

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

CURRENT POSITION

2013 - **Group leader** (Primo Ricercatore). National Research Council of Italy, Institute of Science, present Technology and Sustainability for Ceramics, ISSMC-CNR (former ISTECC-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 - **Postdoctoral fellow.** Bologna University in collaboration with Rizzoli Orthopaedic Institute
2012 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

2022 **Short Term Mobility.** i3S Institute for Research and Innovation in Health. Microenvironments for new therapies group. Porto, Portugal. [Injectable materials in regenerative medicine](#)

2018 **Young Investigator Award - Honorable Mention.**
Dept. 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 Experimental 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 CONFERENCES and SCIENTIFIC ADVISORY BOARD

2023 International Scientific Advisory Board – International Conference and Startup Summit on Functional Biomaterials and Synthetic Biology (FBSB-2023). 31 August-1 September 2023. Coimbatore, India.

2022 Member of Organizing Committee of “BioCeramics 32 – Annual Meeting of the International Society for Ceramics in Medicine”, 20-23 September 2022, Venice Mestre, Italy.

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

INSTITUTIONAL RESPONSIBILITIES

2023- present Communication and Press contact person for CNR-ISSMC

2013 – 2020 In charge of technical relationship with private companies in the biomedical field (FinCeramica spa and GreenBone Ortho srl) for biological evaluations.

2015 – 2016 - 2021 Head (*pro-tempore*) of Cell/material interaction Laboratory at ISTE-CNR

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

TEACHING ACTIVITIES

- 2023 Lesson on Cell/Biomaterial interactions (2h/y), Biomaterials for biomedical industry course, Industrial Biotechnology. Università degli Studi di Modena e Reggio Emilia.
- 2019 – present Lessons on Nanotechnology + Practical course (40 hours/y), high school students. (STEAM Outreach program).
- 2019 Lesson on Cell/Biomaterial interactions (2 hours/year). Master post lauream II level “Blood plasma derivatives and cells for regenerative medicine”. Medical School. University of Piemonte Orientale.
- 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.

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	7			0	1
Ferrara University (Italy)			0	2				
Chieti-Pescara University (Italy)					1	1		
University of Messina (Italy)					1			

EDITORIAL ACTIVITIES

- 2021 Topic Editor of the Research Topic “Biomaterials for Microenvironment Immunomodulation”. Front. Bioeng. Biotechnol, section Tissue Engineering and Regenerative Medicine (IF 5.890; eISSN: 2296-4185).
- 2021 Section Board Member of International Journal of Molecular Sciences – Open Access Journal by MDPI (IF 5.923; ISSN 1422-0067; IF 4.556).
- 2020 Guest Editor. Special issue “Cell – Biomaterial Interaction”, International Journal of Molecular Sciences; section “Biomaterial Sciences”. IF 5.923 (ISSN 1422-0067). IV edition.
- 2020 Guest Editor. Special issue “Cell – Biomaterial Interaction”, International Journal of Molecular Sciences; section “Biomaterial Sciences”. IF 5.923 (ISSN 1422-0067). III edition.
- 2019 Guest Editor. Special issue “Cell-Instructive Microenvironment to Direct Stem Cell Fate”, Stem Cell International. (ISSN 1687-9678).
- 2018 Guest Editor. Special issue “Cell – Biomaterial Interaction”, International Journal of Molecular Sciences; section “Biomaterial Sciences”. IF 5.923 (ISSN 1422-0067). II edition.
- 2014 Guest Editor. Special issue “Cell – Biomaterial Interaction”, International Journal of Molecular Sciences; section “Biomaterial Sciences”. IF 5.923 (ISSN 1422-0067). I edition.
- 2011 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).
- Guest Editor of the Research Topic “Microenvironment modulation of multipotent stem cells”, Front. Bioeng. Biotechnol, section Stem Cell Research. (ISSN: 2296-4185).

2009 – present Editorial board member of Am. Journal of Biomedical Engineering (ISSN: 2163-1077).
 Review Editor of Front. Bioeng. Biotechnol (Tiss Eng and Regen Med section) (ISSN: 2296-4185).
 Peer-reviewer for several journals (e.g. Nature Comm, Biomaterials, Nanomedicine, Advanced Materials, ACS nano).

PHD THESIS EXAMINER

2022 External examiner – PhD thesis in Bioengineering (XXXIV cycle), Politecnico Milano (Italy).
 2022 Member of the Board of Examiners – PhD program in Bioengineering (XXXIV cycle), Politecnico Milano (Italy)
 2022 External examiner – PhD thesis, Faculty of technology Anna University, Chennai (India).
 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

GRANT EVALUATOR

2023 Remote Referee, Science Fund of the Republic of Serbia.
 2023 Remote Expert, National Research, Development and Innovation Office, Hungary
 2022 Remote Referee - European Research Council (ERC), panel LS9. ERC-2023-STG
 2021 Grant Evaluator, “FAR 2022 call” - Univ. of Modena and Reggio Emilia (Italy).
 2021 Member of ESF (European Science Foundation) College of Expert Reviewers - <https://www.esf.org>
 2021 Grant Evaluator, “Competitive-projects” call for young researchers 2022-23 – Univ. of Firenze (Italy).
 2021 External reviewer VQR 2015-19. National Agency for the Evaluation of Universities and Research Institutes (ANVUR).

ONGOING GRANTS

<i>Project Title</i>	<i>Funding source</i>	<i>Amount (Euros)</i>	<i>Period</i>	<i>Role</i>
Harnessing the potential of the THP: moving toward the development of a clinical-grade kit for a peptide-based PET imaging agent for real-time imaging and treatment of aberrant c-Met cancers for another giant step in cancer treatment - DREAMi	Italian Ministry of University and Research	261,437 (49,972 for ISSMC-CNR)	2023-2025	Co-PI
Strengthening excellence for advanced osteosarcoma’s predictive models PREDICTOS - HORIZON-WIDERA-2021-ACCESS-03-01-Twinning-101079372	European Commission	1,375,188 (252,813 for ISTECCNR)	2023-2025	Key staff member
Comprehensive STRategies to tackIE malignant tumors: from nanomedicine and theranostic to precision medicine. STRIKE HORIZON-MSCA–2021–DN- 101072462	European Commission	2,106,835 (259,437 for ISTECCNR)	2023-2026	Key staff member
Advanced hybrid theranostic	European	744,898	2021-2023	Unit

nanoplatfroms for an active drug delivery in the cancer treatment NANO4TARMED H2020-WIDESPREAD-2020-5-952063	Commission	(159,195 for ISTECCNR)		Coordinator
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 ISTECCNR)	2019-2023	Key staff member
Innovative technology to regenerate spinal cord lesions MIS RIGENERA	Italian Ministry of Defence	190,000	2020-2023	Principal Investigator
Enlarging cancer research knowledge and medication discovery of novel drugs and novel targets for cancer therapy DRUG MOLECULE	National Program "European Scientific Networks" – Bulgarian Ministry of Education and Science	200,000 (16,500 for ISTECCNR)	2020-2023	Unit Coordinator
Ricerca e Sviluppo di tecnologie per la filiera dell'idrogeno Piano Nazionale di Ripresa e Resilienza (PNRR)	Italian Ministry of Environment and Energy Security (MASE) and Italian National Agency for New Technologies, Energy and Sustainable Economic Development (ENEA)	340,000 ISSMC-CNR (LA 1.1.1; LA 2.3.4.)	2021-2025	Key staff member

PREVIOUS GRANTS

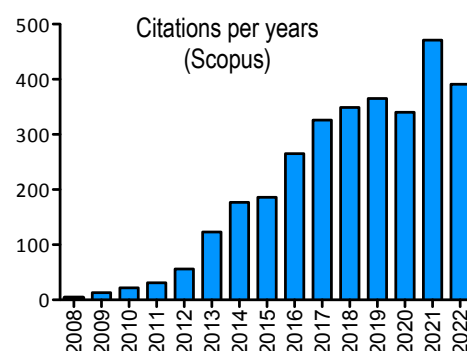
<i>Project Title</i>	<i>Funding source</i>	<i>Amount (Euros)</i>	<i>Period</i>	<i>Role</i>
Multifunctional biomaterials for tissues and organs self-repair Mat2Rep	Regional Funding – POR FESR Emilia-Romagna	1,117,015 (84,000 for ISTECCNR)	2019-2022	Unit Coordinator
Development and validation of nanostructured biomedical device to treat and regenerate metastatic bone tissue DINAMICA	Regional Funding – POR FESR Emilia-Romagna	1,117,084 (189,875 for ISTECCNR)	2019-2022	Key staff member
Design of multifunctional heat and moisture exchanger filters MedFIL	Regional Funding – POR FESR ER	1,115,000 (250,000 for ISTECCNR)	2019-2022	Key staff member
La natura ispira processi innovativi per lo sviluppo di impianti per la medicina rigenerativa a elevato grado di vascolarizzazione e performance meccaniche	Regional Funding – POR FESR Emilia-Romagna	999,767 (455,250 for my unit)	2016-2018	Key staff member

New Generation Biomimetic and Customized Implants for Bone Engineering – MP1301 NEWGEN	European Commission COST Action	Meetings	2013-2017	Cost action Member
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
NANOMAX – Sottoprogetto miRnano “Face up Cardiac Hypertrophy via microRNA Carried by Electrically Charged Nanoparticles”	Progetti Bandiera – Piano Nazionale della Ricerca	827,000 (370,000 for my unit)	2013-2016	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 EngineerRing - 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

Publications in peer-reviewed journals	92
H-index	31 (Scopus); 34 (Google scholar)
First Author Papers	12
Papers as corresponding author	16
Numbers of Citations	>3500
Book chapters	14
Patents	2
Invited talks	11
Articles of Science Communication	5 (including La.Repubblica.it)



* = Corresponding author, # = shared first authorship

1. Furlani F, Campodoni E, Sangiorgi N, Montesi M, Sanson A, Sandri M, **Panseri S***. Electroconductive scaffolds based on gelatin and PEDOT:PSS for cardiac regeneration. *Int. J. Biol. Macromol.* **2023**, **224**, **266** doi.org/10.1016/j.ijbiomac.2022.10.122
2. Zoli L, Servadei F, Bassi G, Rossi A, Montesi M, Vinci A, Sciti D, **Panseri S**. From Outer Space to Inside the Body: Ultra-high temperature ceramic matrix composites for biomedical applications. *J Eur Ceram.* **2023** doi.org/10.1016/j.jeurceramsoc.2023.10.007. *In press.*
3. Anichina K, Mavrova A, Vuchev D, Popova-Daskalova G, Bassi G, Rossi A, Montesi M, **Panseri S**, Fratev F, Naydenova E. Benzimidazoles containing piperazine skeleton at C-2 position as promising tubulin

- modulators with anthelmintic and antineoplastic activity. **Pharmaceuticals**. 2023. 16, 1518. <https://doi.org/10.3390/ph16111518>
4. Takhsha M, Furlani F, **Panseri S**, Casoli F, Uhler V, Albertini F. Magnetic shape-memory Heuslers turn to bio: cytocompatibility of Ni-Mn-Ga films and biomedical perspective. **ACS Applied Bio Materials**. 2023 **In press**.
 5. Campodoni E, Montanari M, Artusi C, Bergamini L, Bassi G, Destro E, Fenoglio I, **Panseri S**, Tampieri A, Sanson A, Sandri M. Biomineralization: a new tool for developing eco-sustainable Ti-doped hydroxyapatite-based hybrid UV filters. **Biomater Adv**. 2023. 151, 213474. <https://doi.org/10.1016/j.bioadv.2023.213474>
 6. Marin E, Bassi G, Yoshikawa O, Zhu W, Rossi A, Lanzutti A, Xu H, Montesi M, **Panseri S**, Pezzotti G. On the role of Y₂O₃ in the bioactivity of ceramics and composites. **J Mater Sci**. 2023. 58:11218-11234 doi.org/10.1007/s10853-023-08608-y
 7. Mancini F, Menichetti A, Degli Esposti L, Montesi M, **Panseri S**, Bassi G, Montalti M, Lazzarini L, Adamiano A, Iafisco M. Fluorescent carbon dots from food-industry by-products for cell imaging. **J Funct. Biomater**. 2023, 14(2), 90; <https://doi.org/10.3390/jfb14020090>
 8. Haladjova E, **Panseri S**, Montesi M, Rossi A, Skandalis A, Pispas S, Rangelov S. Influence of DNA type on the physicochemical and biological properties of polyplexes based on star polymers bearing different amino functionalities. **Polymers**. 2023, 15, 894. <https://doi.org/10.3390/polym15040894>.
 9. Moynihan E, **Panseri S**, Bassi G, Rossi A, Campodoni E, Dempsey E, Montesi M, Velasco Torrijos T, Montagner D. Development of novel Pt(IV)-Carbohydrate derivatives as targeted anticancer agents against Osteosarcoma. **Int. J. Mol. Sci**. 2023, 24, 6028. <https://doi.org/10.3390/ijms24076028>
 10. Grimaudo MA, Krishnakumar GS, Giusto E, Furlani F, Bassi G, Rossi A, Molinari F, Lista F, Montesi M, **Panseri S***. Bioactive injectable hydrogels for on demand molecule/cell delivery and for tissue regeneration in the central nervous system. **Acta Biomaterialia**. 2022. 140: 88-101. [Doi.org/10.1016/j.actbio.2021.11.038](https://doi.org/10.1016/j.actbio.2021.11.038)
 11. Furlani F, Rossi A, Grimaudo MA, Bassi G, Giusto E, Molinari F, Lista F, Montesi M, **Panseri S***. Controlled liposomes delivery from chitosan-based thermosensitive hydrogel for regenerative medicine. **Int J Mol Sci**. 2022, 23, 894. <https://doi.org/10.3390/ijms23020894>
 12. Giusto E, Zarska L, Beirne DF, Rossi A, Bassi G, Ruffini A, Montesi M, Montagner D, Ranc V, **Panseri S***. Graphene oxide nanoplatfoms to enhance cisplatin-based drug delivery in anticancer therapy. **Nanomaterials** 2022. 12, 2372. <https://doi.org/10.3390/nano12142372>
 13. Iwanov I, Rossi A, Montesi M, Doytchinova I, Sargsyan A, Momekov G, **Panseri S***, Naydenova E. Peptide-based targeted cancer therapeutics: design, synthesis and biological evaluation. **Eur J Pharm Sci**. 2022. 176: 106249. doi.org/10.1016/j.ejps.2022.106249
 14. Montanari M, Sangiorgi A, Campodoni E, Bassi G, Gardini D, Montesi M, **Panseri S**, Sanson A, Tampieri A, Sandri M. Additive-Free Gelatine-Based Devices for Chondral Tissue Regeneration: Technological Process Comparison Among Mould Casting and Three-Dimensional Extrusion-Based Printing. **Polymers** 2022. 14(5), 1036; <https://doi.org/10.3390/polym14051036>
 15. Furlani F, Montanari M, Sangiorgi N, Saracino E, Campodoni E, Sanson A, Benfenati V, Tampieri A, **Panseri S**, Sandri M. Electroconductive and injectable hydrogels based on gelatin and PEDOT:PSS for minimally-invasive approaches in nervous tissue regeneration. **Biomaterials Science** 2022, 10, 2040-2053. DOI: [10.1039/d2bm00116k](https://doi.org/10.1039/d2bm00116k).
 16. Torcasio SE, Oliva R, Montesi M, **Panseri S**, Bassi G, Mazzaglia A, Piperno A, Coulembier O, Scala A. Three-armed RGD-decorated starPLA-PEG nanoshuttle for docetaxel delivery. **Biomater Adv**. 2022 Sep;140:213043. doi: [10.1016/j.bioadv.2022.213043](https://doi.org/10.1016/j.bioadv.2022.213043).
 17. **Panseri S***, Montesi M, Hautcoeur D, Dozio SM, Chamary S, De Barra E, Tampieri A, Leriche A. Bone-like ceramic scaffolds designed with bioinspired porosity induce a different stem cell response. **J Mater Sci Mater Med**. 2021 Jan 20;32(1):3. doi: [10.1007/s10856-020-06486-3](https://doi.org/10.1007/s10856-020-06486-3).

18. Bassi G, Grimaudo MA, **Panseri S***, Montesi M. Advanced multi-dimensional cellular models as emerging reality to reproduce *in vitro* the human body complexity. **Int J Mol Sci.** **2021**, **22**, **1195**. [Doi.org/10.3390/ijms22031195](https://doi.org/10.3390/ijms22031195). **Highly Cited Paper of Int J Mol Sci 2021**.
19. Moynihan E, Bassi G, Ruffini A, **Panseri S**, Montesi M, Velasco Torrijos T, Montagner D. Click Pt(IV)-carbohydrates pro-drugs for treatment of osteosarcoma. **Front. Chem.** **2021**. **9:795997**. doi: **10.3389/fchem.2021.795997**
20. Campodoni E, Montanari M, Artusi C, Bassi G, Furlani F, Montesi M, **Panseri S**, Sandri M, Tampieri A. Calcium-based biomineralization: a smart approach for the design of novel multifunctional hybrid materials. **J Compos Sci.** **2021**, **5(10)**, **278**; <https://doi.org/10.3390/jcs5100278>.
21. Campodoni E, Velez M, Fragogeorgi E, Morales I, de la Presa P, Stanicki D, Dozio SM, Xanthopoulos S, Bouziotis P, Dermisiadou E, Rouchota M, Loudos G, Marín P, Laurent S, Boutry S, **Panseri S**, Montesi M, Tampieri A, Sandri M. Magnetic and radio-labeled bio-hybrid scaffolds to promote and track in vivo the progress of bone regeneration. **Biomater Sci.** **2021**. **2021 Oct 19**. doi: **10.1039/d1bm00858g**
22. Fernandes Patrício TM, Mumcuoglu D, Montesi M, **Panseri S**, Witte-Bouma J, Fahmy Garcia S, Sandri M, Tampieri A, Farrell E, Sprio S. Bio-inspired polymeric iron-doped hydroxyapatite microspheres as a tunable carrier of rhBMP-2. **Mater Sci Eng C.** **2021**, **119**, **111410**. doi.org/10.1016/j.msec.2020.111410
23. Degli Esposti L, Markovic S, Ignjatovic N, **Panseri S**, Montesi M, Adamiano A, Fosca M, Rau JV, Uskoković V, Iafisco M. Thermal crystallization of amorphous calcium phosphate combined with citrate and fluoride doping: a novel route to produce hydroxyapatite bioceramics. **J Mater Chem B.** **2021 Jun 23**;9(24):4832-4845. doi: **10.1039/d1tb00601k**.
24. Piperno A, Sciortino MT, Giusto E, Montesi M, **Panseri S**, Scala A. Recent Advances and Challenges in Gene Delivery mediated by Polyester-based Nanoparticles. **Int J Nanomedicine.** **2021**:16, **5981-6002** <https://doi.org/10.2147/IJN.S321329>.
25. Mulazzi M, Campodoni E, Bassi G, Montesi M, **Panseri S**, Bonvicini F, Gentilomi GA, Tampieri A, Sandri M. Medicated hydroxyapatite/collagen hybrid scaffolds for bone regeneration and local antimicrobial therapy to prevent bone infections. **Pharmaceutics.** **2021**, **13(7)**, **1090**; <https://doi.org/10.3390/pharmaceutics13071090>. **Editor's Choice Article**.
26. Tampieri A, Sandri M, Iafisco M, **Panseri S**, Montesi 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** **33**, pages **805–821 (2021)** <https://doi.org/10.1007/s40520-019-01365-6>
27. Bassi G, **Panseri S**, Dozio SM, Sandri M, Campodoni E, Dapporto M, Sprio S, Tampieri A, Montesi M. Scaffold-based 3D cellular models mimicking the heterogeneity of osteosarcoma stem cell niche. **Sci Rep.** **2020**, **10:22294**. <https://doi.org/10.1038/s41598-020-79448-y>
28. 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** **2020**, **40(4)**: **1717-1727**. <https://doi.org/10.1016/j.jeurceramsoc.2019.11.015>
29. Lienard R, Montesi M, **Panseri S**, Dozio SM, Vento F, Mineo PG, Piperno A, De Winter J, Coulembier O, Scala A. Design of naturally inspired jellyfish-shaped cyclo-poly lactides to manage osteosarcoma cancer stem cells fate. **Mater Sci Eng C.** **2020**. **117**, **111291**. <https://doi.org/10.1016/j.msec.2020.111291>
30. Campodoni E, Dozio SM, **Panseri S**, Montesi M, Tampieri A, Sandri M. Mimicking Natural Microenvironments: Design of 3D-Aligned Hybrid Scaffold for Dentin Regeneration. **Front. Bioeng. Biotechnol. - section Biomaterials.** **2020**. **Vol 8**, **836**. doi: **10.3389/fbioe.2020.00836**
31. Toni R, Di Conza G, Barbaro F, Zini N, Consolini E, Dallatana D, Antoniel M, Quarantini E, Quarantini M, Maioli S, Bruni CA, Elviri L, **Panseri S**, Sprio S, Sandri M, Tampieri A. Microtopography of Immune Cells in osteoporosis and bone lesions by endocrine disruptors. **Front Immunol. - section Autoimmune and Autoinflammatory Disorders.** **2020 Vol11**, **1737**. doi: **10.3389/fimmu.2020.01737**

32. Campodoni E, Montanari M, Dozio SM, Heggset E, **Panseri S**, Montesi M, Tampieri A, Syverud K, Sandri M. Blending gelatin and cellulose nanofibrils: biocomposites with tunable degradability and mechanical behavior. **Nanomaterials** 2020. Jun 22;10(6):E1219. doi: 10.3390/nano10061219.
33. Mineo PG, Foti C, Vento F, Montesi M, **Panseri S**, Piperno A, Scala A. Salinomycin-loaded PLA nanoparticles: drug quantification by GPC and wave voltammetry and biological studies on osteosarcoma cancer stem cells. **Anal Bioanal Chem** 2020. 412(19), 4681-90. doi.org/10.1007/s00216-020-02721-6
34. 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>
35. 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
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BOOK CHAPTERS

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GRANTED PATENTS

1. 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.
2. 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 for 6 months.

SPEAKER AT INTERNATIONAL CONFERENCES

- *International conference and startup summit on Functional Biomaterials and Synthetic Biology. 31 Aug-1 Sept 2023. Coimbatore (India). [Invited Plenary Speaker](#)*
- Workshop with International Participation "*Drug-Molecules: stages in the discovery and development. 17-21 July 2022 Hisarya (Bulgaria) [Invited Plenary Lecture](#)*
- 2023 MRS Spring Meeting & Exhibit – Materials Research Society. 10-14 April 2023 San Francisco (USA).
- Bioceramics32 – Symposium and Annual Meeting of the International Society for Ceramics in Medicine. 20-23 September 2022 Venice Mestre (Italy). *[Invited Keynote Speaker](#)*
- National Conference with International Participation "*Innovations In Drug Molecules*". 19-22 July 2022 Hisarya (Bulgaria) *[Invited Plenary Lecture](#)*
- TERMIS 2021, 6th World Congress - Tissue Engineering and Regenerative Medicine International Society. 15-19 November 2021. Maastricht (NL).
- 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 speaker](#)*
- 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 Biennial 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).
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ARTICLES OF SCIENCE COMMUNICATION

1. **Panseri S.** Seno, un modello 3D per studiare la diffusione del tumore. [La.Repubblica.it – Salute Seno](http://La.Repubblica.it). 10 July 2018
2. **Panseri S.** Un database per fermare gli atleti “geneticamente modificati” Galileonet.it 23 May 2018.
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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 (European association for the advancement of science and technology)
2013 – present	Cell Culture Italian Society
2013 - 2018	Italian Ceramic Society

OTHER

- 2022 **Member of the round table on Antimicrobial Materials** - Bioceramics32, 20-23 September 2022, Venice Mestre (Italy).
- 2022 **Chairman** at the Session “Cell-Material Interactions and co-cultures”, Bioceramics32, 20-23 September 2022, Venice Mestre (Italy).
- 2019 **Chairman** at the Session of “Bioinspired Materials/Nanotechnology in therapy/Pharmaceutical Nanotechnology”, NanoMed2019 23-25 October, 2019. Lisbon (Portugal)
- 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
- 2017-2013 **Member of COST Action MP1301 NEWGEN** – New Generation Biomimetic and Customized Implants for Bone Engineering (2013-2017).
- 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)

Silvia Panseri