

**PhD. Student Eng. Carmen-Valentina NICOLAE**  
**List of papers that include data from the thesis**

**PAPERS LIST**

1. **Carmen-Valentina Nicolae**, Iulia-Maria Iordache, Adela Banciu, Izabela-Cristina Stancu, **Aloe Vera-loaded gelatin methacryloyl hydrogels as potential bone biomaterials**, *U.P.B. Sci. Bull., Series B*, Vol. 86, Iss. 4, 2024, ISSN 1454-2331, [https://old.scientificbulletin.upb.ro/rev\\_docs\\_arhiva/full116\\_952338.pdf](https://old.scientificbulletin.upb.ro/rev_docs_arhiva/full116_952338.pdf), **IF2024 = 0.3, Q4.**
2. **Carmen-Valentina Nicolae**, Elena Olăreț, Adriana-Elena Bratu, Adriana Lungu, Izabela-Cristina Stancu, Bogdan Stelian Mastalier Manolescu, **Reinforcing melt electrowritten elements with entangled multifibrillar strands for thin hydrogels with potential in bone resurfacing**, *Materials & Design (Elsevier)*, Vol. 237, 2024, 112545, ISSN 0264-1275, <https://doi.org/10.1016/j.matdes.2023.112545>, **IF2024 = 7.9, Q1.**
3. **Carmen-Valentina Nicolae**, Masoumeh Jahani Kadousaraei, Elena Olăreț, Andrada Serafim, Mehmet Serhat Aydin, Ioana-Teodora Bogdan, Adriana Elena Bratu, Raluca-Elena Ginghină, Alexandra Dobranici, Sorina Dinescu, Kamal Mustafa, Izabela-Cristina Stancu, **Enhancing cellular interactions through bioactivation and local nanomechanical reinforcement in nanodiamond-loaded 3D printed gellan gum scaffolds**, *Materials (MDPI)*, 18(17), 2025, 4131, special number *Engineering the Future: Advances in 3D Printing Formulations for Biomedical Solutions*, <https://doi.org/10.3390/ma18174131>, **IF2024 = 3.2, Q2.**
4. **Carmen-Valentina Nicolae**, Masoumeh Jahani Kadousaraei, Shuntaro Yamada, Mehmet Serhat Aydin, Niyaz Al-Sharabi, Elisabetta Campodoni, Monica Sandri, Doris Steinmüller-Nethl, Kristin Syverud, Bogdan Ștefan Vasile, Ahmad Rashad, Izabela-Cristina Stancu, Kamal Mustafa, **Nanostructured multicomponent bioinks with nanodiamond and magnesium-doped nanohydroxyapatite for enhanced bone tissue engineering**, *Materials & Design (Elsevier)*, Vol. 262, 2026, 115510, ISSN 0264-1275, <https://doi.org/10.1016/j.matdes.2026.115510>, **IF2024 = 7.9, Q1.**

**SCIENTIFIC MEETINGS ATTENDED**

1. **Melt Electrowritten Scaffolds as Reinforcing Elements for Bone Surface Reconstruction**, **Carmen-Valentina Nicolae**, Elena Olăreț, Izabela-Cristina Stancu - RICCCCE 2022 - 22<sup>nd</sup> Romanian International Conference on Chemistry and Chemical Engineering, Sinaia,

Romania, 7-9 September 2022 - **oral presentation, Professor Sorin Roșca Award in the short presentation competition for young researchers.**

2. **Melt Electrowritten Scaffolds as Reinforcing Elements for Bone Surface Reconstruction**, Carmen-Valentina Nicolae, Elena Olaret, Izabela-Cristina Stancu - *EmergeMAT, 5<sup>th</sup> International Conference on Emerging Technologies in Materials Engineering*, 20-21 October 2022, Bucharest, Romania - **poster presentation.**
3. **Bone Surface Reconstruction Using Melt Electrowritten Reinforced Thin Scaffolds**, Carmen-Valentina Nicolae, Elena Olaret, Izabela-Cristina Stancu - *BEHEALTH - International Online Event in Healthcare*, 25-27 October 2022 - **oral presentation.**
4. **Melt electrowritten scaffolds for bone surface reconstruction**, Carmen-Valentina Nicolae, Elena Olăreț, Izabela-Cristina Stancu - *BPC, 3<sup>rd</sup> International Conference on Bioengineering and Polymer Science*, 7-10 June 2023, Bucharest, Romania - **poster presentation.**
5. **Development of bioinspired printable nanostructured formulations for bone tissue regeneration**, Carmen-Valentina Nicolae, Andrada Serafim, Cristina-Elena Stavarache, Raluca-Elena Ginghină, Doris Steinmüller-Nethl, Justus Lackner, Kristin Syverud, Monica Sandri, Kamal Mustafa, Ahmad Rashad, Izabela-Cristina Stancu - *BPC, 3<sup>rd</sup> International Conference on Bioengineering and Polymer Science*, 7-10 June 2023, Bucharest, Romania - **oral presentation.**
6. **Enhanced Bone Surface Reconstruction Using Thin Melt Electrowritten Reinforced Scaffolds**, Carmen-Valentina Nicolae, Elena Olăreț, Izabela-Cristina Stancu - *CheMeet*, 26-28 June 2023, online - **oral presentation.**
7. **Nanodiamond-driven potential modulation of cellular response through local (nano)mechanical reinforcement of 3D printed gellan gum scaffolds**, Carmen-Valentina Nicolae, Elena Olăreț, Raluca-Elena Ginghină, Sorina Dinescu, Andrada Serafim, Izabela-Cristina Stancu - *Transnational Multiplier Event*, 18-19 Octombrie 2023, online - **poster presentation.**
8. **The Potential of Nanodiamond Particles to Orchestrate the Cellular Behavior and Modulate the (Nano)Mechanical Properties of 3D Printed Scaffolds**, Carmen-Valentina Nicolae, Elena Olăreț, Raluca-Elena Ginghină, Sorina Dinescu, Andrada Serafim, Izabela-Cristina Stancu - *ESB2023 - 33<sup>rd</sup> Annual Conference of the European Society for Biomaterials*, 4-8 September 2023, Davos, Switzerland - **poster and Rapid Fire oral presentation.**

9. **Exploring potential nanoparticle effects on cellular response in 3D printed scaffolds through local nanomechanical reinforcement**, Carmen-Valentina Nicolae, Elena Olăreț, Raluca Elena Ginghină, Sorina Dinescu, Andrada Serafim, Izabela Cristina Stancu - *TUIASI 2024 - International Conference of the Doctoral School, „Gheorghe Asachi” Technical University of Iași*, 15-17 mai 2024, online - **oral presentation**.
  
10. **Nanostructured Multicomponent Bioinks with Synergistic Nanodiamond and Magnesium-Doped Hydroxyapatite for Enhanced Bone Tissue Engineering**, Carmen-Valentina Nicolae, Masoumeh Jahani Kadousaraei, Mehmet Serhat Aydin, Shuntaro Yamada, Niyaz Al-Sharabi, Ahmad Rashad, Elisabetta Campodoni, Monica Sandri, Doris Steinmüller-Nethl, Kristin Syverud, Kamal Mustafa, Izabela-Cristina Stancu - *NanoBioMat 2024, Applications of Chemistry in Nanosciences and Biomaterials Engineering*, 27-29 November 2024 - **oral presentation**.
  
11. **Enhancing Cellular Interactions through Bioactivation and Local Nanomechanical Reinforcement in Nanodiamond-loaded 3D Printed Scaffolds**, Carmen-Valentina Nicolae, Elena Olăreț, Raluca-Elena Ginghină, Sorina Dinescu, Andrada Serafim, Masoumeh Jahani Kadousaraei, Mehmet Serhat Aydin, Kamal Mustafa, Izabela-Cristina Stancu - *RICCCE 2024 - 23<sup>rd</sup> Romanian International Conference on Chemistry and Chemical Engineering*, 4-7 September 2024, Constanța, Romania - **oral presentation**.