



Europass
Curriculum Vitae



Personal information

| | |
|----------------------------|--|
| First name(s) / Surname(s) | CIMPEAN ANISOARA |
| Address(es) | University of Bucharest Faculty of Biology 91-95 Spl. Independentei, district 5, Bucharest |
| Telephone(s) | +40 21 3181575/106 |
| Fax(es) | +40 21 3181575/102 |
| E-mail | anisoara.cimpean@bio.unibuc.ro; anisoara.campean@gmail.com |

Work experience

| | |
|--------------------------------------|---|
| Dates | 2016 (February) - present |
| Occupation or position held | Professor, <i>Habilitation degree</i> (febr. 2015), Senior researcher I |
| Main activities and responsibilities | Teaching courses: <i>Clinical Biochemistry; Animal Cell Cultures; Tissue Engineering</i> Director/ Partner team leader |
| Dates | 2007-2016 (February) |
| Occupation or position held | Associate Professor, Senior researcher II |
| Dates | 2001 - 2007 |
| Occupation or position held | Lecturer, Senior researcher III |
| Dates | 1993 - 2001 |
| Occupation or position held | Assistant Professor |
| Name of employer | University of Bucharest, Bucharest, Romania |
| Dates | 1991 –1993 |
| Occupation or position held | Principal biochemist |
| Main activities and responsibilities | Research |
| Name of employer | National Institute for Biological Sciences, Bucharest, Romania |
| Dates | 1987-1990 |
| Occupation and position held | Biochemist |
| Main activities and responsibilities | Laboratory of microbiology |
| Name of employer | Enterprise of Biosynthesis, Calafat, Dolj, Romania |

STAGIES FOR SPECIALIZATION

| | |
|--|---|
| Dates | 2003 January 1st – 2003 December 31 |
| Title and qualification acquired | Postdoctoral research associate |
| The name of the organizing institution | Catholic University of Leuven, Faculty of Medicine, Department of Biochemistry and Molecular Biology, Belgium |

| | | | |
|--|---|-----------------|----------------|
| Dates | 1994 November 1st–1995 September 1st | | |
| Title and qualification acquired | TEMPUS student, (European Community Program) | | |
| The name of the organizing institution | University of Padua, Department of Biology, Italy | | |
| Mother tongue(s) | Romanian | | |
| Other language(s)* | Reading | Speaking | Writing |
| English | C1 | B2 | C1 |
| French | C1 | B1 | B2 |
| | (*) Common European Framework of Reference for Languages | | |
| Skills and competences | Biocompatibility; Tissue Engineering; Regenerative Medicine; Cell Biology; Biochemistry; Animal and human cell cultures | | |
| Organizational/managerial competences | <p>2007-2009: <i>Deputy director of the Research Center of Biochemistry and Molecular Biology</i>, University of Bucharest</p> <p>1999-2001: <i>Setting up and organizing the first “Animal cell culture laboratory”</i> from University of Bucharest</p> <p><i>Leader of 7 national grants and 1 joint research project Romania-France as project coordinator</i></p> <p><i>Partner team leader for 4 international grants and 9 national projects</i></p> | | |
| Communication competences | Improved communication capacity that was acquired during teaching and research activities. | | |
| Driving licence | Driving licence (B category) obtained in 1996 | | |
| Additional information | <p>Publications</p> <p>103 articles published <i>in extenso</i> through which: 83 articles in <i>ISI indexed journals</i>, 38 articles in <i>journals indexed in international database</i></p> <p>Author of 4 books in Romanian language</p> <p>Author of 3 book chapters published in the international publishing houses (Studium Press LLC, USA; John Wiley & Sons, Inc. and The Publishing House of the Romanian Academy)</p> <p>Studies communicated at international conferences: 62</p> <p>Studies communicated at national conferences: 41</p> <p>Citations: 1151 (Scopus); 1578 (Google Scholar)</p> <p>Hirsch Index: 21 (Scopus); 23 (Google Scholar)</p> <p>Specialist member in the Examination Committee of PhD Thesis defended by Simona Andreia Jacota Popescu at <i>Universite Paul Sabatier, Toulouse III</i>, Ecole Nationale Supérieure des Ingénieurs en Arts Chimiques et Technologiques” France (2008)</p> <p>Editorial Board Member for <i>Journal of Functional Biomaterials</i></p> <p>Profile addresses from: <i>Scopus Author ID</i> 22939847800; <i>ORCID</i> 0000-0002-5833-3110; <i>Researcher ID</i> C-2101-2011,</p> | | |
| Membership of national societies | <p>Romanian Society for Cell Biology</p> <p>Romanian Society of Biochemistry and Molecular Biology</p> <p>Romanian Society for Biomaterials</p> | | |

PUBLICATION LIST

BOOKS AND BOOK CHAPTERS

Books pulished in national Publishing Houses recognized by CNCSIS

1. **Cimpean A**, Ion R, Ciofrangeanu C, Mitran V, Galateanu B, Iordachescu D. 2008. Practical guide for in vitro evaluation of dental implant biocompatibility, Ars Docendi Publishing House, 118 p., ISBN: 978-973-558-364-4 (in romanian language).
2. **Cimpean A**. 2006. Animal cell cultures, Ars Docendi Publishing House, 214 p., ISBN-10 973-558-274-0; ISBN-13 978-973-558-274-6 (in romanian language).

Books published in other national Publishing Houses

1. Gavrilă, M., **Cimpean, A**. 2007. Method for isolation and culture of human mesenchymal stem cells, Curtea Veche Publishing House, 71 p., ISBN 978-973-9467-92-6 (in romanian language).
2. Iordachescu D, **Cimpean A**, Stan C. 2004, Extracellular matrix remodelling. Applications in tissue engineering, Pro-Transilvania Publishing House, 245 p., ISBN 973-715-024-4 (in romanian language).

Book chapters published in national and international Publishing Houses

1. Miculescu, F., Maidaniuc, A., Stan, G.E., Miculescu, M., Voicu, S.I., **Cimpean, A.**, Mitran, V., Batalu, D. 2016. *Tuning hydroxyapatite particles' characteristics for solid free form fabrication of bone scaffolds*. In: A. Tiwari, M.R. Alenezi, S.C. Jun (Eds.), *Advanced Composite Materials*, Scrivener Publishing LLC, John Wiley & Sons, Inc., Hoboken, NJ, USA. doi: 10.1002/9781119242666.ch7, p. 321-398.
2. Dimonie D, Petrache M, Doncea S, Gabor R, Vasile E, **Cimpean A**, Fierascu RC, Cristian N, Dinescu S, Trandafir I, Anton L, Fierascu I, Galateanu B. 2013. *New approaches to develop 3D layer shaped scaffolds for soft tissue engineering*, In: *Advanced biocompatible structures for prospective bioengineering: Concepts and strategies*, The Publishing House of the Romanian Academy, p. 74-124, ISBN: 978-973-27-2317-3.
3. **Cimpean A**, Ion R, Gordin D-M, Neacsu P, Mitran V, Gloriant T. 2013. *Biomaterials as modulators of macrophage inflammatory response*, *Biomaterials* (vol. 11) in: J.N. Govil (Ed.), *Nanotechnology series*, Studium Press LLC (USA), p. 139-176.

ARTICLES PUBLISHED IN EXTENSO IN ISI JOURNALS

As principal author

1. Negrescu, A.-M., **Cimpean, A**. 2021. *The State of the Art and Prospects for Osteoimmunomodulatory Biomaterials*, *Materials*, 2021, 14(6), 1357; <https://doi.org/10.3390/ma14061357>.
2. Negrescu, A.-M., Necula, M.-G., Gebaur, A., Golgovici, F., Nica, C., Curti, F., Iovu, H., Costache, M., **Cimpean, A**. 2021. *In Vitro Macrophage Immunomodulation by Poly(ϵ -caprolactone) Based-Coated AZ31 Mg Alloy*. *International Journal of Molecular Sciences*, 22 (2) 909, 2021.
3. Gurau, C., Gurau, G., Mitran, V., Dan, A., Cimpean, A. 2020. The influence of severe plastic deformation on microstructure and in vitro biocompatibility of the new Ti-Nb-Zr-Ta-Fe-O alloy composition. *Materials*, 13(21), pp. 1–15, 4853.
4. Ion, R., Necula, M.G., Mazare, A., Mitran, V., Neacsu, P., Schmuki, P., **Cimpean, A**. 2020. *Drug delivery systems based on titania nanotubes and active agents for enhanced osseointegration of bone implants*. *Current Medicinal Chemistry*. vol. 27, 854-902. doi: 10.2174/0929867326666190726123229
5. Ion, R., Bédouin, Y., Gloriant, T., Andruseac, G., Gordin, D.-M., **Cimpean, A**. 2019. *In vitro study of human endothelial progenitor cells behaviour on nitrided Ni-free Ti-27Nb alloy*. *Progress in Natural Science: Materials International*, vol. 29, 2019, 466-471.

6. Necula, M.G., Mazare, A., Ion, R.N., Ozkan, S., Park, J., Schmuki, P., **Cimpean, A.** 2019. *Lateral Spacing of TiO₂ Nanotubes Modulates Osteoblast Behavior*. *Materials* 2019, vol. 12, 2956; doi:10.3390/ma12182956.
7. Busuioc, C., Voicu, G., Jinga, S.I., Mitran, V., **Cimpean, A.** 2019. *The Influence of Barium Titanate on the Biological Properties of Collagen-Hydroxiapatite Composite Scaffolds*. *Materials Letters*, vol. 253, 317–322.
8. Ion, R., Mazare, A., Dimitriu, C., Pirvu, C., Schmuki, P., **Cimpean, A.** 2018. *Nanochannelar Topography Positively Modulates Osteoblast Differentiation and Inhibits Osteoclastogenesis*. *Coatings*, vol. 8, 294; doi:10.3390/coatings8090294.
9. Mitran, V., Ion, R., Miculescu, F., Necula, M.G., Mocanu, A.-C., Stan, G., Antoniac, I., **Cimpean, A.** 2018. *Osteoblast Cell Response to Naturally Derived Calcium Phosphate-Based Materials*. *Materials* 2018, 11, 1097; doi:10.3390/ma11071097.
10. Mitran, V., Dinca, V., Ion, R., Cojocaru, V.D., Neacsu, P., Dinu, C.Z., Rusen, L., Brajnicov, S., Bonciu, A., Dinescu, M., Raducanu, D., Dan, I., **Cimpean, A.** 2018. *Graphene nanoplatelets-sericin surface-modified Gum alloy for improved biological response*. *RSC Advances*, vol. 8, 18492–18501.
11. Rusen, L., Brajnicov, S., Neacsu, P., Marascu, V., Bonciu, A., Dinescu, M., Dinca, V., **Cimpean, A.** 2017. *Novel degradable biointerfacing nanocomposite coatings for modulating the osteoblast response*. *Surface and Coatings Technology*, vol. 325, 397-409.
12. Neacsu, P., Staras, A.I., Voicu, S.I., Ionascu, I., Soare, T., Uzun, S., Cojocaru, V.D., Pandeale, A.M., Croitoru, S.M., Miculescu F., Cotrut, C.M., Dan, I., **Cimpean, A.** *Characterization and In Vitro and In Vivo Assessment of a Novel Cellulose Acetate-Coated Mg-Based Alloy for Orthopedic Applications*. 2017. *Materials*, vol. 10, 686; doi:10.3390/ma10070686.
13. Ion, R., Drob, S.I., Ijaz, M.F., Vasilescu, C., Osiceanu, P., Gordin, D.-M., **Cimpean, A.**, Gloriant, T. 2016. *Surface characterization, corrosion resistance and in vitro biocompatibility of a new Ti-Hf-Mo-Sn alloy*. *Materials* 2016, vol. 9, 818; doi:10.3390/ma9100818.
14. Ion, R., Luculescu, C., **Cimpean, A.**, Marx, P., Gordin, D.-M., Gloriant, T. 2016. *Nitride coating enhances endothelialization on biomedical NiTi shape memory alloy*. *Materials Science and Engineering C*, vol. 62, 686–691.
15. Neacsu, P., Mazare, A., Schmuki, P., **Cimpean A.** 2015. *Attenuation of the macrophage inflammatory activity by TiO₂ nanotubes via inhibition of MAPK and NF- κ B pathways*. *International Journal of Nanomedicine*, vol. 10, 6455–6467.
16. Mitran, V., Vasilescu, C., Drob, S.I., Osiceanu, P., Calderon-Moreno, J.M., Tabirca, M.-C., Gordin, D.-M., Gloriant, T., **Cimpean A.** 2015. *Biological behaviour and enhanced anticorrosive performance of the nitrated superelastic Ti-23Nb-0.7Ta-2Zr-0.5N alloy*. *BioMed Research International*, vol. 215, Article ID 261802, <http://dx.doi.org/10.1155/2015/261802>.
17. Ion, R., Vizireanu, S., Stancu, C.E., Luculescu, C., **Cimpean, A.**, Dinescu, Gh. 2015. *Surface plasma functionalization influences macrophage behavior on carbon nanowalls*. *Materials Science and Engineering C*, vol. 48, 118-125.
18. Mitran, V., Albu, M.G., Vasile, E., **Cimpean, A.**, Costache, M. 2015. *Dose-related effects of sericin on preadipocyte behavior within collagen/sericin hybrid scaffolds*. *Progress in Natural Science: Materials International*, vol. 25, 122-130.
19. Neacsu, P., Gordin, D.-M., Mitran, V., Gloriant, T., Costache, M., **Cimpean, A.** 2015. *In vitro performance assessment of new beta Ti–Mo–Nb alloy compositions*. *Materials Science and Engineering C*, vol. 47, 105-113.
20. Neacsu, P., Mazare, A., **Cimpean, A.**, Park, J., Costache, M., Schmuki, P., Demetrescu, I. 2014. *Reduced inflammatory activity of RAW 264.7 macrophages on titania nanotube modified Ti surface*. *The International Journal of Biochemistry & Cell Biology*, vol. 55, 187-195.
21. **Cimpean, A.**, Vasilescu, E., Drob, P., Cinca, I., Vasilescu, C., Anastasescu, M., Mitran, V., Drob, S.I. 2014. *Enhancement of the electrochemical behaviour and biological performance of Ti–25Ta–5Zr alloy by thermo-mechanical processing*. *Materials Science and Engineering C*, vol. 38, 127-142.

22. Ion, R., Gordin, D.M., Mitran, V., Osiceanu, P., Dinescu, S., Gloriant, T., **Cimpean, A.** 2014. *In vitro bio-functional performances of the novel superelastic beta-type Ti-23Nb-0.7Ta-2Zr-0.5N alloy*. Materials Science and Engineering C, vol. 35, 411-419.
23. Gordin, D.M., Busardo, D., **Cimpean, A.**, Vasilescu, C., Höche, D., Drob, S.I., Mitran, V., Cornen, M., Gloriant, T. 2013. *Design of a nitrogen-implanted titanium-based superelastic alloy with optimized properties for biomedical applications*. Materials Science and Engineering C, vol. 33, 4173-4182.
24. Andronescu, E., Ficai, A., Albu, M., Mitran, V., Sonmez, M., Ficai, D., Ion, R., **Cimpean, A.** 2013. *Collagen-hydroxyapatite/cisplatin drug delivery systems for locoregional treatment of bone cancer*. Technology in Cancer Research & Treatment, vol. 12, 275-284.
25. Mindroiu, M., Ion, R., Pirvu, C., **Cimpean, A.** 2013. *Surfactant-dependent macrophage response to polypyrrole-based coatings electrodeposited on Ti6Al7Nb alloy*. Materials Science and Engineering C, vol. 33, 3353-3361.
26. Bojinca, M., Arama, S.S., Bojinca, V., Milicescu, M., Croitoru, A., Arama, V., **Cimpean, A.** 2007. *Comparative study of matrix metalloproteinases in synovial fluid from rheumatoid and arthrosis patients*. Revista de Chimie, vol. 58, 1327-1331.
27. Galateanu, B., Dimonie, D., Vasile, E., Nae, S., **Cimpean, A.**, Costache, M. 2012. *Layer-shaped alginate hydrogels enhance the biological performance of human adipose-derived stem cells*. BMC Biotechnology, vol. 12, 35, <http://www.biomedcentral.com/1472-6750/12/35>.
28. **Cimpean, A.**, Mitran, V., Ciofrangeanu, C.M., Galateanu, B., Bertrand, E., Gordin, D.-M., Iordachescu, D., Gloriant, T. 2012. *Osteoblast cell behavior on the new beta-type Ti-25Ta-25Nb alloy*. Materials Science and Engineering C, vol. 32, 1554-1563.
29. Gordin, D.M., Gloriant, T., Chane-Pane, V., Busardo, D., Mitran, V., Hoche, D., Vasilescu, C., Drob, S.I., **Cimpean, A.** 2012. *Surface characterization and biocompatibility of titanium alloys implanted with nitrogen by Hardion+ technology*. Journal of Materials Science: Materials in Medicine, vol. 23, 2953-2966.
30. **Cimpean, A.**, Popescu, S., Ciofrangeanu, C.M., Gleizes, A.N. 2011. *Effects of LP-MOCVD prepared TiO₂ thin films on the in vitro behavior of gingival fibroblasts*. Materials Chemistry and Physics, vol. 125, 485-492.
31. Sava, B.A., Dinischiotu, A., **Cimpean, A.** 2005. *Biocompatible glass for ionomeric cements*. Journal of Optoelectronics and Advanced Materials, vol. 8, 258-261.
32. **Cimpean, A.**, Stefan, C., Gijsbers, R., Stalmans, W., Bollen, M. 2004. *Substrate-specifying determinants of the nucleotide pyrophosphatases/phosphodiesterases NPP1 and NPP2*. Biochemical Journal, vol. 381, 71-77.

As co-author

1. Gherasim O, Popescu-Pelin G, Florian P, Icriverzi M, Roseanu A, Mitran V, Cimpean, Socol G. *Bioactive Ibuprofen-Loaded PLGA Coatings for Multifunctional Surface Modification of Medical Devices*, Polymers 2021, 13, 1413. <https://doi.org/10.3390/polym13091413>.
2. Mocanu, A.C., Miculescu, F., Miculescu, M., Ciocoiu R.C., Pandeale, M.A., Stan, G.E., Cîmpean, A., Voicu, S.I., Ciocan L.-T., *Comprehensive analysis of compatible natural fibre as sacrificial porogen template for tailored ceramic 3D bioproducts destined for hard tissue reconstruction*, Ceramics International, 47, 2021, 5318-5334.
3. Dumitrescu, L.M., Neacsu, P., Necula, M.G., Bonciu, A., Marascu, V., **Cimpean, A.**, Moldovan, A., Rotaru, A., Dinca, V., Dinescu, M. 2020. *Induced Hydrophilicity and In Vitro Preliminary Osteoblast Response of Polyvinylidene Fluoride (PVDF) Coatings Obtained via MAPLE Deposition and Subsequent Thermal Treatment*. Molecules 2020, 25, 582; doi:10.3390/molecules25030582
4. Patrinoiu, G., Hussien, M.D., Calderón-Moreno, J.M., Atkinson, I., Musuc, A.M., Ion, R.N., **Cimpean, A.**, Chifiriuc, M.C., Carp, O. 2019. *Eco-friendly synthesized spherical ZnO materials: Effect of the core-shell to solid morphology transition on antimicrobial activity*. Materials Science and Engineering C, vol. 97, 438-450.
5. Albu, A.M., Draghicescu, W., Munteanu, T., Ion, R. Mitran, V., **Cimpean, A.**, Popescu, S., Pirvu, C.

2019. *Nitrodopamine vs dopamine as an intermediate layer for bone regeneration applications*. Materials Science and Engineering C, vol. 98, 461–471.
6. Icriverzi, M., Rusen, L., Brajnicov, S., Bonciu, A., Dinescu M., **Cimpean, A.**, Evans, R.W., Dinca, V., Roseanu, A. 2019. *Macrophage in vitro Response on Hybrid Coatings Obtained by Matrix Assisted Pulsed Laser Evaporation*. Coatings, 9 (4), 236. DOI: 10.3390/coatings9040236.
 7. Mocanu, A.C., Stan, G.E., Maidaniuc, A., Miculescu, M., Antoniac, I.V., Ciocoiu, R.C., Voicu, Ş.I., Mitran, V., **Cimpean, A.**, Miculescu, F. 2019. *Naturally-Derived Biphasic Calcium Phosphates through Increased Phosphorus-Based Reagent Amounts for Biomedical Applications*. Materials 2019, vol. 12, 381; doi:10.3390/ma12030381.
 8. Albu, A.M., Draghicescu, W., Munteanu, T., Ion, R. Mitran, V., **Cimpean, A.**, Popescu, S., Pirvu, C. 2019. *Nitrodopamine vs dopamine as an intermediate layer for bone regeneration applications*. Materials Science and Engineering C, vol. 98, 461–471.
 9. Dascalu, C.A., Maidaniuc, A., Pandele, A.M., Voicu, S.I., Machedon-Pisu, T, Stan, G.E., **Cimpean, A.**, Mitran, V., Antoniac, I.V., Miculescu, F. (2019) *Synthesis and characterization of biocompatible polymer-ceramic film structures as favorable interface in guided bone regeneration*. Applied Surface Science, vol. 494, 335-352.
 10. Icriverzi, M., Bonciu, A., Rusen, L., Sima, L.E., Brajnicov, S., **Cimpean, A.**, Evans, R.W., Dinca, V., Roseanu, A. 2019. *Human Mesenchymal Stem Cell Response to Lactoferrin-based Composite Coatings*. Materials 2019, vol. 12, 3414; doi:10.3390/ma12203414.
 11. Icriverzi, M., Rusen, L., Sima, L.E., Moldovan, A. Brajnicov, S., Bonciu A., Mihailescu, N., Dinescu, M., **Cimpean, A.**, Roseanu, A., Dinca, V. 2018. *In vitro behavior of human mesenchymal stem cells on poly(N-isopropylacrylamide) based biointerfaces obtained by matrix assisted pulsed laser evaporation*. Applied Surface Science, vol. 440, 712–724.
 12. Ardelean, I.L., Gudovan, D., Ficai, D., Ficai, A., Andronescu, E., Albu-Kaya, M.G., Neacsu, P., Ion, R.N., **Cimpean, A.**, Mitran, V. 2018. *Collagen/hydroxyapatite bone grafts manufactured by homogeneous/heterogeneous 3D printing*. Materials Letters, vol. 231, 179–182.
 13. Miculescu, F., Mocanu, A.C., Stan, G.E., Miculescu, M., Maidaniuc, A., **Cimpean, A.**, Mitran, V., Voicu, S.I., Machedon-Pisu, T., Ciocan, L.T. 2018. *Influence of the modulated two-step synthesis of biogenic hydroxyapatite on biomimetic products' surface*. Applied Surface Science, vol. 438, 147–157.
 14. Pandele, A.M., Neacsu, P., **Cimpean, A.**, Staras, A.I., Miculescu, F., Iordache, A., Voicu, S.I., Thakur, V.K., Toader, O.D. 2018. *Cellulose acetate membranes functionalized with resveratrol by covalent immobilization for improved osseointegration*. Applied Surface Science, vol. 438, 2–13.
 15. Brajnicov, S., Neacsu, P., Moldovan, A., • Marascu, V., Bonciu, A., Ion, R., Dinca, V., **Cimpean, A.**, Dinescu, M. 2017. *Tailored biodegradable triblock copolymer coatings obtained by MAPLE: a parametric study*. Applied Physics A, 2017, 123:707. DOI 10.1007/s00339-017-1334-2.
 16. Tirca, I., Mitran, V., Marascu, V., Brajnicov, S., Ion, V., Stokker-Cheregi, F., Popovic, I.A., **Cimpean, A.**, Dinca, V., Dinescu, M. *In vitro testing of curcumin based composites coatings as antitumoral systems against osteosarcoma cells*. 2017. Applied Surface Science, vol. 425, 1040-1051.
 17. Tihan, G.T., Sereanu, V., Meghea, A., Voicu, G., Albu, M.G., Mitran, V., **Cimpean, A.**, Zgarian, R.G. 2017. *Innovative methodology for developing a bone grafting composite biomaterial starting from the seashell of Rapana thomasiana*. Comptes Rendus Chimie, vol. 20, 440-445
 18. Rusen L, Neacsu P, **Cimpean A**, Ion V, Brajnicova S, Dumitrescu LN, Banita J, Dinca V, Dinescu M. 2016. *In vitro evaluation of poly(ethyleneglycol)-block-poly(ϵ -caprolactone) methyl ether copolymer coating effects on cells adhesion and proliferation*. Applied Surface Sciences, vol. 374, 23-30.
 19. Voicu, S.I., Condruz, R.M., Mitran, V., **Cimpean, A.**, Miculescu, F., Andronescu, C., Miculescu, M., Thakur, V.K. 2016. *Sericin covalent immobilization onto cellulose acetate membrane for potential osseointegration applications*. ACS Sustainable Chemistry & Engineering, vol. 4, 1765-1774.

20. Ion, R., Vizireanu, S., Luculescu, C., **Cimpean, A.**, Dinescu, G. 2016. *Vertically, interconnected carbon nanowalls as biocompatible scaffolds for osteoblast cells*. Journal of Physics D: Applied Physics, vol. 49, 274004 (6 p.).
21. Castany, P., Gordin, D. M., Drob, S. I., Vasilescu, C., Mitran, V., **Cimpean, A.**, Gloriant, T. 2016. *Deformation mechanisms and biocompatibility of the superelastic Ti-23Nb-0.7Ta-2Zr-0.5N alloy*. Shape Memory and Superelasticity, vol. 2, 18-28.
22. Ion, R., Stoian, A.B., Dumitriu, C., Grigorescu, S., Mazare, A., **Cimpean, A.**, Demetrescu, I., Schmuki, P. 2015. *Nanochannels formed on TiZr alloy improve biological response*. Acta Biomaterialia, vol. 24, 370-377.
23. Drob, S. I., Vasilescu, C., Calderon Moreno, J. M., Osiceanu, P., Neacsu, P., **Cimpean, A.**, Gordin, D. M., Gloriant, T. 2015. *Multifunctional "gum metal" titanium-based alloy: Its long-term electrochemical behavior and macrophage response*. International Journal of Electrochemical Science, vol. 10, 10738-10755.
24. Corobea, M.S., Albu, M.G., Ion, R., **Cimpean, A.**, Miculescu, F., Antoniac, I.V., Raditoiu, V., Sirbu, I., Stoenescu, M., Voicu, S.I., Ghica, M.V. 2015. *Modification of titanium surface with collagen and doxycycline as a new approach in dental implants*. Journal of Adhesion Science and Technology, vol. 29, 2537-2550.
25. Gordin, D.M., Ion, R., Vasilescu, C., Drob, S.I., **Cimpean, A.**, Gloriant, T. 2014. *Potentiality of the "Gum Metal" titanium-based alloy composition for biomedical applications*. Materials Science and Engineering C, vol. 44, 362-370.
26. Dinescu, S., Galateanu, B., Albu, M., **Cimpean, A.**, Dinischiotu, A., Costache, M. 2013. *Sericin enhances the bioperformance of collagen-based matrices preseeded with human-adipose derived stem cells (hADSCs)*. International Journal of Molecular Sciences, 14, 1870-1889; doi:10.3390/ijms14011870.
27. Ion, R., Vasilescu, C., Drob, P., Vasilescu, E., **Cimpean, A.**, Drob, I., Gordin, D.M., Gloriant, T. 2014. *Long-term corrosion performances and cytocompatibility of nitrided Ti and Ti-6Al-4V alloy in severe functional conditions*. Materials and Corrosion, vol. 65, 593-604.
28. Dimonie, D., Petrache, M., Gabor, R., Trandafir, I., Nicolae, C., Dimonie, M., **Cimpean, A.**, Galateanu, B., Vasile, E., Trusca, R., Jinescu, G. 2013. *Parameters influencing the properties of layered shaped ionotropic alginate hydrogels designed for soft tissue engineering*. Digest Journal of Nanomaterials and Biostructures, vol. 8, 1727-1738.
29. Galateanu, B., Dinescu, S., **Cimpean, A.**, Dinischiotu, A., Costache, M. 2012. *Modulation of adipogenic conditions for prospective use of hADSCs in adipose tissue engineering*. International Journal of Molecular Sciences, 13, 15881-15900, doi: 10.3390/ijms130x000x.
30. Mindroiu, M., Pirvu, C., **Cimpean, A.**, Demetrescu, I. 2012. *Corrosion and biocompatibility of PPy/PEG coating electrodeposited on Ti6Al7Nb alloy*. Materials and Corrosion, vol. 64, 10, 926-931.
31. Vasilescu, C., Calderon Moreno, J.M., **Cimpean, A.**, Cojocaru, D., Cinca, I., Andronescu, E., Grigore, F., Galateanu, B., Drob, S.I. 2011. *Synthesis, mechanical and structural properties and biological activity of some nanostructured bone scaffolds*. Digest Journal of Nanomaterials and Biostructures, vol. 6, 523-534.
32. Raducanu, D., **Cimpean, A.**, Vasilescu, E., Cojocaru, V.D., Cinca, I., Drob, P., Ivanescu, S. 2010. *Corrosion behaviour and biocompatibility of a new dental noble AuPdAgTi alloy*. Materials and Corrosion, vol. 61, 775-782.
33. Scorei, R.I., Ciofrangeanu, C., Ion, R., **Cimpean, A.**, Galateanu, B., Mitran, V., Iordachescu, D. 2010. *In vitro effects of calcium fructoborate upon production of inflammatory mediators by LPS-stimulated RAW 264.7 macrophages*, Biological Trace Elements Research, vol. 135, 334-344.
34. Ion, R., Mitran, V., Ciofrangeanu, C.M., Galateanu, B., **Cimpean, A.**, Iordachescu, D. 2010. *Comparative study of the in vitro behaviour of osteoblasts on titanium and zirconium oxide materials*. Romanian Biotechnological Letters, vol. 15, 5049-5058.
35. Scorei, R., Ciubar, R., Ciofrangeanu, C.M., Mitran, V., **Cimpean, A.**, Iordachescu, D. 2008. *Comparative effects of boric acid and calcium fructoborate on breast cancer cells*. Biological Trace Elements Research, vol. 122, 197-205.

36. Scorei, R., Ciubar, R., Iancu, C., Mitran, V., **Cimpean, A.**, Iordachescu, D. 2007. *In vitro effects of calcium fructoborate on fMLP-stimulated human neutrophils granulocytes*. Biological Trace Elements Research, vol. 118, 27-37.
37. Ciubar, R., Ciofrangeanu, C., Mitran, V., **Cimpean, A.**, Stanescu, A., Iordachescu, D. 2007. *The effect of lead ions on human erythrocytes in vitro*. Revista de Chimie, vol. 58, 895-897.
38. Popa, M.V., Demetrescu, I., Iordachescu, D., **Cimpean, A.**, Vasilescu, E., Drob, P., Vasilescu, C., Istratescu, M. (2007). *The relation between electrochemical tests and in vitro evaluation of titanium alloy biocompatibility*. Materials and Corrosion, vol. 58, 667-675.
39. Radu, O.L., Armand, S., Lenouvel, F., Driguez, H., **Cimpean, A.**, Iordachescu, D. 2006. *La glycosylation de la luteoline, en milieux de solvants organiques sur l'action catalitique de la cyclodextrine glucosyltransferase de Bacillus circulans*. Revue Roumaine de Chimie, vol. 51, 147-152
40. Ciubar, R., Mitran, V., **Cimpean, A.**, Iordachescu, D. 2006. *In vitro effects of nickel on human embryonic lung fibroblasts*, Revue Roumaine de Chimie, vol. 51, 199-203.
41. Ciubar R, **Cimpean A.**, Iordachescu D. 2006. *Effects of nickel (II) on human polymorphonuclear leukocyte function in vitro*, Revue Roumaine de Chimie, vol. 51, 1169-1173.

ARTICLES PUBLISHED IN EXTENSO IN JOURNALS INDEXED IN INTERNATIONAL DATABASE

As principal author

1. Ion, R., Cabon, G., Gordin, D.M., Ionica, E., Gloriant, T., **Cimpean, A.** 2021. *Endothelial Cell Responses to a Highly Deformable Titanium Alloy Designed for Vascular Stent Applications*, Journal of Functional Biomaterials 12 (2), 33.
2. Negrescu, A.M., Necula, M.G., Costache, M., **Cimpean, A.** 2020. *In vitro and in vivo biological performance of Mg-based bone implants*. Reviews in Biological and Biomedical Sciences, vol. 3 (1) 11-41
3. Neacsu, P., Ion, R.N., Mitran, V., Staras, A.I., **Cimpean, A.** 2015. *State of the art and recent patents on Mg-based biodegradable bone implants*. Recent patents on regenerative medicine, vol. 4, 168-188.
4. **Cimpean A.** 2014. *Recent advances and challenges in adipose tissue engineering: Adipose derived stem cell-based approaches*. Current Tissue Engineering, vol. 3, 7-24.
5. **Cimpean, A.**, Zarnescu, O. 2005. *An ultrastructural study of cartilage alterations in human osteoarthritis*. Revue Roumaine de Biologie (Série de Biologie Animale), Tome 46, 1-2, 85-92.
6. **Cimpean, A.** 2004. *Endogenous proteases involved in human osteoarthritic cartilage degradation*. Analele Universitatii Bucuresti, Biologie, LIII, 15-26.
7. **Cimpean, A.**, Zarnescu, O., Moldovan, L., Nicolae, C., Flamanzeanu, M. 2002. *In vitro evaluation of biosynthetic activity of the human osteoarthritic chondrocytes embedded in collagen gel*. Roumanian Biotechnological Letters, vol. 7, 987-994.
8. **Cimpean, A.**, Moldovan, L., Constantinescu, L., Bunea, M. 2001. *Changes in Collagen Macromolecules During the Process of Human Osteoarthritic Cartilage Degradation*. Roumanian Biotechnological Letters, vol. 6, 315-324.
9. **Cimpean, A.**, Moldovan, L., Flamanzeanu, M., Nicolae, C. 2001. *In vitro polymolecular aggregation and ultrastructural characterization of the osteoarthritic cartilage proteoglycans*. Revue Roumaine de Biologie (Série de Biologie Animale), Tome 46, 1-2, 85-92.
10. **Cimpean, A.**, Caloianu, M., Zarnescu, O., Moldovan, L., Efimov, N., Ranga, O. 1998. *Structural, ultrastructural and biochemical aspects of the cartilaginous extracellular matrix degradation in human knee osteoarthritic lesions*. Journal of Medicine and Biochemistry, vol. 2, 378-387.
11. **Cimpean, A.**, Caloianu, M., Zarnescu, O., Bojinca, M. 1999. *Synovial Membrane Pathology and its Implication in Human Osteoarthritis*. Journal of Medicine and Biochemistry, vol. 3, 378-387.
12. **Cimpean, A.**, Caloianu, M., Zarnescu, O., Bojinca, M. 1999. *Synovial fluid alterations in human rheumatoid arthritis*. Journal of Medicine and Biochemistry, vol. 3, 79-86.

13. **Cimpean, A.**, Zarnescu, O., Caloianu, M., Moldovan, L., Efimov, N. 2000. *Glycosaminoglycan synthesis by human osteoarthritic chondrocytes cultured in alginate beads*. Roumanian Biotechnological Letters, vol. 5, 127-135.
14. **Cimpean, A.**, Caloianu, Alexandru, D., Efimov, N., Buzgariu, W. 2000. *Effect of the interleukin-1 β on gelatinolytic activity and cell morphology of human osteoarthritic chondrocytes in culture*. Journal of Medicine and Biochemistry, vol. 4, 113-129.

As co-author

1. Ciubar Ion, R., Ciofrangeanu, C.M, Galateanu, B., Manea, St., **Cimpean, A.**, Iordachescu D. 2009. *Biochemical investigation of some proteins from human primary teeth to evaluate heavy metal pollution*. Key Engineering Materials, vol. 415, 53-56.
2. Luca, M.R., Ciubar, R., Iancu Ciofrangeanu, C., Mitran, V., **Cimpean, A.**, Iordachescu, D. 2007. *Response of antioxidant defense system to chromium (VI)-induced oxidative stress in embryony fibroblasts*. Romanian Journal of Biophysics, vol. 17, 9-20.
3. Badea, N., Jelenek, M., Tite, T., Prodana, M., **Cimpean, A.**, Demetrescu, I. 2007. *The behavior of SiC films fabricated by hybrid laser-magnetron deposition after immersion*. Key Engineering Materials, vol. 330-332, 537-540.
4. Neagos, D., Mitran, V., Chiracu, G., **Cimpean, A.**, Cocos, R., Iordachescu, D. 2006. *Effects of insulin, retinoic acid and hydrocortisone on in vitro dermal wound-healing model*. Romanian Journal of Biophysics, vol. 16, 93-102.
5. Ciubar, R., Mitran, V., Bonoiu, A., **Cimpean, A.**, Iordachescu, D. 2006. *The effect of nickel on the fibroblast mediated collagen matrix contraction*. Romanian Journal of Biophysics, vol. 16, 125-133.
6. Neagoș, D., Mitran, V., Chiracu, G., Ciubar, R., Iancu, C., Stan, C., **Cimpean, A.**, Iordachescu, D. 2006. *Skin wound healing in a free floating fibroblast populated collagen lattice model*. Romanian Journal of Biophysics, vol. 16, 157-168.
7. Stan, C., **Cimpean, A.**, Iordachescu, D. 2004. *Cellular and molecular changes of psoriatic keratinocytes in response to UVA in vitro treatment*. Romanian Journal of Biophysics, vol. 14, 1-12.
8. Homeghiu, C.L., Bucata, G., Bonoiu, A., Stan, C., Mitran, V., **Cimpean, A.**, Iordachescu, D. 2004. *In vitro effects of transforming growth factor β 1 in a cadmium chloride model of lung injury*. Romanian Journal of Biophysics, vol. 14, 21-28.
9. Bucata, G., Bonoiu, A., Stan, C., Homeghiu, C.L., **Cimpean, A.**, Nae, S., Iordachescu, D. 2004. *UVA-induced damage in human skin fibroblasts*. Analele Universitatii Bucuresti, Biologie, LIII, 3-13.
10. Luca, M.R., Dinischiotu, A., **Cimpean, A.**, Iordachescu, D. 2004. *Cytotoxicity studies of chromium (VI) on human embryony fibroblasts*. Analele Universitatii Bucuresti, Biologie, LIII, 111-120.
11. Stan, C., **Cimpean, A.**, Iordachescu, D. 2004. *An in vitro comparative study on psoriatic keratinocytes and the response of normal keratinocytes to IL-1 β and IFN- γ* . Analele Universitatii Bucuresti, Biologie, LIII, 121-134.
12. Moldovan, L., **Cimpean, A.**, Flamanzeanu, M., Nicolae, C., Dumitrescu, D. 2002. *Matrix metalloproteinases involved in injured corneal tissue remodelling*. Roumanian Biotechnological Letters, vol. 7, 14-27.
13. Buzgariu, W., Zarnescu, O., Caloianu, M., **Cimpean, A.**, Titescu, G., Stefanescu, I. 2002. *Effects of heavy water on ultrastructural and functional status of HEP2 and CHO cells lysosomes*. Revue Roumaine de Biologie (Série de Biologie Animale), Tome 47, 1-2, 87-96
14. Moldovan, L., Zarnescu, O., Oancea, A., **Cimpean, A.**, Constantinescu, L. 2001. *Corneal Collagen Interaction with Proteoglycans and Glycosaminoglycans*. Roumanian Biotechnological Letters, vol. 6, 137-145.
15. Koukoulomatis, P., Iordachescu, I., Costache, M., Florea, D., **Cimpean, A.** 1997. *Kinetics and molecular characterisation of some trypsin and chymotrypsin inhibitors from Triticum Aestivum*. Romanian Journal of Biophysics, vol. 7, 313-319.

Articles published in extenso in conference volumes

Internațional conferences

1. Angelescu, R.M., Ion, R., **Cîmpean, A.**, Răducanu, D., Angelescu, M.L. 2015. *Biological evaluation of some modern titanium alloys for dental implants*. ICBE 2015: 17th International Conference on Biomedical Engineering, 17-18 august, 2015, Barcelona, Spania, p. 1386-1389.
2. Popa, M. V., Iordachescu, D., Demetrescu, I., Vasilescu, E., Drob, P., **Cimpean, A.**, Istratescu, M., Vasilescu, C. 2006. *In vitro biocompatibility and electrochemical behavior of titanium and its alloys*. Proceedings of "International Conference on Microtechnologies in Medicine and Biology (MMB06)", Pub. IEEE Service Center, Piscataway, NJ, USA, p. 12-15.
3. Popa, M. V., Vasilescu, E., Drob, P., Iordachescu, D., **Cimpean, A.**, Ionita, D., Vasilescu, C. 2006. *In vitro interactions of titanium bioalloys with human cells and physiological fluids*. Proceedings of "International Conference on Microtechnologies in Medicine and Biology (MMB06)", Pub. IEEE Service Center, Piscataway, NJ, USA, p. 81-84.

Național conferences

4. Iancu, C., Bachmeier, B., Condac, E., **Cimpean, A.**, Mitran, V., Iordachescu, D. 2005. *Efecte ale curcuminului asupra liniilor de carcinom mamar uman MDA-MB-231/MDA-MB-435*. Analele SNBC, vol. X, p. 91-95.
5. Bonoiu, A., Bucată, G., Ciubăr, R., Iancu, C., Homeghiu, C., Stan, C., **Cîmpean, A.**, Iordăchescu, D. 2005. *Studii in vitro privind rolul stresului oxidativ în apoptoza unor celule din piele iradiată UVA și gama*. Analele SNBC, vol. X, p. 96-100.
6. Ciubar, R., Mitran, V., Bonoiu, A., **Cimpean, A.**, Zarnescu, O., Iordachescu, D. 2005. *Studii in vitro pe trei modele celulare pe bază de fibroblaste pulmonare umane fetale privind citotoxicitatea nichelului*. Analele SNBC, vol. X, p. 386-390.
7. Caloianu, M., **Cîmpean, A.**, Moldovan, L., Zărnescu, Oancea, A. 2000. *Collagen - ideal substrate for the development of implantable chondrocytes*. 1st National Seminar "Biomaterials - present and future", Piatra Neamț, 30-31 august, Progresses in the biomaterial sciences, p. 79-82.

Patents

1. Calderon Moreno, J. M., Popa, M., Vasilescu, C., Drob, S. I., **Cimpean, A.**, Mitran, V. *Sonochemical procedure for antibacterial nano-coating applied on the new ternary Ti alloy surface with application in orthopaedic implantology*. Patent OSIM No. 132032/28.06.2019.
2. Dimonie, D., Trandafir, I., Nicolae, C., Gabor, R., Constantin, V., Petrache, M., Cimpean, A., Galateanu, B., Costache, M. "Composition and process for production of some hydrogels for adipose tissue regeneration". Patent OSIM No. 01263/29.11.2011.

Date: 10.11.2021

Prof. dr. Habil. Anisoara Cimpean