

## Europass Curriculum Vitae



### Personal information

First names / Surname

**Ileana Cornelia / FARCASANU**

### Occupational field

**Academic, Research**

### Work experience

Dates	<b>2006-onwards</b>
Occupation or position held	<i>Associate professor</i>
Main activities and responsibilities	<i>Teaching, research Chemogenomics Yeast surface display of recombinant proteins/peptides Molecular mechanisms involved in stress tolerance Natural compounds with biological activity</i>
Name and address of employer	University of Bucharest, Faculty of Chemistry
Type of business or sector	Academic
Dates	<b>1991-2006</b>
Occupation or position held	<i>Assistan professor, Lecturer</i>
Main activities and responsibilities	<i>Teaching, research Molecular mechanisms involved in stress tolerance Natural compounds with biological activity activity</i>
Name and address of employer	University of Bucharest, Faculty of Chemistry
Type of business or sector	Academic
Dates	<b>2005</b>
Occupation or position held	<i>Invited researcher</i>
Main activities and responsibilities	<i>Research</i>
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	<b>2002-2003</b>
Occupation or position held	<i>Postdoctoral researcher</i>
Main activities and responsibilities	<i>Research Molecular studies of mechanisms involved in regulation of tolerance to sodium and heavy metals in <i>Arabidopsis thaliana</i></i>
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	<b>1999-2001</b>

Occupation or position held	<i>Postdoctoral researcher</i>
Main activities and responsibilities	<i>Research</i> 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	<b>1985-1990</b>
Occupation or position held	<i>Researcher</i>
Main activities and responsibilities	<i>Research, Cancer immunology</i>
Name and address of employer	The National Institute of Oncology, Bucharest, Romania

## **Education and training**

Dates	2013
Title of qualification awarded	<b><i>Habilitated Doctor</i></b>
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	<b><i>Doctor of Engineering</i></b>
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	<b><i>Master of Engineering</i></b>
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	<b><i>Master of Science</i></b>
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 one 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**

**Hirsch Index** 14, citations: 824 (cf. Google Scholar); Hirsch Index 11 (cf. SCOPUS, WoS)

- **Independent Evaluator** Horizon 2020, FP7, national calls

- **Founding member** of the Interdisciplinary School of Doctoral Studies, University of Bucharest

- **Member** in doctoral committees (32 national, 14 international)

- **Reviewer** for 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. 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<sup>2+</sup> under H<sub>2</sub>O<sub>2</sub> stress. *Cells*, 8(2). pii: E79 (2019).
2. Coman AG, Paun A, Popescu CC, Hădăde ND, Hanganu A, Chiritoiu G, Farcasanu IC, Matache M. A novel adaptive fluorescent probe for cell labelling. *Bioorg Chem*, doi: 10.1016/j.bioorg.2019 (2019)
3. Ruta LL, Farcasanu IC. Anthocyanins and anthocyanin-derived products in yeast-fermented beverages. *Antioxidants (Basel)*, 8(6), pii: E182 (2019).
4. 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).
5. 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).
6. 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).
7. 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).
8. 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).
9. 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).
10. 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).
11. 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).
12. 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).
13. 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).
14. 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).
15. Oprea E, Manolescu BN, Farcasanu IC, Mladin P, Mihele D, Studies concerning antioxidant and hypoglycaemic activity of *Aronia melanocarpa* fruits. *Farmacia*, 62, 254-263 (2014).
16. 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<sup>2+</sup> and requires intact UPR pathway. *FEBS Lett*, 587, 3514-3521 (2013).
17. Paraschivescu CC, Matache M, Dobrota C, Nicolescu A, Maxim C, Deleanu C, Farcasanu IC, Hădăde 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).
18. Popa CV, Cristea NI, Farcasanu IC, Danet AF. Total antioxidant capacity of some fruit seed extracts. *Rev Chim* 64, 1377-1380 (2013).
19. Mitrica R, Dumitru I, Ruta LL, Ofiteru AM, Farcasanu IC. The dual action 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).
20. Dumitru I, Ene CD, Ofiteru AM, Paraschivescu C, Madalan AM, Baci 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).
21. 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).
22. 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).

23. Neagoe A, Iordache V, Farcasanu IC. The Role of Organic Matter in the Mobility of Metals in Contaminated Catchments. In: *Bio-Geo-Interactions in Contaminated Soils* (Editors: Erika Kothe, Ajit Varma), Springer Publishing, Berlin, Soil Biol 31, 297-325, (2012).
24. 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 Publishers, ISBN: 978-1-61122-730-7, (2012).
25. Popa CV, Dumitru I, Ruta LL, Danet AF, Farcasanu IC. Exogenous oxidative stress induces Ca release in the yeast *Saccharomyces cerevisiae*. FEBS J, 277, 4027-4038 (2010).
26. 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 Applications" (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 cerevisiae* 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-Allergens 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.