha C, **Panseri S**, Villa O, Silva D, Gelain F. 3D culture of adult mouse neural stem cells within different functionalized self-assembling peptide scaffolds. **International Journal of Nanomedicine. 2011, 6 1–13.**

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59. Cunha C, **Panseri S***[#], Antonini S. Emerging nanotechnology approaches in tissue engineering for peripheral nerve regeneration. **Nanomedicine: NBM, 2011, 7 (1) 50-59.** * authors contributed equally

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BOOK CHAPTERS

** = Corresponding author, # = shared first authorship*

1. Sprio S, Sandri M, Ruffini A, Adamiano A, Iafisco M, Dapporto M, **Panseri S**, Montesi M, Tampieri A. Tissue Engineering and Biomimetics with Bioceramics. In: Advances in ceramic biomaterials: Medical and commercial requirements. Ed. Cambier F, De Barra E, Palmero P. **Woodhead Publishing. 2017 (ISBN: 978-0-08-100881-2) doi.org/10.1016/B978-0-08-100881-2.00014-2.**

2. Sprio S, Sandri M, Iafisco M, **Panseri S**, Montesi M, Ruffini A, Adamiano A, Ballardini A, Tampieri A. Nature-Inspired Nanotechnology and Smart Magnetic Activation: Two Groundbreaking Approaches Toward a New Generation of Biomaterials for Hard Tissue Regeneration. In "Advanced Techniques in Bone Regeneration". Ed. A Rozim Zorzi and J Batista de Miranda**. Intech, 2016. DOI: 10.5772/63229 (ISBN 978-953-51-2539-6).**

3. Tampieri A, Sandri M, **Panseri S**, Adamiano A, Montesi M, Sprio S. Biologically Inspired Nanomaterials and Nanobiomagnetism: A Synergy among New Emerging Concepts in Regenerative Medicine. In "Bio-inspired Regenerative Medicine: Materials, Processes and Clinical Applications". Ed. Tampieri A and Sprio S. **Pan Standford Publishing, 2015. DOI: 10.1201/b19914-2. (ISBN: 978-981-4669-14-6).**

4. Montesi M[#] and **Panseri S*[#]**. Triggering cell-biomaterial interaction: recent approaches for osteochondral regeneration. In "Bio-inspired Regenerative Medicine: Materials, Processes and Clinical Applications". Ed. Tampieri A and Sprio S. **Pan Standford Publishing, 2015. DOI: 10.1201/b19914-12. (ISBN: 978-981-4669-14-6).**

5. Montesi M[#] and **Panseri S*[#]**. Advanced tissue engineering approaches in neurotrauma therapies. In "Biomimetic approaches for tissue healing", Ed. Panseri S, Taraballi F., Cunha C. **OMICS Group International 2015. (ISBN No: 978-1-63278-053-9).**

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7. Sprio S, Sandri M, Iafisco M, **Panseri S**, Filardo G, Kon E, Marcacci, M, Tampieri A. Composite biomedical foams for engineering bone tissue. In "Biomedical foams for tissue engineering applications", Ed: Netti PA. **Woodhead Publishing Limited, 2014, Cambridge (UK), 249-280. (ISBN: 978-0-85709-696-8).**

8. Sprio S, Sandri M, **Panseri S**, Iafisco M, Ruffini A, Minardi S, Tampieri A. Bone substitutes based on biomineralization. In: "Bone substitutes biomaterials", **Ed. Mallick KK. Woodhead Publishing, 2014 July 21, 3-29. (ISBN 0 85709 497 1).**

9. **Panseri S***, Valentini F, D'Alessandro T, Cunha C. Emerging nanomedicine approaches for osteochondral tissue regeneration. In "Nanomedicine for Drug Delivery and Therapeutics". Ed: Ajay Kumar Mishra. **Wiley-Scrivener, 2013 (Print ISBN: 9781118414095, Online ISBN: 9781118636299, DOI: 10.1002/9781118636299).**

10. Sprio S, Sandri M, Iafisco M, **Panseri S**, Cunha C, Ruffini A, Zini N, Toni R, Tampieri A. Biomimetic materials in regenerative medicine. In: Ruys AJ, editor. Biomimetic biomaterials: Structure and applications, **Woodhead Publishing Limited, 2013, Cambridge (UK) 3-45. (ISBN 0 85709 416 5).**

11. Cunha C, **Panseri S**, Gelain F. Engineering of a 3D nanostructured scaffold made of functionalized self-assembling peptides and encapsulated neural stem cells. In "Nanotechnologies in Stem Cell. Methods in Molecular Biology". **Ed. K Turksen. Springer, 2012. (ISSN 1064-3745; doi: 10.1007/7651_2012_2).**

12. Lowery J, **Panseri S**, Cunha C, Gelain F. Title: Electrospinning for Tissue Engineering Applications. In "Electrospun Nanofibers Research: Recent Developments". **Ed. A.K. Haghi. NOVA Publishers, 2009 (ISBN-978-1-60741-834-4).**

GRANTED PATENTS

Process for obtaining fluoride-doped citrate-coated amorphous calcium phosphate nanoparticles.
Inventors: Delgado Lopez JM, Gomez Morales J, Fernandez Penas R, Iafisco M, Tampieri A., **Panseri S**. Serial PCT/EP2015/066651. Registration date: 21/07/2015. WO 2016/012452 A1. Licensed to Kalichem Italia srl.

Injectable apatitic cement ionically multi-substituted for regenerative vertebroplasty and kyphoplasty Inventors: Sprio S, Tampieri A, Sandri M, **Panseri S**, Logroscino G.
Serial: PCT/IB2015/054594. WO 2015/193836. Registration date: 19/06/2014. Licensed to Fin-ceramica Faenza SpA.

SPEAKER AT INTERNATIONAL CONFERENCES

- NanoMedicine International Conference 2019. 23-25 October 2019 Lisbon (Portugal). *Invited Keynote Speaker*
- World Congress on Functional Materials and Nanotechnology. May 13-14, 2019 Valencia (Spain). *Invited*
- Italian National Conference on Materials Science and technology, 22-26 October 2018 Bologna (Italy).
- 25th Nano Congress for Future Advancements - 2018 Dublin (Ireland). *Invited Plenary Lecture*
- Clinical Research and Innovation in Regenerative Medicine - 2017 Turin (Italy). *Invited speaker*
- Nanotechnology Focus, Italian Orthopaedic Research Society - 2017 Pisa (Italy).
- 1st International Translational Course in Osteoncology - 2016 Meldola (FC, Italy) *Invited speaker*
- 10th World Biomaterials Congress - 2016 Montreal (Canada).
- 1st Biennal conference on: Biomaterials for tissue and genetic engineering and the role of nanotechnology. 2016 Rome (Italy). *Invited Keynote Lecture*
- 26th Annual Conference European Society for Biomaterials. 2014 Liverpool (UK).
- Materials in Medicine International Conference 2013. 2013 Faenza (RA), Italy. *Invited Keynote Lecture*
- Mesenchymal stromal cells advances. 4th International Satellite Symposium - 2013 Brescia (Italy).
- World Biotechnology Congress - 2013 Boston, (USA).
- 2nd Global Congress NanoEngineering for Medicine and Biology – 2013 Boston, (USA).
- 9th World Biomaterials Congress - 2012 Chengdu (China).

ARTICLES OF SCIENCE COMMUNICATION

1. **Panseri S**. Seno, un modello 3D per studiare la diffusione del tumore. La.Repubblica.it – Salute Seno. 10 July 2018
2. **Panseri S**. Un database per fermare gli atleti "geneticamente modificati" Galileonet.it 23 May 2018.
3. **Panseri S**, Sprio S, Tampieri A. Nanotecnologie: una rivoluzione nella cura delle malattie degenerative. DA40. Anno XV, N. 2 – Luglio 2014. pp 28-30.
4. Tampieri A, Minardi S, Ruffini A, **Panseri S**, Sprio S. Biomateriali per la rigenerazione e la funzione endocrina dell'osso. Endocrinologo August 2013. Vol 14, Issue 4, pp 163-168 10.1007/BF03346081 (ISSN 1720-8351).
5. Cunha C, **Panseri S**, Villa O, Silva D, Gelain F. Coltura tridimensionale di cellule staminali neurali su scaffold costituiti da peptidi autoassemblanti. Laboratorio 2000, Aprile 2012. (ISSN 1120-8376).

TECHNICAL SKILLS

Cell and Biology techniques. Histological techniques. Perfusion bioreactor for 3D long term cell culture. Using of fluorescence and confocal microscope, TimeLapse system, Scanning Electron Microscope, image processing with ImageJ software.

Using of biomaterials *in vitro* (cell culture with ceramic porous scaffolds, bio-hybrid materials, magnetic scaffolds, self-assembling peptide, electrospun materials, carbon nanotubes) and *in vivo* (magnetic

scaffolds in rabbit model osteochondral and long bone defects; self-assembling peptides and electrospinning channels transplantation in central and peripheral rat nervous system).

Animal experimentation skills: animal surgery (scaffold implantation in osteochondral and long bone defects in rabbit, spinal cord lesion using MASCIS Impactor Device, sciatic nerve transection, prosthesis implantation in central and peripheral nervous system, animal handling, animal care and behavioural tests).

TRANSVERSAL-SOFT SKILLS

Team working, interdisciplinarity, problem solving, scientific communication and networking, critical thinking, creativity, project management and intellectual property rights, data management process and analysis, coordinating with others and people management.

MEMBERSHIPS OF SCIENTIFIC SOCIETIES

2018 – present	Euroscience
2013 – present	Cell Culture Italian Society
2013 - 2018	Italian Ceramic Society

OTHER

2019	**Chairman** at the Session of "Bioinspired Materials/Nanotechnology in therapy/Pharmaceutical Nanotechnology", NanoMed2019 23-25 October, 2019. Lisbon (Portugal)
2019	**Member of the Commission for the final exam and PhD thesis evaluation** – PhD program in Medical Biotechnology (XXXI cycle) at the University of Chieti-Pescara
2019	**Member** of the External Jury of the **National Contest "Torricelli Web 2019"** for Science communication dedicated to high school. Faenza (Italia)
2018	**Member** of the External Jury of the **Galileo Literary Prize for Science Communication** - XII edition. Padova (Italia), 17-18 May 2018
2018	**Founder** of the non-profit organization with the vision to see more scientists engage effectively in the public discussions and communication of science**: "Ruote Quadrate –** La Scienza Inaspettata" www.ruotequadrate.it
2016	**Chairman** at the Session of "Biomaterials as stem cell microenvironments", 10th World Biomaterials Congress 2016, 17-22 May, 2016. Montreal (Canada)

CAREER BREAKS

2014	Maternity leave (6 months)
2017	Maternity leave (6 months)