Adriana LUNGU

Lecturer
Faculty of Applied Chemistry and Materials Science
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Contact Details

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Professional experience

2015-present **Lecturer**

Department of Bioresources and Polymers Science, Faculty of Applied Chemistry and Materials Science, University Politehnica of Bucharest, Romania

2005-2015 **Collaborative teaching staff / Research Assistant / Senior Researcher**

Faculty of Applied Chemistry and Materials Science, Faculty of Medical Engineering, Faculty of Engineering in Foreign Languages, University Politehnica of Bucharest, Romania

Studies

2010-2013 **Postdoctoral fellow**

Postdoctoral programme for advanced research in the field of nanomaterials – POSDRU/89/1.5/S/54785, University Politehnica of Bucharest, Romania

2005-2009 **Ph.D.** in *Engineering Sciences-Chemical Engineering*,

University Politehnica of Bucharest, Romania

Thesis Title: ”*Hybrid polymeric materials based on nanostructurated compounds*”

2004-2005 **M.Sc. degree** in *Prosthetic Technology*

Faculty of Medical Bioengineering, University of Medicine and Pharmacy „Gr. T. Popa”, Iasi, Romania

1998-2004 **Bachelor degree** in *Medical Bioengineering*

Faculty of Medical Bioengineering, University of Medicine and Pharmacy „Gr. T. Popa”, Iasi, Romania

Academic interests - *Teaching activity*

Degree	Program Name / Faculty	Course Title	Activity type
Bachelor	Faculty of Applied Chemistry & Materials Science	Biopolymers	Applications
	Faculty of Medical Engineering	Polymeric biomaterials	Applications
	Faculty of Medical Engineering	Polymers Biocompatibility and Investigation Methods	Course and applications
	Faculty of Engineering in Foreign Languages	Biopolymers and Biocomposites	Course and applications
Master	Substances, materials and biocompatible systems, Faculty of Medical Engineering	Soft Implants Engineering	Course and applications
	Substances, materials and biocompatible systems, Faculty of Medical Engineering	Polymeric Biomaterials	Course
	Smart biomaterials and applications, Faculty of Medical Engineering	Artificial Tissues and Organs	Course and applications

Research interests

- synthesis of hybrid / functional materials and biomaterials for biomedical applications.
- synthesis and design of new organic-inorganic nanostructured materials (based on dendrimers, silsesquioxanes or functionalized silica) and their advanced characterisation by different modern techniques (FTIR, RAMAN, DSC, TGA, DMA).
- synthesis of various bio-inspired materials used for tissue engineering;
- bio-inks for 3D printing

Research Projects (selection)

- 2018-2020: *Tailoring the tumor microenvironment using smart systems designed for mammary reconstruction* (UPB responsible of component project 4) within the project *Advanced innovative approaches for predictive regenerative medicine* (REGMED), CCCDI-UEFISCDI, PN-III-P1-1.2-PCCDI-2017-0782, no. 65 PCCDI/2018
- 2017-2018: *3D-printed Smart Composites* (3D-BIOCOMP), Excellence Research Grants (GEX) Program of UPB, no. 81/2017 (project manager)
- 2015-2017: *Smart click-chemistry approach to design innovative thiol containing polymers for high performance dental materials*, PNII-RU-TE-2014: 58/2015 (project manager)
- 2014-2016: *Rational design and synthesis of smart bioactive scaffolds for personalized treatment of wounds* (ZETTAskin), PCCA 201/ 2014;
- 2012-2016: *Bioactive injectable macroporous biomaterials for bone regeneration* (SmartBIMBBone), PCCA 2 183/2012;
- 2010-2013: *New concepts and strategies for the development of knowledge of new biocompatible structures in bioengineering*, PCCE 11/2010;
- 2009-2011: *Synthesis of various materials mediated by organogelators to reduce polymerization shrinkage*, PNII 725/2009;

Other Significant Activities

- Project Team Leader, Advanced Polymer Materials Group (2011), http://www.tsocm.pub.ro/APMG/staff.html
- Member in the management team (2016-2018) in POC project ID P_36_611 INOVABIOMED no. 145/26.10.2016 http://www.inovabiomed.upb.ro/
- Long Term Scientific Expert - University Politehnica of Bucharest, Romania; "Doctoral and postdoctoral research as a priority of higher education area in Romania" POSDRU/159/1.5/S/137390;
- University of Portsmouth (United Kingdom), School of Pharmacy and Biomedical Sciences, Research Assistant within Socrates-Erasmus Mobility (march - august 2005); Research subject: *Innovative drug delivery systems with potential ophtalmological applications;*
- Ecole de Mines de Paris (France), Centre de Mise en Forme des Materiaux, Visiting researcher with a Leonardo Da Vinci Scholarship (may - july 2002); Research subject: *Swelling behavior and absorption properties of a polyelectrolyte gel in polymer solution of different molecular weights*

Publications:

48 Articles in ISI/BDI journals; coauthor for 2 book chapters;
>150 citations (between 2013-2017) in Scopus database; Hirsch Index: 12 (nov. 2017)

Awards

Travel Scholarship - *The Swiss Society for Biomaterials* (2010); Scholarship "Medical Ortovit" (2009) - *Romanian Society for Biomaterials* ; Editorial Board of *Mat Plast* (2008); more than 15 articles research awards *PN-II-RU-PREC$_{ISI}$* (2007-2014).

Membership of Professional Bodies

- Member of the *European Society for Biomaterials*
- Member of the *Romanian Society for Biomaterials*
- Member of the *Chemical Romanian Society*
- Member of the *Young Scientist Forum* (YSF-Romania)
- Founding Member of the *Society of 3D Printing in Medicine*