Tullio Genova

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Education

2010 - 2014 **PhD in Complex Systems for the Life Sciences** Dept. of Life Sciences and Systems Biology, University of Torino

2008 - 2010 **Master Degree in Biomolecular Sciences 110/110 Lode and Press Dignity** Dept. of Life Sciences and Systems Biology, Unito

2005 - 2008 **Bachelor Degree in Biological Sciences 110/110** Dept. of Life Sciences and Systems Biology, Unito

Research Experience

2022 - Present **Associate Professor of Physiology** Cellular and Molecular Angiogenesis Lab, DBIOS, Unito

Role of calcium channels in Tumor Angiogenesis; Bone vascularization and regeneration; 3D Bioprinting and advanced *in-vitro* models; Role of natural compounds in metabolic syndrome and cardiovascular disease.

2019 - 2022 **Assistant Professor of Physiology (RTDB)** Cellular and Molecular Angiogenesis Lab, DBIOS, Unito

2014 - 2019 **Post-doctoral Research Assistant** Dept. of Surgical Sciences, University of Torino

Technology transfer and other positions

2022 - Present **CEO of BridgeToLab s.r.l.** - https://www.bridgetolab.com/

2022 - Present **Board of Directors of "Ordine dei Biologi PLV"** - https://ordinebiologiplv.it/

2015 - 2018 Head of research and development of TwoCare s.r.l. In particular, the activity focused on the study of the biocompatibility of innovative bone interface biomaterials.

Teaching experience

2019 - Present Professor of "General Physiology" - Biological Sciences; "Physiology" - Suism; "Public Speaking"; "Molecular and Cellular Biophysics" – Industrial Biotechnology at University of Torino

2019 - Present Head of Biotechnology and Medicine for "Scuola di Formazione Scientifica Luigi Lagrange" - https://associazionelagrange.it/

Academic Activity

2017 Reviewer appointed by European Commission for "ERC Grants" (European Research Council)

2019 - Present **Editor**: Frontiers in Physiology; Frontiers in Cardiovascular Medicine; Processes

2014 - Present **Reviewer for:** *Journal of Cellular Physiology; Cellular Physiology and Biochemistry; Frontiers in Physiology; Journal of Cellular Biochemistry; Frontiers in Cellular Neuroscience; Acta Biomaterialia; Stem Cells International; International Journal of Cancer International Journal of Molecular Sciences;*

Molecules; Symmetry; Journal of Tissue Engineering and Regenerative Medicine; Applied Sciences; International Journal of Applied Ceramic Technology; Materials; Materials Research Express

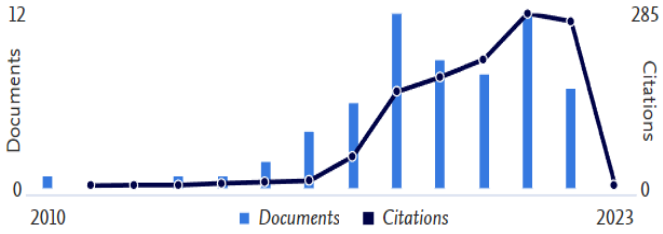
2017 - Present Member of: *Italian Society of Cardiovascular Research; Italian Society of Physiology; International Society for Heart Research*

Awards

- First place in the contest of 40 innovative business ideas of the " Talents for entrepreneurship " CRT Foundation, with a project aimed at financing university laboratories through collaborations with industry (participants in project 120)
- Publons Peer Review Awards 2018 – Top 1% of world reviewers 2017-2018
- Best Oral Presentation VI workshop on 3D advanced *in-vitro* models – 16.05.18 Pisa

Publications

Published papers: 67
H-index: 25
Total citations: ~ 1400
First/Last author: 28
Contributions in conference proceedings: 30
Book chapters: 2



04/2022 Scopus, WebOfScience

1. Petrillo, S., Genova, T., Chinigò, G., Roato, I., Scarpellino, G., Kopecka, J., Altruda, F., Tolosano, E., Riganti, C., Mussano, F., & Munaron, L. Endothelial cells promote osteogenesis by establishing a functional and metabolic coupling with human mesenchymal stem cells. *Frontiers in Physiology*, **2022** 0, 2460. https://doi.org/10.3389/FPHYS.2021.813547 **IF 4.134**

2. Mannino, G., Chinigò, G., Serio, G., Genova, T., Gentile, C., Munaron, L., & Bertea, C. M. Proanthocyanidins and Where to Find Them: A Meta-Analytic Approach to Investigate Their Chemistry, Biosynthesis, Distribution, and Effect on Human Health. *Antioxidants* **2021**, Vol. 10, Page 1229, 10(8), 1229. https://doi.org/10.3390/ANTIOX10081229 **IF 6.313;**

3. Petrillo, S., De Giorgio, F., Kopecka, J., Genova, T., Fiorito, V., Allocco, A. L., Bertino, F., Chiabrando, D., Mussano, F., Altruda, F., Munaron, L., Riganti, C., & Tolosano, E. Endothelial Heme Dynamics Drive Cancer Cell Metabolism by Shaping the Tumor Microenvironment. *Biomedicines* **2021**, Vol. 9, Page 1557, 9(11), 1557. https://doi.org/10.3390/BIOMEDICINES9111557 **IF 6.081;**

4. Roato, I., Chinigò, G., Genova, T., Munaron, L., & Mussano, F. Oral Cavity as a Source of Mesenchymal Stem Cells Useful for Regenerative Medicine in Dentistry. *Biomedicines* **2021**, Vol. 9, Page 1085, 9(9), 1085. **IF 6.081;**

5. Genova, T., Cavagnetto, D., Tasinato, F., Petrillo, S., Ruffinatti, F. A., Mela, L., Carossa, M., Munaron, L., Roato, I., & Mussano, F. Isolation and Characterization of Buccal Fat Pad and Dental Pulp MSCs from the Same Donor. *Biomedicines* **2021***, Vol. 9, Page 265*, *9*(3), 265. https://doi.org/10.3390/biomedicines9030265 **IF 6.081;**

6. Mannino, G., Iovino, P., Lauria, A., Genova, T., et al. Bioactive Triterpenes of Protium heptaphyllum Gum Resin Extract Display Cholesterol-Lowering Potential. *International Journal of Molecular Sciences,* **2021**, Vol. 22, Page 2664, 22(5), 2664. **IF 5.924;**

7. Argenziano, M., Bressan, B., Luganini, A., Finesso, N., Genova, T.,et al. Comparative Evaluation of Different Chitosan Species and Derivatives as Candidate Biomaterials for Oxygen-Loaded Nanodroplet Formulations to Treat Chronic Wounds. *Marine Drugs*, **2021** *19*(2), 112. https://doi.org/10.3390/md19020112 **IF 5.118;**

8. Bari, E., Roato, I., Perale, G., Rossi, F., Genova, T., Mussano, F., Ferracini, R., Sorlini, M., Torre, M. L., & Perteghella, S. Biohybrid Bovine Bone Matrix for Controlled Release of Mesenchymal Stem/Stromal Cell Lyosecretome: A Device for Bone Regeneration. *International Journal of Molecular Sciences* **2021**, Vol. 22, Page 4064, 22(8), 4064 **IF 5.924;**

9. Petrillo, S., Cantelmo, A. R., Genova, T., & Munaron, L. Editorial: Mechanisms of Vessel Development: From a Primitive Draft to a Mature Vasculature. *Frontiers in Physiology*, **2021** 12, 1085. https://doi.org/10.3389/FPHYS.2021.725531/BIBTEX **IF 4.134;**

10. Canullo, L*., Genova, T.*, Petrillo, S., Masuda, K., Tanaka, K., & Mussano, F. Bioactivation of Bovine Bone Matrix and Collagen Scaffold Using Argon Plasma: In Vitro Study. *The International Journal of Oral & Maxillofacial Implants*, **2021** 36(2), 242–247. **IF 2.804;**

11. Faga, M. G., Duraccio, D., Di Maro, M., Kowandy, C., Malucelli, G., Mussano, F. D., Genova, T., & Coqueret, X. (2021). Electron-Beam-Induced Grafting of Chitosan onto HDPE/ATZ Composites for Biomedical Applications. *Polymers* **2021**, Vol. 13, Page 4016, 13(22), 4016. **IF 4.329;**

12. Gianfreda, F., Raffone, C., Antonacci, D., Mussano, F., Genova, T., Chinigò, G., Canullo, L., & Bollero, P. (2021). Early Biological Response of an Ultra-Hydrophilic Implant Surface Activated by Salts and Dry Technology: An In-Vitro Study. *Applied Sciences* **2021**, Vol. 11, Page 6120, 11(13), 6120. **IF 2.679;**

13. Lupariello, F., Genova, T., Mussano, F., Di Vella, G., & Botta, G.. Micro-CT processing's effects on microscopic appearance of human fetal cardiac samples. Legal Medicine, **2021** 53, 101934. **IF 1.376;**

14. Mussano, F., Genova, T.*,* Laurenti, M. et al. Beta1-integrin and TRPV4 are involved in osteoblast adhesion to different titanium surface topographies. *Applied Surface Science*, **2020** 507, 145112. https://doi.org/10.1016/j.apsusc.2019.145112 **IF 6.707;**

15. Genova, T., Roato, I., Carossa, M., Motta, C., Cavagnetto, D., & Mussano, F. Advances on bone substitutes through 3d bioprinting. In *International Journal of Molecular Sciences* **2020** (Vol. 21, Issue 19, pp. 1–28). MDPI AG. https://doi.org/10.3390/ijms21197012 **IF 5.924;**

16. Genova, T., Gaglioti, D., & Munaron, L. Regulation of Vessel Permeability by TRP Channels. In *Frontiers in Physiology **2020*** (Vol. 11). https://doi.org/10.3389/fphys.2020.00421 **IF 4.134;**

17. Ruffinatti, F. A.*, Genova, T.*, Mussano, F., & Munaron, L. MORPHEUS: An automated tool for unbiased and reproducible cell morphometry. *Journal of Cellular Physiology*, **2020** *235*(12), 10110–10115. https://doi.org/10.1002/jcp.29768 **IF 6.384;**

18. Canullo, L.*, Genova, T.*, Trujillo, E. G., Pradies, G., Petrillo, S., Muzzi, M., Carossa, S., & Mussano, F. Fibroblast interaction with different abutment surfaces: In vitro study. *International Journal of Molecular Sciences*, **2020** *21*(6). https://doi.org/10.3390/ijms21061919 **IF 5.924;**

19. Canullo, L.*, Genova, T.*, Pesce, P., Nakajima, Y., Yonezawa, D., & Mussano, F. Surface bio-functionalization using plasma of argon could alter microbiological and topographic surface analysis of dental implants *Annals of Anatomy*, **2020** *230*. **IF 2.698;**

20. Canullo, L.*, Genova, T.*,* Rakic, M., Sculean, A., Miron, R., Muzzi, M., Carossa, S., & Mussano, F. Effects of argon plasma treatment on the osteoconductivity of bone grafting materials. *Clinical Oral Investigations*, **2020**, *24*(8), 2611–2623. https://doi.org/10.1007/s00784-019-03119-0 **IF 3.573;**

21. Di Maro, M., Faga, M. G. G., Malucelli, G., Mussano, F. D. D., Genova, T., et al. Influence of chitosan on the mechanical and biological properties of HDPE for biomedical applications. *Polymer Testing*, **2020**, *91*, 106610. https://doi.org/10.1016/j.polymertesting.2020.106610 **IF 4.282;**

22. Genova T., Petrillo S. Zicola E. et al. The crosstalk between osteodifferentiating stem cells and endothelial cells promotes angiogenesis and bone formation. *Frontiers in Physiology,* **2019***,(10), 1291* **IF 4.134;**

23. Patelli, A., Mussano, F., Brun, P., Genova, T., Ambrosi, E., Michieli, N. Moroni, L. Nanoroughness, Surface Chemistry, and Drug Delivery Control by Atmospheric Plasma Jet on Implantable Devices. *ACS Applied Materials & Interfaces*, *10*(46), **2019** 39512–39523. **IF 9.229;**

24. Duraccio D., Strongone V., Malucelli G., Auriemma F., De Rosac C., Mussano F., Genova T., Faga M.G. The role of alumina-zirconia loading on the mechanical and biological properties of UHMWPE for biomedical applications. *Composites Part B,* 164, **2019** 800-808 **IF 9.078;**

25. Bernardini M., Brossa A...., Genova T., et al Transient Receptor Potential Channel Expression Signatures in Tumor-Derived Endothelial Cells: Functional Roles in Prostate Cancer Angiogenesis. *Cancers,* **2019***.* **11**: 956. **IF 6.639;**

26. Scarpellino G., Genova T., Avanzato D., Bernardini M., Bianco S., Petrillo S., Tolosano E., de Almeida Vieira JR., Bussolati B., Fiorio Pla A., Munaron L. Purinergic Calcium Signals in Tumor-Derived Endothelium. *Cancers,* **2019** 1;(11). **IF 6.639;**

27. Berra-Romani R., Faris P., Negri S., Botta L, Genova T., Moccia F. et al. Arachidonic Acid Evokes an Increase in Intracellular Ca2+ Concentration and Nitric Oxide Production in Endothelial Cells from Human Brain Microcirculation. *Cells* **2019***, Vol 8, Page 689* **8**: 689 **IF 6.600;**

28. Duraccio D., Strongone V…, Genova T. et al. The role of different dry-mixing techniques on the mechanical and biological behavior of UHMWPE/alumina-zirconia composites for biomedical applications. *European Polymer Journal*, **2019 ,** *120, 109274* **IF 4.598**

29. Scarpellino G., Genova T., Munaron L. Purinergic P2X7 Receptor: A Cation Channel Sensitive to Tumor Microenvironment. *Recent Pat. Anticancer. Drug Discov.* **2019** 14 (1) **IF 3.614;**

30. Genova, T., Pesce, P., Mussano, F., Tanaka, K., & Canullo, L. The influence of bone-graft bio-functionalization with plasma of argon on bacterial contamination. *Journal of Biomedical Materials Research Part A*, *107*(1), **2019** 67–70.**IF 4.396;**

31. Petrillo, S.; Chiabrando, D.; Genova, T.; Fiorito, V.; Ingoglia, G.; Vinchi, F.; Mussano, F.; Carossa, S.; Silengo, L.; Altruda, F.; Merlo, G. R.; Munaron, L.; Tolosano, E. Heme accumulation in endothelial cells impairs angiogenesis by triggering paraptosis. *Cell Death Differ.* **2018**, *25*, 573–588, doi:10.1038/s41418-017-0001-7. **IF 15.828;**

32. Mussano, F.*; Genova, T.*; Laurenti, M.; Munaron, L.; Pirri, C. F.; Rivolo, P.; Carossa, S.; Mandracci, P. Hydrogenated amorphous silicon coatings may modulate gingival cell response. *Appl. Surf. Sci.* **2018**, *436*, 603–612, doi:10.1016/j.apsusc.2017.11.283. **IF 6.707;**

33. Petrillo, S.; Tolosano, E.; Munaron, L.; Genova, T. Targeting Metabolism to Counteract Tumor Angiogenesis: A Review of Patent Literature. *Recent Pat. Anticancer. Drug Discov.* **2018**, *13*, doi:10.2174/1574892813666180528105023. **IF 3.614;**

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35. Mussano, F*.; Genova, T*.; Petrillo, S.; Roato, I.; Ferracini, R.; Munaron, L. Osteogenic Differentiation Modulates the Cytokine , Chemokine , and Growth Factor Profile of ASCs and SHED. *Int. J. Mol. Sci.* **2018**, *19*, 1454, doi:10.3390/ijms19051454. **IF 5.962;**

36. Roato, I.; Belisario, D. C.; Compagno, M.; Verderio, L.; Sighinolfi, A.; Mussano, F.; Genova, T.; Veneziano, F.; Pertici, G.; Perale, G.; Ferracini, R. Adipose-Derived Stromal Vascular Fraction/Xenohybrid Bone Scaffold: An Alternative Source for Bone Regeneration. *Stem Cells Int.* **2018**, *2018*, 1–11, doi:10.1155/2018/4126379. **IF 5.443;**

37. Canullo, L.*; Genova, T.*; Naenni, N.; Nakajima, Y.; Masuda, K.; Mussano, F. Plasma of argon enhances the adhesion of murine osteoblasts on different graft materials. *Ann. Anat. - Anat. Anzeiger* **2018**, *218*, 265–270, doi:10.1016/j.aanat.2018.03.005. **IF 2.388;**

38. Mussano, F.*; Genova, T.*; Serra, F.; Carossa, M.; Munaron, L.; Carossa, S. Nano-Pore Size of Alumina Affects Osteoblastic Response. *Int. J. Mol. Sci.* **2018**, *19*, 528, doi:10.3390/ijms19020528. **IF 5.924**

39. Roato, I., Belisario, D. C., Compagno, M., Lena, A., Genova T. Bistolfi, A., Maccari, L., Ferracini, R. Concentrated adipose tissue infusion for the treatment of knee osteoarthritis: clinical and histological observations. *International Orthopaedics*, **2018** *107*(1). **IF 2.974;**

40. Mussano F*, Genova T*, Laurenti M, Zicola E, Munaron L, Rivolo P, Mandracci P, C. S. Early response of fibroblasts and epithelial cells to pink-shaded anodized dental implant abutments: an in vitro study. *International Journal of Oral & Maxillofacial Implants* **2018**. **IF 2.804;**

41. Pistilli, R., Genova, T.*, Canullo, L., Faga, M. G., Terlizzi, M. E., Gribaudo, G., & Mussano, F. Effect of Bioactivation on Traditional Surfaces and Zirconium Nitride: Adhesion and Proliferation of Preosteoblastic Cells and Bacteria. *International Journal of Oral & Maxillofacial Implants*, *33*(6), **2018** 1247–1254. **IF 2.804;**

42. Mussano, F.; Ferrocino, I.; Gavrilova, N.; Genova, T.; Dell'Acqua, A.; Cocolin, L.; Carossa, S. Apical periodontitis: preliminary assessment of microbiota by 16S rRNA high throughput amplicon target sequencing. *BMC Oral Health* **2018**, *18*, 55, **IF 2.757;**

43. Autieri, G., Mussano, F., Petruzzi, M., Carossa, M., Genova, T., Corsalini, M., & Carossa, S.. Proanthocyanidin may improve the shear bond strength at the composites/dentine interface. *Journal of Biological Regulators and Homeostatic Agents*, **2018** *32*(4), 1021–1025. **IF 1.506;**

44. Genova, T.*; Grolez, G. P.*; Camillo, C.; Bernardini, M.; Bokhobza, A.; Richard, E.; Scianna, M.; Lemonnier, L.; Valdembri, D.; Munaron, L.; Philips, M. R.; Mattot, V.; Serini, G.; Prevarskaya, N.; Gkika, D.; Pla, A. F. TRPM8 inhibits endothelial cell migration via a non-channel function by trapping the small GTPase Rap1. *Journal of Cell Biology.* **2017**, *216*, 2107–2130, doi:10.1083/jcb.201506024. **IF 10.539;**

45. Mussano, F.*; Genova, T.*; Verga Falzacappa, E.; Scopece, P.; Munaron, L.; Rivolo, P.; Mandracci, P.; Benedetti, A.; Carossa, S.; Patelli, A. In vitro characterization of two different atmospheric plasma jet chemical functionalizations of titanium surfaces. *Appl. Surf. Sci.* **2017**, *409*, 314–324, doi:10.1016/j.apsusc.2017.02.035. **IF 6.707;**

46. Mussano, F.*; Genova, T.*; Corsalini, M.; Schierano, G.; Pettini, F.; Di Venere, D.; Carossa, S. Cytokine, Chemokine, and Growth Factor Profile Characterization of Undifferentiated and Osteoinduced Human Adipose-Derived Stem Cells. *Stem Cells Int.* **2017**, *2017*, 1–11, doi:10.1155/2017/6202783. **IF 5.443;**

47. Mussano F.* ; Genova T.* et al. Role of surface finishing on the in vitro biological properties of a silicon nitride–titanium nitride (Si3N4–TiN) composite. *J. Mater. Sci.* **2017**, *52*, 467–477, doi:10.1007/s10853-016-0346-1. **IF 4.220;**

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56. Fiorio Pla, A.; Brossa, A.; Bernardini, M.; Genova, T.; Grolez, G.; Villers, A.; Leroy, X.; Prevarskaya, N.; Gkika, D.; Bussolati, B. Differential sensitivity of prostate tumor derived endothelial cells to sorafenib and sunitinib. *BMC Cancer* **2014**, *14*, 939, doi:10.1186/1471-2407-14-939. **IF 3.150;**

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