Europass Curriculum Vitae

Personal information

First name(s) / Surname(s)	**ZAMFIR MEDANA**
Address(es)	48 Margelelor Str., Bucharest, Romania
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Nationality	Romanian
Date of birth	19.02.1971
Gender	Female

Work experience

Dates	Since 1996
Occupation or position held	Research assistant (1996-2001); Scientific researcher (2001-2003); Scientific researcher III (2003-2005); Scientific researcher II (2005-2007); Scientific researcher I (since 2007) Since 2006 – scientific secretary of the Institute of Biology Bucharest
Main activities and responsibilities	Laboratory work, dissemination of the scientific results (scientific articles, participation to conferences and symposia), applications for research projects, scientific reports
Name and address of employer	Institute of Biology Bucharest, Splaiul Independentei No. 296, 060031 Bucharest, Romania
Type of business or sector	Scientific research

Education and training

Dates	2003
Title of qualification awarded	Doctor in Biology (Magna cum laude distinction)
Principal subjects/occupational skills covered	Isolation, purification and characterization of bacteriocins produced by lactic acid bacteria / research in the field of microbiology, biochemistry
Name and type of organisation providing education and training	Romanian Academy of Sciences, Institute of Biology Bucharest
Dates	1994 - 1995
Title of qualification awarded	Master in Enzimology
Principal subjects/occupational skills covered	Enzimology Master thesis: Characterization of delta-endotoxin isolated from *Bacillus thuringiensis*
Name and type of organisation providing education and training	University of Bucharest, Faculty of Chemistry
Dates	1989 - 1994
Title of qualification awarded	Bachelor in Biochemistry
Principal subjects/occupational skills covered	Technological Biochemistry Thesis: Isolation and purificaton of delta-endotoxin from *Bacillus thuringiensis*
Name and type of organisation providing education and training	University of Bucharest, Faculty of Chemistry
Dates	1997-2005
Principal subjects/occupational skills covered	- several short working visits (up to three months) to Belgium, in the frame of the common projects (Copernicus and bilateral projects) - laboratory practice; modern techniques of chromatography, electrophoresis, molecular taxonomy

Name and type of organisation providing education and training	Research Group of Industrial Microbiology and Food Biotechnology, Vrije Univeristeit Brussel, Belgium Laboratory of Microbiology, University of Ghent, Belgium
Dates	1996
Principal subjects/occupational skills covered	- practical course: Advanced Methods: DNA Sequencing and Microinjection
Name and type of organisation providing education and training	FEBS, at Charles University of Prague, Czech Republic

Personal skills and competences

Mother tongue(s) **Romanian**

Other language(s) **English, French**

Self-assessment	Understanding				Speaking				Writing	
European level (*)	Listening		Reading		Spoken interaction		Spoken production			
English	C1	Proficient user	C2	Proficient user	C1	Proficient user	C1	Proficient user	C2	Proficient user
French	B1	Independent user	B2	Independent user	A2	Basic user	B1	Independent user	B1	Independent user

(*) Common European Framework of Reference for Languages

Organisational skills and competences	Scientific secretary and member of the advisory and scientific boards of the Institute of Biology Bucharest since 2006; Good experience in project and team management (coordinator of 7 research projects, both national and international, and participant to 5 other projects) Supervisor of 3 bachelor theses and 1 master thesis Co-organizer of the „Flemish-Romanian workshop on lactic acid bacteria: Biodiversity and functional properties", held on November, 23, 2004 in Brussels
Technical skills and competences	Used with various techniques of general microbiology, microscopy, biochemistry, molecular biology Research topics: diversity of lactic acid bacteria in traditional fermented foods; study of bacteriocins and exopolysaccharides produced by lactic acid bacteria; applications as pro- and prebiotics; biochemical and genetic studies of some microorganisms under stress conditions; taxonomic identification of lactic acid bacteria
Computer skills and competences	Microsoft Office programms (Word, Excel, Power Point etc.), Internet Explorer, specific scientific software (BioNumerics from Applied Math – software for taxonomic identifications)
Other skills and competences	Scientific evaluation of projects, articles in ISI journals, and PhD theses

Additional information

- scientific articles (over 40), in Romanian and international journals or presented in conferences and symposia.
- one set of articles was awarded in 2006 with the National Prize „Emil Racoviţă" of the Romanian Academy of Sciences.
- 385 citations (except self-citations) in prestigious international journals
- h index = 10

Annexes

List of relevant publications
List of most important projects

Annex 1

List of most relevant publications

1. Cornea, C.P., Vatafu, I., Savu, L., Laudoniu, A., **Santuan, M.**, Toma, A., 1996, Detection and preliminary characterization of a bacteriocin produced by a strain of *Lactobacillus acidophilus*, Revue Roumaine de Biologie, vol.41, nr.2, p.137-143 .
2. Cornea, C.P., Laudoniu, A., **Santauan, M.**, Savu, L., Toma, A., Campeanu, G., 1997, Antibiosis of *Bifidobacterium sp.* Strains isolated from infant faeces, Romanian Biotechnological Letters, vol.2, p.391-398.
3. **Zamfir, M.**, Cornea, C.P., Vatafu, I., Savu, L., 1997, Purification of a bacteriocin produced by *Lactobacillus acidophilus* IB801, Revue Roumaine de Biologie, vol.42, p.19-28.
4. **Zamfir, M.**, Callewaert, R., Cornea, C.P., Savu, L., Vatafu, I., De Vuyst, L., 1999, Purification and characterization of a bacteriocin produced by *Lactobacillus acidophilus* IBB801, Journal of Applied Microbiology (IF 1,819), vol. 87, p. 923-931.
5. **Zamfir, M.,** Carasan, M.E., Cornea, C.P., Savu, L., Vatafu, I., 1999, Isolation and selection of new *Streptococcus thermophilus* strains which can produce large amounts of exopolysaccharides, Proceedings of the Institute of Biology, Ed. Alcris, Bucuresti, vol. II, p. 309-314.
6. **Zamfir, M.,** Callewaert, R., Cornea, C.P., De Vuyst, L., 2000, Production kinetics of acidophilin IBB 801, a bacteriocin produced by *Lactobacillus acidophilus* IBB 801, FEMS Microbiology Letters (IF 1,804), vol. 190(2), p. 305-308.
7. **Zamfir, M.,** Carasan, M.E., Zarnea, G., 2000, Stimulation of acidophylin 801 biosynthesis in the presence of strains sensitive to the action of this bacteriocin, Proceedings of the Institute of Biology, Ed. Alcris, Bucureşti, vol. III, p. 439-443.
8. **Zamfir, M.**, Laudoniu, A., Cornea, C.P., Zarnea, G., 2002, Isolation and characterization of a bacteriocin produced by *Bifidobacterium bifidum* 507 strain, Proceedings of the Institute of Biology, Ed. Alcris, Bucureşti, vol. IV, p. 457-466.
9. De Vuyst, L., **Zamfir, M.**, Degeest, B., Vaningelgem, F., 2002, Exopolysaccharide-producing lactic acid bacterium strains as functional starter cultures in the production of fermented milk. In *Fermented Milk. Proceedings of the IDF Seminar on Aroma and Texture of Fermented Milk, Kolding, Denmark, June 2002, International Dairy Federation Special Issue 0301*, pp. 250-266.
10. **Zamfir, M.**, 2003, Influence of stress conditions and pH-value of the growing medium on the production of acidophilin 801 by *Lactobacillus acidophilus* IBB801, Proceedings of the Institute of Biology, Bucureşti, vol. V, p. 525-536.
11. De Vuyst, L., **M. Zamfir**, F. Mozzi, T. Adriany, V. Marshall, B. Degeest and F. Vaningelgem, 2003, Exopolysaccharide-producing *Streptococcus thermophilus* strains as functional starter cultures in the production of fermented milks, International Dairy Journal (IF 1,620), vol.13, nr. 8, 707-717.
12. Vaningelgem, F., **M. Zamfir**, F. Mozzi, T. Adriany , M. Vancanneyt, J. Swings, L. De Vuyst, 2004, Biodiversity of exopolysaccharides produced by *Streptococcus thermophilus* strains isolated from dairy products and starter cultures, Applied and Environmental Microbiology (IF 3,691), 70, 900-912.
13. Vaningelgem, F., **M. Zamfir**, T. Adriany, A.P. Laws, L. De Vuyst, 2004, *Streptococcus thermophilus* ST111 produces a stable, high-molecular-mass exopolysaccharide in milk, International Dairy Journal (IF 1,620), 14(10), 857-864.
14. Vancanneyt, M., **M. Zamfir**, L. A. Devriese, K. Lefebvre, K. Engelbeen, K. Vandemeulebroecke, M. Amar, L. De Vuyst, F. Haesebrouck, J. Swings, 2004, *Enterococcus saccharominimus* sp. Nov., from dairy products, International Journal of Systematic and Evolutionary Microbiology (IF 2,873), 54, 2175-2179.
15. Vaningelgem, F., **M. Zamfir**, T. Adriany, L. De Vuyst, 2004, Fermentation conditions affecting the bacterial growth and exopolysaccharide production by Streptococcus thermophilus ST111 in milk-based medium, Journal of Applied Microbiology (IF 1,743), 97(6), 1257-1273.
16. **Zamfir, M.**, F. Vaningelgem, S. Tudor, A. Laudoniu, L. De Vuyst, 2004, Isolation and characterization of some exopolysaccharides produced by Streptococcus thermophilus and their importance in obtaining yoghurt with improved rheological properties, Proceedings of the Institute of Biology, vol. VI, 435-444.
17. **Zamfir, M.**, S. Grosu-Tudor, F. Vaningelgem, L. De Vuyst, 2005, Influence of the growth conditions on exopolisaccharides production by selected *Streptococcus thermophilus* strains, Proceedings of the Institute of Biology, vol. VII, 337-345.
18. Vancanneyt, M., **M. Zamfir**, M. De Wachter, I. Cleenwerck, B. Hoste, F. Rossi, F. Dellaglio, L. De Vuyst, J. Swings, 2006, Reclassification of *Leuconostoc argentinum* as a later synonym of *Leuconostoc lactis*, International Journal of Systematic and Evolutionary Microbiology, (IF 2,873), 56, 213-216.
19. **Zamfir, M.**, M. Vancanneyt, L. Makras, F. Vaningelgem, K. Lefebvre, B. Pot, J. Swings, L. De Vuyst, 2006, Biodiversity of lactic acid bacteria in Romanian dairy products, Systematic and Applied Microbiology, (IF 2,293), 29, 487-495.
20. Van der Meulen, R., Grosu-Tudor, S.S., Mozzi, F., Vaningelgem, F., **Zamfir, M.**, Font de Valdez, G., De Vuyst, L., 2007, Screening of lactic acid bacteria isolates from dairy and cereal products for exopolysaccharide production and genes involved, International Journal of Food Microbiology 118, 250-258.
21. **Zamfir M.**, Grosu-Tudor S.S., De Vuyst L., 2007, Lactic acid bacteria in food industry and health, Proceedings of the 1st International Conference ENVIRONMENT–NATURAL SCIENCES–FOOD INDUSTRY IN EUROPEAN CONTEXT, Baia Mare, November, 16-17, p. 465-471.
22. Grosu-Tudor S.S., **Zamfir M.**, Van der Meulen R., De Vuyst L., 2007, Biochemical characterization of some exopolysaccharides produced by lactic acid bacteria, Proceedings of the 1st International Conference ENVIRONMENT–NATURAL SCIENCES–FOOD INDUSTRY IN EUROPEAN CONTEXT, Baia Mare, November, 16-17, p. 472-477.
23. **Zamfir M.**, Brezeanu A., De Vuyst L., 2007, Bactericidal effect of acidophilin 801, a bacteriocins produced by *Lactobacillus acidophilus* IBB 801, Romanian Biotechnological Letters, vol. 12 (6), 3521-3531.
24. Popa, E., A. Rusu, **M. Zamfir**, L. Dumitru, C. Purcarea, 2009, An ammonia-metabolizing enzyme from the human archaeon *Methanobrevibacter smithii* might represent a missing link in the evolution of carbamoyl phosphate synthetases, Biotechnology & Biotechnological Equipment 23/2009/Special Edition, 533-537.
25. **Zamfir, M.**, S. Grosu-Tudor, 2009, Impact of stress conditions on the growth of *Lactobacillus acidophilus* IBB 801 and production of acidophilin 801, J.Gen.Appl.Microbiol. (IF 0,846), 55, 277-282.

26. Grosu-Tudor S., **Zamfir, M**., Isolation and characterization of lactic acid bacteria from Romanian fermented vegetables, Romanian Biotechnological Letters, 2011, 16 (6) 148 -154.
27. Grosu-Tudor S., **Zamfir M**., Functional properties of lactic acid bacteria isolated from Romanian fermented vegetables, Food Biotechnology, 2013, 27 (3), 235-248.
28. Grosu-Tudor S., **Zamfir M**., Van der Meulen R., De Vuyst L., Isolation of novel homopolysaccharide-producing lactic acid bacteria from Romanian raw milk and fermented dairy products, European Food Research and Technology, 2013, 237 (4), 609-615.
29. Grosu-Tudor S., **Zamfir M**., Van der Meulen R., Falony G., De Vuyst L., Prebiotic potential of some exopolysaccharides produsedby lactic acid bacteria, Romanian Biotechnological Letters, 2013, 18 (5), 8666-8676.
30. Wouters D., Grosu-Tudor S., **Zamfir M**., De Vuyst L., Bacterial community dynamics, lactic acid bacteria species diversity and metabolite kinetics of traditional Romanian vegetable fermentations, Journal of the Science of Food and Agriculture, 2013, 93 (4) 749-760.
31. Wouters D., Grosu-Tudor S., **Zamfir M**., De Vuyst L., Applicability of Lactobacillus plantarum IMDO 788 as a starter culture to control vegetable fermentations, Journal of the Science of Food and Agriculture, 2013, 93 (13) 3352-3361.
32. **Zamfir M**., Grosu-Tudor S.S., Stress response of some lactic acid bacteria isolated from Romanian artisan dairy products, World Journal of Microbiology and Biotechnology, 2014, DOI: 10.1007/s11274-013-1454-6.
33. Grosu-Tudor S.S., Stancu M.M., Pelinescu D., **Zamfir M**., Characterization of some bacteriocins produced by lactic acid bacteria isolated from fermented foods, World Journal of Microbiology and Biotechnology, 2014, 30(9), p. 2459-2469. DOI 10.1007/s11274-014-1671-7.
34. Grosu-Tudor S., **Zamfir, M**., 2012. Probiotic potential of some lactic acid bacteria isolated from Romanian fermented vegetables, Annals of the Romanian Society for Cell Biology, (CNCSIS B+), vol. 17(1), 234 - 239.
35. **Zamfir M**., Cornea C.P., De Vuyst L., Grosu-Tudor S.S., 2014. Biodiversity and biotechnological potential of lactic acid bacteria. AgroLife Scientific Journal vol. 3(1), ISSN 2285-5718, p. 169-176.
36. Grosu-Tudor S., **Zamfir M**., 2014. Exopolysaccharide production by selected lactic acid bacteria isolated from fermented vegetables. Scientific Bulletin. Series F. Biotechnologies, Vol. XVIII, ISSN 2285-1364, p. 107-114.
37. **Zamfir M**., Stefan I.R., Grosu-Tudor S.S. Influence of Growth Medium Composition on the Bacteriocin Activity of Some Lactic Acid Bacteria, Rom Biotechnol Lett, 2016, in press.
38. Calina Petruța Cornea, Florentina Israel Roming, Oana Alina Sicuia, Catalina Voaideș, **Medana Zamfir**, Silvia-Simona Grosu-Tudor. Biosurfactant production by *Lactobacillus* spp. strains isolated from Romanian traditional fermented food products. Rom Biotechnol Lett, 2016, in press.
39. Grosu-Tudor S.S., Brown L., Hebert E.M., Brezeanu A., Brinzan A., Fadda S., Mozzi F., **Zamfir M.,** 2016. S-layer production by *Lactobacillus acidophilus* IBB 801 under environmental stress conditions. Applied Microbiology and Biotechnology. DOI: 10.1007/s00253-016-7355-5.
40. Grosu-Tudor S., Stancu M.M., Stefan I.R., **Zamfir M**., Physicochemical and rheological properties of some exopolysaccharides produced by lactic acid bacteria isolated from plant origin materials, Rom Biotechnol Lett, 2016, in press.

Annex 2

List of most important projects

- **1995-1998** Improvement of the quality, naturalness and shelf life of food products by the use of selected bacteriocins from lactic acid bacteria – **Copernicus project** from EU Commission (participant)
- **1998-2001** Controlled production of functional exopolysaccharides by thermophilic lactic acid bacteria to obtain uniform, high quality fermented milks – **Copernicus project** from EU Commission (participant)
- **2000-2001** Isolation and characterization of some bacteriocins produced by selected lactobaclli - **grant from ANSTI (Romania)** (coordinator)
- **2001-2004 :** Improvement of the rheologial properties of fermented dairy products by using exopolysaccharide-producing starter cultures - **BIOTECH project**, from the National Research Plan (coordinator)
- **2001-2006** Screening for and isolation and purification of novel bacteriocins from dairy lactic acid bacteria isolated from fermented foods with a potential to inhibit pathogenic bacteria – **bilateral agreement Romania – Flanders** (coordinator from Romania)
- **2003-2006** Biodiversity and prebiotic effects of heteropolysaccharides produced by thermophilic lactic acid bacteria - **bilateral agreement Romania – Flanders** (coordinator from Romania)
- **2004-2005** Interaction of some bacterocin-producing lactic acid bacteria with other microorganisms, sensitive/resistant to their inhibitory activity - **grant from CNCSIS (Romania)** (coordinator)
- **2005-2007** Biotechnological and molecular studies for elaboration of probiotic products for veterinary use – **CEEX project**, from the National Research Plan (responsible from the Institute of Biology Bucharest; coordinated by the University of Bucharest)
- **2012-2015** Selection of novel functional lactic acid bacteria from plant origin materials, with potential applications in food biotechnology - from the National Research Plan (coordinator)
- **2012-2015** Innovative, multidisciplinary studies concerning the probiotic effect of some new lactic acid bacteria - from the National Research Plan (responsible from the Institute of Biology Bucharest; coordinated by the University of Bucharest)
- **2013-2014** Impact of stress conditions in functional lactic acid bacteria: a proteomic approach – **bilateral agreement Romania-Argentina**
- **2015-2017** Stress response of some lactic acid bacteria with bionanotechnological applications – PNII-RU-TE project (participant)