





Personal Information Florentina SAFCIUC

 Institute of Cellular Biology and Pathology "Nicolae Simionescu", 050568 Bucharest (Romania)

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 florentina.safciuc@icbp.ro (office), fsafciuc@gmail.com

Gender Female | **Birth date** June 5, 1976 | **Nationality** Romanian

**Education and
formation**

2004-2010 PhD degree in Cellular and molecular Biology/ Biochemistry

Institute of Cellular Biology and Pathology "N. Simionescu", Romanian Academy, street B. P. Hasdeu, no. 8, postal code 050568, district 5, Bucharest

1995-2000 Bachelor degree in Biology

General chemistry, Biochemistry, Cellular biology, Animal anatomy and physiology, Histology and Embryology, Biophysics, Medical biology, Genetics, Bioinformatics, Microbiology, Immunology, Botany, Plant physiology, Ecology.

Department of Biochemistry, Faculty of Biology, Bucharest University

1991-1995 Baccalaureate

Real Profile, specialization "**Biochemistry**"

National College "Alexandru Vlahuta", Ramnicu Sarat, Buzau

Professional experience

2009-present

Scientific Researcher at Institute of Cellular Biology and Pathology "Nicolae Simionescu" street B. P. Hasdeu, no. 8, postal code 050568, district 5, Bucharest, Romania

- design and execution of experiments
- elaboration of animal experiments and treatment schemes
- data analysis and interpretation
- collaboration in different research projects
- preparation of activity reports and scientific reports for ongoing projects
- participation in conferences and symposia

Sector Research

2001-2009

Scientific Research Assistant at Institute of Cellular Biology and Pathology "Nicolae Simionescu" street B. P. Hasdeu, no. 8, postal code 050568, district 5, Bucharest, Romania

- design and execution of experiments
- elaboration of animal experiments
- data analysis and interpretation
- collaboration in different research projects
- preparation of activity reports and scientific reports for ongoing projects
- participation in conferences and symposia

Sector Research

Aptitudes and personal skills

Native language

Romanian

Other languages

Auto evaluation

European level

English

		Understanding		Speaking		Writing	
		Listening	Reading	Participating in the conversation	Oral Discuss		
	C1	C1		B2	B2		B2

Levels: A1 and A2: Beginner, B1 and B2: Intermediate, C1 and C2: Advanced

Aptitudes and social skills

- Effective communication within the working group, as a result of working in the Medical and Pharmaceutical Bio nanotechnologies laboratory of ICBP-NS.
- Presentations at scientific seminars.

Aptitudes and organizational skills

- Ability to work independently, including planning and executing activities with minimal supervision.

Aptitudes and technical skills

- Technical expertise: experimental animal models –organ extraction and processing to obtain cryo-sections; and paraffin sections, optical and fluorescence microscopy on cell cultures and tissues; cell culture techniques;; immunocytochemistry; techniques, paraffin embedding, electron microscopy
Competences in the centralization of scientific data and in the preparation of research reports and scientific paper.

Computer skills

AUTOEVALUATION				
Information processing	Communication	Content creation	Safety	Problem solving
Independent user	Independent user	Independent user	Independent user	Independent user

- Advanced knowledge in the use of Microsoft Office,
- Advanced knowledge in the use of the Internet.

Driving license

No

Additional information

Specialization and courses

1. IX-ème ECOLE D'ETE FRANCOPHONE: BIOLOGIE & PATHOLOGIE MOLECULAIRES: BIOTECHNOLOGIES June 30 - July 12, Iasi, Romania, 2003
2. "11th Advanced Course on Digital Microscopy and Fluorescence Techniques in Cell Biology" Octombrie 1-6, DKFZ (German Cancer Research Centre), Heidelberg, Germany, 2006

- Publication** - **12 articles in ISI indexed journals**
- Conferences** - National and International conferences: 12
- Projects** - Collaborator in 9 National Grant research projects
- Awards** - 3 National Awards from UEFISCDI-Research results

Member of Scientific Organizations - Romanian Society of Cell Biology

- Scopus Index** - **Hirsh Index: 8**, total number of citations = 169
- Institute of Cellular Biology and Pathology "Nicolae Simionescu", Bucharest

ANEXES

List of ISI indexed articles

1. Voicu G., Mocanu C.A., **Safciuc F.**, Anghelache M., Deleanu M., Cecoltan S., Pinteala M., Uritu C.M., Droc I., Simionescu M., Manduteanu I., Calin M., Nanocarriers of shRNA-Runx2 directed to collagen IV as a nanotherapeutic system to target calcific aortic valve disease, *Materials Today Bio*, 20, **2023**, doi:10.1016/j.mtbio.2023.100620, **IF 10.761**.
2. Turtoi M., Anghelache M., Patrascu A.A., Deleanu M., Voicu G., Raduca M., **Safciuc F.**, Manduteanu I., Calin M., Popescu D.-L., Antitumor Properties of a New Macrocyclic Tetranuclear Oxidovanadium(V) Complex with 3-Methoxysalicylidenevaline Ligand, *Biomedicines*, 10(6):1217, **2022**, doi:10.3390/biomedicines10061217, **IF 5.612**.
3. Ioana Karla Comarițaț, Alexandra Vilcuț, Alina Constantin, Anastasia Procopciuc, **Florentina Safciuc**, Nicoleta Alexandru, Emanuel Dragan, Miruna Nemezc, Alexandru Filippi, Leona Chițoiu, Mihaela Gherghiceanu, Adriana Georgescu Therapeutic Potential of Stem Cell-Derived Extracellular Vesicles on Atherosclerosis-Induced Vascular Dysfunction and Its Key Molecular Players *Front. Cell Dev. Biol.*, 18 March 2022 Sec. Molecular and Cellular Pathology, Volume 10 - **2022** | <https://doi.org/10.3389/fcell.2022.817180>, **IF 6.081**.
4. Mocanu C.A., Fuior E.V., Voicu G., Rebleanu D., **Safciuc F.**, Deleanu M., Fenyó I.M., Escriou V., Manduteanu I., Simionescu M., Calin M., P-selectin targeted RAGE-shRNA lipoplexes alleviate atherosclerosis-associated inflammation, *Journal of Controlled Release*, 338, 754–772, **2021**, doi: 10.1016/j.jconrel.2021.09.012, **IF 10.009**.
5. Turtoi M., Anghelache M., Bucatariu S.M., Deleanu M., Voicu G., **Safciuc F.**, Manduteanu I., Fundueanu G., Simionescu M., Calin M., A novel platform for drug testing: Biomimetic three-dimensional hyaluronic acid-based scaffold seeded with human hepatocarcinoma cells, *International Journal of Biological Macromolecules*, 185, 604 – 619, **2021**, doi: 10.1016/j.ijbiomac.2021.06.174, **IF 7.71**.
6. Raluca M Boteanu, Viorel I Suica, Luminita Ivan, **Florentina Safciuc**, Elena Uyy, Emanuel Dragan, Sorin M Croitoru, Valentina Grumezescu, Marioara Chiritoiu, Livia E Sima, Constantin Vlagioiu, Gabriel Socol, Felicia Antohe Proteomics of regenerated tissue in response to a titanium implant with a bioactive surface in a rat tibial defect model *Scientific Reports* **2020** Oct 28;10(1):18493. doi: 10.1038/s41598-020-75527-2 **IF 4,997**
7. Elena Uyy, Viorel Iulian Suica, Raluca Maria Boteanu, **Florentina Safciuc**, Aurel Cerveanu-Hogas, Luminita

- Ivan, Crina Stavaru, Maya Simionescu, Felicia Antohe, Diabetic nephropathy associates with deregulation of enzymes involved in kidney sulphur metabolism, *J Cell Mol Med.* 2020 Oct;24(20):12131-12140. doi: 10.1111/jcmm.15855. Epub 2020 Sep 16, **IF 5,295**
8. Alexandru† N., Andrei† E., **Safciuc F.**, Dragan E., Balahura A.M., Badila E., Georgescu A. Intravenous administration of allogenic cell-derived microvesicles of healthy origins defends against atherosclerotic cardiovascular disease development by a direct action on endothelial progenitor cells. *Cells*, 9 (2), 423:1-24, **2020**. (†These authors contributed equally to this work). **IF 7.666**
 9. Alexandru N., **Safciuc F.**, Constantin A., Nemezc M., Tanko G., Filippi A., Dragan E., Badila E., Georgescu A., Platelets of healthy origins promote functional improvement of atherosclerotic endothelial progenitor cells. *Front. Pharmacol.*, 24 Aprin **2019** Sec. Inflammation Pharmacology Volume 10 <https://doi.org/10.3389/fphar.2019.00424>, premiat UEFISCDI, **IF 5.988**.
 10. V. Grumezescu, A.M. Holban, L.E. Sima, M.B. Chiritoiu, G.N. Chiritoiu, A.M. Grumezescu, L. Ivan, **F. Safciuc**, F. Antohe, C. Florica, C.R. Luculescu, M.C. Chifiriuc, G. Socol Laser deposition of poly(3-hydroxybutyric acid-co-3-hydroxyvaleric acid) – lysozyme microspheres based coatings with anti-microbial properties, *International Journal of Pharmaceutics* Volume 521, Issues 1–2, 15 April **2017**, Pages 184-195, **IF 6,16**
 11. E. Constantinescu, **F. Safciuc**, A.V. Sima, A Hyperlipidemic Diet Induces Structural Changes in Cerebral Blood Vessels. *Current Neurovascular Research*, 2011, 8, 131-144, **2011, IF 2,294**
 12. **F. Safciuc**, A. Constantin, A. Manea, M. Nicolae, D. Popov, M. Raicu, D. Alexandru, E. Constantinescu. Advanced glycation end products, oxidative stress and metalloproteinases are altered in the cerebral microvasculature during aging *Current Neurovascular Research* 4(4): 228-234, **2007, IF 2,294**

Posters at international scientific conferences –principal author

1. **F. Safciuc**, E. Constantinescu, A. Sima. Implications of the cerebral blood vessels in hyperlipemia, as risk factors for neurodegeneration. Alzheimer’s & Parkinson’s Diseases: Advances, Concepts & New Challenges, 9-th International Conference AD/PD 2009, Prague, Czech Republic, March 11-15, **2009**.
2. **F. Safciuc**, E. Constantinescu, A. Sima. The hamster as an experimental model to study the effect of the hyperlipemic diet on the cerebral circulation. *77-th European Atherosclerosis Society (EAS) 2008 Meeting*, 26-29 April, Istanbul, Turkey, poster sessions *Atherosclerosis Supplements* 9(1):138-139 May **2008**.
3. **F. Safciuc**, E. Constantinescu, E. Dragan, A. Sima. Hyperlipemic diet causes structural changes of the cerebral capillaries, but not amyloid deposits, in hamster. The International Symposium “Novel trends in cell and molecular biopathology”, Bucharest, 16 feb. **2007**.
4. **F. Safciuc**, E. Constantinescu, E. Dragan, A. Sima. Hyperlipemic diet causes structural changes of the cerebral capillaries, but not amyloid deposits, in hamster. Combating Cardiovascular Diseases and Diabetes ”Inaugural Workshop of the “Cardio-Diabetology Research Reports and Training Unit”, April 26-28, Bucharest, **2006**.
5. **F. Safciuc**, A. Constantin, A. Manea, M. Nicolae, D. Popov, M. Raicu, D. Alexandru, E. Constantinescu. Increased oxidative stress in aging brain microvessels. 8th International Conference Vascular Endothelium: Translating Discoveries into Public Health Practice - June 25 - July 2, Knossos Royal Village, Crete, Greece - abstracts of poster presentations, p.75, **2005**.

Posters at international scientific conferences - co-author

- 1 Voicu G., Anghelache M., Deleanu M., Turtoi M., **Safciuc F.**, Manduteanu I., Simionescu M., Calin M., Design of dual-targeted lipid nanoemulsions for vascular delivery of specialized pro-resolving lipid mediators in atherosclerosis, The 39th Annual Scientific Session of the Romanian Society of Cell Biology with international participation, Cluj-Napoca, Romania, 21-23 October, 2022.
- 2 Voicu G., Anghelache M., Deleanu M., Turtoi M., **Safciuc F.**, Calin M., Dual targeted lipid nanoemulsions for vascular delivery of specialized pro resolving lipid mediators in atherosclerosis, 24th International Conference, Materials, Methods & Technologies, Burgas, Bulgaria, 19-22 August 2022.
- 3 Voicu G., Turtoi M., Anghelache M., Bucatariu S.M., Deleanu M., **Safciuc F.**, Manduteanu I., Fundueanu G., Simionescu M., Calin M., A three-dimensional hyaluronic acid-based scaffold seeded with human cancer cells functions as a suitable platform for antitumoral drug screening, International Conferences & Exhibition on Nanotechnologies, Organic Electronics & Nanomedicine, Thessaloniki, Greece, 3-10 July, 2021.
- 4 Voicu G., Rebleanu D., Fuior E.V., Mocanu C.A., Anghelache M., Turtoi M., **Safciuc F.**, Manduteanu I., Simionescu M., Calin M., VCAM-1 targeted lipopolyplexes carrying Runx2-shRNA mitigate the osteodifferentiation of 3D-cultured human valvular interstitial cells, The 42nd Anniversary Symposium of the

- "Nicolae Simionescu" Institute of Cellular Biology and Pathology and the 38th Annual Scientific Session of the Romanian Society of Cellular Biology with international participation, Bucharest, Romania, 4-6 November, 2021.
- 5 Fuior E.V., Deleanu M., Voicu G., Rebleanu D., Constantinescu C.A., **Safciuc F.**, Simionescu M., Calin M., Preparation and characterization of endothelium-targeted flavonoid-loaded lipid Nanoemulsions, Al 10-lea Congres Național cu participare internațională și A 36-a Sesiune Științifică Anuală a Societății Române de Biologie Celulară, Craiova, România, 6-9 Iunie, **2018**.
 - 6 Adriana Georgescu, Nicoleta Alexandru, **Florentina Safciuc**, Alina Constantin, Miruna Nemezc, Gabriela Tanko, Alexandru Filippi, Emanuel Dragan, Maya Simionescu. MicroRNA-containing microvesicles of healthy origins: a potential tool for the therapy of atherosclerosis. Poster at the Annual Meeting of the International Society for Extracellular Vesicles (ISEV) 2-6 May, Barcelona, Spain, Abstract in Journal of Extracellular Vesicles, Vol. 7, Supplement 1, (ISEV 2018 abstract book), 1461450, No. LBS07.09, p.252, **2018**.
 - 7 A. Georgescu, N. Alexandru, E. Andrei, E. Dragan, **F. Safciuc**, A. M. Daraban, E. Badila. Circulating microparticles of healthy origins protect against atherosclerotic vascular disease via microRNA transfer to endothelial progenitor cells. Oral presentation at the Frontiers in Cardiovascular Biology 2016 meeting, Florence, Italy, 08–10 July 2016, Abstract No. 257 in the Cardiovascular Research, Volume 111, Issue suppl 1, Pp. S49, **2016**.

National awards UEFISCDI

1. Mocanu C.A, Fuior E.V., Voicu G., Rebleanu D., **Safciuc F.**, Deleanu M., Fenyo I.M., Escriou V., Manduteanu I., Simionescu M., Calin M., P-selectin targeted RAGE-shRNA lipoplexes alleviate atherosclerosis-associated inflammation, *Journal of Controlled Release*, 338, 754-772, **2021**, doi: 10.1016/j.jconrel.2021.09.012. Articol premiat în **2021** de UEFISCDI.
2. Turtoi M., Anghelache M., Bucatariu S.M., Deleanu M., Voicu G., **Safciuc F.**, Manduteanu I., Fundueanu G., Simionescu M., Calin M., A novel platform for drug testing: Biomimetic three-dimensional hyaluronic acid-based scaffold seeded with human hepatocarcinoma cells, *International Journal of Biological Macromolecules*, 185, 604 – 619, **2021**. Articol premiat în **2021** de UEFISCDI.
3. Alexandru N., **Safciuc F.**, Constantin A., Nemezc M., Tanko G., Filippi A., Dragan E., Badila E., Georgescu A., Platelets of healthy origins promote functional improvement of atherosclerotic endothelial progenitor cells. *Front. Pharmacol.*, 24 April **2019** Sec. Inflammation Pharmacology Volume 10-**2019** <https://doi.org/10.3389/fphar.2019.00424>. Articol premiat în **2019** de UEFISCDI.

Collaborator in National Grant research projects

- 1 **2017-2020**: POC/61/1/2 - „Targeted therapies for aortic valve disease in diabetes” (THERAVALDIS), Project director: Dr. Agneta Simionescu
- 2 **2018-2020**: 13PCCDI/2018 - „Smart therapies for non-communicable diseases based on the controlled release of pharmacological compounds from encapsulated cells after genetic manipulation or vectored bionanoparticles” (INTERA), Project director: Acad. Maya Simionescu
- 3 **2018-2022**: PN-III-P4-ID-PCCF-2016-0050 - „Mimicking the mechanisms of life through supramolecular chemistry approaches, in five dimensions”, Project director: Dr. Aatto Laaksonen
- 4 **2021-2023**: PN-II-P4-ID-PCE-2020-2465 - „Targeted therapy based on biomimetic nanocarriers for the resolution of inflammation in atherosclerosis” (NANORES), Project director: Dr. Manuela Călin
- 5 **2014-2016** Contract PCCA Tip 2 (Dr.) “The role of S100A4 and MAP4K4 in the progression of pancreatic ductal adenocarcinoma (S100MAP)” Project director: Dr. Irinel Popescu.
- 6 **2012-2014** Capacity project: ERC-like – type ‘Grant Support’ - project ID PNII project ID PNII-CT-ERC-2012 - 1” - grant of the Romanian National Authority for Scientific Research, CNCS – UEFISCDI (Grant no.6/18.07.2012) Project: Circulating platelet microparticles and endothelial progenitor cells in vascular atherosclerosis: new pathophysiological and therapeutic implications Project director: Dr. Adriana Georgescu
- 7 **2007-2010 Contract PNII-4** (Dr. Anca Sima) “The study of cellular, molecular and genetic mechanisms by which dyslipidemia induces insulin resistance; identification of active probiotic compounds and treatment methods” Project director: Dr. Anca Sima
- 8 **2007-2010 Contract PNII Idei** “Structural changes of the cerebral vasculature in hyperlipemia and aging, as risk factors for neurodegenerative diseases such as Alzheimer's” Project director: Dr. Elena Constantinescu
- 9 **2003-2005** Grant CERES “Studies on the cerebral vasculature in the aging process Project director: Dr. Elena Constantinescu