

INFORMAȚII PERSONALE

TATU CALIN ADRIAN

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Naționalitatea Romana

- 06/2010-06/2012** **Cercetator asociat , stiintele mediului si toxicologie**
US Geological Survey, 12201 Sunrise Valley Dr., Reston, VA 20192, SUA, www.usgs.gov
▪ recoltare, prelucrare, analiza probe de mediu
- 01/2007-prezent** **Cercetare in domeniul poluarii si a medicinei ambientale**
Conferentiar Disciplina de Imunologie si Alergologie, Biologie, UMF Timisoara
Universitatea de Medicina si Farmacie Victor Babes Timisoara, Disciplina de Imunologie si Alergologie, Biologie
P-ta Eftimie Murgu nr. 2, Timisoara, Romania, www.umft.ro
▪ implicare in proiecte de cercetare si activitate didactica academica
- 03/2001-12/2006** **Cercetare in domeniul biomedical si activitate didactica**
Sef lucrari Disciplina de Imunologie, UMF Timisoara
Universitatea de Medicina si Farmacie Victor Babes Timisoara, Disciplina de Biologie
P-ta Eftimie Murgu nr. 2, Timisoara, Romania, www.umft.ro
▪ implicare in proiecte de cercetare si activitate didactica academica
- 01/2017-prezent** **Cercetare in domeniul biomedical si activitate didactica**
Medic primar laborator Clinic
Centrul Oncogen Timisoara, Blvd. Liviu Rebreanu 156, www.oncogen.ro
- 01/2005-2016** **Medic specialist laborator clinic**
Centrul de Imunofiziologie si Biotehnologii Timisoara (centru CNCSIS)
Bd. Iosif Bulbuca Nr. 10, Timisoara, Romania, www.umft.ro
▪ recoltare, prelucrare, analiza probe biologice
- 02/1999-03/2001** **Cercetare biomedicala**
Asistent cercetare
Institutul de Sanatate Publica Timisoara
Bd. Dr. Victor Babes nr.16-18, Timisoara, Romania
▪ recoltare, prelucrare, analiza probe de mediu si probe biologice
- 01/1997-01/1999** **Cercetare in domeniul poluarii si a medicinei ambientale**
Cercetator postdoctoral
University of North Carolina – Chapel Hill, Department of Microbiology and Immunology, Chapel Hill, NC, SUA, www.unc.edu
▪ implicare in proiecte de cercetare de imunologie: biologie moleculara, dezvoltarea de modele animale, citometrie in flux, histochimie, microscopie optica
Cercetare in domeniul imunogeneticii/repertoriu Ig la modele animale murine

EXPERIENȚA PROFESIONALĂ

EDUCAȚIE ȘI FORMARE

- 1990-1996 **Medic Medicina Generala**
 Universitatea de Medicina si Farmacie Victor Babes Timisoara,
 P-ta Eftimie Murgu nr. 2, Timisoara, Romania, www.umft.ro
- curicula facultatii de medicina generala umana
- 2000-2004 **Medic Laborator Clinic**
 Universitatea de Medicina si Farmacie Victor Babes Timisoara,
 P-ta Eftimie Murgu nr. 2, Timisoara, Romania, www.umft.ro; Spitalul Clinic Judetean de Urgenta Timisoara, Romania
- specializare laborator clinic -diagnostic
- 2001-2004 **Doctor în Stiinte Medicale**
specializare: Medicina Interna
 Universitatea de Medicina si Farmacie Victor Babes Timisoara,
 P-ta Eftimie Murgu nr. 2, Timisoara, Romania, www.umft.ro
- Etiologia nefropatiei endemice balcanice

Limba(i) maternă(e) Romana

Alte limbi străine cunoscute

	INTELEGERE		VORBIRE		SCRIERE
	Ascultare	Citire	Participare la conversație	Discurs oral	
Engleza	C1	C1	C1	C1	C1
TOEFL/CAMBRIDGE 2022					

Niveluri: A1/2: Utilizator elementar - B1/2: Utilizator independent - C1/2: Utilizator experimentat
 Cadrul european comun de referință pentru limbi străine

- Competențe de comunicare
 Competențe organizaționale/manageriale
- bune competențe de comunicare dobândite prin experiența proprie in laboratoare din SUA
 - leadership (în prezent, sunt responsabil de o echipă de 5 persoane
 - coordonator sau responsabil proiecte de cercetare
 - consilier pentru Europa de Est (2003-2008) al IMGGA (International Medical Geology Association)

COMPETENTE PERSONALE

- Competențe dobândite la locul de muncă
- abilitati tehnice; mentenanta echipamente analitice de laborator si de microscopie
 - capacitate de adaptare la medii variate sociale si culturale, obtinuta prin stagiile de pregatire in strainatate si prin colobararile în proiecte internationale
 - o buna capacitate de comunicare, obtinuta ca urmare a stagiilor de pregatire in diverse laboratoare
 - experienta în domeniul managementului de proiect, obtinuta în urma coordonarii de proiecte cu finantare nationala si internationala
 - experienta în organizarea de evenimente stiintifice nationale si internationale
 - experienta în domeniul managementului echipei, obtinuta în context profesional
- Competențe informatice
- o bună cunoaștere a instrumentelor Microsoft Office™
 - cunoastere a diverse instrumente de procesare imagine
 - cunoastere a unor instrumente de chimie computationala
 - certificare utilizare AI

- Permis de conducere
 Alte competente
- B
 - Fotografie

PRINCIPALELE ARTICOLE PUBLICATE IN REVISTE COTATE ISI/BAZE DE DATE

1. E Pahonțu, CED Pîrvu, LI Socea, TV Apostol, C Oprean, CA Tatu et al. (2025) Biomolecular Interaction, Molecular Docking, Antimicrobial, Antioxidant, Antitumor, Cell Cycle Analysis, and Annexin V/PI Assay Efficiency of Some Co (II), Cu (II), Mn (II), Ni (II), Pd (II), and Pt (II) Complexes With a Halogenated Bidentate Schiff Base. *Applied Organometallic Chemistry* 39 (12), e70462.
2. MA Pricop, A Negrea, M Ciopec, IB Pascu, C Oprean, AT Lukinich-Gruia, MI Cristea, A Ivan, V Paunescu, CA Tatu (2025) Aristolochic Acid I Adsorption onto Activated Carbon: Kinetics, Equilibrium, and Thermodynamic Studies. *Processes* 13 (11), 3397.
3. Ivan A, Pricop MA, Lukinich-Gruia AT, Cristea IM, Negrea A, Pascu IB, Calma CL, Paunescu A, Paunescu V, Tatu CA. (2025) Cellular Metabolic Responses to Copper Nanoparticles: Comparison Between Normal and Breast Cancer Cells. *Int J Mol Sci Nov* 4;26(21):10716. doi: 10.3390/ijms262110716.
4. Watz CG, Mihali CV, Oprean C, Krauss Maldea L, Tatu CA, Nicolov M, Sirbu IO, Dehelean CA, Socoliuc V, Moacă EA. (2025) Fe₃O₄@β-cyclodextrin Nanosystem: A Promising Adjuvant Approach in Cancer Treatment. *Nanomaterials (Basel)* Aug 4;15(15):1192. doi: 10.3390/nano15151192.
5. Ivan A, Lukinich-Gruia AT, Cristea IM, Pricop MA, Calma CL, Simina AG, Tatu CA, Galuscan A, Păunescu V. (2024) Quercetin and Mesenchymal Stem Cell Metabolism: A Comparative Analysis of Young and Senescent States. *Molecules* Dec 5;29(23):5755. doi: 10.3390/molecules29235755.
6. Pricop MA, Lukinich-Gruia AT, Cristea IM, Păunescu V, Tatu CA. (2024) *Aristolochia clematitis* L. Ethanolic Extracts: In Vitro Evaluation of Antioxidant Activity and Cytotoxicity on Caco-2 Cell Line. *Plants (Basel)* Oct 25;13(21):2987. doi: 10.3390/plants13212987.
7. Ivan A, Cristea MI, Telea A, Oprean C, Galuscan A, Tatu CA, Paunescu V. (2023) Stem Cells Derived from Human Exfoliated Deciduous Teeth Functional Assessment: Exploring the Changes of Free Fatty Acids Composition during Cultivation. *Int J Mol Sci.* 2023 Dec 8;24(24):17249. doi: 10.3390/ijms242417249
8. Ordodi VL, Hădărugă NG, Hădărugă DI, Lukinich-Gruia AT, Mărgineanu M, Tatu CA, Păunescu V. (2023) Urine Metabolomic Signature of People Diagnosed with Balkan Endemic Nephropathy and Other Types of Chronic Kidney Disease Compared with Healthy Subjects in Romania. *Metabolites.* 2023 Apr 28;13(5):609. doi: 10.3390/metabo13050609
9. Lukinich-Gruia AT, Nortier J, Pavlović NM, Milovanović D, Popović M, Drăghia LP, Păunescu V, Tatu CA. (2022) Aristolochic acid I as an emerging biogenic contaminant involved in chronic kidney diseases: A comprehensive review on exposure pathways, environmental health issues and future challenges. *Chemosphere.* Feb 26;297:134111. DOI: [10.1016/j.chemosphere.2022.134111](https://doi.org/10.1016/j.chemosphere.2022.134111)
10. Wanlin Guo, Jiayin Zhang, Zhihan Sun, William H Orem, Calin A Tatu, Niko S Radulović, Dragan Milovanović, Nikola M Pavlović, Wan Chan (2021) Analysis of Polycyclic Aromatic Hydrocarbons and Phthalate Esters in Soil and Food Grains from the Balkan Peninsula: Implication on DNA Adduct Formation by Aristolochic Acid I and Balkan Endemic Nephropathy. *Environmental Science & Technology.* <https://doi.org/10.1021/acs.est.1c00648>
11. Lavinia Paula Drăghia, Alexandra Teodora Lukinich-Gruia, Camelia Oprean, Nikola M Pavlović, Virgil Păunescu, Călin Adrian Tatu (2021) Aristolochic acid I: an investigation into the role of food crops contamination, as a potential natural exposure pathway. *Environmental Geochemistry and Health.* <https://doi.org/10.1007/s10653-021-00903-4>
12. Alexandra Ivan, Dilys Lam, Mirabela Iustina Cristea, Ada Telea, Alexandra Teodora Gruia, Camelia Oprean, Florin Margineanu, Florina Maria Bojin, Richard Saffery, Virgil Paunescu, Calin Adrian Tatu (2020) Differential methylation pattern of xenobiotic metabolizing genes and susceptibility to Balkan endemic nephropathy, in a cohort of Romanian patients. *Journal of Nephrology.* <https://doi.org/10.1007/s40620-019-00621-2>
13. AT Lukinich-Gruia, C Jianu, CA Tatu (2019) Chemical Composition of the Essential Oil Obtained from *Aristolochia clematitis* Leaves from the Western Part of Romania. *Chemistry of Natural Compounds.* <https://doi.org/10.1007/s10600-019-02862-v>
14. Weiwei Li, Chi-Kong Chan, Yushuo Liu, Jing Yao, Branka Mitić, Emina N Kostić, Biljana Milosavljević, Ivana Davinić, William H Orem, Calin A Tatu, Peter C Dedon, Nikola M Pavlović, Wan Chan (2019) Aristolochic acids as persistent soil pollutants: determination of risk for human exposure and nephropathy from plant uptake. *Journal of agricultural and food chemistry.* <https://doi.org/10.1021/acs.jafc.8b04770>
15. Alexandra T Gruia, Camelia Oprean, Alexandra Ivan, Ada Cean, Mirabela Cristea, Lavinia Draghia, Roxana Damiescu, Nikola M Pavlović, Virgil Paunescu, Calin A Tatu (2018) Balkan endemic nephropathy and aristolochic acid I: an investigation into the role of soil and soil organic matter contamination, as a potential natural exposure pathway. *Environmental geochemistry and health.* <https://doi.org/10.1007/s10653-017-0065-9>
16. William Orem, Matthew Varonka, Lynn Crosby, Karl Haase, Keith Loftin, Michelle Hladik, Denise M Akob, Calin Tatu, Adam Mumford, Jeanne Jaeschke, Anne Bates, Tiffani Schell, Isabelle Cozzarelli (2017) Organic geochemistry and toxicology of a stream impacted by unconventional oil and gas wastewater disposal operations. *Applied Geochemistry.* <https://doi.org/10.1016/j.apgeochem.2017.02.016>
17. Peter George Mantle, Diana Herman, Calin Tatu (2016) Is Aristolochic acid really the cause of the Balkan endemic nephropathy? *Journal of Controversies in Biomedical Research.* <https://doi.org/10.15586/jcbmr.2016.14>
18. Pavlović NM, Orem WH, Tatu CA, Lerch HE, Bunnell JE, Feder GL, Kostic EN, Ordodi VL. (2008) The role of lecithin cholesterol acyltransferase and organic substances from coal in the etiology of Balkan endemic nephropathy: a new hypothesis. *Food Chem Toxicol.* 46(3):949-54.
19. Ordodi VL, Paunescu V, Ionac M, Sandesc D, Mic AA, Tatu CA, Mic FA. (2008) Artificial Device for Extracorporeal Blood Oxygenation in Rats, *Artif Organs*, 32(1):66-70 (5) (factor impact: 1,903).
20. Paunescu V, Deak E, Herman D, Siska IR, Tanasie G, Bunu C, Anghel S, Tatu CA, Oprea TI, Henschler R, Ruster B, Bistriar R, Seifried E. (2007) In vitro Differentiation of Human Mesenchymal Stem Cells to Epithelial Lineage, *J Cell Mol Med.* 11(3):502-508 (factor impact: 6,555).
21. Orem WH, Tatu CA, Lerch HE, Rice CA, Bartos TT, Bates AL, Tewart S, Corum MD. (2007) Organic compounds in produced waters from coalbed natural gas wells in the Powder River Basin, Wyoming, USA. *Applied Geochem.*, 22(10):2240-2256.
22. Hadaruga NG, Hadaruga DI, Paunescu V, Tatu CA, Ordodi VL, Bandur G and Lupea AX. (2006) Thermal stability of the linoleic acid/α- and β-cyclodextrin complexes. *Food Chemistry* 99(3): 500-508 (factor impact: 2,433)
23. Orem WH, Tatu CA, Lerch III HE, Maharaj SVM, Pavlović N, Paunescu V, Dumitrascu V. (2004) Identification and Environmental Significance of the Organic Compounds in Water Supplies associated with a Balkan Endemic Nephropathy Region in Romania. *J. Environ. Health Res.* 3(2): 53-61 (factor impact: 0,403)
24. Paunescu V, Suciuc E, Tatu C, Plesa A, Herman D, Siska IR, Suciuc C, Crisnic D, Nistor D, Tanasie G, Bunu C, Raica M. (2003) Endothelial cells from hematopoietic stem cells are functionally different from those of human umbilical vein, *J Cell Mol Med.* 7(4):455-60 (factor impact: 1,694)
25. Orem WH, Tatu CA, Feder GL, Finkelman RB, Lerch HE, Maharaj S, Szilagyi D, Dumitrascu V, Paunescu V, Margineanu F. (2002) Environment, geochemistry, and the etiology of Balkan Endemic Nephropathy: lessons from Romania, *Facta Universitatis, Medicine and Biology* 9, 39-46
26. Finkelman RB, Orem WH, Castranova V, Tatu CA, Belkin HE, Zheng B, Lerch HE, Maharaj SV, Bates AL. (2002) Health impacts of coal and coal use: possible solutions. *International Journal of Coal Geology*, 50(1-4): 425-443.

27. Feder GL, Tatu CA, Orem WH, Paunescu V, Dumitrascu V, Szilagyi D, Finkelman RB, Margineanu F and Schneider F. (2002) Weathered coal deposits and Balkan Endemic Nephropathy. *Facta Universitatis, Medicine and Biology*, 9:34-38.
28. Tatu CA, Clarke SH. (2000) Selective maturation of VH12 B cells in the spleen enriches for anti-phosphatidyl choline B cells: evidence for receptor editing. *Curr Top Microbiol Immunol*, 252:77-86.
29. Arnold LW, McCray SK, Tatu CA, Clarke SH. (2000) Identification of a precursor to phosphatidyl choline-specific B-1 cells suggesting that B-1 cells differentiate from splenic conventional B cells in vivo: cyclosporin A blocks differentiation to B-1. *J. Immunol.*, 164: 2924-2930.
30. Tatu CA, Orem WH, Feder GL, Finkelman RB, Szilagyi DN, Dumitrascu V, Margineanu F, and Paunescu V. (2000) Additional support for the role of the Pliocene lignite derived organic compounds in the etiology of Balkan endemic nephropathy. *J. Med. Biochem.* 4:95-101 (factor impact: 4,134)
31. Tatu CA, Orem WH, Feder GL, Paunescu V, Dumitrascu V, Szilagyi DN, Finkelman RB, Margineanu F, Schneider F. (2000) Balkan endemic nephropathy etiology: a link to the geological environment. *Central European Journal of Occupational and Environmental Medicine* 6:138-150 – 3 citari
32. Tatu CA, Ye J, Arnold LW, Clarke SH. (1999) Selection at multiple checkpoints focuses V(H)12 B cell differentiation toward a single B-1 cell specificity. *J Exp Med.*, 190: 903-914.
33. Tatu CA, Orem WH, Finkelman RB, Feder GL. (1998) The etiology of Balkan endemic nephropathy: still more questions than answers. *Environ. Health Perspect.* 106:689-700.
34. Tatu CA, Drugarin D, Paunescu V, Stanescu DI, Schneider F. (1998) Balkan endemic nephropathy, the haematopoietic system and the environmental connection, *Food Chem Toxicol.* 36(3):245-7 (factor impact: 1,416)
35. Tatu CA, Paunescu V, Stanescu DI, Schneider F. (1997) P-glycoprotein mediated multidrug resistance assessment by flow-cytometry in malignant hemopathies, *Anticancer Res.* 17(4A):2583-6 (7 citari)
36. Drugarin D, Tatu C, Noveanu L, Paunescu V. (1996) Identification of a novel subset of T lymphocytes in patients with Balkanic Nephropathy. *Autoimmunity* 23:119-126 (3 citari)
37. Tatu CA, Drugarin D, Stanescu DI, Paunescu V. (1993) DNA topology and V(D)J recombination: a tentative connection, *Roum Arch Microbiol Immunol.* 52(4):255-60

CARTI REPREZENTATIVE

1. H Orem, JE Bunnell, CA Tatu, NM Pavlovic (2019) *Encyclopedia of Environmental Health, Second Edition. Elsevier*, <https://doi.org/10.1016/B978-0-12-409548-9.11723-3>
2. Tatu CA, Paunescu V. et al. (2003) Organic compounds derived from Pliocene lignite and the etiology of Balkan endemic nephropathy. In Skinner C and Berger A, eds. *Geology and Health: Closing the Gap*, Oxford University Press, New York, NY, USA.
3. Paunescu V, Tatu CA, Stanescu DI, Medrea D, *Imunologie: concepte fundamentale si aplicative*, Helicon, Timisoara, Romania, 1996 ISBN: 973-574-182-2.
4. Paunescu V, Holmberg JC, Tatu CA et al., *Immunology: course for students*, Orizonturi Universitare, Timisoara, Romania, 1999, ISBN: 973-9400-25-6.
5. Tatu CA (1998) Apoptosis: a molecular approach. In *Actual Aspects of Molecular Biology and Physiology* (Simon Z. and Schneider F, eds.), Romanian Medical Life Publishing House, Bucharest, Romania.

LISTA PROIECTELOR DE CERCETARE

Programul/Proiectul	Funcția	Perioada
Grant NATO CLG #975818/1999, The role of the geochemical environment in Balkan endemic nephropathy (BEN) etiology	Co-director de proiect	1999
Grant NATO CLG #977806/2000, The geochemical background and the etiology of Balkan endemic nephropathy (BEN).	Co-director de proiect	2000
Grant NATO EST-CLG #980104/2003, The geochemical background and the etiology of Balkan endemic nephropathy (BEN).	Co-director de proiect	2003
Dezvoltarea de tehnici de bioinginerie tisulara pentru reconstructia osteoarticulara si miocardica.. Proiect MATNANTECH Nr. 162/2003	Cercetator asociat	2003 - 2005
Dezvoltarea de tehnici de bioinginerie tisulara pentru reconstructia osteoarticulara si miocardica. VIASAN Nr. 311/2004	Membri in echipa de cercetare	2004-2006
Strategii novatoare de modulare a raspunsului imun la persoanele de varsta a treia: impactul telomerazei si al apoptozei asupra procesului de imunosenescenta a limfocitului T. (SENTAP) P-CD CEEX Nr. 80/2006	Responsabil stiintific de proiect	2006-2008
Mecanisme moleculare implicate in preconditionarea cardiaca prin anestezice volatile: de la identificarea tintelor moleculare in miocardul de sobolan la precizarea mecanismelor ce mediaza efectul protectiv la nivelul miocardului uman. (PRISME) P-CD CEEX Nr. 134/2006	Responsabil stiintific	2006-2008
Cercetari privind izolarea, cultivarea si inducerea diferentierii in vitro a celulelor stem pluripotente din urechea interna. CEEX Nr 1431/2006	Director de proiect	2006-2008

<i>Environmental factors and epigenetic mechanisms – a common link in the etiology of chronic kidney diseases"</i> <i>Proiect TE UEFISCDI PN-II-RU-TE-2014-4-0151</i>	Director de proiect	2015-2017
<i>CAR-NK</i>	Cercetator senior	2016-2021
<i>DECODE</i>	Cercetator	2020-2022