




PERSONAL INFORMATION

Dragos Peptanariu

 Iasi (Romania)
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Sex Male | Date of birth 14/10/1978 | Nationality Romanian

WORK EXPERIENCE

08/2018–Present

researcher

Institute of Macromolecular Chemistry „Petru Poni”
Aleea Grigore Ghica Voda, No.41A, 700487 Iasi (Romania)
<http://www.icmpp.ro/>

08/2012–01/2012

research assistant

Institute of Macromolecular Chemistry „Petru Poni”
Aleea Grigore Ghica Voda, No.41A, 700487 Iasi (Romania)
<http://www.icmpp.ro/>

2010–2011

PhD student

University of Medicine and Pharmacy “G. T. Popa”
Str.Universitatii No.16, 700115 Iasi (Romania)
<http://www.umfiasi.ro/Pages/Default.aspx>

member of Internal research grant of Medicine and Pharmacy University “G. T. Popa”, Iasi Nr. 7400/2010 "Research on gene polymorphisms aromatase (cyp19a1) as a predictor of efficacy of hormonal therapy in metastatic breast cancer".

main activities: DNA extraction and PCR experiments.

Business or sector Human health and social work activities

01/03/2011–30/11/2011

research assistant

Biology Department "Alexandru Ioan Cuza" University of Iași
Bd. Carol I, No. 11, 700506 Iasi (Romania)
<http://www.bio.uaic.ro/>

member of the project PN-II-ID-PCE-2008, Nr. 1990/2008: "Optimization and implementation of molecular biology techniques in detecting hereditary predisposition to breast and ovarian cancer".

main activities: DNA extraction, PCR experiments.

Business or sector Professional, scientific and technical activities

01/2008–09/2010

PhD student

"Sf. Spiridon" County Clinical Emergency Hospital
Bd. Independentei No. 1, 700111 Iasi (Romania)
<http://www.spitalspiridon.ro/>

member of the project PN-II-ID-PCE-2007 "Signaling pathways involved in multiple myeloma-bone marrow stromal cell interaction".

Tasks included:

- cell culture (mesenchymal stem cells isolation, expansion and cryopreservation, myeloma cell lines culture), co-culture experiments.

- flow cytometry.
- PCR, RNA extraction, reverse transcription and qPCR.
- Microarray data analysis.

Business or sector Human health and social work activities

09/2004–05/2005 **Teaching assistant**

Department of Molecular Biology and Biochemistry, Wesleyan University
242 Hall-Atwater Laboratory, 06459 Middletown, CT (United States)
<http://www.wesleyan.edu/mbb/>

main activities:

Prepared and taught Molecular Biology and Biology laboratories. Graded homework and exams.

Business or sector Education

01/01/2004–30/06/2004 **Medical Intern**

"Prof. Dr. Nicolae Oblu" Emergency Hospital
Str. Ateneului No. 2, 700309 Iasi (Romania)
<http://www.neuroiasi.ro/>

Performed health interviews of patients using standardized questionnaires, carried out exploratory clinical examinations, analyzed data, reviewed medical records, updated and screened subjects.

Business or sector Human health and social work activities

EDUCATION AND TRAINING

29/05/2013–31/05/2013 **Training Stage**

Department for Molecular Biomedical Research Ghent University, Ghent (Belgium)

Skinbad Microscopy Training Course:

basics of microscopy, setting up Kohler illumination, fluorescence microscopy, sample fixation, embedding and sectioning, immunohistochemistry, confocal microscopy, electron microscopy, image processing.

05/11/2012–14/11/2012 **Training Stage**

Institute of Cellular Biology and Pathology "Nicolae Simionescu", Bucharest (Romania)

Advanced Study School Cellular and Molecular Approaches for the Progress of the Biomedical Research

01/11/2007–29/02/2012 **PhD in Medicine**

University of Medicine and Pharmacy "G. T. Popa", Iasi (Romania)

Title of thesis: "Study on the Bone Marrow Microenvironment in Multiple Myeloma".

06/2011–06/2011 **Training Stage**

Applied Biosystems HID University, Darmstadt (Germany)

Forensic DNA Analysis. Basic HID Training on AB 3500 Genetic Analyzer.

26/09/2008–18/10/2008 **Training Stage**

Department of Hematology/Oncology, Medical Center Freiburg University, Freiburg (Germany)
 Analysis of gene expression based on microarray experiments.
 Ariadne Pathway Studio training course.

2006–2008 **Master**

Biology Department "Alexandru Ioan Cuza" University, Iasi (Romania)
 Biological Procedures in Agri-Food Industry

09/2003–09/2004 **graduate course**

Department of Molecular Biology and Biochemistry, Wesleyan University, Middletown (United States)
 Learning techniques of molecular biology and cell cultures, relevant projects include:

- Localizing the promoter of a specific Olfactory Receptor gene:

My work consisted of: growing and differentiating OP6 and OP27 cell lines from mice which represent intermediate-late developmental stages of the olfactory receptor neuron lineage, mRNA extraction and purification, reverse transcription, first strand synthesis, gene specific primers designing using BLAST and BLAT, 5' RACE PCR, gel extraction, cloning, colony screening, plasmid extraction, data analysis of sequencing products using BLAT and BLAST.

- Testing DNA bending using acrylamide gel electrophoresis:

Electrophoresis can be used for the analysis of variations in DNA conformation and structure, because bent DNA molecules migrate anomalously slower through acrylamide gels. A specific DNA motif was tested for bending and the project involved techniques like: restriction enzyme digest and PCR, acrylamide gel electrophoresis.

Graduate studies on:

- Bio-molecular Structure
- Nucleic Acid Structure
- Protein - Nucleic Acid Interaction
- Bioinformatics and genomics
- Biochemistry and Biophysics
- Molecular Cell Biology

1997–2003 **Medical Doctor**

University of Medicine and Pharmacy "G. T. Popa", Iasi (Romania)

PERSONAL SKILLS

Mother tongue(s) Romanian

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1		C1		C1
French	B1	B1	B1	B1	B1

Communication skills	Good communication skills. Good ability to adapt to multicultural environments gained through my experiences abroad
Job-related skills	<ul style="list-style-type: none">• Cell culture, transfection and cytotoxicity tests, flow cytometry, optical microscopy.• Nucleic acid extraction and purification, digestion with restriction enzymes.• Agarose and acrylamide gel electrophoresis, gel extraction.• E.Coli transformation and molecular cloning.• PCR, 5' Race PCR, reverse transcription and qPCR.• Microarray data analysis (software used: Pathway Studio – Ariadne Genomics).• HID, forensic DNA Analysis
Digital competence	Excellent knowledge of Windows environment, proficient in MS Excel, MS Word and MS PowerPoint, experience working with BLAST and BLAT servers on the internet.

ADDITIONAL INFORMATION

Publications

1. Craciun, B.F., L. Clima, D.-I. Bostiog, M. Silion, M. Calin, D. Peptanariu, and M. Pinteala, *Multilayer gold nanoparticles as non-viral vectors for targeting MCF-7 cancer cells*. *Biomaterials Advances*, 2023. **144**: p. 213201.
2. Zaltariov, M.-F., M. Turtoi, D. Peptanariu, A.-M. Macsim, L. Clima, C. Cojocaru, N. Vornicu, B.-I. Ciubotaru, A. Bargan, M. Calin, and M. Cazacu, *Chemical Attachment of 5-Nitrosalicylaldehyde Motif to Silatrane Resulting in an Organic-Inorganic Structure with High Medicinal Significance*. *Pharmaceutics*, 2022. **14**(12): p. 2838.
3. Vasiliu, A.-L., M.-M. Zaharia, M.-M. Bazarghideanu, I. Rosca, D. Peptanariu, and M. Mihai, *Hydrophobic Composites Designed by a Nonwoven Cellulose-Based Material and Polymer/CaCO₃ Patterns with Biomedical Applications*. *Biomacromolecules*, 2022. **23**(1): p. 89-99.
4. Racles, C., M.-F. Zaltariov, D. Peptanariu, T. Vasiliu, and M. Cazacu, *Functionalized Mesoporous Silica as Doxorubicin Carriers and Cytotoxicity Boosters*. *Nanomaterials*, 2022. **12**(11): p. 1823.
5. Lungu, R., M.-A. Paun, D. Peptanariu, D. Ailincai, L. Marin, M.-V. Nichita, V.-A. Paun, and V.-P. Paun, *Biocompatible Chitosan-Based Hydrogels for Bioabsorbable Wound Dressings*. *Gels*, 2022. **8**(2): p. 107.
6. Filip, D., D. Macocinschi, M.-F. Zaltariov, B.-I. Ciubotaru, A. Bargan, C.-D. Varganici, A.-L. Vasiliu, D. Peptanariu, M. Balan-Porcarasu, and M.-M. Timofte-Zorila, *Hydroxypropyl Cellulose/Pluronic-Based Composite Hydrogels as Biodegradable Mucoadhesive Scaffolds for Tissue Engineering*. *Gels*, 2022. **8**(8): p. 519.
7. Filip, D., D. Macocinschi, M. Balan-Porcarasu, C.-D. Varganici, R.-P. Dumitriu, D. Peptanariu, C.G. Tuchilus, and M.-F. Zaltariov, *Biocompatible Self-Assembled Hydrogen-Bonded Gels Based on Natural Deep Eutectic Solvents and Hydroxypropyl Cellulose with Strong Antimicrobial Activity*. *Gels*, 2022. **8**(10): p. 666.
8. Ciubotaru, B.-I., M.-F. Zaltariov, C. Tugui, I.-E. Stoleru, D. Peptanariu, G.-T. Stiubianu, N. Vornicu, and M. Cazacu, *Silicones with different crosslinking patterns: Assessment from the perspective of their suitability for biomaterials*. *Surfaces and Interfaces*, 2022. **32**: p. 102168.
9. Vasiliu, A.-L., M.V. Dinu, M.M. Zaharia, D. Peptanariu, and M. Mihai, *In situ CaCO₃ mineralization controlled by carbonate source within chitosan-based cryogels*. *Materials Chemistry and Physics*, 2021. **272**: p. 125025.

10. Sabina Bunescu, B.A.S., Dragos Peptanariu, Liliana Foia, *A sensitive method for saliva detection in forensics using salivary amylase coupled with amplex red oxidation*. Journal of Experimental and Molecular Biology, 2021. **21**(2): p. 41-46.
11. Sardaru, M.-C., A.M. Craciun, C.-M. Al Matarneh, I.A. Sandu, R.M. Amarandi, L. Popovici, C.I. Ciobanu, D. Peptanariu, M. Pinteala, I.I. Mangalagiu, and R. Danac, *Cytotoxic substituted indolizines as new colchicine site tubulin polymerisation inhibitors*. Journal of Enzyme Inhibition and Medicinal Chemistry, 2020. **35**(1): p. 1581-1595.
12. Zaltariu, M.-F., B.-I. Ciubotaru, L. Verestiuc, D. Peptanariu, D. Macocinschi, and D. Filip, *Ruthenium(II) complexes with cytotoxic activity embedded in hydroxypropyl methylcellulose/sodium alginate mucoadhesive hydrogels*. Cellulose Chemistry and Technology, 2019. **1175**(9-10): p. 869-878.
13. Zaltariu, M.-F., M. Avadanei, M. Balan, D. Peptanariu, N. Vornicu, and S. Shova, *Synthesis, structural characterization and biological studies of new Schiff bases containing trimethylsilyl groups*. Journal of Molecular Structure, 2019. **1175**: p. 624-631.
14. Turin-Moleavin, I.-A., A. Fifere, A.-L. Lungoci, I. Rosca, A. Coroaba, D. Peptanariu, V. Nastasa, S.-A. Pasca, A.-C. Bostanaru, M. Mares, and M. Pinteala, *In Vitro and In Vivo Antioxidant Activity of the New Magnetic-Cerium Oxide Nanoconjugates*. Nanomaterials, 2019. **9**(11): p. 1565.
15. Sarbu, L.G., S. Shova, D. Peptanariu, I.A. Sandu, L.M. Birsa, and L.G. Bahrin, *The Cytotoxic Properties of Some Tricyclic 1,3-Dithiolium Flavonoids*. Molecules (Basel, Switzerland), 2019. **24**(13): p. 2459.
16. Craciun, B.F., G. Gavril, D. Peptanariu, L.E. Ursu, L. Clima, and M. Pinteala, *Synergistic Effect of Low Molecular Weight Polyethylenimine and Polyethylene Glycol Components in Dynamic Nonviral Vector Structure, Toxicity, and Transfection Efficiency*. Molecules, 2019. **24**(8): p. 1460.
17. Ailincai, D., D. Peptanariu, M. Pinteala, and L. Marin, *Dynamic constitutional chemistry towards efficient nonviral vectors*. Materials Science and Engineering: C, 2019. **94**: p. 635-646.
18. Vasiliu, T., C. Cojocar, D. Peptanariu, A.I. Dascalu, M. Pinteala, and A. Rotaru, *Polyplex formation between cyclodextrin-based non-viral vector and dsDNA: molecular dynamic study with experimental validation*. Rev. Roum. Chim, 2018. **63**(7-8): p. 629-636.
19. Rosca, I., A.R. Petrovici, D. Peptanariu, A. Nicolescu, G. Dodi, M. Avadanei, I.C. Ivanov, A.C. Bostanaru, M. Mares, and D. Ciolacu, *Biosynthesis of dextran by Weissella confusa and its In vitro functional characteristics*. International Journal of Biological Macromolecules, 2018. **107**: p. 1765-1772.
20. David, G., I. Turin-Moleavin, L.-E. Ursu, D. Peptanariu, and D. Ailincai, *Multilayer biopolymer/poly(ϵ -caprolactone)/polycation nanoparticles*. Iranian Polymer Journal, 2018. **27**(7): p. 517-526.
21. Ardeleanu, R., A.I. Dascalu, A. Neamtu, D. Peptanariu, C.M. Uritu, S.S. Maier, A. Nicolescu, B.C. Simionescu, M. Barboiu, and M. Pinteala, *Multivalent polyrotaxane vectors as adaptive cargo complexes for gene therapy*. Polymer Chemistry, 2018. **9**(7): p. 845-859.
22. Ursu, E.-L., F. Doroftei, D. Peptanariu, M. Pinteala, and A. Rotaru, *DNA-assisted decoration of single-walled carbon nanotubes with gold nanoparticles for applications in surface-enhanced Raman scattering imaging of cells*. Journal of Nanoparticle Research, 2017. **19**(5): p. 181.
23. Dascalu, A.I., R. Ardeleanu, A. Neamtu, S.S. Maier, C.M. Uritu, A. Nicolescu, M. Silion, D. Peptanariu, M. Calin, and M. Pinteala, *Transfection-capable polycationic nanovectors which include PEGylated-cyclodextrin structural units: a new synthesis pathway*. Journal of Materials Chemistry B, 2017. **5**(34): p. 7164-7174.
24. Bejan, A., D. Peptanariu, B. Chiricuta, E. Bicu, and D. Belei, *Low Molecular Weight Microfibers with Light Sensing Properties*. Mat. Plast., 2017. **54**(4): p. 655-658.
25. Minea, B., N. Marangoci, D. Peptanariu, I. Rosca, V. Nastasa, A. Corciova, C. Varganici, A. Nicolescu, A. Fifere, A. Neamtu, M. Mares, M. Barboiu, and M. Pinteala, *Inclusion complexes of propiconazole nitrate with substituted [small beta]-cyclodextrins: the synthesis and in silico and in vitro assessment of their antifungal properties*. New Journal of Chemistry, 2016. **40**(2): p. 1765-1776.
26. Dodi, G., A. Pala, E. Barbu, D. Peptanariu, D. Hritcu, M.I. Popa, and B.I. Tamba, *Carboxymethyl guar gum nanoparticles for drug delivery applications: Preparation and preliminary in vitro investigations*. Materials Science and Engineering: C, 2016. **63**: p. 628-636.
27. Uritu, C.M., C.D. Varganici, L. Ursu, A. Coroaba, A. Nicolescu, A.I. Dascalu, D. Peptanariu, D. Stan, C.A. Constantinescu, V. Simion, M. Calin, S.S. Maier, M. Pinteala, and M. Barboiu, *Hybrid fullerene conjugates as vectors for DNA cell-delivery*. Journal of Materials Chemistry B, 2015. **3**(12): p.

2433-2446.

28. Uritu, C.M., M. Calin, S.S. Maier, C. Cojocaru, A. Nicolescu, D. Peptanariu, C.A. Constantinescu, D. Stan, M. Barboiu, and M. Pinteala, *Flexible cyclic siloxane core enhances the transfection efficiency of polyethylenimine-based non-viral gene vectors*. Journal of Materials Chemistry B, 2015. **3**(42): p. 8250-8267.
29. Turin-Moleavin, I.-A., F. Doroftei, A. Coroaba, D. Peptanariu, M. Pinteala, A. Salic, and M. Barboiu, *Dynamic constitutional frameworks (DCFs) as nanovectors for cellular delivery of DNA*. Organic & Biomolecular Chemistry, 2015. **13**(34): p. 9005-9011.
30. Clima, L., D. Peptanariu, M. Pinteala, A. Salic, and M. Barboiu, *DyNAVectors: dynamic constitutional vectors for adaptive DNA transfection*. Chemical Communications, 2015. **51**(99): p. 17529-17531.
31. Peptanariu, D., M. Zlei, A. Negura, and E. Carasevici, *Optimization of culture conditions for bone marrow stromal cells in rpmi-1640 medium*. Revista Medico-chirurgicală a Societății de Medici și Naturaliști Iași, 2012. **116**(1): p. 222-227.
32. Miron, L., L. Negura, D. Peptanariu, and M. Marinca, *Research on aromatase gene (CYP19A1) polymorphisms as a predictor of endocrine therapy effectiveness in breast cancer*. Revista medico-chirurgicala a Societatii de Medici si Naturalisti din Iasi, 2012. **116**(4): p. 997-1004.
33. Vicolleanu, S.P., T. Petreus, C.V. Andritoiu, and D. Peptanariu, *The inflammatory microenvironment and the breast tumor tissue: the role of t-lymphocyte*. Annals of the Romanian Society for Cell Biology, 2011. **16**(1): p. 278-282.
34. Peptanariu, D., D. Pfeifer, M. Zlei, L. Negura, T. Petreus, D. Wider, M. Engelhardt, and E. Carasevici, *The influence of bone marrow stromal cells on matrix metalloproteinases expression in myeloma cell line L 363*. Revista Română de Medicină de Laborator, 2011. **19**(4): p. 359-366.
35. Peptanariu, D., L. Negura, D. Pfeifer, M. Zlei, D. Wider, M. Engelhardt, and E. Carasevici, *Microarray analysis reveals pathways and biological processes in myeloma cell line I363 which are influenced by microenvironment*. Annals of the "Alexandru Ioan Cuza" University Sect.II a.Genetics and Molecular Biology, 2011. **12**(3): p. 75-82.
36. Negura, L., D. Peptanariu, and A. Negura, *Transcripts quantification by using in-house made RT-qPCR standards*. Annals of the "Alexandru Ioan Cuza" University Sect.II a.Genetics and Molecular Biology, 2011. **12**(1): p. 13-18.
37. Grigore, G., M. Zlei, D. Peptanariu, I. Ivanov, D. Ungureanu, and E. Carasevici, *In Vitro Hypoxic Preconditioning of Bone Marrow Stromal Cells Triggers ERK-Mediated Signaling and Growth of L363 Myeloma Cells*. Revista Romana de Medicina de Laborator, 2011. **19**(1): p. 75-84.
38. Zlei, M., G. Grigore, D. Peptanariu, D. Constantinescu, C. Cianga, E. Carasevici, and M. Engelhardt, *Alternative Fixation Method Improves Flow Cytometry - Assisted Phospho-Detection Competence*. Revista Română de Medicină de Laborator, 2010. **18**(4): p. 55-65.
39. Petreus, T., C.E. Cotrutz, A. Neamtu, A.-M. Oprea, L.B. Tudoran, M. Zlei, A. Goriuc, and D. Peptanariu, *Anti-tumor potential of some new synthesized dihydroxamic compounds*. Annals of the Romanian Society for Cell Biology 2010. **15**(2): p. 368-372.
40. Goriuc, A., T. Petreus, D. Peptanariu, R. Iancu, and M. Costuleanu, *The influence of Ca²⁺ ionophor ionomycin on the mitochondrial transition permeability pore in normal and drug treated gingival fibroblasts*. Annals of the Romanian Society for Cell Biology, 2010. **15**(2): p. 341-346.