

Europass Curriculum Vitae



Personal information

First name(s) / Surname(s) **POPOV LUCIA-DOINA**
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E-mail doina.popov@icbp.ro; doina.popov@gmail.com
Nationality Romanian
Date of birth 21.03.1943
Gender Female

Scientometry:

Citations of all publications: 1527/ Citations: 2010-08.07.2015: 751 (Google scholar)
Hirsh Index of all publications: 20/ h-index 2010-08.07.2015: 15 (Google scholar)
i10-index of all publications: 40/i10-index 2010-08.07.2015: 26 (Google scholar)

Desired employment / Occupational field

Institute of Cellular Biology and Pathology "Nicolae Simionescu" of the Romanian Academy

Work experience

Basic research, cellular and molecular biopathology.
 Experimental Diabetes: non-enzymatically glycosylated proteins, microangiopathy, resistance arteries reactivity, identification of cellular mechanisms modified by hyperglycaemia and the potential strategies to alleviate the associated imbalances, effects of high glucose concentration on intracellular signaling pathways operating within the vascular wall, oxidative stress, endoplasmic reticulum stress, Protein Tyrosine Phosphatase 1B (PTP1B).
 Blood platelets; Cardiomyocytes.
 Vascular proteoglycans and glycosaminoglycans; endothelial cells; vascular smooth muscle cells.
 Enzymology.

Dates	1992 - present
Occupation or position held	Scientific Secretary of ICBP "N.S", Research scientist, grade I
Main activities and responsibilities	Head of the Department „Pathophysiology and Pharmacology”
Name and address of employer	Institute of Cellular Biology and Pathology "N. Simionescu" , B.P. Hasdeu Str. no. 8, Sect 5, Bucuresti
Type of business or sector	Basic biomedical research, cellular and molecular biopathology
Dates	1990 - 1992
Occupation or position held	Research scientist, grade II
Main activities and responsibilities	Head of the laboratory „Vascular dysfunction in diabetes”, Scientific Secretary of ICBP
Name and address of employer	Institute of Cellular Biology and Pathology "N. Simionescu" , B.P. Hasdeu Str. no. 8, Sect 5, Bucuresti
Type of business or sector	Basic biomedical research, cellular and molecular biopathology

Dates 1978 - 1990
 Occupation or position held Research scientist, grade III
 Main activities and responsibilities Head of the laboratory "Preparative biochemistry"
 Name and address of employer Institute of Cellular Biology and Pathology , B.P. Hasdeu Str. no. 8, Sect 5, Bucuresti

Dates 1976 – 1978; 1974-1976
 Occupation or position held Research scientist, grade III
 Main activities and responsibilities Scientific research
 Name and address of employer Institute of Biological Research, Spl. Independentei no. 296, Bucharest
 Type of business or sector Basic research in enzymology

Dates 1968-1974
 Occupation or position held Assistant researcher; scientific researcher
 Main activities and responsibilities Scientific research
 Name and address of employer Institute of Biochemistry of the Romanian Academy, Docentilor 20, Sect. 1, Bucharest
 Type of business or sector Basic research in enzymology

Education and training

Dates 1960-1965
 Title of qualification awarded University diplomate
 Principal subjects/occupational skills covered Chemistry, biochemistry
 Name and type of organisation providing education and training Chemistry Faculty, University of Bucharest, Biochemistry
 Level in national or international classification Merit diploma

Dates 1970-1974
 Title of qualification awarded Doctorate/ Doctor in Chemistry
 Principal subjects/occupational skills covered Enzymology, Romanian Ministry of Education
 Level in national or international classification Doctoral Diploma in Chemistry, Biochemistry

Dates 1977-1978
 Title of qualification awarded Fullbright bursary
 Principal subjects/occupational skills covered Cell biology
 Level in national or international classification New York University, Dept. of Cell Biology, New York, USA

Other skills in cell biology electrophysiology/ farmacology/ signal transduction obtained in/at:
USA, Yale University 1983; **Denmark**, Aarhus University 1995, **Belgium**, Center for Molecular and Vascular Biology, Leuven 1997, **Greece**, NATO Advanced Study Institute, Crete 2000, **U.K.** University College of London 2001 and 2002

Personal skills and competences

Mother tongue(s) Specify mother tongue: Romanian

Other language(s) English, French, German

Self-assessment

European level (*)

Language

Language

Understanding				Speaking				Writing	
Listening		Reading		Spoken interaction		Spoken production			
x	English, French, German	x	English, French, German	x	English, French, German	x	English, French, German	x	English, French, German

(*) [Common European Framework of Reference for Languages](#)

Social skills and competences Team worker, easy interacting and socializing

Organisational skills and competences Head of laboratory, leadership, scientific secretary

Technical skills and competences Technical skills: Biochemical and molecular biology techniques, electron microscopy, fluorescence microscopy, microdissections, ultracentrifugation, radiobiochemistry, SDS-PAGE, immunoblotting, immunohistochemistry, enzyme kinetics
Competences: • Identification of albumin binding proteins of cardiomyocyte sarcolemma, a docking site for the circulating albumin-fatty acids complexes; • uptake and transport (transcytosis and endocytosis) of AGE-albumin in the capillary endothelium; • pathomorphological changes of lung microvasculature in diabetes; • phenotypic modulation of the endocardial endothelium in diabetes; • the reactivity of the resistance arteries in experimental hyperlipidaemia-hyperglycaemia; • the involvement of gap junctions in vascular pathology/dysfunction; • the effects of oral L-arginine supplementation in experimental hyperlipidaemia associated with diabetes; • an original model for type 2 diabetes: the hamster fed a hypercaloric diet enriched in saturated fatty acids; • identification of DNA-bound Advanced Glycation End-products formed in high glucose condition; • carbonylation of proteins during ageing; • lipid loading of human endothelial cells and smooth muscle cells: the activated signal transduction pathways; • unraveling biochemical mechanisms underlying platelets activation in human type 2 diabetes; platelets – endothelium interaction in venous insufficiency; • disturbances in signal transduction pathways that conduct to vascular wall dysfunction in hyperglycemia; • protein tyrosine phosphatases, as signaling regulators in vascular cells; • organelles stress (endoplasmic reticulum and mitochondria) within diabetic myocardium.

Computer skills and competences excellent

Additional information

Honours

Academician (2011); Correspondent Member of the Romanian Academy (2001);
Member of the Romanian Academy for Medical Sciences (1993-present)

Co-editor of the international monograph "Cellular Dysfunction in Atherosclerosis and Diabetes - Reports from Bench to Bedside -" Maya Simionescu, Anca Sima, Doina Popov – editors, The Publishing House of the Romanian Academy, Bucharest, Romania, 2004, 426 pages. This book was honored with "Nicolae Simionescu" award of the Romanian Academy.

Author of **9** chapters in international monographs (Springer, Elsevier, Schattauer, Karger, Transworld Res. Network, Antonio Delfino), **3** chapters in monographs (Romanian Academy Publishing House), **60** original papers published "in extenso" in Thomson-Reuters international journals (ISI), **52** papers published "in extenso" in Romanian Journals, **74/125** posters and oral presentations at international/Romanian scientific meetings.

Awards: 1991, "Emil Racovita" award of the Romanian Academy;
1999, "Dr. C. Velican" award of the Romanian Society for Cell Biology for research on atherosclerosis;
2004 "Ion Moraru" award for basic immunology (along with Pucleanu E., Radulescu L. and Antohe F.)

Member in International Committees:

European Association for the Study of Diabetes (EASD)(2003-2011);
European Council for Cardiovascular Research (ECCR)(2002-present);
Management Committee of the COST B5 Action of the European Community (1998-2000).

Ph.D. advisor in cellular and molecular biology at ICBP "N. Simionescu", Romanian Academy.

Peer Reviewer for scientific journals: Cardiovascular Research (ed. Elsevier Sci., Amsterdam, NL): 1997-present ("core"reviewer), Archives of Physiology and Biochemistry (Informa Healthcare, U.K; 2005-present), Experimental and Clinical Endocrinology and Diabetes (Georg Thieme Verlag, Germany; 2008-present), Thrombosis Research (Elsevier Sci. Amsterdam, NL; 2009-present), Clinical Chemistry and Molecular Medicine (Walter De Gruyter; 2010), Anti-Cancer Agents in Medicinal Chemistry (2010); Diabetes Research and Clinical Practice (Elsevier Sci. Amsterdam, NL, 2011), Diabetologia (Springer, Germany): 2012, 2013, Cellular Physiology and Biochemistry: 2012, Molecular and Cellular Endocrinology: 2012, Current Medicinal Chemistry (www.bentham.com): 2013, PlosOne: 2013, Lipids (Springer Verlag): 2013; Lipids in health and diseases: 2013.

Ad hoc Peer Reviewer: Experimental and Clinical Endocrinology & Diabetes (Georg Thieme Verlag, Germany); Platelets; Journal of Cellular and Molecular Medicine; Rejuvenation Res. (Mary Ann Liebert Inc. Publishers, New Rochelle, USA); Eur.J. Pharmacol.; Romanian Journal of Biophysics.

Assistant Editor-in-Chief: Proceedings of the Romanian Academy, Series B.

Member in the Editorial Board:

2005-present Archives of Physiology and Biochemistry (Informa Healthcare, U.K.);
2014-International Journal of Diabetology & Vascular Disease Research
1995-present Romanian J. of Biochemistry;
2009-present Annals of the Romanian Soc. for Cell Biology.

Referee for Grants funding: Expert Evaluator/Rapporteur at the European Commission (5th & 6th Framework programs), Brussels (2002, 2003); Romanian Academy; Ministry of Education and Research (Romania) (1995-2006); Expert CNATDCU, 2004, 2011-present; Expert Evaluator of the Romanian Council for Scientific and University Research (2001-present);

Annexes

A selection of the most cited publications

1. Receptor for advanced glycation end products (AGEs) has a central role in vessel wall interactions and gene activation in response to circulating AGE proteins
A M Schmidt, M Hasu, D Popov, J H Zhang, J Chen, S D Yan, J Brett, R Cao, K Kuwabara, and G Costache
Proc. Natl. Acad. Sci. USA, Vol. 91, pp. 8807-8811, September 1994,
287 citations, highlighted in *Nature Medicine* 4, 1025 - 1031 (1998), *The Journal of Biological Chemistry*, 270, 25752-25761 (1995), *Diabetologia* (1999) 42: 351-357, *Circulation* 114: 597-605 (2006), *Journal of Cerebral Blood Flow & Metabolism* (2010) 30, 243-254, etc.

2. Biosynthesis of lysosomal hydrolases: their synthesis in bound polysomes and the role of co- and post-translational processing in determining their subcellular distribution
MG Rosenfeld, G Kreibich, D Popov, K Kato, and DD Sabatini
J Cell Biol vol. 93 no. 1, 135-143, 1982
199 citations, highlighted by George E. Palade, *Membrane biogenesis: An overview, Methods in Enzymology* 96, xxix-lv (1983), and in *Cell* 36 (2): 295-307(1984), *Proc. Natl. Acad. Sci. USA* 83: 2483-2487(1986), *Methods in Enzymology* 144:140-171(1987), etc.

3. Identification of albumin-binding proteins in capillary endothelial cells.
N Ghinea, A Fixman, D Alexandru, D Popov, M Hasu, L Ghitescu, M Eskenasy, M Simionescu, and N Simionescu
J Cell Biology, vol. 107 no. 1 231-239, 1988
90 citations, highlighted in *Proc. Natl. Acad. Sci. USA* 85: 6773-6777(1988), *J Cell Sci* 109, 1857-1864, 1996, *Cardiovascular Research* 69 (2006) 764 - 771, *J Biochem* (1994) 115 (5): 898-903, etc.

4. Alterations of lung structure in experimental diabetes, and diabetes associated with hyperlipidaemia in hamsters
D Popov, M Simionescu
72 citations, highlighted by *The American Journal of Medicine* 118 (3): 205-211(2005), *Diabetologia* 50:549-554 (2007), *American Journal of Physiology - Lung Cellular and Molecular Physiology* 295 (5): L725-L726 (2008), *Journal of Applied Physiology* 109(6):1913-1919 (2010), etc.

Publications in the last 5 years

1. N. Alexandru, D. Popov, E. Dragan, E. Andrei, A. Georgescu, 2011. Platelet activation in hypertension associated with hypercholesterolemia: Effects of irbesartan. *Journal of Thrombosis and Haemostasis* 9 (1): 173-184
2. A. Georgescu, D. Popov, A. Constantin, M. Nemezc, N. Alexandru, D. Cochior, A.Tudor. 2011 Dysfunction of human subcutaneous fat arterioles in obesity alone or obesity associated with Type 2 diabetes. *Clinical Science* 120(9/10): 463-472
3. N. Alexandru, A. Georgescu, M. Amuzescu, C. Zamfir, A. Badila, D. Popov. 2011 Platelet reactivity in chronic venous insufficiency, *Clin. Lab.* 2011;57:527-534
4. D. Popov. 2011. Novel Protein Tyrosine Phosphatase 1B inhibitors: interaction requirements for improved intracellular efficacy in type 2 diabetes mellitus and obesity control, *Biochem. Biophys. Res. Commun.* 410: 377-381
5. D. Popov. 2012. Endoplasmic reticulum stress and the on site function of resident PTP1B, *Biochem. Biophys. Res. Commun.* 422: 535-538
6. N. Alexandru, D. Popov, A. Georgescu. 2012. Platelet dysfunction in vascular pathologies and how can it be treated. *Thrombosis Research*, 129: 116-126
7. A. Georgescu, N. Alexandru, E. Andrei, I. Titorencu, E. Dragan, C. Tarziu, S. Ghiorghe, E. Badila, D. Bartos, D. Popov. 2012. Circulating microparticles and endothelial progenitor cells in atherosclerosis: pharmacological effects of irbesartan. *Journal of Thrombosis and Haemostasis*, 10: 680-691
8. D. Popov, 2013. An outlook on vascular hydrogen sulphide effects, signaling, and therapeutic potential, *Arch Physiol Biochem.* 119(5):189-94.
9. M. Dumitrescu, G. Costache, A. Constantin, D. Popov. 2013. Zofenopril functions as antioxidant, correcting the renal oxidative damages in a rat model of L-NAME induced hypertension, *Annals of the Romanian Society for Cell Biology*, XVIII (1):11-21.
10. D. Popov. 2013. Is lung a target of diabetic injury? the novel pros and cons evidences, *Proc. Rom. Academy, Ser. B*, 15(2):99-104.
11. D. Popov. 2014 Protein S-glutathionylation: from current basics to targeted modifications, *Arch Physiol Biochem*, 120(4):123-30.
12. D. Popov. 2015 Organelles stress and their crosstalk within diabetic myocardium, *Athens J. of Health* 2(2): 117-131.

13. D. Popov, 2015 Platelet mitochondrial function and dysfunction: physiological consequences, FISIOLÓGIA. Boletín informativo de la SECF, 18(1) 15-17(www.secf.es).

Partner in 5/12 international/Romanian research projects
Project director of 13 Romanian research projects

Bucharest, 8th July, 2015