CURRICULUM VITAE

PERSONAL INFORMATION

Andrei Neamțu

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Date of birth [redacted] | Nationality Romanian

WORK EXPERIENCE

10.10.2015 - present	Associate Professor "Gr. T. Popa" University of Medicine and Pharmacy, Department of Physiology
2008 - 2015	Lecturer "Gr. T. Popa" University of Medicine and Pharmacy, Department of Physiology
2000 - 2008	University Assistant "Gr. T. Popa" University of Medicine and Pharmacy, Department of Biophysics
1998-2000	Graduate Assistant "Gr. T. Popa" University of Medicine and Pharmacy, Department of Biophysics

EDUCATION AND TRAINING

2013	Postdoctorate – Molecular simulations of biomaterials, "Petru Poni" Institute of Macromolecular Chemistry of Iași
2007	Doctoral Degree (PhD) in Medicine – subdomain Pharmacology, "Gr. T. Popa" University of Medicine and Pharmacy
2003	Master's Degree (M.Sc.) in Molecular Genetics, "Al. I. Cuza" University of Iaşi, Faculty of Biology
2000	University Diploma – Faculty of Dental Medicine, "Gr. T. Popa" University of Medicine and Pharmacy
1998	University Diploma – Faculty of Physics, "Al. I. Cuza" University of Iaşi

EXPERTISE FIELDS
SCIENTIFIC ACHIEVEMENTS

Molecular Modelling and Simulations, Therapeutic Systems, Cellular Physiology
molecular modelling and simulations of membrane proteins and ion transport through cellular membranes, nucleic acids and glycosaminoglycans, inclusion complexes of cyclodextrins/modified cyclodextrins with different drugs, artificial membrane structures and biomaterials; experimental studies on active principles (analgesics) release from controlled release vehicles and their pharmacodynamics.

Books and published electronic material for teaching	▪ 10
Research papers in ISI Web of Science	▪ 23
Research papers in indexed in international database journals	▪ 30+
Awards at national/international scientific meetings	▪ 5

Research grants

- Research project manager – **1** (2008-2011) [1]
- Team member – **7**

Native language(s) Romanian

Other language(s)

UNDERSTANDING		SPEAKING		WRITING
Listening	Reading	Spoken interaction	Spoken production	
English	B2	B2	B2	B2	B2
EUROED Certificate				

Levels: A1/2: Basic user - B1/2: Independent user - C1/2 Proficient user
Common European Framework of Reference for Languages

Communication skills

- good communication skills gained through my experience in teaching for 18 years

Organisational / managerial skills

- Manager of a research project for a period of 3 years with a team of 5 people

Computer skills

- good knowledge of Linux operating environment; shell scripting for task automation
- good knowledge of small cluster deployment for high performance computing
- good knowledge of molecular dynamics code usage in distributed computing architectures
- good command of Microsoft Office™, graphical editing packages as CorelDraw™, Inkscape, Gimp tools

ANNEXES

- research publications list (selected by relevance)

[1] *Short description of the research project conducted as a project manager*

Title: **"Experimental research on chronic inflammatory topical therapy with analgesics released from hydrogel matrices"**

Project type: IDEI 2008, cod CNCSIS 2561
Time period: 2008-2011

Modern research directions for the treatment of inflammatory chronic pain comprise both the new active molecules synthesis and also improvements of the pharmacological profile of existing ones. The research undertaken in this project had as the main goal the synthesis, characterization and testing, in terms of tissue reactivity, of hydrogel matrices (xanthan and chondroitin sulfate) implanted for local release of nonsteroidal anti-inflammatory drugs (NSAIDs) and their association with opioid analgesics. The project was completed with the publication of three ISI articles, 5 in international databases, participation in an internship for a week in Finland and three participations in international congresses.



Selected publication list

Research papers in ISI cited journals

1. Turcan-Trofin G O, Zaltariov M F, Roman G, Shova S, Vornicu N, Balan-Porcarasu M, Isac D L, **Neamtu A**, Cazacu M. - Amphiphilic silicone-bridged bis-triazoles as effective, selective metal ligands and biologically active agents in lipophilic environment, *Journal of Molecular Liquids*, 294, **2019**, 111560.
2. Zonda R., Coroaba A., Ibanescu S., Vasiliu T., **Neamtu A.**, Silion M., Rusu T., Pinteala M., Cation transport activity of the alkyl-ureido- benzo-15- crown-5- ethers through double layer lipid membranes; *Rev. Roum. Chim.*, **2018,** 63, 665-672.
3. Murail S., Vasiliu T, **Neamtu A.**, Barboiu M., Sterpone F, Baaden M., Water permeation across artificial Iquartet membrane channels: from structure to disorder, Faraday Discussions, **2018**, 209, 125-148.
4. Hurjui I., **Neamtu A.**, Harabagiu V. Dorohoi D., O., Hurjui L. L., StrikingFeatures of cation transport activity of the alkyl-ureido-benzo solvent nature, *Journal of solution chemistry*, **2018**, 47, 1492-1502. *Corresponding author*
5. Dascalu A. I., Ardeleanu R., **Neamtu A.,** Maier , Uritu C. M., Nicolescu A., Silion M., Peptanariu D., Calin M., Pinteala M., Transfection-capable polycationic nanovectors which include PEGylated-cyclodextrin structural units: a new synthesis pathway, *J. Mater. Chem. B,* **2017,** 5, 7164-7174.
6. Ardeleanu R., Dascalu A. I., **Neamtu A.**, Peptanariu D., Uritu C. M., Maier S. S., Nicolescu A., Simionescu B. C., Barboiu M., Pinteala M., Multivalent polyrotaxane vectors as adaptive cargo complexes for gene therapy *Polymer Chemistry,* **2017**; 9, 845-859.
7. Stoica B. A., Bunescu S, **Neamtu A**, Bulgaru-Iliescu D, Foia L, Botnariu EG. Improving Luminol Blood Detection in Forensics. *J Forensic Sci.* **2016**;61(5):1331-6.
8. Minea B., Marangoci N., Peptanariu D., Rosca I., Nastasa V., Corciova A., Varganici C., Nicolescu A., Fifere A., **Neamtu A.**, Mares M., Barboiu M., Pinteala M., Inclusion complexes of propiconazole nitrate with substituted β-cyclodextrins. Synthesis, in silico and in vitro assessment of antifungal properties, *New Journal of Chemistry,* **2016,** *40, 1765.*
9. Marangoci N. L, Popovici L., E. L. Ursu, Danac R., Clima L., Cojocaru C., Coroaba A, **Neamtu A.**, Mangalagiu I., Pinteala M., Rotaru A., Pyridyl-indolizine derivatives as DNA binders and pH-sensitive fluorescent dyes, *Tetrahedron* 72 **(2016)** 8215-8222.
10. Stoica, B. A., Bunescu S., **Neamtu A**., Bulgaru-Iliescu D., Foia L., Botnariu E. G., Improving luminol blood detection in forensics, *Journal of forensic sciences*, **2016**, 61, 1331-1336.
11. Hurjui I., **Neamtu A.**, Dorohoi D. A., The interaction of fluorescent DPH probes with unsaturated phospholipid membranes: A molecular dynamics study, *Journal of Molecular Structure,* **2013,** 1044:134-139 - *Corresponding author*
12. **Neamtu A.,** Marangoci N., Harabagiu V., β-Cyclodextrin/propiconazole complexes probed by constraint free and biased molecular dynamics simulations, *Rev. Chim.,* **2013,** 64(5):502-508.
13. **Neamtu Andrei,** Tamba B., Patras X., Molecular dynamics simulations of chondroitin sulfate in explicit solvent: point charge water models compared, *Cell. Chem. Technol.,* **2013,** 47(3-4):191-202.7.

14. Ivanov D., **Neamtu A.,** Molecular dynamics evaluation of hyaluronan interactions with dimethylsilanediol in aqueous solution, *Rev. Roum. Chim.*, **2013,** 58(2-3):229-238 – *Corresponding author*
15. Simionescu, B. C., **Neamtu A.,** Balhui, C., Danciu, M., Ivanov, D., David, G., Macroporous structures based on biodegradable polymers candidates for biomedical application, *J Biomed Mater Res Part A,* **2013,** 101(9):2698-2698.
16. Hurjui I., **Neamtu A.,** Dorohoi D. O., Computational and spectral studies of DPH multicomponent solutions, *Spectrochimica Acta A*, **2013,** 115:382-387.
17. Hurjui I., **Neamtu A.**, Dorohoi D. O., Computational and spectral studies of 1,6-dipheny1-1,3,5-hexatriene (DPH) multicomponent solutions, *Spectrochimica acta part a-molecular and biomolecular spectroscopy*, **2013**, 115, 382-387.
18. **Neamtu A.,** Patras X., Neamtu M., Oprea A., Petreus T., Hurduc N., The influence of partial charge calculation protocol on the sulfated monosaccharide conformation and dynamics, *Rev. Roum. Chim.*, **2012,** 57(12):1013-1023.
19. Petreus T., Cotrutz C. E., Stoica B., Neamtu M., Sirbu P. D., **Neamtu A.**, In Silico Evaluation of some dihydroxamic derivatives of diphenylether, as hybrid hydroxamic-allosteric inhibitors for MMP13, *International conference on advancements of medicine and health care through technology*, **2011**, 36, 280-283.
20. Coman C. G., Macsim M. A., Oprea A. M. Hurjui L., Petreus T., **Neamtu A.**, Study on cellulose/chondroitin sulfate hydrogel used in drug release systems, *International conference on advancements of medicine and health care through technology*, **2011,** 36, 348-351.
21. Oprea A. M., Ciolacu D., **Neamtu A.**, Mungiu O. C., Stoica B. Vasile C, Cellulose/chondroitin sulfate hydrogels: synthesis, drug loading/release properties and biocompatibility, *Cell. Chem. Technol.*, **2010,** 44:369-378.
22. David G., Jaba I. M., Tamba B., Bohotin C., **Neamtu A.,** Patras X.,Simionescu B. C. and Mungiu O. C., Antinociceptive effect of morphiceptin loaded poly(butyl-cyanoacrylate) nanoparticles, *Rev. Roum. Chim.*, **2010,** 55:923-931.
23. Petreus T., Cotrutz C. E., Neamtu M., Buruiana E. C., Sirbu P. D., **Neamtu A.**, Understanding the dynamicsactivity relationship in metalloproteases: Ideas for new inhibition strategies, *Advanced Technologies for Enhancing Quality of Life (AT-EQUAL)*, **2010**, 83-86.

Book chapters

1. **Computational Methods in Controlled Release of Active Principles** *(in Environmental Degradable Polymers from Component Systems – Editors: Vasile C., Zaikov G), pp.384-426*
Neamţu A., Mungiu C. O., Editura Brill (Leiden, Olanda), **2009,** ISBN 978-90-04-16410-9.

Other scientific activities: 5 invited lecture at international conferences

