



## Europass Curriculum Vitae

### Personal information

First name(s) / Surname(s) **Alexandra IVAN**  
E-mail ivan.alexandra@umft.ro,  
Nationality Romanian

### Work experience

Dates	<b>2013-ongoing</b>
Occupation or position held	<b>Lecturer</b>
Name and address of employer	Department of Functional Sciences, Immunology and Allergology, Biology, University of Medicine and Pharmacy Victor Babes, Piata Eftimie Murgu, 2, Timisoara, Romania
Dates	<b>2017 – ongoing</b>
Occupation or position held	<b>Researcher</b>
Name and address of employer	Center for Gene and Cellular Therapies in the Treatment of Cancer (OncoGen) Emergency Clinical County Hospital, Timisoara
Dates	<b>2010 – 2017</b>
Occupation or position held	<b>Researcher</b>
	University of Medicine and Pharmacy Victor Babes, Piata Eftimie Murgu, 1, Timisoara, Romania
Dates	<b>2007-2009</b>
Occupation or position held	<b>Researcher</b>
Name and address of employer	Genetics Department, Biotechnology Department, Banat's University of Agricultural Science and Veterinary Medicine, Timisoara, Romania

### Education and training

Dates	<b>2010- 2013</b>
Title of qualification awarded	<b>Postdoctoral position</b>
Principal subjects	Cellular and molecular biotechnologies for medical applications
Name and type of organisation providing education and training	Department of Functional Sciences, University of Medicine and Pharmacy Victor Babes, Piata Eftimie Murgu, 1, Timisoara, Romania
Dates	<b>2010</b>
Titles and qualification awarded	<b>Postdoctoral position</b>
Principal subjects	Australian Endeavor Award Research Fellowship
Name and type of organisation providing education and training	Royal Childrens Hospital, Murdoch Childrens Research Institute, Cancer and Disease Epigenetics, Flemington Road, Parkville, Melbourne, Australia
Dates	<b>2005-2009</b>
Title of qualification awarded	<b>PhD</b>
Principal subjects	Assessment of mammalian embryo viability by morphological criteria and staining tests
Name and type of organisation providing education and training	Biotechnology Department, Faculty of Animal Sciences and Biotechnology, Banat's University of Agricultural Science and Veterinary Medicine, Timisoara, Romania

	Dates	<b>2023 – ongoing</b>
Title of qualification		<b>PhD</b> Mesenchymal Stem Cell Senescence: Mechanisms and Therapeutic Implications PhD Thesis Supervisor: Virgil Paunescu
Name and type of organisation providing education and training		Department of Functional Sciences, University of Medicine and Pharmacy Victor Babes, Piata Eftimie Murgu, 1, Timisoara, Romania
	Dates	<b>2021-2023</b>
Title of qualification awarded		<b>Master’s Degree – Developmental Biology and the Influence of Exogenous Factors on Organisms</b> <b>Master’s Thesis entitled:</b> “ <i>Isolation and Characterization of a Stem Cell Population Isolated from the Placenta</i> ”
Name and type of organisation providing education and training		<b>West University, Faculty of Chemistry, Biology and Geography</b>
	Dates	<b>2004-2006</b>
Title of qualification awarded		<b>Master degree (MS)</b>
Principal subjects/occupational skills		Genetic engineering and biotechnologies
	Dates	<b>1999-2004</b>
Title of qualification awarded		<b>Biotechnology Engineer</b>
Name and type of organisation providing education and training		Banat’s University of Agricultural Science and Veterinary Medicine, Faculty of Animal Sciences and Biotechnology, <b>Biotechnology Section, Specialisation: Microbial Biotechnology</b> , Timisoara, Romania
	Dates	<b>2013-2016</b>
Title of qualification awarded		<b>Biology</b>
Name and type of organisation providing education and training		“Vasile Goldis” Western University of Arad, Romania
	<b>Other training courses</b>	
Principal subjects/occupational skills	Dates	<b>2024</b> Certificat de competente <b>Good clinical practice, NIDA Clinical Trials Network</b>
Principal subjects/occupational skills	Dates	<b>2020 (January)</b> <b>Good Clinical Practice Certificate, NIDA Clinical Trials Network</b>
Principal subjects/occupational skills	Dates	<b>2016</b> <b>Practical training in NK cell biology, Dresden, Germany</b>
Principal subjects/occupational skills	Dates	<b>2011 (September)</b> <b>FRET Microscopy as a Tool for Functional Imaging and Quantitative Analysis, Quantitative Biology Center, Tissues and Center for Genomic Regulation, Barcelona, Spain</b>
Principal subjects/occupational skills	Dates	<b>September –October 2010</b> <b>Courses: Management of research, Biochemistry Institute of Romanian Academy</b> Certificate no OBBCSSR 390/20.10.2010 <b>Molecular basis of viral infection, Biochemistry Institute of Romanian Academy</b> Certificate no. OBBCSSR 390/20.10.2010 <b>Protein procession and degradation in normal and pathologic conditions, Biochemistry Institute of Romanian Academy</b>
Principal subjects/occupational skills	Dates	<b>June 2009-June 2010</b> <b>Research activities:</b> Embryonic and mesenchymal stem cells differentiation to pancreatic cells, primary cell culture initiation, RNA extractions, RT-PCR, Real time PCR, Flowcytometry, Imunochemistry, Faculty of Medicine –Victor Babes, Immunology and Biotechnology Laboratory within the County Hospital from Timisoara, Romania
Principal subjects/occupational skills	Dates	<b>November 2007</b> Certificate no. 51/8.11.2007 Workshop Regenerative medicine, Stem Era (practical training in flowcytometry, microarray, real time PCR ), Faculty of Medicine „Victor Babes”, Timisoara, Romania
Principal subjects/occupational skills	Dates	<b>October 2007</b> Certificate no. 15/23.10.2007, Cell biology and molecular biology in the XXI century medicine, 7-th edition, Romanian Academy and Institute of cell biology and pathology Nicolae Simionescu, Bucharest, Romania
Principal subjects/occupational skills	Dates	<b>September 2007</b>

Principal subjects/occupational skills Summer school Nanotechnology vision and strategy, Institute of electrochemistry and condensed mater and IMT Bucharest

Dates **March 2007**

Principal subjects/occupational skills Professional training in Molecular biology, Cereal research Non—profit Company, Szeged Hungary

### Personal skills and competences

Mother tongue(s) **Romanian**

Other language(s)

Self-assessment

*European level (\*)*

**English Language**

#### Understanding

Listening

Reading

C2 Proficient user

#### Speaking

Spoken interaction

Spoken production

C2 Proficient user

C2 Proficient user.

#### Writing

C1 Proficient user

(\*) [Common European Framework of Reference for Languages](#)

### Computer skills and competences

Research projects

Good command of Adobe Photoshop, IPA (Ingenuity System Pathway Analysis), Microsoft Word, Microsoft Excel

**2007-2008**

**Principal investigator – Project CNCSIS 44 GR/23.05.2007**, Assessment of mammalian embryos viability using non invasive and no time consuming methods.

[http://old.uefiscdi.ro/articole/1334/COMISIA\\_5\\_TD\\_NOI\\_FINANTATE.html](http://old.uefiscdi.ro/articole/1334/COMISIA_5_TD_NOI_FINANTATE.html)

**2016-2020**

**Researcher - POC- ID: P\_37\_786** - Chimeric antigen receptor targeted oncoimmunotherapy with natural killer cells - *CAR-NK*

**2015-2016**

**Researcher – PN2/TE81/2015** - Environmental factors and epigenetic mechanisms – a common link in chronic kidney diseases - *Enviroconnect*

**2014-2015**

**Researcher - PN2/PT PCCA-2011-3.2-1336** - Translating stem cells technologies to the conservation of highly endangered species (*CONSENS*).

**2013-2015**

**Researcher - HURO/1101/173/2.2.1**, - Integrated Trans-border Research Platform for Identification of Cellular Processes as Potential Targets for Personalized Cancer therapy

**2009 -2010**

**Researcher PN2/CNCSIS IDEI** – Studies regarding the in vitro differentiation of mesenchymal stem cells toward the adipogenic lineage and validation of molecular factors involved in adipogenesis

**2009-2011**

**Researcher – PN2/CNCSIS 1088/2009** - Morphometric and viability studies of mammalian embryos,

**2008-2011**

**Researcher – Project PNCDI II – 3257**, Researches to identify and to make available the Trichogramma bioforms for agricultural and forest ecosystems, impact and management of bioactive nanomaterials use in the oophag propagation technology

**2007-2010**

**Researcher – Project SanderBiot PNCDI II 61-020/2007**, Implementing some biotechnologies of reproduction for pikeperch in order to improve productive potential at this specie.

**2007-2008**

**Research assistant – Project 44GR/2007/1180**, Comparative complex biological study of several *Robinia pseudocacia* valuable genotypes. *Robinia pseudocacia* var. *Oltenica*: clone or variety?

**2005-2007**

**Research assistant – Project CEEEX 37- Matnatech**, Obtaining of TiO<sub>2</sub> nanocrystals doped with metallic ions by alternative methods. Studies of their application for health, biology and environment

**Research projects****2005-2007**

**Research assistant – Project CEEEX 18- Biotech**, Obtaining of several nanocomposite/nanocrystals with applications on biotechnologies, agriculture, food industry and environmental protection.

**Additional information****Member of the Scientific societies and Professional partnerships**

National Society of Cellular Biology (SNBC); EuroScience, Australia Awards Alumni Network

**Awards and scholarships****2010 - UNESCO Travel Grant, Euroscience Open Forum, Torino, Italy****2010 - Australian Endeavour Award - Postdoctoral Research Fellowship**

Date: 17.02.2026

## Scientific publications

**Alexandra Ivan**#, Maria-Alexandra Pricop#, Alexandra Teodora Lukinich-Gruia\*, Iustina-Mirabela Cristea, Adina Negrea, Ioan Bogdan Pascu, Crenguta Livia Calma, Andreea Paunescu, Virgil Paunescu, Calin Adrian Tatu, Cellular metabolic responses to Copper Nanoparticles: Comparison between normal and breast cancer cells, *Int. J. Mol. Sci.* 2025

Pricop, Maria-Alexandra; Negrea, Adrian; Ciopec, M.; Pascu, I.B.; Oprean, Camelia; Lukinich-Gruia, Alexandra Teodora; Cristea, Iustina Mirabela; **Ivan, Alexandra.**; Păunescu, Virgil; Tatu, Calin Adrian Aristolochic Acid I Adsorption onto Activated Carbon: Kinetics, Equilibrium, and Thermodynamic Studies. *Processes* 2025, 13, 3397.

**Ivan, Alexandra**; Lukinich-Gruia, Alexandra Teodora; Cristea, Iustina Mirabela; Pricop, Maria-Alexandra; Calma, Crenguta; Paunescu, Andreea; Tatu, Calin Adrian; Galuscan, Atena; Paunescu, Virgil. In Vitro Antioxidant Effects of Coenzyme Q10 on Cellular Metabolism in Aged Mesenchymal Stem Cells. *Appl. Sci.* 2025, 15, 2783. <https://doi.org/10.3390/app15052783>

Pricop, Maria Alexandra; Negrea, Adrian; Pascu, B.; Nemeş, N.S.; Ciopec, M.; Negrea, P.; Ianăşi, C.; Svera, P.; Muntean, D.; **Ivan, Alexandra**; et al. Copper Nanoparticles Synthesized by Chemical Reduction with Medical Applications. *Int. J. Mol. Sci.* 2025, 26, 1628. <https://doi.org/10.3390/ijms26041628>

**Ivan, A.**; Lukinich-Gruia, A.T.; Cristea, I.-M.; Pricop, M.-A.; Calma, C.L.; Simina, A.-G.; Tatu, C.A.; Galuscan, A.; Păunescu, V. Quercetin and Mesenchymal Stem Cell Metabolism: A Comparative Analysis of Young and Senescent States. *Molecules* 2024, 29, 5755.

**Ivan Alexandra**, Cristea MI, Telea A, Oprean C, Galuscan A, Tatu CA, Paunescu V. 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. PMID: 38139076; PMCID: PMC10743411.

Kis, B.; Pavel, I.Z.; Haidu, D.; Stefanut, M.N.; Diaconeasa, Z.; Moaca, E.-A.; Dehelean, C.A.; S, S.; **Ivan, Alexandra**; Danciu, C. Inorganic Element Determination of Romanian Populus nigra L. Buds Extract and In Vitro Antiproliferative and Pro-Apoptotic Evaluation on A549 Human Lung Cancer Cell Line. *Pharmaceutics* 2021, 13, 986. <https://doi.org/10.3390/pharmaceutics13070986>

**Ivan, A.**, Lam, D., Cristea, M.I. Telea A, Gruia AT, Oprean C, Margineanu F, Bojin FM, Saffery R, Paunescu V, Tatu Differential methylation pattern of xenobiotic metabolizing genes and

susceptibility to Balkan endemic nephropathy, in a cohort of Romanian patients, *Journal of Nephrology*, 1-10, 2020, <https://doi.org/10.1007/s40620-019-00621-2>, Print ISSN 1121-8428

Nicoleta Anghel, Hildegard Herman, Cornel Balta, Marcel Rosu, Miruna S. Stan, D. Nita, **Alexandra Ivan**, Zoltan Galajda, Aurel Ardelean, Anca Dinischiotu and Anca Hermenean Acute cardiotoxicity induced by doxorubicin in right ventricle is associated with increase of oxidative stress and apoptosis in rats, *Histology and histopathology* 33(4):11932, 2018 DOI10.14670/HH-11-932

Alexandra T. Gruia, Camelia Oprean, **Alexandra Ivan**, Ada Cean, Mirabela Cristea, Lavinia Draghia, Roxana Damiescu, Nikola M. Pavlovic, Virgil Paunescu, Calin A. Tatu 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, *Environ Geochem Health*, 2018, <https://doi.org/10.1007/s10653-017-0065-9>

Camelia Oprean, **Alexandra Ivan (Coresp author)**, Florina Bojin, Mirabela Cristea, Codruta Soica, Lavinia Drăghia, Angela Caunii, Virgil Paunescu & Calin Tatu Selective in vitro anti-melanoma activity of ursolic and oleanolic acids, *Toxicology Mechanisms and Methods*, 2018 <https://doi.org/10.1080/15376516.2017.1373881>

Anca Hermenean, Ada Codreanu, Hildegard Herman, Cornel Balta, Marcel Rosu, Ciprian Valentin Mihali, **Alexandra Ivan**, Sorina Dinescu, Mariana Ionita, Marieta Costache, Chitosan-Graphene Oxide 3D scaffolds as Promising Tools for Bone Regeneration in Critical-Size Mouse Calvarial Defects, *Scientific Reports*, 2017, 7: 16641 | DOI:10.1038/s41598-017-16599-5

Angela Caunii, Camelia Oprean, Mirabela Cristea, **Alexandra Ivan**, Corina Danciu, Calin Tatu, Virgil Paunescu, Daniela Marti, George Tzanakakis, Demetrios A. Spandidos, Aristides Tsatsakis, Razvan Susan, Codruta Soica, Stefana Avram and Cristina Dehelean Effects of ursolic and oleanolic on SK-MEL-2 melanoma cells: In vitro and in vivo assays, *International Journal of Oncology*, 2017, DOI: 10.3892/ijo.2017.416

Folk A., Herman H., Boldura OM., Ardelean A., Balta C., **Ivan A.**, Pausian L., Hemenean A., Flucytosine and Amphotericin B Coadministration Induces Dose-Related Renal Injury, *Dose-Response* 15(2):155932581770346, June 2017 DOI: 10.1177/1559325817703461

**Ivan Alexandra**, Herman Hildegard, Balta Cornel, Hadaruga DI, Mihali Ciprian V, Ardelean Aurel, Hermenean Anca, Berberis vulgaris extract/ $\beta$ -cyclodextrin complex increases protection of hepatic cells via suppression of apoptosis and lipogenesis pathways, *Experimental and Therapeutic Medicine*, 13(5) · March 2017, DOI: 10.3892/etm.2017.4240

Oprean C, Borcan F, Pavel I, Dema A, Danciu C, Soica C, Dehelean C, Nicu A, Ardelean A, Cristea M, **Ivan A**, Tatu C, Bojin F In vivo biological evaluation of polyurethane nanostructures with ursolic and oleanolic acids on chemically-induced skin carcinogenesis, *In Vivo*. 2016 09-10; 30(5):633-8

Camelia Oprean, Marius Mioc, Erzsébet Csányi, Rita Ambrus, Florina Bojin, Calin Tatu, Mirabela Cristea, **Alexandra Ivan**, Corina Danciu, Cristina Dehelean, Virgil Paunescu, Codruta Soica, Improvement of ursolic and oleanolic acids' antitumor activity by complexation with hydrophilic cyclodextrins, *Biomedicine & Pharmacotherapy*, Volume 83, October 2016, Pages 1095–1104, <http://www.sciencedirect.com/science/article/pii/S0753332216308599>

Balta C, Herman H, Rosu M, Cotoraci C, **Ivan A**, Folk A, Duka R, Dinescu S, Costache M, Petre A, Hemenean Anca Homeostasis of blood parameters and inflammatory markers analysis during bone defect healing after scaffolds implantation in mice calvaria defects, *Romanian Biotechnological Letters* 22(6):12018-12025, 2016

Anghel, C.Cotoraci, **A. Ivan** , M.Suciu, H.Herman, C.Balta , L. Nicolescu, T. Olariu , Z. Galajda, A.Ardelean, A.Hermenean Chrysin attenuates cardiomyocyte apoptosis and loss of intermediate filaments in a mouse model of mitoxantrone cardiotoxicity, *Histology and hystopathology*, 2015, 30, 1465-1475, DOI: 10.14670/HH-11-641

Daniela Elena Ilie, Ada Cean, Ludovic Toma Cziszter, Dinu Gavojdian, **Alexandra Ivan**, Szilvia Kusza Microsatellite and Mitochondrial DNA Study of Native Eastern European Cattle Populations: The Case of the Romanian Grey, *PLOS ONE*, 2015, 10/10(9) | DOI:10.1371/journal.pone.0138736

**Alexandra Ivan**, Ordodi, V, Ada Cean, Daniela E. Ilie, Carmen Panaitescu and Gabriela Tănăsie Comparative study of the differentiation potential of rat bone marrow mesenchymal stem cells and rat muscle-derived stem cells, *Arch. Biol. Sci.*, Belgrade, 65 (4), 1307-1315, 2013

Nicolae Pacala, **Alexandra Ivan**, Ada Cean, 2012, Vitrification of mice embryos in different developmental stages using four vitrification methods, *Biotechnology and Biotechnological Equipment*, 2012, 26(5),3324-3328,

**Alexandra Ivan (Boleman)**, Gabriela Tănăsie, Atena Gălușcan, Simona Anghel, Mirabela Cristea, Florina Maria Bojin, Carmen Panaitescu, Virgil Păunescu, Studies regarding the in vitro wound healing potential of mouse dental pulp stem like progenitor cells, *Biotechnology and Biotechnological Equipment*, 2012, 26(1),2781-2785,