

LISTA DE LUCRARI

I. Lista de lucrari stiintifice publicate in reviste indexate in Web of Science

1. Nicu R, Ciolacu DE, Petrovici AR, Rusu D, Avadanei M, Mihaila AC, Butoi E, Ciolacu F. 3D Matrices for Enhanced Encapsulation and Controlled Release of Anti-Inflammatory Bioactive Compounds in Wound Healing. *Int J Mol Sci.* 2023 Feb 20;24(4):4213. doi: 10.3390/ijms24044213. **Impact factor: 6.208**
2. Vadana M, Cecoltan S, Ciortan L, Macarie RD, Mihaila AC, Tucureanu MM, Gan AM, Simionescu M, Manduteanu I, Droc I, Butoi E. Parathyroid Hormone Induces Human Valvular Endothelial Cells Dysfunction That Impacts the Osteogenic Phenotype of Valvular Interstitial Cells. *Int J Mol Sci.* 2022 Mar 29;23(7):3776. doi: 10.3390/ijms23073 776. **Impact factor: 6.208**
3. Sanz CG, Mihaila AC, Evangelidis A, Diculescu VC, Butoi E, Barsan MM. Quantification of cell oxygenation in 2D constructs of metallized electrospun polycaprolactone fibers encapsulating human valvular interstitial cells. *Journal of Electroanalytical Chemistry.* Volume 905, 15 January 2022, 116005 (IF: 4.46)
4. Mihaila AC, Ciortan L, Macarie RD, Vadana M, Cecoltan S, Preda MB, Hudita A, Gan AM, Tucureanu MM, Simionescu M, Schiopu A and Butoi E. Transcriptional profiling and functional analysis of N1/N2 neutrophils reveal an immunomodulatory effect of S100A9-blockade on the pro-inflammatory N1. *Front. Immunol.*, 2021, doi: 10.3389/fimmu.2021.708770. **Impact factor: 8.78**
5. Cecoltan S, Ciortan L, Macarie RD, Vadana M, Mihaila AC, Tucureanu MM, Vlad ML, Droc I, Gherghiceanu M, Simionescu A, Simionescu DT, Butoi E and Manduteanu I. High glucose induced changes in human VEC phenotype in a 3D hydrogel derived from cell-free native aortic root. *Front. Cardiovasc. Med.*, 2021 Aug 12;8:714573. **Impact factor: 6.05**
6. Ciortan L, Macarie RD, Cecoltan S, Vadana M, Tucureanu MM, Mihaila AC, Droc I, Butoi E, Manduteanu I. Chronic High Glucose Concentration Induces Inflammatory and Remodeling Changes in Valvular Endothelial Cells and Valvular Interstitial Cells in a Gelatin Methacrylate 3D Model of the Human Aortic Valve. *Polymers (Basel).* 2020 Nov 25;12(12):2786. doi: 10.3390/polym12122786. **Impact factor: 4.32**
7. Wu X, Niculite CM, Preda MB, Rossi A, Tebaldi T, Butoi E, White MK, Tudoran OM, Petrusca DN, Jannasch AS, Bone WP, Zong X, Fang F, Burlacu A, Paulsen MT, Hancock BA, Sandusky GE, Mitra S, Fishel ML, Buechlein A, Ivan C, Oikonomopoulos S, Gorospe M, Mosley A, Radovich M, Davé UP, Ragoussis J, Nephew KP, Mari B, McIntyre A, Konig H, Ljungman M, Cousminer DL, Macchi P, Ivan M. Regulation of cellular sterol homeostasis by the oxygen responsive noncoding RNA lincNORS. *Nat Commun.* 2020 Sep 21;11(1):4755. doi: 10.1038/s41467-020-18411-x. **Impact factor: 14.92**
8. Vadana M, Cecoltan S, Ciortan L, Macarie RD, Tucureanu MM, Mihaila AC, Droc I, Butoi E, Manduteanu I. Molecular mechanisms involved in high glucose-induced valve calcification in a 3D valve model with human valvular cells. *J Cell Mol Med.* 2020 Jun;24(11):6350-6361. **Impact factor: 5.31**
9. Macarie RD, Vadana M, Ciortan L, Tucureanu MM, Ciobanu A, Vinereanu D, Manduteanu I, Simionescu M, Butoi E. The expression of MMP-1 and MMP-9 is up-regulated by smooth

muscle cells after their cross-talk with macrophages in high glucose conditions. *J Cell Mol Med.* 2018 Sep;22(9):4366-4376. **Impact factor: 4.71**

10. Tucureanu MM, Rebleanu D, Constantinescu CA, Deleanu M, Voicu G, **Butoi E**, Calin M, Manduteanu I. Lipopolysaccharide-induced inflammation in monocytes/macrophages is blocked by liposomal delivery of Gi-protein inhibitor. *Int J Nanomedicine.* 2017 Dec 20;13:63-76. **Impact factor: 4.47**
11. **Butoi E**, Gan AM, Tucureanu MM, Stan D, Macarie RD, Constantinescu C, Calin M, Simionescu M, Manduteanu I. Cross-talk between macrophages and smooth muscle cells impairs collagen and metalloprotease synthesis and promotes angiogenesis. *Biochim Biophys Acta.* 2016 Jul;1863(7 Pt A):1568-78. **Impact factor: 4.52**
12. Simion V, Constantinescu CA, Stan D, Deleanu M, Tucureanu MM, Butoi E, Manduteanu I, Simionescu M, Calin M. P-Selectin Targeted Dexamethasone-Loaded Lipid Nanoemulsions: A Novel Therapy to Reduce Vascular Inflammation Mediators Inflamm. 2016;2016:1625149. doi: 10.1155/2016/1625149. Epub 2016 Sep 14
13. Tucureanu MM, **Butoi E**, Gan AM, Stan D, Constantinescu CA, Calin M, Simionescu M, Manduteanu I. Amendment of the cytokine profile in macrophages subsequent to their interaction with smooth muscle cells: Differential modulation by fractalkine and resistin. *Cytokine.* 2016 Jul;83:250-61. **Impact factor: 3.48**
14. Simion V, Stan D, Constantinescu CA, Deleanu M, Dragan E, Tucureanu MM, Gan AM, **Butoi E**, Constantin A, Manduteanu I, Simionescu M, Calin M. Conjugation of curcumin-loaded lipid nanoemulsions with cell-penetrating peptides increases their cellular uptake and enhances the anti-inflammatory effects in endothelial cells. *J Pharm Pharmacol.* 2016 Jan 8. doi: 10.1111/jphp.12513. Impact factor: 2.26. **Impact factor: 2.40**
15. Calin M, Stan D, Schlesinger M, Simion V, Deleanu M, Constantinescu CA, Gan AM, Pirvulescu MM, **Butoi E**, Manduteanu I, Bota M, Enachescu M, Borsig L, Bendas G, Simionescu M. VCAM-1 directed target-sensitive liposomes carrying CCR2 antagonists bind to activated endothelium and reduce adhesion and transmigration of monocytes. *Eur J Pharm Biopharm.* 2015 Jan;89:18-29. **Impact factor: 3.38**
16. **Butoi E**, Gan AM, Manduteanu I. Molecular and functional interactions among Monocytes/Macrophages and Smooth Muscle Cells and Their Relevance for Atherosclerosis. *Critical Reviews™ in Eukaryotic Gene Expression,* 2014, 24(4):341-355. **Impact factor: 2.358**
17. Gan AM, **Butoi E**, Manea A, Pirvulescu MM, Stan D, Simion V, Calin M, Simionescu M, Manduteanu I. Functional analysis of the fractalkine gene promoter in human aortic smooth muscle cells exposed to proinflammatory conditions. *FEBS J.* 2014, 281(17):3869-81. **Impact factor: 3.986**
18. Pirvulescu MM, Gan AM, Stan D, Simion V, Calin M, **Butoi E**, Manduteanu I. Subendothelial resistin enhances monocyte transmigration in a co-culture of human endothelial and smooth muscle cells by mechanisms involving fractalkine, MCP-1 and activation of TLR4 and Gi/o proteins signaling. *Int J Biochem Cell Biol.* 2014, 50:29-37. **Impact factor: 4.24**
19. Gan AM, Pirvulescu MM, Stan D, Simion V, Calin M, Manduteanu I, **Butoi E**. Monocytes and smooth muscle cells cross-talk activates STAT3 and induces resistin and reactive oxygen species production. *J Cell Biochem.* 2013, 114(10):2273-83. **Impact factor: 3.368**
20. Gan AM, **Butoi ED**, Manea A, Simion V, Stan D, Parvulescu MM, Calin M, Manduteanu I, Simionescu M. Inflammatory effects of resistin on human smooth muscle cells: up-regulation of fractalkine and its receptor, CX3CR1 expression by TLR4 and Gi-protein pathways. *Cell Tissue Res.* 2013, 351(1):161-74. **Impact factor: 3.68**
21. Simion V, Stan D, Gan AM, Pirvulescu MM, Butoi E, Manduteanu I, Deleanu M, Andrei E,

- Durdureanu-Angheluta A, Bota M, Enachescu M, Calin M, Simionescu M. Development of curcumin-loaded poly(hydroxybutyrate-co-hydroxyvalerate) nanoparticles as anti-inflammatory carriers to human-activated endothelial cells. *Journal of Nanoparticle Research*, 2013, 15:2108. **Impact factor: 2.278**
22. Pirvulescu M, Manduteanu I, Gan AM, Stan D, Simion V, **Butoi E**, Calin M, Simionescu M. A novel pro-inflammatory mechanism of action of resistin in human endothelial cells: up-regulation of SOCS3 expression through STAT3 activation. *Biochem Biophys Res Commun*. 2012, 1;422(2):321-6. **Impact factor: 2.284**
23. Postea O, Vasina EM, Cauwenberghs S, Projahn D, Liehn EA, Lievens D, Theelen W, Kramp BK, **Butoi ED**, Soehnlein O, Heemskerk JW, Ludwig A, Weber C, Koenen RR. Contribution of Platelet CX3CR1 to Platelet-Monocyte Complex Formation and Vascular Recruitment During Hyperlipidemia. *Arterioscler Thromb Vasc Biol*. May;32(5):1186-93, 2012. **Impact factor: 6.34**
24. **Butoi ED**, Gan AM, Manduteanu I, Stan D, Calin M, Pirvulescu M, Koenen RR, Weber C, Simionescu M. Cross talk between smooth muscle cells and monocytes/ activated monocytes via CX3CL1/CX3CR1 axis augments expression of pro-atherogenic molecules. *Biochim Biophys Acta*. 2011 Aug 22;1813(12):2026-2035. **Impact factor: 5.297**
25. Pirvulescu MM, Gan AM, Stan D, Simion V, Calin M, **Butoi ED**, Tirgoviste CI, Manduteanu I. Curcumin and a Morus alba Extract Reduce Pro-Inflammatory Effects of Resistin in Human Endothelial Cells. *Phytother Res*. Dec;25(12):1737-42, 2011. **Impact factor: 2.397**
26. D. Stan, M. Calin, I. Manduteanu, M. Pirvulescu, A-M Gan, **E. Dragomir Butoi**, V. Simion, M. Simionescu, High glucose induces enhanced expression of resistin in human U937 monocyte-like cell line by MAPKs and NF- κ B dependent mechanisms; the modulating effect of insulin, *Cell Tissue Res*. 2011 Feb;343(2):379-87. **Impact factor: 3.68**
27. Manduteanu, I., Pirvulescu, M., Gan, A.M., Stan, D., Simion, V., **Dragomir**, E., Calin, M., Simionescu, M. Similar effects of resistin and high glucose on P-selectin and fractalkine expression and monocyte adhesion in human endothelial cells. *Biochemical and Biophysical Research Communications*, Vol.391, No.3, pp.1443-1448, 2010; **Impact factor: 2.284**
28. Calin, M.V., Manduteanu, I., **Dragomir**, E., Dragan, E., Nicolae, M., Gan, A.M., Simionescu, M. Effect of depletion of monocytes/macrophages on early aortic valve lesion in experimental hyperlipidemia, *Cell and Tissue Research*, Vol. 336, No.2, pp.237-248, 2009; **Impact factor: 3.68**
29. Manduteanu, I., **Dragomir**, E., Calin, M., Pirvulescu, M., Gan, A.M., Stan, D., Simionescu, M. Resistin up-regulates fractalkine expression in human endothelial cells: Lack of additive effect with TNF- α , *Biochemical and Biophysical Research Communications*, Vol.381, No.1, pp.96-101, 2009; **Impact factor: 2.284**
30. **Dragomir**, E., Manduteanu, I., Calin, M., Gan, A.M., Stan, D., Koenen, R.R., Weber, C., Simionescu, M. High glucose conditions induce upregulation of fractalkine and monocyte chemotactic protein-1 in human smooth muscle cells, *Thrombosis and Haemostasis*, Vol.100, No.6, 1155-1165, 2008; **Impact factor: 5.76**
31. Georgescu, A., Popov, D., Dragan, E., **Dragomir**, E., Badila, E. Protective effects of nebivolol and reversal of endothelial dysfunction in diabetes associated with hypertension, *European Journal of Pharmacology*, Vol.570, No.1-3, pp.149-158, 2007; **Impact factor: 2.684**
32. Manduteanu, I., **Dragomir**, E., Voinea, M., Capraru, M., Simionescu, M. Enoxaparin reduces H₂O₂-induced activation of human endothelial cells by a mechanism involving cell adhesion molecules and nuclear transcription factors, *Pharmacology*, Vol.79, No.3, pp.154-162, 2007; **Impact factor: 1.6**

33. **Dragomir, E.**, Tircol, M., Manduteanu, I., Voinea, M., Simionescu, M. Aspirin and PPAR- α activators inhibit monocyte chemoattractant protein-1 expression induced by high glucose concentration in human endothelial cells, *Vascular Pharmacology*, Vol.44, No.6, pp.440-449, 2006; **Impact factor: 4.62**
34. **Dragomir, E.**, Simionescu, M. Monocyte chemoattractant protein-1 - A major contributor to the inflammatory process associated with diabetes, *Archives of Physiology and Biochemistry*, Vol.112, No.4-5, pp.239-244, 2006; **Impact factor: 2.44**
35. Voinea, M., Manduteanu, I., **Dragomir, E.**, Capraru, M., Simionescu, M. Immunoliposomes directed toward VCAM-1 interact specifically with activated endothelial cells - A potential tool for specific drug delivery. *Pharmaceutical Research*, Vol.22, No.11, pp.1906-1917, 2005; **Impact factor: 3.952**
36. **Dragomir, E.**, Manduteanu, I., Voinea, M., Costache, G., Manea, A., Simionescu, M. Aspirin rectifies calcium homeostasis, decreases reactive oxygen species, and increases NO production in high glucose-exposed human endothelial cells, *Journal of Diabetes and its Complications*, Vol.18, No.5, pp.289-299, 2004; **Impact factor: 1.925**
37. Voinea, M., Georgescu, A., Manea, A., **Dragomir, E.**, Manduteanu, I., Popov, D., Simionescu, M. Superoxide dismutase entrapped-liposomes restore the impaired endothelium-dependent relaxation of resistance arteries in experimental diabetes, *European Journal of Pharmacology*, Vol.484, No.1, pp.111-118, 2004; **Impact factor: 2.684**
38. Manduteanu, I., Voinea, M., Antohe, F., **Dragomir, E.**, Capraru, M., Radulescu, L., Simionescu, M. Effect of enoxaparin on high glucose-induced activation of endothelial cells, *European Journal of Pharmacology*, Vol.477, No.3, pp.269-276, 2003; **Impact factor: 2.684**
39. Voinea, M., **Dragomir, E.**, Manduteanu, I., Simionescu, M. Binding and uptake of transferrin-bound liposomes targeted to transferrin receptors of endothelial cells, *Vascular Pharmacology* Vol.39, No.1-2, pp. 13-20, 2002; **Impact factor: 4.62**
40. Manduteanu I., M.Voinea, M.Capraru, **E. Dragomir**, M. Simionescu. A novel attribute of enoxaparin: Inhibition of monocyte adhesion to endothelial cells by a mechanism involving cell adhesion molecules, *Pharmacology*. Vol.65, No.1, pp.32-37, 2002; **Impact factor: 1.6**

II. Lista de lucrari stiintifice publicate in reviste indexate in BDI

1. D. Stan, V. Simion, A-M Gan, M. Pirvulescu, **E. Butoi**, I. Manduteanu, M. Calin Monocyte infiltration through endothelial cell monolayer studied by a real-time electrical impedance assay. *Anale SRBC*, 2012.
2. Simion V, Gan A-M, Stan D, Pirvulescu M, Calin M, Butoi E, Manduteanu I. Resistin and high glucose concentrations-activation of human smooth muscle cells induces enhanced monocyte chemotaxis. *Romanian Journal of Diabetes, Nutrition and Metabolic Diseases* 19(1), pp. 17-24, 2012
3. M. Voinea, **E. Dragomir**, I. Manduteanu, M. Simionescu, Gene transfer into endothelial cells using transferrin bound cationic liposomes. *Proceedings of the Romanian Academy*, vol 6:203-206, 2004.

III. Capitole de carte

1. **Elena Butoi (Dragomir)**, Ileana Manduteanu. Fractalkine and its receptor in vascular dysfunction. Book chapter in “From Vascular Cell Biology to Cardiovascular Medicine”, Research Signpost, ISBN 978-81-7895-503-2, 2011.
2. Calin, M., **Butoi, E.**, Manea, SA., Simionescu, M., Manea, A. (2016). Lessons from Experimental-Induced Atherosclerosis: Valuable for the Precision Medicine of Tomorrow. In: Muresian, H. (eds) Arterial Revascularization of the Head and Neck. Springer, Cham. Print ISBN978-3-319-34191-0

IV. Brevete

1. Cecoltan Sergiu, Mihaela Vadana, Letitia Ciortan, Gan Ana-Maria, Tucureanu Monica Madalina, Mihaila Cristina Andreea, **Elena Butoi**. Procedeu de obținere a unui hidrogel din țesut cardiac funcționalizat cu un agent antiinflamator. Cerere de brevet de inventie, nr. A 100515 din 25.08.2022
2. Cecoltan Sergiu, **Elena Butoi**, Razvan Macarie, Letitia Ciortan, Mihaela Vadana, Ileana Manduteanu. Procedeu de obținere a unui model 3D de foită valvulară bioprintabilă, buletinul oficial de proprietate industrială, brevete de inventie, Nr. 5/2021.
3. Diana Elena Ciolacu, Anca Roxana Petrovici, Andreea Cristina Mihaila, **Elena Butoi**. Procedeu si compositie pentru obtinerea unor materiale pe baza de exopolizaharide cu potentielle aplicatii in ingineria tisulara a valvelor aortice, Nr. cerere: A 2019 00866, din 05.12.2019.

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