



CURRICULUM VITAE ET STUDIORUM

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CAREER

- October the 4th, 2019 to present: Associate Professor (SSD MEDS-26/D, ex MED/50) at the Department of Medical Sciences of the University of Trieste.
- October the 4th, 2012 to October the 3rd, 2019: Adjunct Professor at the Department of Medical Sciences of the University of Trieste.

OTHER INSTITUTIONAL ACTIVITIES

- September the 12th, 2019 to present: Member of the Scientific and Technical Board for the Electron Microscopy of the University of Trieste <https://dsv.units.it/it/servizi-strumenti/node/34448>
- March the 21st, 2019 to present: Member of the Scientific Research Board of the Department of Medical Sciences of the University of Trieste.
- 2018 to present: Member of the Board of Professors of the PhD School in Personalized Medicine and Innovative Therapies, ex Reproduction and Developmental Sciences.

EDUCATION

- April 26th, 2010: PhD Degree at the School of Biomolecular Medicine, Department of Life Sciences, University of Trieste. Title of the Thesis: "Development of Osteoconductive Coatings for Non-Metallic Bone Implants". Supervisor: Prof. Sergio Paoletti (paolese@units.it) University of Trieste (IT); External advisor: Prof. Hannu T. Aro (hannu.aro@utu.fi) University of Turku (FI). The Thesis was developed within the European Project: EU-FP7-NMP Contract No. 026279-2 "NEWBONE – Development of load-bearing fibre reinforced composite based non-metallic biomimetic bone implants".
- October 20th, 2006: Graduate at the Faculty of Materials Engineering, University of Trieste, Italy. Thesis title: AC Electrograining of Aluminium the Influence of Additives in Hydrochloric Acid Electrolyte: Morphological and Electrochemical Effects. Supervisor: Prof. Chiara Schmid, University of Trieste Department of Materials and Natural Resources. Engineering of Materials and Applied Chemistry.

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Co-Examiner: Dr. Paola Campestrini, Project Leader of Research and Development Materials department. AGFA Gevaert N.V. Septestraat 27, B-2640 Mortsel, Belgium

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- 1998: High school “A. Malignani”, Udine, Italy, diploma in Aeronautics.

International Experiences:

- 2012: Visiting Researcher supervised by Prof. David H. Pashley at the Georgia Health Science University (now Georgia Regents University) – Department of Oral Biology – College of Dental Medicine, Augusta, Georgia, USA.

The research was focused on the role of collagen cross-linking agents in the inactivation of endogenous matrix metalloproteinases in acid etched dentin. In particular, the visit improved the expertise on the labeling of collagen and proteins and their characterization by means of Confocal Laser Scanning Microscopy.

- 2008: Visiting PhD Student supervised by Prof Hannu Aro and Prof. Pekka Vallittu at the FRC (Fiber Reinforced Composite) Research Group at University of Turku – Dental Institute, Turku, Finland. The research was focused on the mechanical and physical characterization of FRCs and biopolymers as potential materials for the Tissue Engineering of bone. The visit improved the skills on the characterization of porous biomaterials by means of Micro-Computed Tomography.

- 2004 – 2005: Visiting Student at the Research and Development Materials Department AGFA Gevaert N.V., Antwerp, Belgium supervised by Prof. Schmid Chiara, University of Trieste Department of Materials and Natural Resources. Engineering of Materials and Applied Chemistry. and Dr. Campestrini Paola, Project Leader of Research and Development Materials Department AGFA Gevaert N.V. Aim of the internship was the investigation of the acid etching on the Aluminium corrosion. Skills were achieved on the characterization of surfaces by means of Scanning Electron Microscopy, Interferometry and Roughness measures.

Teaching Activities at the University of Trieste:

Since 2012

- Lecturer of the course "Dental Materials" for the Dental School.
- Lecturer of the course “Materials Science” for the School of Dental Hygiene.
- Lecturer of the course "Biomaterials and Tissue Engineering" for the Master Degree in Medical Biotechnologies, Clinical Engineering, Materials Engineering.

Other Educational Activities:

Serving as a Tutor at Life Learning Center (Italian consortium for life-long education and training in life sciences, Trieste) for secondary schools’ students.

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In the framework of the PhD program, supervising graduate students in their daily work and lecturing to graduate students.

Student supervisor:

Supervisor of PhD and Master of Science Thesis for both the Departments of Medical Sciences and Life Sciences students.

Languages:

Italian: mother tongue

English: excellent reading, writing and verbal skills

French: good comprehension of the language.

List of publications:

- [1] Dura Haddad C, Andreatti L, Zelezetsky I, Porrelli D, Turco G, Bevilacqua L, et al. Primary Stability of Implants Inserted into Polyurethane Blocks: Micro-CT and Analysis In Vitro. *Bioengineering* 2024;11:383. <https://doi.org/10.3390/bioengineering11040383>.
- [2] De Giorgio G, Vit V, Vurro D, Guagnini B, Zumbo B, Coppedè N, et al. Breakthrough Assembly of a Silk Fibroin Composite for Application in Resistive Pressure Sensing. *ACS Appl Polym Mater* 2025;acsapm.5c00242. <https://doi.org/10.1021/acsapm.5c00242>.
- [3] Iurilli M, Porrelli D, Turco G, Lagatolla C, Camurri Piloni A, Medagli B, et al. Electrospun Collagen-Coated Nanofiber Membranes Functionalized with Silver Nanoparticles for Advanced Wound Healing Applications. *Membranes* 2025;15:39. <https://doi.org/10.3390/membranes15020039>.
- [4] Musciacchio L, Mardirossian M, Marussi G, Crosera M, Turco G, Porrelli D. Core-shell electrospun polycaprolactone nanofibers, loaded with rifampicin and coated with silver nanoparticles, for tissue engineering applications. *Biomaterials Advances* 2025;166:214036. <https://doi.org/10.1016/j.bioadv.2024.214036>.
- [5] Zumbo B, Guagnini B, Medagli B, Porrelli D, Turco G. Fibronectin Functionalization: A Way to Enhance Dynamic Cell Culture on Alginate/Hydroxyapatite Scaffolds. *JFB* 2024;15:222. <https://doi.org/10.3390/jfb15080222>.
- [6] Guagnini B, Medagli B, Zumbo B, Cannillo V, Turco G, Porrelli D, et al. Alginate-Sr/Mg Containing Bioactive Glass Scaffolds: The Characterization of a New 3D Composite for Bone Tissue Engineering. *JFB* 2024;15:183. <https://doi.org/10.3390/jfb15070183>.
- [7] Albiero AM, Bevilacqua L, Pegoraro F, Turco G, Momic S, Di Lenarda R, et al. Mechanical and fatigue resistance of restorations supported by welded-framework and

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realized using computer-aided designed prosthetic shells: In vitro pilot study. *Proc Inst Mech Eng H* 2024;238:250–6.

<https://doi.org/10.1177/09544119231221189>

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[9] M. Gruppuso, G. Turco, E. Marsich, D. Porrelli, Antibacterial and bioactive multilayer electrospun wound dressings based on hyaluronic acid and lactose-modified chitosan, *Biomaterials Advances* 154 (2023). <https://doi.org/10.1016/j.bioadv.2023.213613>

[10] U. Josic, C. Mazzitelli, T. Maravic, A. Comba, M. Cadenaro, I. Radovic, M. Sebold, G. Turco, L. Breschi, A. Mazzoni, The effect of carbodiimide on push-out bond strength of fiber posts and endogenous enzymatic activity, *BMC Oral Health* 23 (2023). <https://doi.org/10.1186/s12903-023-03067-y>

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[12] G. Marussi, M. Crosera, E. Prenesti, B. Callegger, E. Baracchini, G. Turco, G. Adami, From Collection or Archaeological Finds? A Non-Destructive Analytical Approach to Distinguish between Two Sets of Bronze Coins of the Roman Empire, *Molecules* 28 (2023). <https://doi.org/10.3390/molecules28052382>

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[15] V. Luppièri, D. Porrelli, L. Ronfani, G. Turco, M. Cadenaro, A Resin Infiltration Technique for Molar Hypomineralization Treatment: A Preliminary Study in a Pediatric Population, *Pediatr Dent* 44 (2022) 322–325. <http://www.ncbi.nlm.nih.gov/pub-med/36309779>

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[17] M. Gruppuso, F. Iorio, G. Turco, E. Marsich, D. Porrelli, Hyaluronic acid/lactose-modified chitosan electrospun wound dressings – Crosslinking and stability criticalities, *Carbohydr Polym* 288 (2022). <https://doi.org/10.1016/j.carbpol.2022.119375>

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- [19] L. Musciacchio, M. Mardirossian, B. Guagnini, A. Raffini, M. Rizzo, C. Trombetta, G. Liguori, G. Turco, D. Porrelli, Rifampicin-loaded electrospun polycaprolactone membranes: Characterization of stability, antibacterial effects and urotheliocytes proliferation, *Mater Des* 224 (2022). <https://doi.org/10.1016/j.matdes.2022.111286>
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- [37] M. Trinajstić Zrinski, S. Spalj, S. Miljanic, K. Peros, G. Turco, L. Contardo, Fluoride release and recharge potential of remineralizing orthodontic adhesive systems, *Fluoride* 52 (2019) 397–403.
- [38] F. Berton, D. Porrelli, R. Di Lenarda, G. Turco, A Critical Review on the Production of Electrospun Nanofibres for Guided Bone Regeneration in Oral Surgery, *Nanomaterials* 10 (2019) 16. <https://doi.org/10.3390/nano10010016>
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- Study, *Int J Oral Maxillofac Implants* 34 (2019) 1379–1388. <https://doi.org/10.11607/jomi.7392>
- [40] F. Berton, D. Porrelli, G. Turco, M. Mardirossian, V. Nicolini, R. Rizzo, C. Stacchi, R. Lenarda, L-PRF Enrichment with Nanohydroxiapatite: An In Vitro Proof of Concept Study, *Global Journal of Oral Science* 5 (2019) 53–62. <https://doi.org/10.30576/2414-2050.2019.05.9>
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