Melania-Liliana Arsene

Ph.D. in Biology, Specialization in Biochemistry (1998)

Studies: University of Bucharest - Faculty of Biology, Biochemistry Section (1980)

Senior Researcher, Biotechnology & Bioanalysis Team, National Institute for Research & Development in Chemistry and Petrochemistry - Biotechnology Department

Work experience

- **Biochemistry –Enzymology**: Preparation and characterization of biocatalytic systems; Enzymatic conversions**;** Enzymatic reactions in non-aqueous media**,** Immobilized enzymes; Experimentation of working systems for performing of biocatalysis in microaqueus organic media
- **Biochemistry –Bioanalysis :** Biochemical methods for analysis; Non-conventional techniques for enzymatic analysis of gaseous substrates; Experimental techniques of bioanalysis in nanostructurate systems, like reverse micelles and sol-gel
- **Biotechnology –** Industrial bioprocessing; Biosynthesis; Extraction; Purification; Characterization of intra- and extracellular microbial enzymes; Preparations of enzymes for industrial biocatalytic systems; Control and monitoring in bioprocesses
- **Development and management policies and strategies for National Research Programs–**in biotechnological and health domains (2001-2010)

Scientific activity: Management/participation in national/international projects; Publishing of scientific papers; Publishing of book chapters and Word Glossary for biotechnology for Leonardo da Vinci Project; Curriculum development of master courses.

Post-univeritary Courses: FEBS Advanced Course «Biomembranes and Disease»; 'Project Management (2010)

Experience in management of international projects

Project manager for Roumanian partner

- **2000-2004**: Program UE Proiect Pilot **Leonardo da Vinci** RO/00/B/F/PP 141028 *"Eurocompetencies Transfer in Vocational Guidance for Young Specialists in Bioscience Field"*
- **2001-2003 EUREKA** E! 2221/LEATHER BYPRODUCTS
- **2004-2006 EUREKA** E3100 CAWAB / CELL ATTACHEMENT IN WASTE WATER BIOREMEDIATION

Member in Roumanian team

- **2003-2005**: Program UE Pilot Project **Leonardo da Vinci** RO/02/B/F/141004 "TRAINING MODULE ENVIRONMENTAL POLLUTION CONTROL"
- **2006-2010** : **FP 6** project – ERA-IB – 035581 "TOWARDS AN ERA IN INDUSTRIAL BIOTECHNOLOGY

Other competencies

Didactic activity

- Universitatea Politehnica Bucuresti (1986 – 1990)
- Universitatea din Bucuresti (1990 – 1993; 2001-2004);
- Politehnica" University Bucharest –Department of Bioengineering and Biotechnology, Master in Biotechnology, Courses supported**:"**Technological Biochemistry" and **"**Proteins Engineering"(2002-2010)

Management

- Development and Management of Government Policies and Strategies in National Research Programs PNCDI I(BIOTECH Program), CEEX, PNCDI II (Parteneriate Program) - (2001-2010)

Publications selection

ML Arsene, M Doni, ML Jecu, 2013, Stability of alcohol oxidase entrapped into AOT-isooctane reverse micelles, Romanian Biotechnological Letters, Vol. 18, No.1, 7920-7928

I Raut, M Calin, F Oancea, ML Arsene, L Jecu, 2013, Isolation and identification of microbial strains involved in industrial systems materials corrosion in aquatic environment , Rev. Roum. Chim*., 58*(1), 59-64

L Jecu, E Grosu , I Raut, V Purcar, Z Vuluga, M Iorga, G Vasilescu, M. Rapa, M Badea-Doni, M L Arsene, 2015, Susceptibility of thermoplastic based composites to degradation by microorganisms, Environmental Engineering and Management Journal, 14(11), 2545-2554

Răut I., Şesan T.E., Macias R., Badea-Doni M., Oancea F., Călin M., Arsene M.L., Vasilescu G., Jecu L., 2016, Study on the effectiveness of antagonistic *Trichoderma* spp. on the growth of some vegetables under laboratory and greenhouse conditions, *Revista de Chimie (Bucharest), 2016,* 67(8), 1504-1507

M Călin, O Drăcea, I Răut, G Vasilescu, M Badea Doni, M L Arsene, E Alexandrescu, D Constantinescu-Aruxandei[1], L Jecu[*] , V Lazăr, 2016, *In vitro* biodegradation of keratinized substrates by keratinophilic fungi, SCIENTIFIC BULLETIN SERIES F. BIOTECHNOLOGIES Volume XX, 2016**,** pg 95, ISSN 2343-9653, CERES publishing House, pag. 248-253, ISSN 2285-1364, CD-ROM ISSN 2285-5521, ISSN Online 2285-1372, ISSN-L 2285-1364,

M.L Arsene, M Badea-Doni, L. Jecu, I. Răut, M. Călin Chemical structure of secondary metabolites from *Trichoderma,* in: *Trichoderma spp. – applications in agriculture and horticulture,* Editura Universității din Bucureşti, 2017

M.L Arsene, L. Jecu, M. Badea-Doni , I.Răut , F. Oancea, M. Călin, Bioactivity and biological ro.le of secondary metabolites produced by *Trichoderma* spp., in: *Trichoderma spp. – applications in agriculture and horticulture,* Editura Universității din Bucureşti, 2017

Răut I., Şesan T.E., Arsene M.L.*, Badea-Doni M., Jecu L., Călin M., Vasilescu G., Oancea F. Volatile and non-volatile metabolites of *Trichoderma* with biocontrol implications, in: *Trichoderma spp. – applications in agriculture and horticulture,* Editura Universității din Bucureşti, 2017

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