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Research interests

My fields of interest are cancer research, tumor cell biology, environmental biology and toxicology.
My activities in cancer research involve cell culture (obtaining and subculturing), cytotoxicity assays (MTT, Alamar blue, Presto Blue), immunocytochemistry assays, microscopy, molecular biology and diverse functional studies (flowchamber, eXceligence). The purpose of these activities is a better understanding of tumor growth and development (tumor cells and tumor microenvironment).
Another area of interest is the etiology of chronic kidney disease in relation with various environmental factors, especially aristolochic acid as a cofactor in the etiology on Balkan Endemic Nephropathy.

Relevant publications

1. In Vivo Biological Evaluation of Polyurethane Nanostructures with Ursolic and Oleanolic Acids on Chemically-induced Skin Carcinogenesis, C.Oprean, F. Borcan, I. Pavel, A. Dema, C. Danciu, C. Soica, C. Dehelean, A. Nicu, A. Ardelean, M. Cristea, A.Ivan, C. Tatu, F.Bojin; in vivo 30: 633-638 (2016)
2. In Vitro Testing the Cytotoxic Effect of Titanium-Hydroxyapatite Biomaterial, Voisan R, Cristea M, Tanasie G, Bojin F, Nistor D, Anghel S, Ionac M., Fiziologia - Physiology, 2016; 26.2(90): 23-28.
3. Evaluation of the in vitro secretory profile of the mesenchymal stem cells in contact with a titanium-hydroxyapatite biomaterial, Voisan R., Tanasie G., Cristea M., Marusciac L., Georgescu M., Tatu C., Ionac M., Fiziologia - Physiology, 2016; 26.2(90): 33-38.
4. Improvement of ursolic and oleanolic acids' antitumor activity by complexation with hydrophilic cyclodextrins, Oprean C. , Mioc M., Csányi E. , Ambrus R., Bojin F. , Tatu C., Cristea M., Ivan A., Danciu C., Dehelean C., Paunescu V., Soica C., Biomedicine & Pharmacotherapy, Vol. 83, October 2016, Pg. 1095–1104
5. Physico-chemical and biological evaluation of flavonols: fisetin, quercetin and kaempferol alone and incorporated in beta cyclodextrins, Danciu C, Bojin F, Ambrus R, Muntean D, Soica C, Paunescu V, Cristea M, Pinzaru I, Dehelean C., Anticancer Agents Med Chem. 2016 Jun 20
6. Mesenchymal stromal cells support the viability and differentiation of thymocytes through direct contact in autologous co-cultures, Seyed Mohammad Reza Azghadi, Maria Suciu, Alexandra Teodora Gruia, Lucian Barbu -Tudoran, Mirabela Iustina Cristea, Ani Aurora Mic, Danina Muntean, Dragos Vasile Nica, Felix Aurel Mic, Histochem Cell Biol, p1-13, First online: 16 April 2016, DOI 10.1007/s00418-016-1430-y
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8. Polyurethane Nanostructures Incorporating Ursolic and Oleanolic Acids: In Vitro Antiproliferative Evaluation , Oprean C, Borcan F, Cristea M, Bojin F, Ivan A, Mioc M, Trandafirescu C, Soica C, Paunescu V;Fiziologia – Physiology, 2015.25.1(85), 39-44

9. Telomere Lenght Changes in Alzheimer Disease, Groza S., Anghel S., Cristea M., Tatu C., Tanasie G., Panaitescu C.,Gavriliuc O., Paunescu V., Bojin F.; Fiziologia – Physiology, 2014.24.2 (82); 27-30
10. Adipocytes Differentiated in vitro from Rat Mesenchymal stem Cells Lack Essential Free Fatty Acids Compared to Adult Adipocytes, Florina Maria Bojin, Alexandra Teodora Gruia, Mirabela-Iustina Cristea, Valentin Laurentiu Ordodi, Virgil Paunescu, Felix Aurel Mic; Stem Cells Dev. 2012 Mar 1;21(4):507-12.
11. The morphology of colonies from breast cancer sk-br-3 cells in semisolid media depends on the media composition Cean A, Istratoaie B, Cristea M, Ivan A, Anghel S, Bojin F, Tanasie G, Tatu C, Panaitescu C, Paunescu V.; Fiziologia - Physiology, 2012; 22(75): 5-8.
12. Controversies related to cell cultures obtained from various tissular samples, Bojin F, Gavriliuc O, Ordodi V, Cristea M, Anghel S, Crisnic D, Nistor D, Tatu C, Tanasie G, Panaitescu C, Paunescu V.. Fiziologia - Physiology, 2011; 21(72): 4-9.
13. Telocytes within human skeletal muscle stem cell niche, Bojin FM, Gavriliuc OI, Cristea MI, Tanasie G, Tatu CS, Panaitescu C, Paunescu V. J Cell Mol Med. 2011; 15(10):2269-2272.
14. *Aristolochia clematitis* in traditional medicine recipes: toxin or remedy?, Mirabela I. Cristea, Alexandra T. Gruia, Valentin L. Ordodi, Oana I. Gavriliuc, Ileana Scurtu, Violeta Moica, Simona Anghel, Florin Margineanu, Nikola Pavlovic, Elena Gai, Victor Dumitrascu, Fabian Tatu, Virgil Paunescu, Calin A. Tatu, Central European Journal of Occupational an Environmental Medicine, 2009;Vol. 15, No 1-2; 7-18
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16. Adhesion behavior and functional studies on normal and tumoral cells exposed to *Aristolochia clematitis* aqueous extracts, Mirabela Cristea, Alexandra Gruia, Florina Bojin, Elena Gai, Moica Violeta, Florina Boldeanu, Gabriela Tanasie, Calin Tatu,Virgil Paunescu, Analele Ştiinţifice ale Universităţii „Alexandru Ioan Cuza”din Iasi, Secţiunea Genetică şi Biologie Moleculară, TOM XI, 2010,pg 107-112, ISSN 1582-3571
17. Stromal Cells - Tumor Microenvironment Interactions – Part I, Florina Bojin, Calin Tatu, Oana Gavriliuc, Alexandra Gruia, Gabriela Tanasie, Carmen Tatu, Mirabela Cristea, Felicia Ciuculescu, Alexandru Tocut, Daniela Crisnic, Adrian Carabineanu, Daciana Nistor, Carmen Bunu, Virgil Paunescu, Fiziologia - *Physiology* 2010.20.1(65), pg. 37-41, ISSN 1223-2076
18. Stromal Cells - Tumor Microenvironment Interactions – Part II , Florina Bojin, Calin Tatu, Oana Gavriliuc, Alexandra Gruia, Gabriela Tanasie, Carmen Tatu, Mirabela Cristea, Felicia Ciuculescu, Alexandru Tocut, Daniela Crisnic, Adrian Carabineanu, Daciana Nistor, Carmen Bunu, Virgil Paunescu, Fiziologia - *Physiology* 2010.20.2(66), pg. 31-36. ISSN 1223-2076
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20. *In Vitro* Characterization of Mechanisms Involved in Adipogenic Differentiation of Mesenchymal Stem Cells and Tumor Associated Fibroblasts.,F Bojin, CA Tatu, O Gavriliuc, V Ordodi, A Gruia, A Rosca, G Tanasie, C Tatu, D Crisnic, D Nistor, M Cristea, S Anghel, A Boleman, C Bunu, V Paunescu, *Fiziologia-Physiology*, 2009, vol. 19, nr. 4 (64), pg. 21-27. ISSN 1223-2076

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