

## PERSONAL INFORMATION

## DUNCA Simona Isabela



📍 “Alexandru Ioan Cuza” University of Iași, Faculty of Biology, General Microbiology Laboratory - B  
238, 20A Carol I Blvd., zip code 700505, Iași (Romania).

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✉ [sdunca@uaic.ro](mailto:sdunca@uaic.ro)

Sex Female | Date of birth June 27, 1967 | Naționaliity Romanian

## WORK EXPERIENCE

2015 - present

**Professor**

“Alexandru Ioan Cuza” University of Iași, Faculty of Biology, Biology Department, Iași (Romania).  
Teaching and scientific research activities.

*Lectures and practicals covering the following areas:* General microbiology, Medical microbiology, Theoretical and practical bases of microbial biotechnologies, Biodegradation and biodeterioration.

2005 – 2015

**Associate Professor**

“Alexandru Ioan Cuza” University of Iași, Faculty of Biology, Biology Department, Iași (Romania).

Teaching and scientific research activities.

*Lectures and practicals covering the following areas:* General microbiology, Medical microbiology, Microorganisms selected for food industry, Microbial biotechnologies for wastewater treatment, Microbial conversions, Theoretical bases of microbial biotechnologies, Biodegradation and biodeterioration.

1998 – 2005

**Lecturer**

“Alexandru Ioan Cuza” University of Iași, Faculty of Biology, Department of Biochemistry – Genetics - Microbiology, Iași (Romania).

Teaching and scientific research activities.

*Lectures and practicals covering the following areas:* Microbial biotechnologies, Virology, Microbiology, Soil microbiology, Microorganisms involved in biodeterioration, Microbial conversions.

*Practical courses covering the following:* General microbiology, Biology of microorganisms, Ecology of microorganisms, Immunology and immunochemistry, Immunobiology, Biotechnologies, Food microbiology.

1995 – 1998

**University Assistant**

“Alexandru Ioan Cuza” University of Iași, Faculty of Biology, Department of Biochemistry – Genetics - Microbiology, Iași (Romania).

Teaching and scientific research activities.

*Practical courses covering the following:* General microbiology, Biology of microorganisms, Ecology of microorganisms, General and industrial microbiology, Microbiology, Immunology and immunochemistry, Biotechnologies.

1992 – 1995

**Graduate Assistant**

“Alexandru Ioan Cuza” University of Iași, Faculty of Biology, Department of Biochemistry – Genetics - Microbiology, Iași (Romania).

Teaching and scientific research activities.

*Practical courses covering the following:* General microbiology.

## EDUCATION AND TRAINING

- 1995 – 2001 **Doctorate – Field: Biology, Specialization: Microbiology**  
 “Alexandru Ioan Cuza” University of Iași, Faculty of Biology, Iași (Romania).  
*Title of Doctoral Thesis: CONTRIBUTIONS TO THE STUDY OF THERMOPHILIC ACTINOMYCETES.*
  
- 1991 – 1992 **Postgraduate Advanced Studies – Specialization: Ecology**  
 “Alexandru Ioan Cuza” University of Iași, Faculty of Biology, Iași (Romania).
  
- 1987 – 1991 **Bachelor’s Degree**  
 “Alexandru Ioan Cuza” University of Iași, Faculty of Biology, Iași (Romania), specialization Biology, Iași (Romania).
  
- 1981 – 1985 **High School Graduation Exam**  
 College of Natural Sciences, Baia-Mare (Romania).

**PERSONAL SKILLS**

Mother tongue(s) Romanian

Other languages

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C1	B2	B2	B2

Levels: A1/A2: Basic user - B1/B2: Independent user- C1/C2: Proficient user  
 Common European Framework of Reference for Languages

Communication skills Very good communication skills gained through teaching and research activities.  
 Adaptability acquired while working in the country and abroad.  
 Team spirit.

**Organisational/managerial skills**

- ✚ Coordinator of 3 research contracts/grants/ programs.
- ✚ Coordinator (as a tutor for the PhD students and post-doctoral appointees) in a POSDRU project.
- ✚ Member of the Council of the Faculty of Biology within the „Alexandru Ioan Cuza” University of Iași (2008-2015).
- ✚ Member of the Council of the Biology Department of the Faculty of Biology within the „Alexandru Ioan Cuza” University of Iași between 2008– 2011.
- ✚ Member of the International Relations Council of „Alexandru Ioan Cuza” University of Iași between 2008– 2011.
- ✚ Member of the editorial board for the Journal „Scientific Annals of Alexandru Ioan Cuza University of Iași” - Genetics and Molecular Biology Section.
- ✚ Expert assessor for CNCS (National Research Council) projects type TE and TD.
- ✚ Reviewer of articles from different journals:
  - *Journal of Magnetism and Magnetic Materials*;
  - *Journal of Magnetism*;
  - *Romanian Biotechnological Letters*;
  - *Net Journal of Agricultural Science*;
  - *Scientific Annals of Alexandru Ioan Cuza University of Iași, Plant Biology Section*;

- *Scientific Annals of Alexandru Ioan Cuza University of Iași, Genetics and Molecular Biology Section.*
- ✚ Member of the organising committee of various scientific events:
  - Scientific Session “*Molecular Interactions in the Living Environment*”, Iași, October 15 -16, 2010;
  - Scientific Session “*Biochemistry and Molecular Biology – Present and Outlook*”, Iași, October 24-25, 2008;
  - *The 9<sup>th</sup> Annual Microbiology Summit*, Mamaia, May 24-26, 2007;
  - *7<sup>th</sup> International Scientific Conference SGEM (Modern Management of Mine Producing, Geology and Environmental Protection)*, Albena, Bulgaria, June 11-15, 2007;
  - Scientific Session “*Diversity, functionality and preservation of organisms*”, Iași, November 15, 2003.
- ✚ Member of various committees:
  - Member of PhD assessment committees (scientific reviewer at the public defense of 26 doctoral theses);
  - Member of higher education promotion committees;
  - Member of examination committees for post-secondary teacher certification – Level 1;
  - Member of university graduation and dissertation examination committees.

**Job-related skills** Teaching and research abilities required for dealing with notions, concepts, laws governing and principles related to microbiology; ability to use models and algorithms for inter- / transdisciplinary integration of knowledge specific to general microbiology; research activities management skills.

✚ **Teaching skills:**

*Taught courses:*

General microbiology;  
Medical microbiology;  
Microbial biotechnologies,  
Virology;  
Soil microbiology;  
Microorganisms involved in biodeterioration (Master’s Degree Courses);  
Microorganisms selected for food industry (Master’s Degree Courses);  
Theoretical bases of microbial biotechnologies (Master’s Degree Courses);  
Biodegradation and biodeterioration (Master’s Degree Courses).  
Microbial biotechnologies for wastewater treatment (Master’s Degree Courses);  
Microbial conversions (Master’s Degree Courses);

✚ **Scientific skills:**

*Fields of research:*

Physiology of Microorganisms;  
Microbial Ecology;  
Microbial Biotechnologies;  
Microbial Degradation.

- Primary supervisor for graduation theses: **96**;
- Primary supervisor for dissertations: **67**;
- Supervisor of papers on scientific approaches to teaching methods for post-secondary teacher certification – Level: **15**.

**Computer skills** Good knowledge of Microsoft Office (Word, Excel, Power Point).  
Basic knowledge of graphic design applications (Adobe Photoshop, Corel Draw).

## ADDITIONAL INFORMATION

## Publicații

- ✚ Patent for invention: 1;
- ✚ Books: 5;
- ✚ Chapters of books published by international book publishers: 1;
- ✚ Original research articles published: 200 (140 articles *in extenso* and 60 articles as *abstracts*):
  - Articles published *in extenso* in ISI - indexed journals: 20;
  - Articles published *in extenso* in journals indexed in international databases (BDI): 77;
  - Articles published *in extenso* in the volumes containing the proceedings of international academic conferences: 17;
  - Articles published *in extenso* in international journals: 2;
  - Articles published *in extenso* in national journals: 9;
  - Articles published *in extenso* in the volumes containing the proceedings of national academic conferences: 15;
  - Articles published as *abstracts* in volumes containing the proceedings of international events: 29;
  - Articles published as *abstracts* in volumes containing the proceedings of national events: 31.

**Books published by national academic publishers**

1. NIMIȚAN Erica, AILIESEI Octăvița, **DUNCA Simona**, COMĂNESCU Șt., 1998. Metode și tehnici de microbiologie. Ed. Universității „Alexandru Ioan Cuza” din Iași. Centrul de multiplicare. 395 pag.

**Books published by national academic publisher houses certified by CNCSIS**

1. **DUNCA Simona**, AILIESEI Octăvița, NIMIȚAN Erica, ȘTEFAN M., 2007. Microbiologie aplicată. Casa Editorială Demiurg, Iași (ISBN: 973-7603-79-6), 293 pag.
2. **DUNCA Simona**, AILIESEI Octăvița, NIMIȚAN Erica, ȘTEFAN M., 2005. Elemente de microbiologie. Vol. 1, Ed. Junimea, Iași (ISBN: 973-37-1043-1), 263 pag.
3. **DUNCA Simona**, AILIESEI Octăvița, 2004. Biologia termoactinomicetelor. Ed. Tehnopress, Iași (ISBN: 973-702-031-6), 237 pag.

**Books published by other publishing houses**

1. IOANID E. Ghiocel, **DUNCA Simona**, RUSU Dorina, 2008. Plasma de înaltă frecvență în domeniul conservării obiectelor de patrimoniu - decontaminarea biologică. Ed. Pim, Iași (ISBN: 978-606-520-077), 144 pag.

**Chapters of books published by international book publishers**

1. CREANGĂ Dorina, **DUNCA Simona**, POIATĂ Antonia, 2011. Some Aspects Regarding Bacteria Sensitivity to Physical Constraints of Magnetic Nature. In *Advances in Medicine and Biology* (Ed. Berhardt V.L.), Nova Science Publishers (ISBN: 978-1-61122-731-4), vol.16, chapter 11: 287 – 302.

**Relevant papers**

1. ONOFREI Mihaela Dorina, DOBOȘ Adina Maria, **DUNCA Simona**, Ioanid E.G., Ioan Silvia, 2015. Biocidal activity of cellulose materials for medical implants. *Journal of Applied Polymer Science* (ISSN printed: 0021-8995, ISSN electronic: 1097-4628) (DOI: 10.1002/app.41932), 132(18): 1-9, May 10, 2015.
2. **DUNCA Simona**, TĂNASE Cătălin, PĂDURARIU Claudia, BALAEȘ Tiberius, ARDELEAN Elena, MELNICIUC PUICĂ Nicoleta, 2014. Study of the contaminating microbiota of old paper supports. *European Scientific Journal* (ISSN printed: 1857 – 7881, ISSN electronic: 1857-7431), vol. 3 (special edition, September, 2014): 237 – 251.
3. IOAN Silvia, FILIMON Anca, HULUBEI Camelia, STOICA Iuliana, **DUNCA Simona**, 2013. Origin of rheological behavior and surface/interfacial properties of some semi-alicyclic polyimides for biomedical applications. *Polymer Bulletin* (ISSN printed: 0170-0839, ISSN electronic: 1436-

- 2449) (DOI: 10.1007/s00289-013-0994-0), **70**(10): 2873–2893.
4. GRIGORAȘ Anca Giorgiana, CONSTANTIN Marieta, GRIGORAȘ V. C., **DUNCA Simona**, OCHIUZ Lăcrămioara, **2013**. Studies on physico-chemical and antibacterial properties of grafted pullulans solutions. *Reactive and Functional Polymers* (ISSN: 1381-5148) (DOI: 10.1016/j.reactfunctpolym.2013.06.009), **73**(9): 1249–1254.
  5. OLARU N., OLARU Liliana, TUDORACHI Nița, **DUNCA Simona**, PINTILIE Manuela, **2013**. Nanostructures of cellulose acetate phthalate obtained by electrospinning from 2-methoxyethanol-containing solvent systems: morphological aspects, thermal behavior, and antimicrobial activity. *Industrial and Engineering Chemistry Research* (ISSN printed: 0888-5885, ISSN electronic: 1520-5045) (DOI:10.1021/ie301299d), **52**(2): 696–705.
  6. GRIGORAȘ Anca Giorgiana, RACOVIȚĂ Ștefania, VASILIU Silvia, NISTOR Manuela Tatiana, **DUNCA Simona**, BĂRBOIU V., GRIGORAȘ V. C., **2012**. Dilute solution properties of some polycarboxybetaines with antibacterial activity. *Journal of Polymer Research* (ISSN printed: 1022-9760, ISSN electronic: 1572-8935) (DOI 10.1007/s10965-012-0008-1), **19**(11): 1-8 (article 8).
  7. IOANID E.G., **DUNCA SIMONA**, RUSU DORINA, TĂNASE C., **2012**. Comparative study on decontamination treatment of paper-based materials in corona discharge and HF cold plasma. *European Physical Journal Applied Physics* (ISSN printed: 1286-0042, ISSN electronic: 1286-0050) (DOI: 10.1051/epjap/2012110324), **58**(1): 10803-10811.
  8. COPCIA Violeta Elena, LUCHIAN Camelia, **DUNCA Simona**, BÎLBĂ N., HRISTODOR Claudia Mihaela, **2011**. Antibacterial activity of silver-modified natural clinoptilolite. *Journal of Materials Science* (ISSN printed: 0022-2461, ISSN electronic: 1573-4803) (DOI:10.1007/s10853-011-5635-0), **46**(22): 7121-7128.
  9. ȘTEFAN M., HRIȚCU L., MIHĂȘAN M., PRICOP Daniela, GOSTIN Irina, OLARIU R.I., **DUNCA Simona**, MELNIG V., **2011**. Enhanced antibacterial effect of silver nanoparticles obtained by electrochemical synthesis in poly(amide-hydroxyurethane) media. *Journal of Materials Science: Materials in Medicine* (ISSN printed: 0957-4530, ISSN electronic: 1573-4838) (DOI:10.1007/s10856-011-4281-z), **22**(4): 789-796.
  10. IOANID E. G., RUSU Dorina, **DUNCA Simona**, TĂNASE C, **2010**. High-frequency plasma in heritage photo decontamination. *Annals of Microbiology* (ISSN printed: 1590-4261, ISSN electronic: 1869-2044) (DOI: 10.1007/s13213-010-0051-2), **60**(2): 355-361.
  11. **DUNCA Simona**, MURGOCI Mariana, ȘTEFAN M., AILIESEI Octăvița, **2010**. Study of bacterial nitrification in soils subjected to different tillage systems. *Natura Montenegrina* (ISSN printed: 1451-5776, ISSN electronic: 1800-7155), **9**(3): 635-647.
  12. ȘTEFAN M., **DUNCA Simona**, OLTEANU Zenovia, OPRICĂ Lăcrămioara, UNGUREANU E., HRIȚCU L., MIHĂȘAN M., COJOCARU D., **2010**. Soybean (*Glycine max* [L.] Merr.) inoculation with *Bacillus pumilus* RS3 promotes plant growth and increases seed protein yield: relevance for environmentally-friendly agricultural applications. *Carpathian Journal of Earth and Environmental Sciences* (ISSN printed: 1842 – 4090, ISSN electronic: 1844 - 1489X), **5**(1): 131 – 138.
  13. NECULA Adina Maria, **DUNCA Simona**, STOICA Iuliana, OLARU N., OLARU Liliana, IOAN Silvia, **2010**. Morphological properties and antibacterial activity of nano-silver - containing cellulose acetate phthalate films. *International Journal of Polymer Analysis and Characterization* (ISSN printed: 1023-666X, ISSN electronic: 1563-5341) (DOI: 10.1080/1023666X.2010.500524), **15**(6): 341–350.
  14. **DUNCA Simona**, ȘTEFAN M., OLTEANU Zenovia, OPRICĂ Lăcrămioara, AILIESEI Octăvița, NIMIȚAN Erica, **2009**. Effect of tillage systems on the dynamics of the microbiota in cambic chernozem soils. *European Journal of Drug Metabolism and Pharmacokinetics* (ISSN: 0378-7966), vol. **34**, P108: 59.
  15. **DUNCA Simona**, ȘTEFAN M., OLTEANU Zenovia, OPRICĂ Lăcrămioara, AILIESEI Octăvița, NIMIȚAN Erica, **2009**. Characterization of the microbiota of soils subjected to different tillage systems. *European Journal of Drug Metabolism and Pharmacokinetics* (ISSN: 0378-7966), vol. **34**, P109: 59.
  16. FILIMON Anca, AVRAM Ecaterina, **DUNCA Simona**, STOICA Iuliana, IOAN Silvia, **2009**. Surface properties and antibacterial activity of quaternized polysulfones. *Journal of Applied Polymer Science* (ISSN printed: 0021-8995, ISSN electronic: 1097-4628) (DOI: 10.1002/app.29591), **112**(3): 1808–1816.
  17. **DUNCA Simona**, CREANGĂ Dorina, **2009**. Side effects of magnetic fluid biomedical utilization on human microflora. *Romanian Journal of Biophysics* (ISSN printed: 1220-515X, ISSN electronic: 1843-424X), Published by Publishing House of the Romanian Academy, **19**(2):

127-133.

18. **DUNCA Simona**, ȘTEFAN M., TĂNASE C., COJOCARIU Ana, **2008**. Evaluation of the rhizospheric microbiota from soils degraded by mining activities. *Natura Montenegrina* (ISSN printed: 1451-5776, ISSN electronic: 1800-7155), **7**(3): 17-26.
19. **DUNCA Simona**, ȘTEFAN M., TĂNASE C., COJOCARIU Ana, **2008**. The dynamics of microbiota on soils degraded by mining activities. *8<sup>th</sup> International Scientific Conference „Modern Management of Mine Producing, Geology and Environmental Protection” - SGEM 2008*, Conference Collection of Papers SGEM 2008, Section Ecology and Environmental Protection (ISBN: 954918181-2), vol. II: 365-372.
20. **DUNCA Simona**, CREANGĂ Dorina Emilia, ALIESEI Octăvița, NIMIȚAN Erica, **2005**. Microorganisms growth with magnetic fluids. *Journal of Magnetism and Magnetic Materials* (ISSN: 0304-8853) (DOI: 10.1016/j.jmmm.2004.11.125), Ed. Elsevier, Olanda, section 8 – Biomedical applications, **289**: 445-447.
21. **DUNCA Simona**, ALIESEI Octăvița, NIMIȚAN Erica, ȘTEFAN, M., **2004**. Studies on sulphurous bacteria involved in the formation of the therapeutical mud and water from a rest and balneotherapy unit. *American Romanian Academy of Arts and Science Journal*, Polytechnic International Press, Montréal (Québec), Canada (ISBN: 987-2-553-01434-5), **29**: 183-186.

#### Patent for invention

*Patent for invention no. 122396, OSIM București, 29.05.2009*

#### **Installation and Procedure for Conservation of Objects**

Authors: IOANID G., RUSU Dorina, IOANID Aurelia, **DUNCA Simona**, MUREȘAN A.

#### Research projects

- **21 research contracts/grants/programmes** focused on ecology, physiology and microbial degradation studies:
- coordinator in research grants and programmes: **3**;
- contributor in research grants and programmes in the country: **18**.

#### **a. COORDINATOR (DIRECTOR/MANAGER) IN RESEARCH PROJECTS: 3**

- **one** internal funding Framework Programme:

**2007- 2010**, Partnerships in Priority Areas, Framework Programme, Research Contract no. 51-017/2007: *Management of Soil and Water Resources in Agrosystems Affected by Excessive Draught Aiming at Preserving Biodiversity* (MOLDOTECH) – Project manager Partner 1 (UAIC).

- **one** internal funding CEEX programme:

**2006 – 2008**, CEEX Programme, Research Contract no. 54/6948/2006: *Multifunctional Integrated Technology for National Cultural Heritage Conservation* (MITECH) – Project manager Partner 3 (UAIC).

- **one** internal funding scientific research contract:

**2004**, Research Contract no. 17483/2004: *Microbiological Investigations of the High-frequency Cold Plasma Effect in Fighting Microbial Deterioration of Organic Heritage Items*-Beneficiary: “Moldova” National Museum Complex Iași – Project Director

#### **b. CONTRIBUTOR (MEMBER OF RESEARCH TEAMS) IN RESEARCH PROJECTS: 18**

- **2** PN II research programmes: 2012 – 2016 (**1**), 2008 – 2009 (**1**);
- **4** CEEX research programmes: 2006 – 2008 (**3**), 2006 – 2007 (**1**);
- **5** CNCSIS grants (type A): 2006 – 2008 (**1**), 2004 – 2006 (**1**), 2001 – 2003 (**1**), 1999 – 2001 (**1**), 1998 – 2000 (**1**);
- **1** research contract in cooperation with Romanian Academy (2007-2008);
- **1** POSDRU project (2014-2015);
- **5** scientific research contracts in cooperation with other institutions: 2004 (**1**), 1994 (**2**), 1993 (**1**), 1992 (**1**).

1. **2012-2016**, PN-II-PT-PCCA Programme, Research Contract no. 221/2012: *Developing Nonconventional Materials and Cold Plasma Technology for Sustainable Solutions in the Conservation of Paper Heritage Items* (PAPHERCON).

2. **2014-2015**, POSDRU/159/1.5/S/133391 Project: *Doctoral and Post-doctoral Excellence Programmes Aimed at Preparing Highly-qualified Human Resources for Research in Life, Environmental and Earth Sciences.*
3. **2008-2009**, PN II CAPACITIES, Research Contract no. 195 CPI/2008-2010: *Strengthening the Research Capacity and Capacity to Use and Provide Scientific Services by Developing the Characterization of Molecular Organization in BioMaterials Laboratory (COMB).*
4. **2007-2008**, GAR, Research Contract no. 74/2007: *Elaborate Study of the Phyllosphere of Species of Plants Cultivated in the Botanical Garden of Iasi – A Premise for Substantiating New Opportunities in the Preservation and Protection of Anthropized Ecosystems.*
5. **2006-2008**, CEEEX Programme, Research Contract no. 128/2006: *Ecological Reconstruction by Mycoremediation of Soils Degraded by Mining (RECOSOL).*
6. **2006-2008**, CEEEX Programme, Research Contract no. 119/2006: *Advanced Research Studies on the Use of Grains and Crop Wastes to Obtain Bioethanol and Biomethanol Used as Alternative Energy Resources in Bioeconomy (BIO-ECO).*
7. **2006-2008**, CNCSIS Grant, Research Contract no. 1174/2006: *Mycoremediation of Polluted Soils from Ecologically Critical Areas.*
8. **2006-2007**, CEEEX Programme, Research Contract no. 205/2006-2007: *Expansion of Potoci Aquatic Ecology and Aquaculture Laboratory for the Assessment of Pollution Level in the Water of Mountain Lakes Due to Salmonids Aquaculture in Floating Farms, in accordance with the Water Framework Directive 60/2000 EEC.*
9. **2005-2008**, CEEEX Programme, Research Contract no. 634/2005: *Expertise Center for the Sustainable Use of Ecosystems (CEXDUREC), Case study: Peri-urban Terrestrial and Aquatic Ecosystems in the Ciric River Basin Northside Iasi.*
10. **2004-2006**, CNCSIS Grant, Research Contract no. 642/2004: *Phytoremediation of Polluted Soils in the Buffer Zone of the Household Waste Warehouse from Tomești – Iasi.*
11. **2004**, Research Contract no. 1/02.06.2004: *Isolation, Selection, Characterisation and Identification a *Bacillus megaterium* Strain from Different Natural Environments (for phosphorus solubilization from soil) and Microbiological Examination of Muds for Preventing Hydrogen Sulphide Formation*
12. **2001-2003**, Grant type A, theme no. 10, CNCSIS code 944: *Biotechnological Use of Whey Resulted from Cheese Processing to Obtain Yeast Biomass.*
13. **1999-2001**, Grant type A, theme no. 57, CNCSIS code 153: *Microbiological Research Studies on the Activity of Some Ecophysiological Bacteria in the Surface Waters and Several Types of Soil from Moldova.*
14. **1998-2000**, Grant type A, theme no. 49, CNCSIS code 670: *Obtaining, Selection, Characterisation and Use of New Genotypes in Species of Microorganisms and Plants "in vivo" and "in vitro".*
15. **1994**, Research Contract no. A1/1035/1994: *Identification of the Main Group of Microorganisms Indicative for the Quality of Marine Environment and Epibiosis.*
16. **1994**, Research Contract no. 3011/1994, theme no. C-25: *Microbiological Research on the Pollution and Self-Cleaning of Surface Waters.*
17. **1993**, Research Contract no. 8/1993: *Microbiological Research Studies on the Water and Sediments of the Romanian Black Sea Coastline to the Purpose of Monitoring the Self-Cleaning Capacity.*
18. **1992**, Research Contract no. 60/1992: *Microbiological Research Studies on the Water and Sediments of the Romanian Black Sea Coastline to the Purpose of Monitoring the Self-Cleaning Capacity.*

## Conferences

**International**

- 2<sup>nd</sup> Annual International Interdisciplinary Conference (AIIC 2014), Ponta Delgada, Portugalia, July, 8-12, 2014;
- 13<sup>th</sup> High-Tech Plasma Processes Conference (HTPP 2014), Toulouse, June 22-27, 2014;
- 15<sup>th</sup> Panhellenic Pharmaceutical Congress, Atena, May 13-15, 2011;
- 4<sup>th</sup> International Symposium of Ecologists of the Republic of Montenegro, Budva, Muntenegru, October 8-12, 2010;
- 14<sup>th</sup> Panhellenic Pharmaceutical Congress, Atena, May 9-15, 2009;
- 3<sup>rd</sup> International Symposium of Ecologists of the Republic of Montenegro, Bijela, Muntenegru, October 6-10, 2008;
- XII<sup>th</sup> International Congress of Bacteriology and Applied Microbiology (IUMS - 2008), Istanbul, August 5-9, 2008;
- 8<sup>th</sup> International Scientific Conference „Modern Management of Mine Producing, Geology and Environmental Protection” (SGEM 2008), Albena, Bulgaria, June 15-20, 2008;
- 7<sup>th</sup> International Scientific Conference „Modern Management of Mine Producing, Geology and Environmental Protection” (SGEM 2007), Albena, Bulgaria, June 11-15, 2007;
- 29<sup>th</sup> Balkan Medical Week, *Ecology, Man, Health*, Golden Sand, Varna, Bulgaria, September 27-30, 2006;
- 2<sup>nd</sup> International Symposium of Ecologists of Montenegro, Kotor, Serbia and Montenegro, September 20 - 24, 2006;
- 6<sup>th</sup> International Scientific Conference „Modern Management of Mine Producing, Geology and Environmental Protection” (SGEM 2006), Albena, Bulgaria, June 12-16, 2006;
- 6<sup>th</sup> Ferrofluid Workshop “Magnetic Colloidal Fluids: Preparation, Characterization, Physical Properties and Application”, Saarland University, Saarbrücken, Germany, July 20-22, 2005;
- 5<sup>th</sup> International Scientific Conference „Modern Management of Mine Producing, Geology and Environmental Protection” (SGEM 2005), Albena, Bulgaria, June 13-17, 2005;
- 12<sup>th</sup> Panhellenic Pharmaceutical Congress, Atena, May 14-16, 2005;
- 1<sup>st</sup> International Symposium of Ecologists of The Republic of Montenegro, Tivat, October 14-18, 2004;
- 29<sup>th</sup> American Romanian Academy of Arts and Science (ARA) Congress, Bochum, Germania, September 15-16, 2004;
- 12<sup>th</sup> General Conference of the European Physical Society, EPS-12 - „Trends in Physics”, Budapest (Hungary), August 26-30, 2002.

**National**

- “Medieval Art and Civilisation” Symposium, 20<sup>th</sup> Edition, Section Conservation – Restoration, Suceava, November 27-29, 2013;
- „Matter and Materials in/for Heritage Conservation” (MATCONS) - International Conference, Craiova, October 11-15, 2013;
- 13<sup>th</sup> Edition of Academic Days Timișoara - “New trends and strategies in the chemistry of advanced materials with relevance in biological systems, technique and environmental protection”, June 3-14, 2013;
- „Centenary of Education in Chemical Engineering” - International Conference, Iași, November 28-30, 2012;
- The Days of the „Alexandru Ioan Cuza” University of Iași, Iași, October 7-8, 2011;
- Scientific Session „Biology in the Darwin Celebration Year”, Iași, November 6-7, 2009;
- Scientific Symposium „Amelioration, Conservation and Effective Use of Degraded Soil by Anthropic Interventions” – „Ion Ionescu de la Brad” University of Agricultural Sciences and Veterinary Medicine of Iași, Faculty of Agriculture, Iași, October 18-19, 2007;
- International Exhibition of Inventions and New Technologies „INVENTIKA”, October 2-6, 2007, București, Romania;
- The 9<sup>th</sup> Annual Microbiology Summit – Mamaia, May 24-26, 2007;
- Workshop „Implementation of Modern Techniques in the Conservation of National Cultural Heritage Items” – „MOLDOVA” National Complex, Iași, March 15, 2007;
- The 36<sup>th</sup> Annual Meeting of ESNA (European Society for New Methods in Agricultural Research) – „Ion Ionescu de la Brad” University of Agricultural Sciences and Veterinary Medicine of Iași, Faculty of



Agriculture, Iași, September 10-14, 2006;

- Exhibition of Inventions „Ecoinvent”, 2<sup>nd</sup> Edition, Iași, May 26-29, 2005;

- The Days of the „Alexandru Ioan Cuza” University of Iași, Iași, October 26, 2005;

- The 4<sup>th</sup> Scientific Paper Session „Ecology and Ecosystem Protection”, Bacău University, Faculty of Sciences, Bacău, November 4-5, 2005;

- Scientific Symposium „Agriculture and the Environment – Present and Perspective”, „Ion Ionescu de la Brad” University of Agricultural Sciences and Veterinary Medicine of Iași, Faculty of Agriculture, Iași, October 20-21, 2005;

- The 23<sup>rd</sup> Annual Scientific Session of the Romanian Society for Cell Biology, Sibiu, June 9-12, 2005 ;

- Scientific Symposium „Agriculture, a Chance for Economic Recovery”, „Ion Ionescu de la Brad” University of Agricultural Sciences and Veterinary Medicine of Iași, Faculty of Agriculture, Iași, October 21-22, 2004;

- The 10<sup>th</sup> Symposium of Microbiology and Biotechnology, Iași, October 15-16, 2004;

- The 5<sup>th</sup> Annual Scientific Paper Session of the „Dimitrie Brândză” Botanical Garden, București, November 8, 2003;

- The 5<sup>th</sup> Scientific Session „Ecology and Protection of Aquatic Ecosystems”, Bacău, October 31 – November 1, 2003;

- The 7<sup>th</sup> National Conference of Biophysics – Predeal, October 5-7, 2003;

- The National Symposium „Biological Diversity – Biotechnologies – Socioeconomic Development”, Cluj-Napoca, December 5-6, 2002;

- The Anniversary Scientific Symposium „90 Years of Higher Agronomic Education in Iași”, „Ion Ionescu de la Brad” University of Agricultural Sciences and Veterinary Medicine of Iași, Faculty of Agriculture, Iași, October 24-25, 2002;

- Scientific Session „Biology and Sustainable Development”, Bacău, November 8-10, 2001;

- Scientific Session „Life in the Water and on Earth in the 3<sup>rd</sup> Millenium”, Agigea-Constanța, October 19-20, 2001;

- Jubilee Scientific Paper Session, „Ovidius” University of Constanța, Faculty of Natural Sciences, Constanța, March 31 – April 1, 2000;

- The 4<sup>th</sup> Scientific Session „Ecology and Protection of Ecosystems”, Bacău, November 9-10, 2000.

#### Awards

1. *International Salon - European Exhibition of Creativity and Innovation „EUROINVENT 2012”, May 10-12, 2012, Iași, Romania*

*OBTAINING ZnO/CLINOPTILOLIT AND ZnTiO<sub>3</sub>/CLINOPTILOLITE AND INVESTIGATION OF THEIR ANTIBACTERIAL PROPERTIES*

**DIPLOMA and SILVER MEDAL**

COPCIA Violeta Elena, HRISTODOR Claudia Mihaela, **DUNCA Simona**, IORDANOVA R., BACHVAROVA-NEDELICHEVA Albena, SANDU I.

2. *International Salon of Industrial Property “Arhimed-2008”, April 1– 4, 2008, MOSCOW.*

*INSTALLATION AND PROCEDURE FOR THE CONSERVATION OF HERITAGE OBJECTS*

**DIPLOMA and GOLD MEDAL**

IOANID Ghiocel, RUSU Dorina, IOANID Aurelia, **DUNCA Simona**, MUREȘAN Augustin

3. *Salon International des Inventions Genève, April 20, 2008.*

*PROCEDURE ET INSTALLATION POUR LA CONSERVATION D’OBJECTS DU PATRIMOINE*

**DIPLOMA and GOLD MEDAL**

IOANID Ghiocel, RUSU Dorina, IOANID Aurelia, **DUNCA Simona**, MUREȘAN Augustin

4. *Salonul Internațional de Invenții și Tehnologii Noi “INVENTIKA”, October 7–11, 2008, București, Romania*

*INSTALLATION AND PROCEDURE FOR THE CONSERVATION OF OBJECTS*

**DIPLOMA and GOLD MEDAL**

IOANID Ghiocel, RUSU Dorina, IOANID Aurelia, **DUNCA Simona**, MUREȘAN Augustin

5. *The Belgian and International Trade Fair for Technological Innovation, „Eureka”, Brussels,*

November 13-15, **2008**.

*INSTALLATION AND PROCEDURE FOR THE CONSERVATION OF OBJECTS*

**DIPLOMA and GOLD MEDAL**

IOANID Ghiocel, RUSU Dorina, IOANID Aurelia, **DUNCA Simona**, MUREȘAN Augustin

6. *International Jubilee Exhibition of Research, Inventions and Technological Transfer INVENTICA 2008, May 14 – 24, 2008 Iași, Romania*

*PROCEDURE FOR OBJECTS CONSERVATION*

**DIPLOMA of EXCELLENCE AND „INVENTICA 2008” MEDAL**

IOANID Ghiocel, RUSU Dorina, IOANID Aurelia, **DUNCA Simona**, MUREȘAN Augustin

7. *International Exhibition of Inventions and New Technologies “INVENTIKA”, October 2–6, 2007, București, Romania*

*INSTALLATION AND PROCEDURE FOR THE CONSERVATION OF OBJECTS*

**DIPLOMA and GOLD MEDAL**

IOANID Ghiocel, RUSU Dorina, IOANID Aurelia, **DUNCA Simona**, MUREȘAN Augustin

8. *ECOINVENT, Iași, May 26-29, 2005*

*INSTALLATION FOR PLASMA TREATMENT*

**GOLD MEDAL**

IOANID Ghiocel, IOANID Aurelia, PĂRPĂUȚĂ Dorina, **DUNCA Simona**

#### **CNCSIS awards - section Research Results Awards:**

1. Nanostructures of cellulose acetate phthalate obtained by electrospinning from 2-methoxyethanol-containing solvent systems: morphological aspects, thermal behavior, and antimicrobial activity - OLARU N., OLARU Liliana, TUDORACHI Nița, **DUNCA Simona**, PINTILIE Manuela, **2013**. *Industrial and Engineering Chemistry Research* (ISSN printed: 0888-5885, ISSN electronic: 1520-5045) (DOI:10.1021/ie301299d), **52**(2): 696–705 (*IF*=2,235).
2. Studies on physico-chemical and antibacterial properties of grafted pullulans solutions - GRIGORAȘ Anca Giorgiana, CONSTANTIN Marieta, GRIGORAȘ V. C., **DUNCA Simona**, OCHIUZ Lăcrămioara, **2013**. *Reactive and Functional Polymers* (ISSN: 1381-5148) (DOI: 10.1016/j.reactfunctpolym.2013.06.009), **73**(9): 1249–1254 (*IF*=2,822).
3. Antibacterial action of silver applied on cellulose fibers grafted with monochlorotriazinyl- $\beta$ -cyclodextrin - POPESCU O., **DUNCA Simona**, GRIGORIU Aurelia, **2013**. *Cellulose Chemistry and Technology* (ISSN: 0576-9787), **47**(3-4): 247-255 (*IF*=0,833).
4. Origin of rheological behavior and surface/interfacial properties of some semi-alicyclic polyimides for biomedical applications - IOAN Silvia, FILIMON Anca, HULUBEI Camelia, STOICA Iuliana, **DUNCA Simona**, **2013**. *Polymer Bulletin* (ISSN printed: 0170-0839, ISSN electronic: 1436-2449) (DOI: 10.1007/s00289-013-0994-0), **70**(10): 2873–2893 (*IF*=1,491).
5. Dilute solution properties of some polycarboxybetaines with antibacterial activity - GRIGORAȘ Anca Giorgiana, RACOVIȚĂ Ștefania, VASILIU Silvia, NISTOR Manuela Tatiana, **DUNCA Simona**, BĂRBOIU V., GRIGORAȘ V. C., **2012**. *Journal of Polymer Research* (ISSN printed: 1022-9760, ISSN electronic: 1572-8935) (DOI 10.1007/s10965-012-0008-1), **19**(11): 1-8 (article 8) (*IF*=1,897).
6. Antibacterial activity of silver-modified natural clinoptilolite - COPCIA Violeta Elena, LUCHIAN Camelia, **DUNCA Simona**, BÎLBĂ N., HRISTODOR Claudia Mihaela, **2011**. *Journal of Materials Science* (ISSN printed: 0022-2461, ISSN electronic: 1573-4803) (DOI:10.1007/s10853-011-5635-0), **46**(22): 7121-7128 (*IF*=2,305).
7. Surface properties and antibacterial activity of quaternized polysulfones - FILIMON Anca, AVRAM Ecaterina, **DUNCA Simona**, STOICA Iuliana, IOAN Silvia, **2009**. *Journal of Applied Polymer Science* (ISSN printed: 0021-8995, ISSN electronic: 1097-4628) (DOI: 10.1002/app.29591), **112**(3): 1808–1816 (*IF*=1,640).
8. *Patent for invention no. 122396, OSIM București, 29.05.2009*  
**Installation and Procedure for Conservation of Objects**  
Authors: IOANID G., RUSU Dorina, IOANID Aurelia, **DUNCA Simona**, MUREȘAN A.

## Specialization

**In the country:**

- **2013** - *Didactician Training Courses* organized as part of the POSDRU/87/1.3/S/63709 Projects – „*Quality, Innovation, Communication in the Continual Training of Higher Education Teachers*”;
- **1998** - *CEFOR Courses* (Centre de formation des enseignants dans la domaine des science de la vie, espace européen de la diffusion des connaissances et de reflexions prospectives) - specialization Immunology, organized by the Paris-Sud University and „Grigore T. Popa“ University of Medicine and Pharmacy of Iași, as party of the TEMPUS-PHARE programme;
- **1997** - *Biochemistry Summer School „Glycoscience : Glycobiologie et Glycotechnologie”*, held at „Alexandru Ioan Cuza” University of Iași, Faculty of Biology, in cooperation with the Ministry of Research and Technology I, Lille, France;
- **1996** - *CEFOR courses* (Centre de formation des enseignants dans la domaine de science de la vie, espace européen de la diffusion des connaissances et de reflexions prospectives) – specialization Immunology, organized by the Paris-Sud University and „Grigore T. Popa“ University of Medicine and Pharmacy of Iași, as party of the TEMPUS-PHARE programme;
- **1996** - *PC use courses*, organized by the Computer Science Center within the “Alexandru Ioan Cuza” University of Iași.

**Abroad:**

- **2012** - *Germany* – Konstanz University– specialization traineeship – Microbial Ecology, Limnology and General Microbiology Laboratory;
- **1995** - *France* – specialization traineeship as part of the TEMPUS – JEP Programme, no. 4398, Paris 7 Orsay University;
- **1989** - *Germany* – Jena, specialty traineeship with Biology students

## Memberships

- Member of the Romanian Society of Microbiology;
- Member of the Romanian Society of Biophysics;
- Member of the Romanian Society of Limnology.

**Professor PhD, Simona Isabela DUNCA**