Europass Curriculum Vitae

Personal information

First names / Surname **Ileana Cornelia / FARCASANU**

Occupational field

Academic, Research

Work experience

Dates	**2006-onwards**
Occupation or position held	*Associate professor*
Main activities and responsibilities	*Teaching, research* Chemogenomics Yeast surface display of recombinant proteins/peptides Molecular mechanisms involved in stress tolerance Natural compounds with biological activity
Name and address of employer	University of Bucharest, Faculty of Chemistry
Type of business or sector	Academic
Dates	**1991-2006**
Occupation or position held	*Assistan professor, Lecturer*
Main activities and responsibilities	*Teaching, research* Molecular mechanisms involved in stress tolerance Natural compounds with biological activity
Name and address of employer	University of Bucharest, Faculty of Chemistry
Type of business or sector	Academic
Dates	**2005**
Occupation or position held	*Invited researcher*
Main activities and responsibilities	*Research*
Name and address of employer	Hiroshima University, Graduate School of Advanced Sciences of Matter, Department of Molecular Biotechnology (Japan)
Type of business or sector	Academic
Dates	**2002-2003**
Occupation or position held	*Postdoctoral researcher*
Main activities and responsibilities	*Research* Molecular studies of mechanisms involved in regulation of tolerance to sodium and heavy metals in *Arabidopsis thaliana*
Name and address of employer	University of Glasgow, Institute of Biology and Life Science (IBLS), Department of Biochemistry and Molecular Biology (UK)
Type of business or sector	Academic
Dates	**1999-2001**

Occupation or position held	*Postdoctoral researcher*
Main activities and responsibilities	*Research* Molecular mechanisms involved in the unfolded protein response in yeast and mammalian cells
Name and address of employer	Japan Science and Technology Corporation (JST) at Nara Institute of Science and Technology (NAIST), Japan
Type of business or sector	Academic
Dates	**1985-1990**
Occupation or position held	*Researcher*
Main activities and responsibilities	*Research,* Cancer immunology
Name and address of employer	The National Institute of Oncology, Bucharest, Romania

Education and training

Dates	2013
Title of qualification awarded	***Habilitated Doctor***
Principal subjects/occupational skills covered	Molecular biology, Biochemistry
Name and type of organisation providing education and training	Romanian Academy
Dates	1996-1999
Title of qualification awarded	***Doctor of Engineering***
Principal subjects/occupational skills covered	Molecular biology, Biotechnology, Biochemistry
Name and type of organisation providing education and training	Hiroshima University, Graduate School of Engineering, Department of Fermentation Technology, Japan, Funded by The Ministry of Culture and Education in Japan (Monbusho)
Dates	1994-1996
Title of qualification awarded	***Master of Engineering***
Principal subjects/occupational skills covered	Molecular biology, Biotechnology, Biochemistry
Name and type of organisation providing education and training	Hiroshima University, Graduate School of Engineering, Department of Fermentation Technology, Japan, Funded by The Ministry of Culture and Education in Japan (Monbusho)
Dates	1979-1984
Title of qualification awarded	***Master of Science***
Principal subjects/occupational skills covered	Biochemistry
Name and type of organisation providing education and training	Polytechnic University of Bucharest, Faculty of Technological Chemistry, Department of Biochemistry

Personal skills and competences

Organisational skills and competences	**Director** of the Research Center of Applied Organic Chemistry affiliated to Faculty of Chemistry, **Principal Investigator** in five national research grants and two international (bilateral).
Technical skills and competences	Laboratory experience includes: chemo-genomics, yeast surface display technology, molecular cloning, standard (yeast, bacteria, and plant) genetic techniques, standard microbiological techniques, gene analysis, gene fusion techniques, microbial and mammalian cell cultures, drug selection, drug tests (on yeast and mammalian cell culture), kinetics of drug transport within cell, cation transport kinetics, yeast two-hybrid system, gene reporter assay, synthesis, extraction, purification and identification of natural compounds.

Additional information

- **Scopus Author ID:** 6602363365; **ORCID:** 0000-0002-4901-7896; **Researcher ID:** A-1558-2008
- **Extensive teaching experience** (Biochemistry, Molecular Biology, Cell Biology, Organic Chemistry)
- **Coordinator of:** > 80 undergraduate theses; > 50 master theses; 5 PhD theses
- **Independent Evaluator:** Horizon Europe 2021-2027, Horizon 2020, FP7, national calls
- **Member** in doctoral committees (30 national, 16 international)
- **Reviewer** for Scientific reports, PlosOne, Current Microbiology, Applied Microbiology and Biotechnology, Applied Energy, Molecules, Food Chemistry, Revue Roumaine de Chimie, Romanian Journal of Biochemistry etc.

Languages

English: fluent
French: conversational level
Romanian: native level

Annexes

Selected publications

1. Maxim C, Ene CD, Nicolau I, Ruta LL, Farcasanu IC. Enantiomeric pairs of copper(II) complexes with tridentate Schiff bases derived from *R*- and *S*-methionine: the role of decorating organic groups of the ligand in crystal packing and biological activity. Dalton Trans. 51(48):18383-18399 (2022).
2. Ruta LL, Farcasanu IC. *Saccharomyces cerevisiae* concentrates subtoxic copper onto cell wall from solid media containing reducing sugars as carbon source. Bioengineering (Basel). 8(3), 36 (2021).
3. Ruta LL, Farcasanu IC. Coffee and yeasts: from flavor to biotechnology. Fermentation. 7(1), 19 (2021).
4. Olar R, Badea M, Bacalum M, Răileanu M, Ruţă LL, Farcaşanu IC, Rostas AM, Vlaicu ID, Popa M, Chifiriuc MC. Antiproliferative and antibacterial properties of biocompatible copper(II) complexes bearing chelating N,N-heterocycle ligands and potential mechanisms of action. Biometals, 34(5), 1155-1172 (2021).
5. Ruta LL, Farcasanu IC. Interaction between polyphenolic antioxidants and *Saccharomyces cerevisiae* cells defective in heavy metal transport across the plasma membrane.Biomolecules, 10(11), 1512 (2020).
6. Ruta LL, Popa CV, Farcasanu IC. Cytotoxicity of oleandrin is mediated by calcium influx and by increased manganese uptake in *Saccharomyces cerevisiae* cells. Molecules, 25(18), 4259 (2020).
7. Ruta LL, Farcasanu IC. *Saccharomyces cerevisiae* and caffeine implications on the eukaryotic cell. Nutrients, 12(8), 2440 (2020).
8. Ruta LL, Oprea E, Popa CV, Farcasanu IC. *Saccharomyces cerevisiae* cells lacking transcription factors Skn7 or Yap1 exhibit different susceptibility to cyanidin. Heliyon, 6(10), e05352 (2020).
9. Coman AG, Paun A, Popescu CC, Hădade ND, Hanganu A, Chiritoiu G, Farcasanu IC, Matache M A novel adaptive fluorescent probe for cell labelling.Bioorg Chem, 92, 103295 (2019).
10. Ruta LL, Farcasanu IC. Anthocyanins and anthocyanin-derived products in yeast-fermented beverages. Antioxidants (Basel), 8(6), pii: E182 (2019).
11. Manolescu BN, Oprea E, Mititelu M, Ruta LL, Farcasanu IC. dietary anthocyanins and stroke: a review of pharmacokinetic and pharmacodynamic studies. Nutrients, 11(7), pii: E1479 (2019).
12. Ruta LL, Nicolau I, Popa CV, Farcasanu IC. Manganese suppresses the haploinsufficiency of heterozygous *trpy1Δ/TRPY1 Saccharomyces cerevisiae* cells and stimulates the TRPY1-dependent release of vacuolar Ca^{2+} under H_2O_2 stress. Cells, 8(2). pii: E79 (2019).
13. Ruta LL, Banu MA, Neagoe AD, Kissen R, Bones AM, Farcasanu IC. Accumulation of Ag(I) by *Saccharomyces cerevisiae* cells expressing plant metallothioneins. Cells, 7(12). pii: E266 (2018).
14. Banu M, Simion M, Popescu MC, Varasteanu P, Kusko M, Farcasanu IC.Specific detection of stable single nucleobase mismatch using SU-8 coated silicon nanowires platform. Talanta, 185, 281-290 (2018).
15. Ruta LL, Popa CV, Nicolau I, Farcasanu IC. Epigallocatechin-3-O-gallate, the main green tea component, is toxic to *Saccharomyces cerevisiae* cells lacking the Fet3/Ftr1. Food Chem, 266, 292-298 (2018).
16. Ruta LL, Kissen R, Nicolau I, Neagoe AD, Petrescu AJ, Bones AM, Farcasanu IC. Heavy metal accumulation by *Saccharomyces cerevisiae* cells armed with metal binding hexapeptides targeted to the inner face of the plasma membrane. Appl Microbiol Biotechnol, 101, 5749-5763 (2017).
17. Ruta LL, Lin YF, Kissen R, Nicolau I, Neagoe AD, Ghenea S, Bones AM, Farcasanu IC. Anchoring plant metallothioneins to the inner face of the plasma membrane of *Saccharomyces cerevisiae* cells leads to heavy metal accumulation. PLoS ONE, 12(5):e0178393 (2017).
18. Ruta LL, Popa CV, Nicolau I, Farcasanu IC. Calcium signaling and copper toxicity in *Saccharomyces cerevisiae* cells. Environ Sci Pollut Res, 23, 24514-24526 (2016).
19. Ene CD, Ruta LL, Nicolau I, Popa CV, Iordache V, Neagoe AD, Farcasanu IC. Interaction between lanthanide ions and Saccharomyces cerevisiae cells. J Biol Inorg Chem, 20, 1097-1107 (2015).
20. Popa CV, Lungu L, Cristache LF, Ciuculescu C, Danet AF, Farcasanu IC. Heat shock, visible light or high calcium augment the cytotoxic effects of *Ailanthus altissima* (Swingle) leaf extracts against *Saccharomyces cerevisiae* cells. Nat Prod Res, 14, 1-4 (2015).
21. Ruta LL, Popa VC, Nicolau I, Danet AF, Iordache V, Neagoe AD, Farcasanu IC. Calcium signaling mediates the response to cadmium toxicity in Saccharomyces cerevisiae cells. FEBS Lett, 588, 3202-3212 (2014).
22. Oprea E, Ruta LL, Nicolau I, Popa CV, Neagoe AD, Farcasanu IC. *Vaccinium corymbosum* L. (blueberry) extracts exhibit protective action against cadmium toxicity in *Saccharomyces cerevisiae* cells. Food Chem,152, 516-521 (2014).
23. Farcasanu IC, Mitrica R, Cristache L, Nicolau I, Ruta LL, Paslaru L, Comorosan S. Optical manipulation of *Saccharomyces cerevisiae* cells reveals that green light protection against UV irradiation is favored by low Ca^{2+} and requires intact UPR pathway. FEBS Lett, 587, 3514-3521 (2013).

24. Paraschivescu CC, Matache M, Dobrota C, Nicolescu A, Maxim C, Deleanu C, Farcasanu IC, Hadade ND. Unexpected formation of N-(1-(2-Aryl-hydrazono)isoindolin-2-yl)benzamides and their conversion into 1,2-(Bis-1,3,4-oxadiazol-2-yl)benzenes. J Org Chem, 78, 2670-2679 (2013).
25. Mitrica R, Dumitru I, Ruta LL, Ofiteru AM, Farcasanu IC. The dual actionction of epigallocatechin gallate (EGCG), the main constituent of green tea, against the deleterious effects of visible light and singlet oxygen-generating conditions as seen in yeast cells. Molecules, 17, 10355-10369 (2012).
26. Dumitru I, Ene CD, Ofiteru AM, Paraschivescu C, Madalan AM, Baciu I, Farcasanu IC. Identification of [CuCl(acac)(tmed)], a copper(II) complex with mixed ligands, as a modulator of Cu,Zn superoxide dismutase (Sod1p) activity in yeast. J Biol Inorg Chem, 17, 961-974 (2012).
27. Ofiteru AM, Ruta LL, Rotaru C, Dumitru I, Ene CD, Neagoe A, Farcasanu IC. Overexpression of the *PHO84* gene causes heavy metal accumulation and induces Ire1p-dependent unfolded protein response in *Saccharomyces cerevisiae* cells. Appl Microbiol Biotechnol, 94, 425-455 (2012).
28. Farcasanu IC, Matache M, Neagoe A, Iordache V. Hyperaccumulation: a key to heavy metal bioremediation. In: *Bio-Geo-Interactions in Contaminated Soils* (Editors: Erika Kothe, Ajit Varma), Springer Publishing, Berlin, Soil Biol 31, 251-278, (2012).
29. Farcasanu IC, Matache M. *Sacchromyces cerevisiae*'s three B-s: Bakery, Brewery, Bioremediation. In: *Bioremediation: Biotechnology, Engineering and Environmental Management* (Editor Alexander C. Mason), Nova Publishiers, ISBN: 978-1-61122-730-7, (2012).
30. Popa CV, Dumitru I, Ruta LL, Danet AF, Farcasanu IC. Exogenous oxidative stress induces Ca^{2+} release in the yeast *Saccharomyces cerevisiae*. FEBS J, 277, 4027-4038 (2010).
31. Ruta L, Paraschivescu C, Matache M, Avramescu S, Farcasanu IC. Removing heavy metals from synthetic effluents using "kamikaze" *Saccharomyces cerevisiae* cells. Appl Microbiol Biotechnol, 85, 763-761 (2010).

Annexes

Selected grants

1. *"Engineering Yeast and Plants for Heavy Metal Applications: from Bioremediation to Bioextraction"* (European Economic Area EEA, Romania-Norway, Contract no. 21SEE/30.06.2014, approximate value: 900,000 euro 2014-2017)., Grant director
2. *"*Highlighting new modulators of calcium-regulated processes using genomic and chemogenomic screens in yeast*"* (National Research Plan, PN II_PCCA 2013, contract no. 203/01.07.2014, Approximate value 250,000 euro, 2014-2017), Grant director
3. *"*Integrated platform of multiplex genotyping of HPV *"* (National Research Plan, PN II_PCCA 2013, contract no. 36/01.07.2014, Approximate value 250,000 euros, 2014-2017). PI in Partner group.
4. *"Cellular and Molecular Biotechnologies for Medical Aplications"* (FSE POSDRU nr: 89/1.5/S/60746, approximate value: 200,000 euros 2010-2013). PI in Partner group.
5. *"Molecular mechanisms involved in Saccharomyces cerevisisae cellular response to heavy metal and oxidative stress"* (PNII/IDEAS_985 nr: 176/2007, approximate value: 180,000 euros, 2007-2010). Grant director
6. *"Biochip with Multi-Alergens obtained through MicroArray Technology (MAMA)"* PI in Partner group (PNII/Partnership nr: 11-023/2007, approximate value: 80,000 euros, 2007-2010) PI in Partner group.