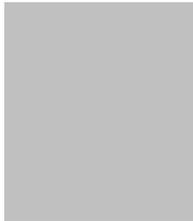


PERSONAL INFORMATION

TATU CALIN ADRIAN



   
 [REDACTED]   
 [tatu.calin@umft.ro](mailto:tatu.calin@umft.ro)

Nationality Romanian

WORK EXPERIENCE

- 2007-curently **Associate professor**  
 Victor Babes University of Medicine and Pharmacy, Piata Eftimei Murgu, No.2, Timisoara, Romania  
 Immunology, Environmental Sciences, Functional Sciences Department (III)  
 Teaching/Research activities
- 06/2010-06/2012 **Associate researcher, Environmental Health**  
 US Geological Survey, 12201 Sunrise Valley Dr., Reston, VA 20192, USA, [www.usgs.gov](http://www.usgs.gov)
- 01/2005-curently **Clinical Laboratory**  
 Timisoara County Emergency Clinical Hospital, Blvd. Iosif Bulbuca, nr 156, Timisoara, Romania
- 03/2001-12/2006 **Lecturer**  
 Victor Babes University of Medicine and Pharmacy, Piata Eftimei Murgu, no.2, Timisoara, Romania  
 Immunology Department
- 02/1999-03/2001 **Research assistant**  
 The Institute of Public Health Timisoara, 16-18 Bvd. Dr. Victor Babes, Timisoara, Romania
- 01/1997-01/1999 **Postdoctoral researcher**  
 University of North Carolina – Chapel Hill, Department of Microbiology and Immunology, Chapel Hill, NC, USA

EDUCATION AND TRAINING

- 2005 **PhD in Medical Sciences: Internal medicine** Replace with EQF (or other) level if relevant  
 Victor Babes University of Medicine and Pharmacy, Piata Eftimei Murgu, no.2, Timisoara, Romania  
 Etiology of Balkan endemic nephropathy
- 2005- **Certified medical professional -Clinical Laboratory**  
**Medical Specialist - Clinical Laboratory**
- 2000-2004 Timisoara County Emergency Clinical Hospital, Bld Iosiv Bulbuca, nr 156, Timisoara, Romania
- General Medicine/MD**
- 1990-1996 Victor Babes University of Medicine and Pharmacy, Piata Eftimie Murgu, nr 2, Timisoara, Romania

PERSONAL SKILLS

Mother tongue(s) Romanian

| Other language(s) | UNDERSTANDING |         | SPEAKING           |                   | WRITING |
|-------------------|---------------|---------|--------------------|-------------------|---------|
|                   | Listening     | Reading | Spoken interaction | Spoken production |         |
| English           | C1            | C1      | C1                 | C1                | C1      |
| Toefl/Cambridge   |               |         |                    |                   |         |

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2 Proficient user  
[Common European Framework of Reference for Languages](#)

Communication skills ▪ good communication skills gained through my experience from working with students and lecturing courses

Organisational / managerial skills Project manager or key member in 11 research projects:  
 ▪ leadership (currently responsible for a team of 5 people)

Job-related skills Replace with any job-related skills not listed elsewhere. Specify in what context they were acquired.  
 Example:  
 ▪ good command of quality control processes (currently responsible for quality audit)

Digital skills

| SELF-ASSESSMENT        |                 |                  |                 |                  |
|------------------------|-----------------|------------------|-----------------|------------------|
| Information processing | Communication   | Content creation | Safety          | Problem solving  |
| Proficient user        | Proficient user | Proficient user  | Proficient user | Independent user |

Levels: Basic user - Independent user - Proficient user  
[Digital competences - Self-assessment grid](#)

Experience in confocal microscopy and flowcytometry - including FACS Sorting, mass spectrometry

▪ good command of Office suite (word processor, spread sheet, presentation software)  
 ▪ good command of photo editing software gained as an amateur photographer

Other skills ▪ engineering

Driving licence B type

ADDITIONAL INFORMATION

Representative publication record

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, Sîrbu IO, Dehelean CA, Socoliuc V, Moacă EA. (2025) Fe3O4@ $\beta$ -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-w>
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 Pavlovic, 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. Pavlovic 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/ $\alpha$ - and  $\beta$ -cyclodextrin complexes. *Food Chemistry* 99(3): 500-508 (factor impact: 2,433)
23. Orem WH, Tatu CA, Lerch III HE, Maharaj SVM, Pavlovic 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, Suci E, Tatu C, Plesa A, Herman D, Siska IR, Suci 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

#### Books and book chapters

1. WH 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.

#### Research grants

| Project   | Title             | Timeframe   |
|---|-------------------|-------------|
| Grant NATO CLG #975818/1999, <b>The role of the geochemical environment in Balkan endemic nephropathy (BEN) etiology</b>  | Associate PI      | 1999        |
| Grant NATO CLG #977806/2000, <b>The geochemical background and the etiology of Balkan endemic nephropathy (BEN).</b>  | Associate PI      | 2000        |
| Grant NATO EST-CLG #980104/2003, <b>The geochemical background and the etiology of Balkan endemic nephropathy (BEN).</b>  | Associate PI      | 2003        |
| <b>Dezvoltarea de tehnici de bioinginerie tisulara pentru reconstructia osteoarticulara si miocardica.</b> Proiect MATNANTECH Nr. 162/2003  | Researcher        | 2003 - 2005 |
| <b>Dezvoltarea de tehnici de bioinginerie tisulara pentru reconstructia osteoarticulara si miocardica.</b> VIASAN Nr. 311/2004  | Researcher        | 2004-2006   |
| <b>Strategii inovatoare de modulare a raspunsului imun la persoanele de varsta a treia: impactul telomerazei si al apoptozei asupra procesului de imunosenescenta a limfocitului T. (SENTAP)</b> P-CD CEEX Nr. 80/2006  | Researcher        | 2006-2008   |
| <b>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)</b> P-CD CEEX Nr. 134/2006 | Researcher        | 2006-2008   |
| <b>Cercetari privind izolarea, cultivarea si inducerea diferentierii in vitro a celulelor stem pluripotente din urechea interna.</b> CEEX Nr 1431/2006  | PI                | 2006-2008   |
| <b>Environmental factors and epigenetic mechanisms – a common link in the etiology of chronic kidney diseases"</b> Proiect TE UEFISCDI PN-II-RU-TE-2014-4-0151  | PI                | 2015-2017   |
| <b>CAR-NK</b>   | Senior researcher | 2016-2022   |
| <b>DECODE</b>   | Senior researcher | 2020-2022   |