



ROMÂNIA  
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RECTORATUL

## Universitatea Babeș-Bolyai Competiția Excelenței 2010

### Dosar individual

**Notă: Toate datele se referă la perioada 2005-2009**

Nume, prenume, grad did.	BARBU-TUDORAN LUCIAN, SEF LUCRARI
Facultatea, Catedra	Biologie si Geologie, Biologie Experimentală
Domeniul științific	Biologie
Adresa paginii web personale	-
Adresa e-mail	lbarbu@biolog.ubbcluj.ro

### Criteriaul I – Output

#### 1. Articole științifice publicate în reviste indexate ISI (cu menționare factorului de impact în cazul celor cotate)

Elisabeth-Jeanne Popovici, Maria Stefan, Florica Imre-Lucaci, Laura Muresan, Ecaterina Bica, Emil Indrea, **Lucian Barbu-Tudoran**: *Studies on the synthesis of cerium activated yttrium aluminate phosphor by wet-chemical route*. In: Physics Procedia, **2**, 603-616, **2010**.

Mircea Tamas, Carmen Pop, Ada Martian, **Lucian Barbu-Tudoran**: *Morphological Research on Indigenous Sambucus Species Pollen*. In: Not. Bot. Hort. Agrobot. Cluj **37** (1), 65-69, **2009**.

Marcel Parvu, Alina Elena Parvu, Constantin Craciun, **Lucian Barbu-Tudoran**, Mihai Puscas: *Ultrastructure and Development of Anthracoidea Elynae Ustilosporos*. In: Not. Bot. Hort. Agrobot. Cluj **37** (1), 41-44, **2009**.

Marcela Achim, Calin Precup, Daniel Gongonau-Nitu, **Lucian Barbu-Tudoran**, Alina Silvia Porfire, Razvan Scurtu, Constantin Ciuce: *Thermosensitive liposomes containing Doxorubicin. Preparation and „in vitro” evaluation*. In: Farmacia, **57**(6), 703-710, **2009**. (FI=0.064) – 2,74

Laura Muresan, Elisabeth-Jeanne Popovici, Rodica Grecu, **Lucian Barbu Tudoran**: *Studies on the synthesis of europium activated yttrium oxide by wet-chemical method: 1. Influence of precursor quality on phosphor photoluminescence properties*. In: J. Alloys and Compounds, **471**(1-2), 421-427, **2009**. (FI=1.510) – 113.25

Manlio Tassieri, R.M.L. Evans, **Lucian Barbu-Tudoran**, G. Nasir Khan, John Trinick, Tom A. Waigh: *Dynamics of Semiflexible Polymer Solutions in the Highly Entangled Regime*. In: Phys. Rev. Lett. **101** (19), **2008**. (FI=7.180) - 359

M. Parvu, A.E. Parvu, C. Craciun, **L. Barbu-Tudoran**, M. Tamas: *Antifungal activities of Chelidonium majus extract on Botrytis cinerea in vitro and ultrastructural changes in its conidia*. In: J. Phytopathol., **156**, 550-552, **2008**. (FI=0.868) – 52,08

L. Muresan, E.J. Popovici, A.R. Tomsa, L. Silaghi-Dumitrescu, **L. Barbu-Tudoran**, E. Indrea: *Preparation by dip coating method and characterisation of WO<sub>3</sub> thin films*. In: J. Opt. Adv. Mat., **10**(9), 2261-4, **2008**. (FI=0.577) – 28,85

**L. Barbu-Tudoran**, Gh. Tomoaia, O. Horovitz, A. Mocanu, M. Tomoaia-Cotisel: *Self-assembly characteristics of gold nanoparticles in the presence of arginine*. In: J. Opt. Adv. Mat., **10**(9), 2293-7, **2008**. (FI=0.577) – 34,62

A.R. Tomsa, E.J. Popovici, A.I. Cadis, M. Stefan, **L. Barbu-Tudoran**, S. Astilean: *Ultrasound-assisted synthesis of highly disperse zinc sulphide powders*. In: J. Opt. Adv. Mat., **10**(9), 2342-5, **2008**. (FI=0.577) – **28,85**

M. Tassieri, R.M.L. Evans, **L. Barbu-Tudoran**, J. Trinick, T.A. Waigh: *The self-assembly, elasticity, and dynamics of cardiac thin filaments*. In: Biophysical J., **94**, 2170-2178, **2008**. (FI=4.683) – **280,98**

M. Bogdan, A. Nan, C.V.L. Pop, **L. Barbu-Tudoran**, I. Ardelean: *Preparation and NMR characterization of polyethyl-2-cyanoacrylate nanocapsules*. In: Appl. Mang. Reson., **34**, 111-119, **2008**. (FI=0.748) – **44,88**

O. Pana, C.M. Teodorescu, O. Chauvet, C. Payen, D. Macovei, R. Turcu, M.L. Soran, N. Aldea, **L. Barbu-Tudoran**: *Structure, morphology and magnetic properties of Fe–Au core-shell nanoparticles*. In: Surface Science **601**, 4352–4357, **2007**. (FI=1.731) – **57,7**

Oster C.G., Kim N., Grode L., **Barbu-Tudoran L.**, Schaper A.K., Kaufmann S.H., Kissel T.: *Cationic microparticles consisting of poly(lactide-co-glycolide) and polyethylenimine as carriers systems for parental DNA vaccination*. In: J Control Release, **18**; 104(2): 359-77, **2005**. (FI=5.690) – **243,85**

**Total = 1246.807**

## **2. Articole științifice publicate în ISI proceedings**

### **3. Articole științifice indexate în BDI (din lista CNCISIS)**

Ecaterina Bica, Laura Muresan, **Lucian Barbu-Tudoran**, Emil Indrea, Ionel Popescu, Elisabeth-Jeanne Popovici: *Studies on WO<sub>3</sub> thin films prepared by dip-coating method*. In: Studia UBB Chemia, LIV, **3**, 14-22, **2009**. – **1.66**

Adrian Cadis, Adrian Tomsa, Ecaterina Bica, **Lucian Barbu-Tudoran**, Luminita Silaghi-Dumitrescu, Elisabeth-Jeanne Popovici: *Preparation and characterization of manganese doped zinc sulphide nanocrystalline powders with luminescent properties*. In: Studia UBB Chemia, LIV, **3**, 23-29, **2009**. – **1.66**

Anca Peter, Monica Baia, Felicia Toderas, Mihaela Lazar, **Lucian Barbu-Tudoran**, Virginia Danciu: *Photo-catalysts based on gold-titania composites*. In: Studia UBB. Chemia, LIV, **3**, 161-172, **2009**. – **1.66**

Stela Pruneanu, Liliana Olenic, **Lucian Barbu-Tudoran**, Irina Kacso, Said A Farha Al-Said, Reda Hassanien, Andrew Houlton, Benjamin R Horrocks: *Preparation of 1D nanostructures using biomolecules*. In: Processes in Isotopes and Molecules – Journal of Physics: Conference Series, **182**, 012014, **2009**. – **1.25**

D. Cachita-Cosma, V. Turcus, A. Petrus-Vancea, **L. Barbu-Tudoran**, C. Craciun: *Drosera rotundifolia vitroculture associated with a saprophyte fungus*. In: Studia Univ. V. Goldis Life Sci. Ser., **18**, 103-105, **2008**. – **2.00**

V. Turcus, D. Cachita-Cosma, C. Craciun, I. Stanescu, **L. Barbu-Tudoran**: *The secretory hairs present on the Drosera rotundifolia leaves, light microscopy and SEM aspects*. In: Studia Univ. V. Goldis Life Sci. Ser., **18**, 107-110, **2008**. – **2.00**

**Total = 10.23**

### **4. Alte articole științifice/capitole publicate în reviste/volume cu referenți (peer-reviewed)**

H.D. White, Eva Forgacs, **L. Barbu-Tudoran**, and J. Trinick: *Using Pre-Steady State Enzyme Kinetics and Electron Microscopy to Study How Myosin V Moves*. In: Analele SNBC, **XIII**, 13-18, **2008**.

D. Cadar, C. Craciun, A. Csagola, C. Mihali, **L. Barbu-Tudoran**, Marina Spinu, L. Kobolkuti, V. Miclaus, T. Tuboly: *Studiu electronomicroscopic al infectiei cu circovirusul porcin tip 2 (PCV2)*. In: Analele SNBC, **XIII**, 171-177, **2008**.

Cosmin Farcau, Adrian Kuttesch, Traian Petrisor, **Lucian Barbu-Tudoran**, Constantin Craciun, and Simion Astilean: *Interplay between photonic and plasmonic modes in optical properties of silver-coated two dimensional colloidal crystals*. In: Proc. of SPIE Vol. 6785, 678518, **2007**.

G.C. Corneanu, C. Craciun, M. Corneanu, C. Layau, I. Grozescu, I. Silosi, S. Rogoz, G.C. Prodan, **L. Barbu-Tudoran**, C. Mihali, I. Stefanescu, L.M. Corneanu: *The TiO<sub>2</sub>-Pt nanoparticles implication in the immune response and their interaction with the animal cell*. In: Prog. in Nanosc. and Nanotechn., vol. 11, pp. 183-192, Ed. Acad. Rom., Bucuresti, **2007**.

**L. Barbu-Tudoran**, V. Miclaus, C. Crăciun: *Contributii privind structura histologica a corpusculului de glicogen la puiul de gaina*. In: Analele SNBC, **XI**, 202-214, Ed. Risoprint, Cluj-Napoca, **2006**.

Dorina Cachiță-Cosma, Daniela Beleş, **L. Barbu-Tudoran**: *Studiu privind aspectul epidermei frunzelor de Pistia stratiotes L., normale sau provenite din vitrocultura, examinata la microscopul electronic cu baleiaj.* In: Analele SNBC, **XI**, 462-472, Ed. Risoprint, Cluj-Napoca, **2006**.

Agnes Nagy, V. Cozma, **L. Barbu-Tudoran**: *Morphologic study of dog flea species by scanning electron microscopy.* In: Bul. USAMV Vet. Med., **63**(1-2), **2006**.

Gy. Feszt, C. Crăciun, **L. Barbu-Tudoran**: *Studii de microscopie electronica si analiza numerica asupra unor viroze la cactusi din Gradina Botanica Cluj-Napoca.* In: Analele SNBC, **XI**, 538-553, Ed. Risoprint, Cluj-Napoca, **2006**.

**L. Barbu-Tudoran**: *Corpusculul de glicogen la pasari. II. Functii.* In: Scripta Ornitologica Romaniae, Vol. 1, Nr. 2, pp. 64-75, **2005**.

**5. Cărți științifice publicate în edituri internaționale**

**6. Cărți științifice publicate în edituri naționale acreditate**

**7. Editor de volume publicate în edituri naționale și internaționale**

**8. Brevete internaționale**

**9. Brevete naționale**

**10. Impact tehnologic al brevetelor: resurse financiare extrabugetare atrase în relație cu economia**

**11. Realizări artistice naționale și internaționale (Domeniul Arte)**

(Expoziții, spectacole, concerte, publicații, filme, înregistrări)

**Total criteriul I = 1257.037**

## **Criteriul II – Prestigiu profesional**

### **1. Citări ale articolelor ISI listate la Criteriul I**

- 48 citari

Luminescence properties of sol-gel derived Sr<sub>2</sub>(Ce<sub>1-x</sub>Sn<sub>x</sub>)O<sub>4</sub> blue phosphors. *Journal of Alloys and Compounds* 489 (2), pp. 445-450 - **15.10**

Micro- and macrorheology of mucus. *Advanced Drug Delivery Reviews* 61 (2), pp. 86-100 - **46.83**

State of the art of the bi- and trimetallic nanoparticles on the basis of gold and iron. *Recent Patents on Nanotechnology* 3 (2), pp. 81-98

Preparation of functional metal nanoparticles embedded mullite composite powders by solid solution reduction. *Nippon Seramikkusu Kyokai Gakujutsu Ronbunshi/Journal of the Ceramic Society of Japan* 117 (1364), pp. 452-456

Thermal stability and segregation processes in self-assembled size-selected auxfe<sub>1-x</sub> nanoparticles deposited on tio<sub>2</sub>(110): composition effects. *Journal of Physical Chemistry C* 113 (4), pp. 1433-1446 - **51.93**

Biodegradable nanoparticles modified by branched polyethylenimine for plasmid DNA delivery. *Biomaterials* 31 (1), pp. 133-143

Fabrication, characterization and in vitro evaluation of poly(D,L-lactide-co-glycolide) microparticles loaded with polyamidoamine-plasmid DNA dendriplexes for applications in nonviral gene delivery. *Journal of Pharmaceutical Sciences* 99 (1), pp. 368-384

Synthetic vehicles for DNA vaccination. *Journal of Drug Targeting* 18 (1), pp. 1-14

Folate conjugated phosphorylcholine-based polycations for specific targeting in nucleic acids delivery. *Journal of Drug Targeting* 17 (7), pp. 512-523

Chitosan based oligoamine polymers: Synthesis, characterization, and gene delivery. *Journal of Controlled Release* 137 (1), pp. 54-62

Innovative strategies for co-delivering antigens and CpG oligonucleotides. *Advanced Drug Delivery Reviews* 61 (3), pp. 205-217

Cationic PMMA nanoparticles bind and deliver antisense oligoribonucleotides allowing restoration of dystrophin expression in the mdx mouse. *Molecular Therapy* 17 (5), pp. 820-827

Polymeric nanoparticles for siRNA delivery and gene silencing. *International Journal of Pharmaceutics* 367 (1-2), pp. 195-203

Poly(I:C) coated PLGA microparticles induce dendritic cell maturation. *International Journal of Pharmaceutics* 365 (1-2), pp. 61-68

Poly (lactide-co-glycolide)-polymethacrylate nanoparticles for intramuscular delivery of plasmid encoding interleukin-10 to prevent autoimmune diabetes in mice. *Pharmaceutical Research* 26 (1), pp. 72-81

Formulating poly(lactide-co-glycolide) particles for plasmid DNA delivery. *Journal of Pharmaceutical Sciences* 97 (7), pp. 2448-2461

The effect of poly(d,l-lactide-co-glycolide) microparticles with polyelectrolyte self-assembled multilayer surfaces on the cross-presentation of exogenous antigens. *Biomaterials* 29 (16), pp. 2516-2526

Enhancement of poly(orthoester) microspheres for DNA vaccine delivery by blending with poly(ethylenimine). *Biomaterials* 29 (18), pp. 2783-2793

Sustained release of complexed and naked DNA from polymer films. *Journal of Biomedical Materials Research - Part B Applied Biomaterials* 85 (2), pp. 496-503

Biodegradable polymers as non-viral carriers for plasmid DNA delivery. *Journal of Controlled Release* 126 (2), pp. 97-110

Preparation, characterization, cytotoxicity and transfection efficiency of poly(dl-lactide-co-glycolide) and poly(dl-lactic acid) cationic nanoparticles for controlled delivery of plasmid DNA. *International Journal of Pharmaceutics* 343 (1-2), pp. 247-254

Polymer systems for gene delivery-Past, present, and future. *Progress in Polymer Science (Oxford)* 32 (8-9), pp. 799-837

Poly(D,L-lactide-co-glycolide acid) nanoparticles for DNA delivery: Waiving preparation complexity and increasing efficiency. *Biopolymers* 85 (5-6), pp. 379-391

Synthesis and characterization of cationic micelles self-assembled from a biodegradable copolymer for gene delivery. *Biomacromolecules* 8 (3), pp. 1028-1037

Nanostructured calcium phosphates (NanoCaPs) for non-viral gene delivery: Influence of the synthesis parameters on transfection efficiency. *Biomaterials* 28 (6), pp. 1267-1279

Strong systemic and mucosal immune responses to surface-modified PLGA microspheres containing recombinant Hepatitis B antigen administered intranasally. *Vaccine* 24 (19), pp. 4201-4211

Intramuscular delivery of DNA releasing microspheres: Microsphere properties and transgene expression. *Journal of Controlled Release* 112 (1), pp. 120-128

One-step preparation of polyelectrolyte-coated PLGA microparticles and their functionalization with model ligands. *Journal of Controlled Release* 111 (1-2), pp. 135-144

Novel cationic SLN containing a synthesized single-tailed lipid as a modifier for gene delivery. *Nanotechnology* 20 (21), art. no. 215102

Induction of humoral and enhanced cellular immune responses by novel core-shell nanosphere- and microsphere-based vaccine formulations following systemic and mucosal administration. *Vaccine* 27 (27), pp. 3605-3615

Targeted cationic poly(D,L-lactic-co-glycolic acid) nanoparticles for gene delivery to cultured cells. *Cellular and Molecular Biology Letters* 14 (2), pp. 347-362

Preparation and characterization of cationic PLA-PEG nanoparticles for delivery of plasmid DNA. *Nanoscale Research Letters* 4 (9), pp. 982-992

Nanotechnologies and controlled release systems for the delivery of antisense oligonucleotides and small interfering RNA. *British Journal of Pharmacology* 157 (2), pp. 179-194

Assembly and functionalization of DNA-polymer microcapsules. *ACS Nano* 3 (1), pp. 234-240

Nanocarriers for gene delivery - Polymer structure, targeting ligands and controlled-release devices. *Current Nanoscience* 4 (4), pp. 322-353

Understanding the adsorption mechanism of chitosan onto poly(lactide-co-glycolide) particles. *European Journal of Pharmaceutics and Biopharmaceutics* 70 (2), pp. 597-604

Functional polymeric nano/microparticles for surface adsorption and delivery of protein and DNA vaccines. *Current Drug Delivery* 5 (4), pp. 230-242

High loading efficiency and tunable release of plasmid DNA encapsulated in submicron particles fabricated from PLGA conjugated with poly-L-lysine. *Journal of Controlled Release* 129 (1), pp. 66-72

Comparative study of poly (lactic-co-glycolic acid)-poly ethyleneimine-plasmid DNA microparticles prepared using double emulsion methods. *Journal of Microencapsulation* 25 (1), pp. 1-12

Direct plasmid DNA encapsulation within PLGA nanospheres by single oil-in-water emulsion method. *European Journal of Pharmaceutics and Biopharmaceutics* 68 (1), pp. 105-111

Influence of particle size and antacid on release and stability of plasmid DNA from uniform PLGA microspheres. *Journal of Controlled Release* 124 (3), pp. 172-180

A genetically engineered prime-boost vaccination strategy for ocular delivery with poly(D,L-lactic-co-glycolic acid) microparticles against infection of turkeys with avian Metapneumovirus. *Vaccine* 25 (46), pp. 7914-7926

Conjugation of polyamidoamine dendrimers on biodegradable microparticles for nonviral gene delivery. *Bioconjugate Chemistry* 18 (6), pp. 2068-2076

Dispersion of super paramagnetic iron oxide nanoparticles in poly(D,L-lactide-co-glycolide) microparticles. *Colloids and Surfaces A: Physicochemical and Engineering Aspects* 292 (2-3), pp. 125-130

Stable cationic microparticles for enhanced model antigen delivery to dendritic cells. *Journal of Controlled Release* 114 (3), pp. 359-368

Prophylactic anti-tumor effects in a B cell lymphoma model with DNA vaccines delivered on polyethylenimine (PEI) functionalized PLGA microparticles. *Journal of Controlled Release* 113 (3), pp. 261-270

DNA prime and protein boost immunization with innovative polymeric cationic core-shell nanoparticles elicits broad immune responses and strongly enhance cellular responses of HIV-1 tat DNA vaccination. *Vaccine* 24 (29-30), pp. 5655-5669

Polymers for gene delivery across length scales. *Nature Materials* 5 (6), pp. 439-451 - **2446.7**

$$15.10 + 46.83 + 51.93 + 2446.7 = \mathbf{2560.56}$$

## 2. Alte citări ale lucrărilor listate mai sus

### 3. Citări în perioada 2005-2009 ale articolelor anterioare anului 2005

- 55 citari

Methods for the Preparation and Manufacture of Polymeric Nanoparticles Methods for the Preparation and Manufacture of Polymeric Nanoparticles. [Pharmaceutical Research](#) 26 (5), pp. 1025-1058

Bioresponsive polymers for nonviral gene delivery . [Current Opinion in Molecular Therapeutics](#) 11 (2), pp. 165-178

Fast degrading polyesters as siRNA nano-carriers for pulmonary gene therapy . [Journal of Controlled Release](#) 132 (3), pp. 243-251

Hydrophilic nanoreservoirs embedded into polymeric micro/nanoparticles: An approach to compatibilize polar molecules with hydrophobic matrixes . [Chemistry of Materials](#) 20 (13), pp. 4191-4193

Formulating poly(lactide-co-glycolide) particles for plasmid DNA delivery . [Journal of Pharmaceutical Sciences](#) 97 (7), pp. 2448-2461

Biodegradable polymeric nanocarriers for pulmonary drug delivery . [Expert Opinion on Drug Delivery](#) 5 (6), pp. 629-639

Branched polyesters based on poly[vinyl-3-(dialkylamino)alkylcarbamate-co-vinyl acetate-co-vinyl alcohol]-graft-poly(d,l-lactide-co-glycolide): Effects of polymer structure on in vitro degradation behaviour . [Biomaterials](#) 29 (13), pp. 2007-2014

Biodegradable branched polyesters poly(vinyl sulfonate-covinyl alcohol)-graft poly(D,L-lactide-co-glycolic acid) as a negatively charged polyelectrolyte platform for drug delivery: Synthesis and characterization . [Macromolecules](#) 41 (8), pp. 2791-2799

Nano/micro technologies for delivering macromolecular therapeutics using poly(d,l-lactide-co-glycolide) and its derivatives . [Journal of Controlled Release](#) 125 (3), pp. 193-209

On the design of in situ forming biodegradable parenteral depot systems based on insulin loaded dialkylaminoalkyl-amine-poly(vinyl alcohol)-g-poly(lactide-co-glycolide) nanoparticles . [Journal of Controlled Release](#) 123 (2), pp. 131-140

Size control of poly(d,l-lactide-co-glycolide) and poly(d,l-lactide-co-glycolide)-magnetite nanoparticles synthesized by emulsion evaporation technique . [Colloids and Surfaces A: Physicochemical and Engineering Aspects](#) 299 (1-3), pp. 209-216

Poly(vinyl alcohol)-graft-poly(lactide-co-glycolide) nanoparticles for local delivery of paclitaxel for restenosis treatment . [Journal of Controlled Release](#) 119 (1), pp. 41-51

Poly(D,L-lactide-co-glycolide acid) nanoparticles for DNA delivery: Waiving preparation complexity and increasing efficiency . [Biopolymers](#) 85 (5-6), pp. 379-391

Branched polyesters based on poly[vinyl-3-(dialkylamino)alkylcarbamate-co-vinyl acetate-co-vinyl alcohol]-graft-poly(d,l-lactide-co-glycolide): Effects of polymer structure on cytotoxicity . [Biomaterials](#) 28 (9), pp. 1610-1619

Formulation and characterization of lipase loaded poly(D,L - Lactide-co-glycolide) nanoparticles . [Polymer \(Korea\)](#) 31 (1), pp. 20-24

Developing nanoparticle drug carriers . [Pharmaceutical Technology Europe](#) 19 (1), pp. 35-42

Biodegradable injectable in situ depot-forming drug delivery systems . [Macromolecular Bioscience](#) 6 (12), pp. 977-990

Gene delivery using polymer therapeutics . [Advances in Polymer Science](#) 192 (1), pp. 135-173

Recent developments in polymeric nanoparticle engineering and their applications in experimental and clinical oncology . [Anti-Cancer Agents in Medicinal Chemistry](#) 6 (6), pp. 553-561

Synthesis of Poly(DL-lactide-Co-glycolide) nanoparticles with entrapped magnetite by emulsion evaporation method . [Particulate Science and Technology](#) 24 (3), pp. 321-328

Investigation of the proinflammatory potential of biodegradable nanoparticle drug delivery systems in the lung . [Toxicology and Applied Pharmacology](#) 215 (1), pp. 100-108

The performance of nanocarriers for transmucosal drug delivery . [Expert Opinion on Drug Delivery](#) 3 (4), pp. 463-478

DNA nano-carriers from biodegradable cationic branched polyesters are formed by a modified solvent displacement method . [Journal of Controlled Release](#) 111 (3), pp. 371-381

Paclitaxel releasing films consisting of poly(vinyl alcohol)-graft- poly(lactide-co-glycolide) and their potential as biodegradable stent coatings . [Journal of Controlled Release](#) 111 (1-2), pp. 235-246

Poly(vinyl alcohol)-based hydrogels formed by "click chemistry" . [Macromolecules](#) 39 (5), pp. 1709-1718

Synthesis and characterization of PLGA nanoparticles . [Journal of Biomaterials Science, Polymer Edition](#) 17 (3), pp. 247-289

Biodegradable brushlike branched polyesters containing a charge-modified poly (vinyl alcohol) backbone as a platform for drug delivery systems: Synthesis and characterization . [Macromolecules](#) 39 (4), pp. 1417-1424

Cationic surfactants and lipids as anti-infective agents . [Anti-Infective Agents in Medicinal Chemistry](#) 5 (1), pp. 33-54

Biophysical and transfection studies of an amine-modified poly(vinyl alcohol) for gene delivery . [Bioconjugate Chemistry](#) 16 (6), pp. 1390-1398

Current advances in sustained-release systems for parenteral drug delivery . Current advances in sustained-release systems for parenteral drug delivery . [Expert Opinion on Drug Delivery](#) 2 (6), pp. 1039-1058

Polymeric controlled nucleic acid delivery . [MRS Bulletin](#) 30 (9), pp. 640-646

New poly(lactic-co-glycolic acid) derivatives: Modular polymers with tailored properties . [Drug Discovery Today: Technologies](#) 2 (1), pp. 7-13

The role of branched polyesters and their modifications in the development of modern drug delivery vehicles . [Journal of Controlled Release](#) 101 (1-3 SPEC. ISS.), pp. 137-149

#### 1084.7

New approach for local delivery of rapamycin by bioadhesive PLGA-carbopol nanoparticles . [Drug Delivery](#) 16 (1), pp. 15-23

Inhibitive effect of local perfusion of tanshinone II a nanoparticles on MMP-2 secretion . [Journal of Sichuan University \(Medical Science Edition\)](#) 39 (1), pp. 94-97

Targeting microspheres and cells to polyethylene glycol-modified biological surfaces . [Journal of Biomedical Materials Research - Part A](#) 81 (3), pp. 578-585

Poly(vinyl alcohol)-graft-poly(lactide-co-glycolide) nanoparticles for local delivery of paclitaxel for restenosis treatment . [Journal of Controlled Release](#) 119 (1), pp. 41-51

Adenoviral Gene Vector Tethering to Nanoparticle Surfaces Results in Receptor-Independent Cell Entry and Increased Transgene Expression . [Molecular Therapy](#) 14 (3), pp. 382-391

Synthesis and micellization of amphiphilic poly(sebacic anhydride)-poly(ethylene glycol)-poly(sebacic anhydride) block copolymers . [Journal of Polymer Science, Part A: Polymer Chemistry](#) 44 (3), pp. 1271-1278

Nanoparticle-induced platelet aggregation and vascular thrombosis . [British Journal of Pharmacology](#) 146 (6), pp. 882-893

#### 216.75

Development of a smart nano-vehicle to target cerebrovascular amyloid deposits and brain parenchymal plaques observed in Alzheimer's disease and cerebral amyloid angiopathy . [Pharmaceutical Research](#) 25 (11), pp. 2674-2684

Preparation, characterization and in vitro release of rapamycin-loaded poly (lactic-co-glycolic) acid nanoparticles . [Journal of Clinical Rehabilitative Tissue Engineering Research](#) 12 (41), pp. 8079-8082

Enhancement in anti-proliferative effects of paclitaxel in aortic smooth muscle cells upon co-administration with ceramide using biodegradable polymeric nanoparticles . [Pharmaceutical Research](#) 25 (8), pp. 1936-1947

Nanotechnology and atherosclerosis imaging: Emerging diagnostic and therapeutic applications . [Recent Patents on Cardiovascular Drug Discovery](#) 3 (2), pp. 98-104



In vivo photodynamic activity of photosensitizer-loaded nanoparticles: Formulation properties, administration parameters and biological issues involved in PDT outcome . [European Journal of Pharmaceutics and Biopharmaceutics](#) 69 (1), pp. 43-53

Surface-modified paclitaxel-loaded nanoparticles as local delivery system for the prevention of vessel restenosis . [Yaoxue Xuebao](#) 42 (1), pp. 81-86

The potential risks of nanomaterials: A review carried out for ECETOC . [Particle and Fibre Toxicology](#) 3, art. no. 11

Occupational and preventive medical diagnostic program regarding exposure to nanomaterials and special or new materials | [Arbeitsmedizinisches und präventivmedizinisches untersuchungsprogramm bei exposition mit nanopartikeln und speziellen oder neuen Materialien] . [Zentralblatt fur Arbeitsmedizin, Arbeitsschutz und Ergonomie](#) 59 (11), pp. 336-343

Studies of the cellular uptake of hydrogel nanospheres and microspheres by phagocytes, vascular endothelial cells, and smooth muscle cells . [Journal of Biomedical Materials Research - Part A](#) 88 (4), pp. 1022-1030

Nanotoxicology | [Nanotoxikologie] . [Zentralblatt fur Arbeitsmedizin, Arbeitsschutz und Ergonomie](#) 58 (8), pp. 238-252

Rapamycin-loaded poly (lactic-co-glycolic) acid nanoparticles for intraarterial local drug delivery: Preparation, characterization, and in vitro/in vivo release . [Acta Academiae Medicinae Sinicae](#) 30 (4), pp. 491-497

Quantitative spatial distribution of sirolimus and polymers in drug-eluting stents using confocal Raman microscopy . [Journal of Biomedical Materials Research - Part A](#) 85 (1), pp. 258-270

Poly(vinyl alcohol)-graft-poly(lactide-co-glycolide) nanoparticles for local delivery of paclitaxel for restenosis treatment . [Journal of Controlled Release](#) 119 (1), pp. 41-51

Effect of nanoparticle size on the extravasation and the photothrombic activity of meso(p-tetracarboxyphenyl)porphyrin . [Journal of Photochemistry and Photobiology B: Biology](#) 85 (3), pp. 216-222

Spatiotemporal controlled delivery of nanoparticles to injured vasculature. [Proceedings of the National Academy of Sciences of the United States of America](#) 107 (5), pp. 2213-2218

**234.08**

216.75 + 234.08 + 1084.71 = **1535.54**

#### **4. Distincții, premii și alte recunoașteri naționale și internaționale**

*European Journal of Pharmaceutics & Biopharmaceutics*

***Best Paper Award for 2004***

Ulrich Westedt, **Lucian Barbu-Tudoran**, Andreas K. Schaper, Marc Kalinowski, Heiko Alfke and Thomas Kissel: *Effects of different application parameters on penetration characteristics and arterial vessel wall integrity after local nanoparticle delivery using a porous balloon catheter* (EJPB 58/1, July 2004)

*Presented at the*

*5th World Meeting on Pharmaceutics, Biopharmaceutics and Pharmaceutical Technology  
Geneva, Switzerland, 27 March 2006*

1 x 10 = **10**

#### **5. Studenți naționali atrași (activități de coordonare științifică și didactică)**

- Îndrumare lucrari de licență (număr lucrări susținute)
- Îndrumare lucrări de disertație (număr lucrări susținute)
- Doctoranzi (lista nominală a doctoranzilor înmatriculați resp. lista nominală a tezelor susținute)
- Post-doctoranzi (lista nominală)

#### **6. Studenți internaționali atrași (activități de coordonare științifică și didactică)**

- Îndrumare lucrari de licență (număr lucrări susținute)
- Îndrumare lucrări de disertație (număr lucrări susținute)
- Doctoranzi (lista nominală a doctoranzilor înmatriculați resp. lista nominală a tezelor susținute)



- Post-doctoranzi (lista nominală)

**7. Membru in comitetul de redacție la reviste ISI**

**8. Membru in comitetul de redacție la reviste BDI**

**9. Participări la programe/granturi de cercetare finanțate din sursă internațională (se menționează și valoarea)**

**10. Participări la programe/granturi finanțate din sursă națională (se menționează și valoarea)**

1. PNCDI Ecocol 23/2004 : **45.000 lei**, 2004-2006. – **4.5**
2. PNCDI Aerospațial 2288/2004 : **33.000 lei**, 2004-2006. – **3.3**
3. CEEX Digintex 23/2005 : **100.000 lei**, 2005-2007. - **10**
4. CEEX Adexplant 99/2006 : **536.000 lei**, 2006-2008. – **53.6**
5. CEEX Nanomagmetnob 59/2006 : **150.000 lei**, 2006-2008. - **15**
6. CEEX Nanoel 75/2006 : **50.000 lei**, 2006-2008. - **5**
7. CEEX Biofuelmark 71/2006 : 2006-2008.
8. CEEX Moldivciano 59/2006 : 2006-2008.
9. CNCSIS 15/366/2006 : **50.000 lei**, 2006. - **5**
10. CEEX Nanobiospec 71/2006 : **50.000 lei**, 2006-2008. - **5**
11. CEEX Nanoin 5/2005 : **50.000 lei**, 2005-2008. - **5**
12. CEEX Optolum 31/2005 : **75.000 lei**, 2005-2008. – **7.5**
13. CEEX Nanelpol 68/2006 : **150.000 lei**, 2005-2008. - **15**
14. PNII Nanomagpoli 71/068/2007 : **200.000 lei**, 2007-2010. - **20**
15. PNII Ordonanomag 71/119/2007 : **200.000 lei**, 2007-2010. - **20**
16. PNII Maminal 71/122/2007 : **100.000 lei**, 2007-2010. - **10**
17. PNII Imunonanomat 70/2007 : **150.000 lei**, 2007-2010. - **15**
18. PNII Polmedjiu 32/150/2008 : **200.000 lei**, 2008-2011. - **20**
19. PNII Nanohepat 62/072/2008 : **200.000 lei**, 2008-2011. - **20**
20. PNII ElcatCO<sub>2</sub> 32/114/2008 : **30.000 lei**, 2008-2011. - **3**
21. IDEI Pîrvu /2008 : **100.000 lei**, 2008-2011. - **10**
22. IDEI Berciu /2008 : **100.000 lei**, 2008-2011. - **10**
23. IDEI Popovici /2008 : **50.000 lei**, 2008-2011. – **5**

Total = **261.9**

**11. Coordonări de programe/granturi finanțate din sursă internațională (se menționează și valoarea)**

**12. Coordonări de programe/granturi finanțate din sursă națională (se menționează și valoarea)**

**13. Profesor invitat la universitati de prestigiu, cu titlu oficial**

**14. Membru în comisii profesionale relevante, cu titlu oficial**

**15. Conferințe invitate internaționale**

**16. Membru în comitete de organizare sau științifice ale unor conferințe internaționale**

Total criteriul II = **4368**

### **III. Realizare remarcabilă**

(Descrieți într-o manieră cât mai accesibilă (în maximum 1 pagină) cea mai importantă realizare științifică/tehnică/artistică din ultimii 5 ani și impactul acesteia.)

- Realizarea de cercetari electronomicroscopice in cadrul unor granturi, care au permis dotarea CME cu echipamente performante in valoare de aprox. 600.000 Euro, facilitand derularea unor colaborari internationale.

**Total general: 2064.622**

Data:

18 Martie 2010

Semnătura:

Lucian BARBU-TUDORAN

**Certific validitatea datelor prezentate**

Sef de catedră,

Prof. Dr. Nicolae DRAGOS