

**Dr. chim. Maria-Luiza Jecu,**

**Doctor in Biologie (1998)**, Cercetator Stiintific Gradul I, Lider al Echipei 6. Biotehnologii & Bioanalize, membru al Societatii Romane de Bioinginerie si Biotehnologie afiliata la Federatia Europeana de Biotehnologie.

**Domeniul de competente** cuprinde biotehnologie/microbiologie aplicata: obtinere de bioproduse; selectie de microorganisme specializate pentru aplicatii practice; degradarea microbiana a unor materiale si substante; analize microbiologice.

#### **Realizari in activitatea profesionala**

- **Peste 25 de articole publicate in reviste indexate ISI**
- **3 Brevete nationale acordate** (coautor) 106993B1/1991, 126895/2014, 128294/2015;
- **1 Brevet European acordat EP 2738267** (coautor); **2 Cereri de brevet European** EP13464002/2013; EP12464023/2012; 1 cerere de brevet **WIPO PCT/RO2013/000024/2013**;
- Peste 15 cereri de Brevet national in obtinerea si caracterizarea de tulpini microbiene specializate (coautor; selectie), A/00238/2010; A00481/2012; A00141/2013; A/00936 and A/00937 in 2014; A/00930; A/00923, A/00924, A/00925, A/00948; A/00942; A/00926 in 2015; A/00882, A/00859, A/00881 in 2016;
- **Peste 100 de comunicari stiintifice la Conferinte internationale;**
- **6 proiecte de cercetare coordonate in calitate de director de proiect; 7 proiecte coordonate in calitate de Responsabil din partea ICECHIM;**
- **Membru in echipa de realizare a 6 proiecte internationale** (3 Leonardo da Vinci projects, 2 Eureka projects; ERA-NET);
- **Membru in echipa de realizarea peste 25 de proiecte de cercetare stiintifica.**

#### **Articole semnificative publicate in reviste indexate ISI**

- Jecu, L., Solid state fermentation of agricultural wastes for endoglucanase production, Inds. Crops Prod., 2000, 11, p. 1-5 (Elsevier Sci.)
- L. Jecu, A. Gheorghe, A. Rosu, I. Raut, E. Et al., 2010, Ability of fungal strains to degrade PVA based materials, J. Polym. Environ., 18, 284-290
- A.Stoica-Guzun, L. Jecu, A. Gheorghe, I. Raut, M. Stroescu, M. Ghiurea, et al., 2011, Biodegradation of poly(vinyl alcohol) and bacterial cellulose composites by *Aspergillus niger*, J. Polym. Environ., 19, 69-79
- L. Jecu, E. Grosu, I. Raut, M. Calin, et al., 2013, Biodegradation of poly(hydroxybutyrate)/poly(vinyl alcohol) blends by filamentous fungi, Environ. Eng. Manag. J., 12, 2, 265-270
- I. Raut, M. Calin, F. Oancea, M. L. Arsene, L. Jecu\* (coresp), 2013, Isolation and identification of microbial strains involved in industrial systems materials corrosion in aquatic environment, Rev. Roum. Chim., 58, 59-64.
- A. M. Musuc, M. Badea-Doni, L. Jecu, et al., 2013, Thermal analysis of the rosemary extract effect on polyethylene structure and biodegradability, J. Therm. Anal. Calorim., 114, 169-177
- A Stan, C Munteanu, A M Musuc, R Birjega, R Ene, A Ianculescu, I Raut, L Jecu, M Badea Doni, E M Anghel, O Carp, 2015, A general, eco-friendly synthesis procedure

of self-assembled ZnO-based materials with multifunctional properties, *Dalton Transactions*, 2015, 44, 7844 – 7853

- 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, *Environ. Eng. Manag. J.*, 14(11), 2545-2554
- I Atkinson, E M Anghel, L Predoana, O C Mocioiu, L Jecu, I Raut, C Munteanu, D Culita and M Zaharescu, 2016, Structural, in vitro and antibacterial study on a sol-gel derived CaO–P<sub>2</sub>O<sub>5</sub>–SiO<sub>2</sub>–ZnO bioactive glasses “Sol-gel derived–ZnO glasses for biomedical applications, *Ceram. Int.*, 42, 3033–3045
- IS Hosu, D Constantinescu-Aruxandei, L Jecu, F Oancea, M Badea Doni, 2016, Peroxynitrite sensor based on screen printed carbon electrode modified with a poly(2,6-dihydroxynaphthalene) film *Sensors* 16(11), 1975-1990.

### **Informatii suplimentare**

- **Membru in Consiliul Stiintific al INCDCP-ICECHIM** (din 2004);
- **Membru in Comisii doctorale** (2011, 2013);
- **Activitate de mentorat** a unor studenti de la Universitatea Politehnica Bucuresti (2011, 2012, 2013, 2015), Universitatea de Stiinte Agricole si Medicina Veterinara (2011, 2012, 2013);
- **Premiu acordta de CNCSIS** pentru lucrarea publicata in *J. Polym. Environ*, 2010, 18, 284-290 (autor principal);
- **Premiu acordat de CNCS** pentru lucrarea publicata in *Dalton Transactions*, 2015, 44, 7844 – 7853 (coautor);
- Premiu acordat de CNCS pentru lucrarea publicata in *Ceram. Int.*, 2016, 42, 3033–3045 (coautor).

### **Specializari si calificari**

- *Curs Manager de proiect* organizat de Ministerul Muncii in cadrul programului de Instruire Vocationala, Bucuresti, martie 2010;
- *Curs Eco-economy and sustainable development”* POSDRU/81/3.2/S/53084 Comhightech/2007-2013 «Investeste in oameni», Bucharest (2013).

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