

Curriculum Vitae

PERSONAL INFORMATION:

Surname: Gruia

First and Middle Names: Alexandra Teodora

Nationality: Romanian

Date and Place of Birth: 03.24.1982, Timisoara, Timis, Romania

Place of Issuance City: Timisoara

State/Province: Timis

Country: Romania

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EDUCATION:

- 2007-2014 – PhD studies (Thesis: Virtual Screening for Ligands of Adrenergic Receptors α_2), Institute of Chemistry of Romanian Academy Timisoara (<http://acad-icht.tm.edu.ro/en/index.htm>).
- 2005-2007 – Master Degree in Transdisciplinary Study of Environmental Protection (Dissertation: Antioxidants – Characterization and Role), Chemistry-Biology-Geography Faculty, West University of Timisoara.
- 2001-2005 – Bachelor Degree in Chemistry-Biology (Thesis: Seabuckthorn, between value and valorification), Chemistry-Biology-Geography Faculty, West University of Timisoara (<http://www.chimie.uvt.ro/index.php?lg=en>).
- 2001-2005 – Teacher Training Module, West University of Timisoara (www.dppd.uvt.ro).

WORK EXPERIENCE:

1. November 2005 – present, Emergency Clinical County Hospital Timisoara, 10 Bv. Iosif Bulbuca, Romania, Immunology of Transplant Department (<http://www.umft.ro/newpage/cifbtm/>), Research Assistant – Chemist.

Main activities and responsibilities:

- Analytical Chemistry (HPLC, GC-MS, GC-FID);
- *In vitro* (cytotoxicity) and *in vivo* studies;
- Immunology Techniques: flowcytometry, immunohistochemistry, immunofluorescence;
- Molecular biology techniques: RNA, DNA extraction; electrophoresis, PCR technique; quantitative real-time PCR.

2. January 2008 – October 2010, Institute of Chemistry Timisoara of Romanian Academy, 24 Bv. Mihai Viteazu, Timișoara, Romania, Computational Chemistry Department (<http://acad-icht.tm.edu.ro/proiecte/idei/idei.htm>), Research Assistant – Chemist.

Main activities and responsibilities:

- QSAR;
- Data bases;
- Conformational analysis;
- Molecular modeling.

3. Short-term scholarship, July 8th-September 4th, 2008, Division of Biocomputing, The University of New Mexico, Albuquerque. (<https://vivo.health.unm.edu/display/n7948>)

- Data mining;
- Virtual screening;
- Molecular modeling.

4. A stage of 5 weeks (February-March 2011 and February-March 2012) at Eastern Energy Resources Science Center, US Geological Survey, Reston, Virginia.

(<http://energy.usgs.gov/Coal/AssessmentsandData/CoalQuality.aspx>)

Main activities and responsibilities:

- Field work: to collect samples (water, soil, coal, plants).
- To process samples in laboratory.
- To analyze samples: LC-MS, GC-MS.

COURSES:

- „Pathologie et Pharmacologie Moleculaires. Biotechnologies”, a XII-a edition of summer course of West University „Vasile Goldis” of Arad, July 2006;
- Mitofood meeting, Action FA0602: Bioactive food components, mitochondrial function and health, COST-FA0602, Debrecen, 01.06.09-02.06.09.
- EMBO Practical Course, Lipid Mass Spectrometry and Lipidomics, 19-24 August 2012, Swansea, United Kingdom (<http://events.embo.org/12-lipid-ms/programme.html>).

ABSTRACTS:

1. **Gruia A**, Moldovan F, Ilie D, Ordodi VL, Orem WH, Lerch HE, Pavlovic N, Tatu CA, Paunescu V, Aristolochia clematitis and Balkan endemic nephropathy in Romania: is there a connection?, 2006, 30(S1): 36-36. (IF 0.5)
2. CI Peev, CA Dehelean, CM Soica, GH Coneac, **AT Gruia**, The analysis of birch tree bark main components as toxicity on human mesenchymal stem cells, Conference: 45th Congress of the European-Societies-of-Toxicology Location: Rhodes, GREECE Date: OCT 05-08, 2008 Sponsor(s): European Soc Toxicol TOXICOLOGY LETTERS, Volume: 180, Supplement: 1, Pages: S100-S100.
3. Bojin MF, Paunescu V, Tatu C, Rosca A, Gavriiliuc O, Crisnic D, Bunu C, Tanasie G, Tatu C, **Gruia A**, Nistor D, Tumor microenvironment induces in human mesenchymal stem cells behaviour, Journal of Physiological Sciences, 2009, 59(S1): 443-443. (IF 1.899)
4. FM Bojin, CA Tatu, O Gavriiliuc, F Ciuculescu, M Cristea, A Rosca, S Anghel, **A Gruia**, D Crisnic, G Tanasie, C Tatu, D Nistor, C Bunu, V Paunescu, In vitro characterization of tumor-associated fibroblasts as supportive network for cancer development, International Immunology, 2010, 22 Supplement(1): iii167, ISSN 0953-8178.
5. Suresh M., Bojin F, Anghel S, **Gruia A**, Ordodi VL, Tatu C, Bone defect healing induced by mesenchymal stem cells, European Journal of Medical Research, 2010, 15, S1, 104-104. (IF 1.50)
6. Bojin MF, Gavriiliuc OI, Cristea IM, Gruia AT, Anghel S, Tatu CS, Tanasie G, Panaitescu C, Tatu CA, Paunescu V, Ouabain Inhibits in Vitro Proliferation of Tumour-associated Fibroblasts and Breast Cancer Cell Lines, Conference: 22nd Biennial Congress of the European-Association-for-Cancer-Research Location: Barcelona, SPAIN, 2012, Sponsor(s): European Assoc Canc Res, EUROPEAN JOURNAL OF CANCER, Volume: 48 Supplement: 5, Pages: S52-S52.

PUBLISHED PAPERS:

1. C. Lazau, L. Mocanu, I. Miron, P. Sfirloaga, G. Tanasie, C. Tatu, **A. Gruia**, I. Grozescu, Consideration Regarding the Use of TiO₂ Doped Nanoparticles in Medicine, *Digest Journal of Nanomaterials and Biostructures*, 2007, 2(3):257 – 263.
2. Mirabela I. Cristea, **Alexandra T. Gruia**, Valentin L. Ordodi, Oana I. Gavriiliuc, Ileana Scurtu, Violeta Moica, Simona Anghel, Florin Margineanu, Nikola Pavlovic, Elena Gai, Victor Dumitrascu, Fabian Tatu, Virgil Paunescu, Calin A. Tatu, Aristolochia Clematitis in Traditional Medicine Recipes: Toxin or Remedy?, *Central European Journal of Occupational and Environmental Medicine*, 2009, 15(1-2):7-18.
3. Paunescu V, Bojin FM, Tatu CA, Gavriiliuc OI, Rosca A, **Gruia AT**, Tanasie G, Bunu C, Crisnic D, Gherghiceanu M, Tatu FR, Tatu CS, Vermesan S, Tumour-associated fibroblasts and mesenchymal stem cells: more similarities than differences, *J Cell Mol Med*, 2011, 15(3):635-46.

4. Gabriela Tanasie, Florina Bojin, Valentin Ordodi, **Alexandra Gruia**, Oana Gavriiliuc, Mirabela Cristea, Atena Galuscan, Cristina Dehelean, Roxana Vintila, Calin Tatu, Carmen Bunu Panaitescu, Virgil Paunescu, Epithelization of skin lesions in animal model treated with mesenchymal stem cells and derivatives, *Romanian Biotechnological Letters*, 2011, 16(2):6072-6079.
5. F. Bojin, V. Ordodi, S. Anghel, **A. Gruia**, O. Gavriiliuc, R. Georgescu, A. Galuscanu, R. Vintila, C.A. Tatu, C. Bunu, C. Tatu, G. Tanasie, V. Paunescu, Mesenchymal stem cells admix with biological scaffold heal bone defects in rat model, *Romanian Biotechnological Letters*, 2011, 16(3): 6218-6225.
6. Bojin FM, **Gruia AT**, Cristea MI, Ordodi VL, Paunescu V, Mic FA, Adipocytes differentiated in vitro from rat mesenchymal stem cells lack essential free fatty acids compared to adult adipocytes, *Stem Cells Dev.*, 2012 Mar 1; 21(4):507-12.
7. Florina M. Boldeanu, **Alexandra T. Gruia**, Valentin L. Ordodi, Margit Serban, Peter Bader, Hermann Kreyenberg, Childhood Acute Lymphoblastic Leukemia: Detection of Minimal Residual Disease after Allogeneic Transplantation, *Revista Română de Medicină de Laborator*, 2012, 20(3):59-67.
8. Carmen S. Tatu, Florina M. Bojin, **Gruia T. Alexandra**, Valentin L. Ordodi, Felix A. Mic, Iman Vlad, Ada Cean, Oana I. Gavriiliuc, Virgil Paunescu, Features of Lipid Metabolism along Differentiation Pathway of Human Mesenchymal Stem Cells towards Mature Adipocytes, *Romanian Biotechnological Letters*, 2014, 19(2): 9257-9271.

RESEARCH ASSISTANT IN RESEARCH PROJECTS:

1. The Obtaining of nanocomposites/nanocrystals with applications in biotechnology, agriculture, alimentation, health and environmental protection, (NUSA), PC-D02-PT04-514, 2005-2007;
2. Novel strategies for immune response modulation in the elderly: The impact of telomerase and of apoptosis on the T cell immunosenescence process, (SENTAP), CEEX PCD, No.1068/2006, 2006-2008.
3. The Study of Implementation of Some Vegetal Antitumor Triterpenic Bioproducts Inclusive by Inclusion in Nanostructures, in Cutaneous Therapies by their Efficacy/Toxicity Analysis, PNCD II IDEAS, No.1257/2007, 2007-2010.
4. Development of a phytopharmaceutical product for additional therapy and of prevention of mammary neoplasia, INOVATION, No.69/2007, 2007-2010.
5. Virtual Screening for Ligands of Adrenergic Receptors, PNCD II IDEAS, No. 248/2007, 2007-2010.
6. Genetic Engineering of Cancer Stem Cells for Immune Response Modulation in Cancers of Non-Viral Origin, (ONCOSTEM), CEEX PCD, No.1276/2007, 2007-2010.
7. Novel Therapeutical Strategies of immunosenescence and senescence process, (AGEing), CEEX PCD, No.1202/2007, 2007-2010.
8. Hypoglycemic and Antioxidant Nutritional Supplements with Antocyanidine Structure, (ACRONIM SAHASA), CEEX PCD, No.2431/2008, 2008-2011.
9. Cardioprotective Strategies at Reperfusion – Mitochondria as Multiple Therapeutic Target, (CARDIO-MITO-PROT), CEEX PCD, No.2560/2008, 2008-2011.
10. The molecular mechanisms of thymus involution in diabetes (DIATIM), CEEX PCD, No.1438/2008, <http://www.hosptm.ro/proiectul-420982008/>, 2008-2010.
11. Modeling and simulation of the dynamics of thymocyte populations and cells of the thymus medulla under normal and pathological situations, PN-II-ID-PCE-2011-3-0571, <http://simtim.umft.ro/>, 2011-2015.

LANGUAGES:

- English – C1; French – B2; German – B1.