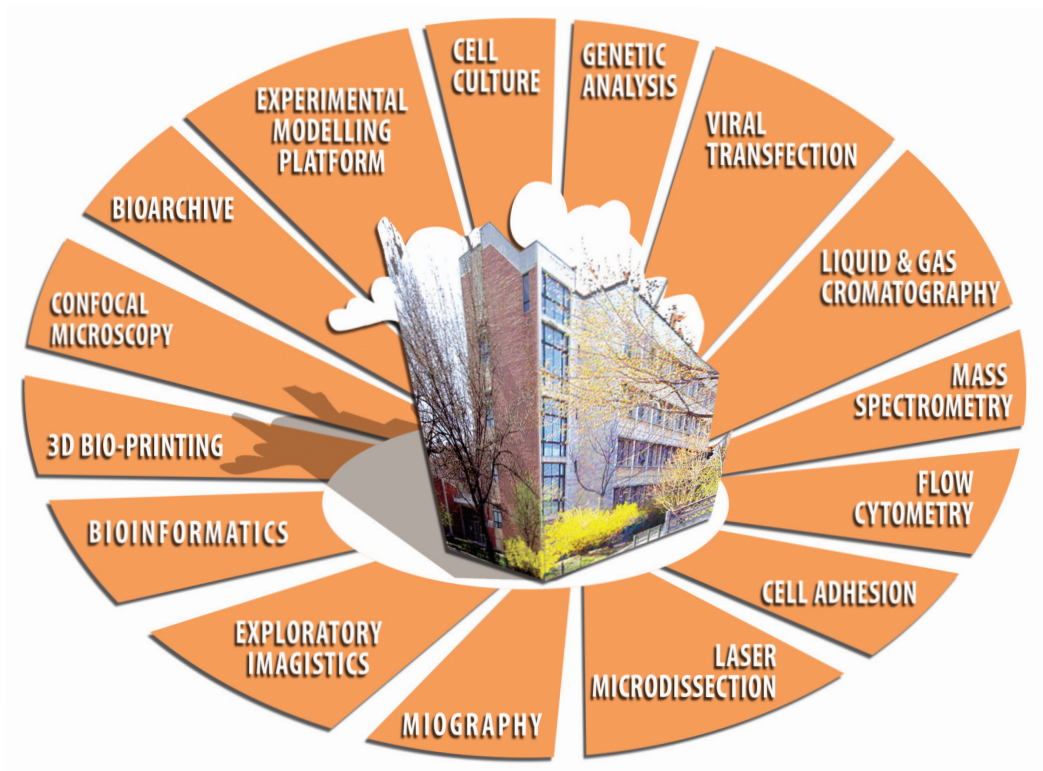


CORE LABORATORY UNITS



CORE LABORATORY UNITS

There is a general rule from the inception of our Institute that each equipment has to be under the supervision of a specialist; in the same time all the researchers and technicians have open access to all equipment.

CELL CULTURE

Equipped with clean rooms technology and EU ISO 14644.1 regulations as follows: compartment A1-for media preparation, storage and sterilization (ISO CLASS 8) and quarantine (ISO CLASS 7); compartment A2 – for cell lines propagation and in vitro experiments (ISO CLASS 6); compartment A3 – for special technologies intended for use in human regenerative medicine (ISO CLASS 5, GMP exigencies). Also, the modernized cell culture laboratory is equipped with last generation 6 laminar flow hoods, 12 uni(tri) gas incubators, 5 inverted microscopes, centrifuges, cell counter, automatic washing machine.

The role of cell culture unit is to establish and characterize original pure cell lines and to grow and cryopreserve the imported cell lines.

The ICBP's cell culture collection contains over 75 different cell lines, (original and/or expanded in the laboratory). Recently, a bank of human osteoprogenitor cell units, derived from bone marrow was started up for the use in bone pathology and traumatology as autotransplant. Coordinator: Irina Titorencu, PhD.

GENETIC ANALYSIS

Equipped with Real Time PCR: 7900HT (Applied Biosystem); automated pipetting station: QIAgility (Qiagen); Pyrosequencing machine: PyroMark Q24 (Qiagen); Sonicator (Diagenode); Nanodrop. Coordinator: Anca Gafencu PhD.

VIRAL TRANSFECTION

provided with two laminar flow hoods for cell culture; chemical hood; autoclave; centrifuge with refrigeration; inversed microscope for light and fluorescence microscopy; electroporation

equipment (NEPA21) and sonoporation platform (Sonidel SP100) (Sonidel / Nepagene). Coordinator: Anca Gafencu, PhD.

LIQUID AND GAS CHROMATOGRAPHY

Equipped with, FPLC system AKTA purifier, UHPLC system with DAD-UV/Vis and fluorescence detection Agilent Infinity 1290, Gas chromatograph Agilent 7890A coupled to Triple Quadrupole-Mass Spectrometer Agilent 7000A, Submicron particle sizer Nicomp 380, spectrofluorimeter Jasco FP-8300. Coordinator: Mariana Deleanu, D.I.

MASS SPECTROMETRY

Provided with LTQ (linear trap quadrupole) Orbitrap Velos Pro high performance mass spectrometer, TSQ (triple stage quadrupole) Vantage, Thermo Scientific; Pherastar FS high performance spectrophotometer; Typhoon FLA 9500 high performance variable mode laser scanner; Ettan DALT twelve high-throughput 2-D electrophoresis system; Micro Rotofor preparative isoelectric focusing system; EXQuest Spot Cutter; Concentrator Plus evaporation system. Coordinator: Felicia Antohe, PhD.

FLOW CYTOMETRY

New 3-laser GALLIOS-cytometer (Beckman Coulter); 3-laser MoFlo Sorter-cytometer, DakoCytomation, USA, CYTOFLEX (Beckman Coulter). The core laboratory will increase our technology and research capacity for detection, acquisition, and sorting of combined multi-fluorescent single cells of various origins. Coordinators: Alexandrina Burlacu, Ph.D., Alexandru Filippi, Ph.D. and Andrei Văcaru, PhD.

CELL ADHESION

Equipped with Flow chamber for live-cell microscopy environmental control (FCS2 chamber from Bioprotech, USA) that allows the determination of leucocytes adhesion in controlled flow and temperature conditions to cells; Inverted Microscope Olympus IX81 with independent motorized unit (z axis), objectives from 4x- 60x, fluorescence filters for excitation in UV, blue, green and provided with a powerful software CellSense Dimensions. Coordinator: Elena Butoi, PhD.

LASER MICRODISSECTION

Equipped with ZEISS PALM Microbeam Laser Microdissection System from Carl Zeiss Microscopy that allows microsurgical collection of precisely defined cell populations, or subcellular particles and their use for various techniques. Coordinator: Gabriela Costache, PhD.

MYOGRAPHY

DMT Multi Wire Myograph System - 620M that permits the simultaneous isometric measurement of vascular reactivity of four small or large blood vessel fragments (internal diameter from 60 to 450 μ m). The system will be employed to measure vascular reactivity in various pathological conditions and assess the effects of drugs on the contractile/vasorelaxant force of blood vessels. Coordinator: Adriana Georgescu, PhD.

EXPLORATORY IMAGISTICS

Cryotome Leica CM 1850, Ultramicrotome Leica EM UC7, Cryo attachment Leica EM FC7, Diamond knife DIATOME, knife maker Leica, BOND RX Automated IHC Research Stainer (Leica Biosystems), HistoCore Arcadia modular tissue embedding system (Leica Microsystems), HistoCore PEARL Tissue Processor (Leica Microsystems), fluorescence microscope (Nikon). Coordinator: Florentina Safciuc, PhD.

BIOINFORMATICS

The *Bioinformatic laboratory* supervises and maintains the intranet and internet connections for the computers of the Institute. Also, it offers advices for computational analysis to all investigators from the institute, to perform bioinformatics analysis in many areas of computational biology. Thus, an important domain is the microarray data analysis for gene expression and microRNAs, protein mass spectrometry, and any other algorithms necessary to answer biological questions. We apply both existing and custom algorithms to provide insight into large and complex datasets, and provide tools to our colleagues to explore their data. Coordinator: Loredan Niculescu, PhD.

3D BIO-PRINTING

The laboratory is equipped with a 3D Discovery bioprinter (regenHu), consisting in a cost effective 3D bioprinting platform to explore the potential of 3D tissue engineering through the bioprinting approach. 3D tissue models which can be studied are: cell-cell interactions, drug metabolism, *in vivo* relevance, differentiation, extracellular matrix contacts, morphology, proliferation, expression (gene, protein), viability, environment and still others. Coordinator: Dorin Alexandru, PhD.

CONFOCAL MICROSCOPY

Provided with Confocal Microscope, LEICA TCS SP5, modular fully motorized inverted fluorescent microscope Leica DMi8 Inverted light microscope (Leica Microsystems GMBH Germany) and fluorescence microscope, NIKON ECLIPSE TiE. This facility offers excellent overall performance in confocal imaging. Leica TCS-SP5 Confocal system is equipped with 5 SP detectors that allows the visualization of five fluorescent channels simultaneously and the AOBs (Acousto Optical Beam Splitter) to delivers bright, noise-free images with minimal photo damage at high speed. Coordinator: Alexandrina Burlacu, Ph.D. and Mihai Bogdan Preda, Ph.D.

CORE LABORATORY UNITS

BIOARCHIVE

Containing Chemwell, Cryotank MVE, Euro-CYL-N₂ storage tanks, Brunswick Galaxy CO₂ incubator, cell counter, etc. This new facility permits the cryo-preservation of different cell and tissue types, that to be employed in scientific studies of tissue engineering, gene therapy and tissue regeneration in degenerative diseases. The stem cells bank will be a source of cells for basic research and will provide a well characterised cryo-preserved biological material, for clinical use in cellular transplant. Coordinator: Horia Maniu, Ph.D.

EXPERIMENTAL MODELLING PLATFORM

Provides modern housing conditions for small laboratory animals in accordance with the European standards and is fully equipped with individually ventilated cages systems (IVC). Animals are first accommodated in the quarantine room equipped with isolators and animal transfer station. In the experimental area, the researchers have access to surgery rooms that ensure optimal conditions of experimentation, being equipped with downdraft tables, gas anesthesia machines and stereomicroscopes with digital camera for image acquisition. The Platform offers researchers modern facilities for imaging and non-invasive exploration (IVIS 200 system and Vevo2100 system), PowerLab system for measuring physiological parameters and X-ray irradiation system used for transplantation studies. The platform is also equipped for rederivation/embryo transfer techniques (station with micromanipulators, equipped for microinjection).

ANIMAL VIRAL TRANSFECTION

Operates inside the Experimental Modelling Platform, equipped for conducting classical transfection experiments as well as for the application of innovative methods

such as *in vivo* electroporation (NepaGene21 system), sonoporation platform, Sonidel SP100, for *in vitro*, and *in vivo* transfection. Coordinators: Mădălina Fenyő, Ph.D. and Dr. Vet. Emanuel Drăgan.

OTHER CENTRAL FACILITIES

- *Surgical rooms equipped for micro-, and macrosurgery*
- *Ultracentrifuges with appropriate rotors*
- *Thermal cyclers PCR/RT-PCR*
- *Microarray system*
- *Gene Pulser*
- *Nitric Oxide measuring system*
- *Zetasizer Nano ZS (Malvern Instruments)*
- *Whitley H35 Hypoxystation (Don Whitley Scientific)*
- *Seahorse Analyzer (Agilent)*

Each laboratory accommodates common equipment for chromatography, isoelectric focusing, electrophoresis, electrotransfer, UV-VIS spectrophotometry, and hoods.

CENTRAL SERVICES

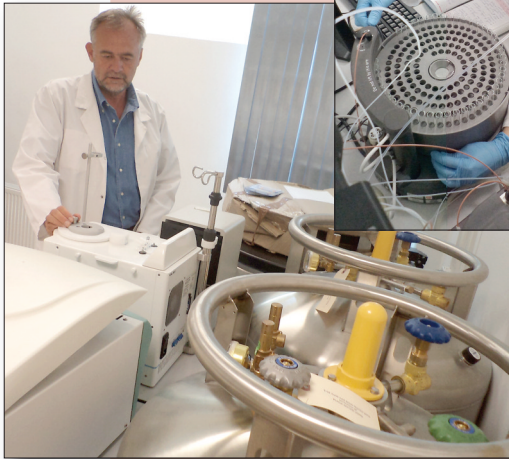
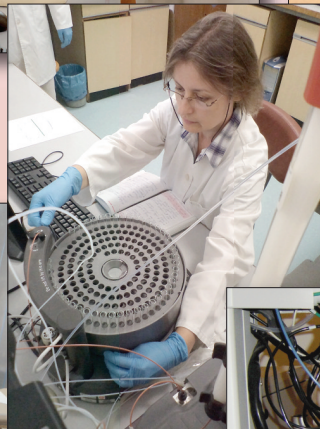
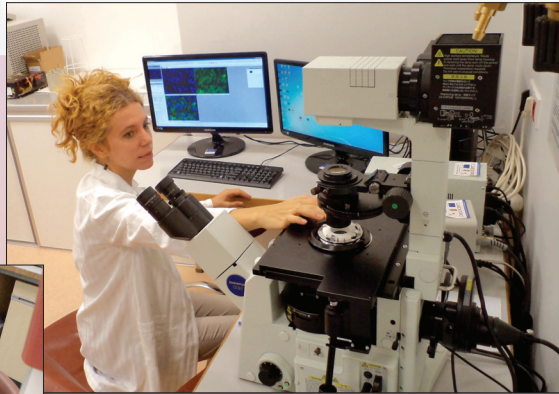
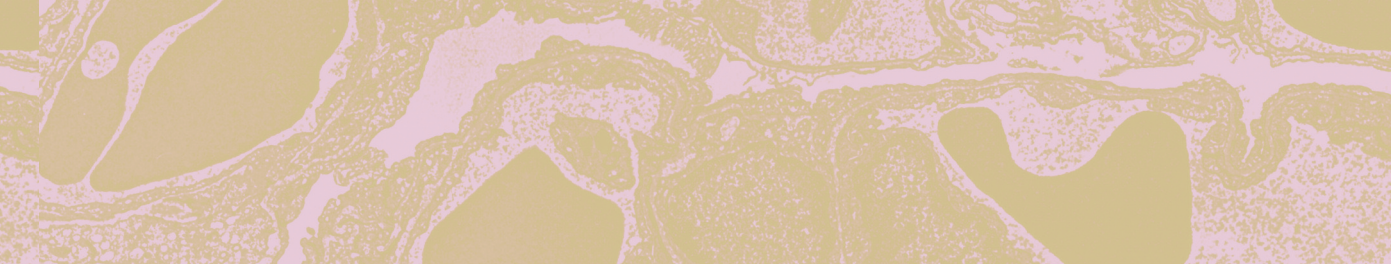
Internet online connection and intranet PC network.

Library: journal subscriptions, journal collections, and about 1000 books.

OTHER FACILITIES

Auditorium (150 seats) equipped with audio visual facilities and IT support, seminar and journal club rooms, a patio („*Octocell*“) for poster display.

Cold rooms (3), stock rooms, maintenance and technical assistance.



MONOGRAPHS AND CHAPTERS IN MONOGRAPHS

2019

• **Fuior EV, Călin M.** Nanoparticle-based delivery of polyphenols for the treatment of inflammation-associated diseases. In Book: *Advances and Avenues in development of novel carriers for Bioactives and biological agents*, Editors: Manju Rawat Singh, Deependra Singh, Jagat Kanwar, Nagendra Singh Chauhan, Elsevier, in press **2019**.

• **Gherghiceanu M, Alexandru N, Magda SL, Constantin A, Nemez M, Filippi A, Ioghen OC, Ceafalan LC, Bojin F, Tanko G, Păunescu V, Vinereanu D, Stepien E, Georgescu A.** *Chapter's Title:* Extracellular Vesicles As Valuable Players In Diabetic Cardiovascular Diseases. *Book's Title:* Extracellular Vesicles, Book edited by: Dr. Ana Gil De Bona, *IntechOpen*, ISBN 978-1-78923-944-7, pp. 1-25, **2019**.

• **Ceafalan LC, OC, Marta SD, Constantin A, Alexandru A, Nemez M, Tanko G, Filippi A, Magda SL, Bojin F, Paunescu V, Vinereanu D, Georgescu A, Gherghiceanu M.** *Chapter's Title:* Extracellular Vesicles as Risk Factor in Neurodegenerative Diseases. *Book's Title:* Extracellular Vesicles, Book edited by: Dr. Ana Gil De Bona, *IntechOpen*, ISBN 978-1-78923-944-7, pp. 1-21, **2019**. (Adriana Georgescu is corresponding author)

• **Dimulescu D, Stancu C.** Actualitati in terapia hipolipemianta. In *Actualitati in medicina interna*. Sub redactia L. Gherasim si I.A. Oproiu, Editura Medicala, 91-112, Bucuresti, **2019**.

2017

• **Alexandru N., Titorencu I., Frunză S., Weiss E., Bădilă E., Georgescu A.** Chapter's Title: Endothelial progenitor cell dysfunction in the pathogenesis of vascular complications of diabetes. Book's Title: *Mechanisms of Vascular Defects in Diabetes Mellitus*, Editors: Chandrasekharan Kartha, Surya Ramachandran, M. Radhakrishna Pillai, in Series Title: *Advances in Biochemistry in Health and Disease*, Springer, UK, Volume 17, ISBN 978-3-319-60323-0, p.159-208, **2017**

• **M. Dinu, S. Franchi, V. Prună, C. M. Cotruț, V. Secchi, M. Santi, I. Titorencu, C. Battocchio, G. Iucci, A. Vlădescu,** Ti-Nb-Zr system and its surface biofunctionalization for biomedical applications. „Titanium for Medical and Dental Applications- A review of all aspects of titanium use in the medical and dental industries”, Elsevier, **2017**.

• **Popescu, L., Piticescu, R. M., Appelhans, D., Schöneich, M., Meyer, M., Burlacu, A., Preda, B., Schinteie, G., Kuncser, V., Vasile, E.** High pressure hydrothermal procedure: A tool for surface modification

of superparamagnetic nanostructured materials for medical applications. *Hybrid Organic-Inorganic Interfaces: Towards Advanced Functional Materials*, Delville, Marie Helene / Taubert, Andreas (eds.), Wiley-VCH (**2017**) 695-727.

2016

• **Călin M, Butoi E, Manea SA, Simionescu M, Manea A.** Lessons from experimental-induced atherosclerosis – valuable for the precision medicine of tomorrow. In book: *Arterial Revascularization of the Head and Neck: Text Atlas for Prevention and Management of Stroke*, pp.341-365, Editor Horia Mureșian, Springer, New York, DOI: 10.1007/978-3-319-34193-4_17, ISBN-10: 331934191X, ISBN-13: 978-3319341910

2015

• **Lucia-Doina Popov,** *Cardiologia moleculară: prezent și potențial terapeutic*. Capitolul 7 în tratatul *Cardiologie clinica*, editor E. Apetrei, Editura Medicală CALLISTO, ISBN: 9786068043180, p. 95-108, **2015**.

2014

• **Adriana Georgescu.** *Cardiovascular Dysfunction: New Biomarkers and Therapies*. Published by Scholars' Press, OmniScriptum GmbH & Co. KG, Saarbrücken, Germany, ISBN -978-3-639-71643-6, 2014.

• **Dimitris Kardassis, Anca Gafencu, Vassilis I. Zannis and Alberto Davalos-** Regulation of HDL genes: transcriptional, post-transcriptional and post-translational -, Chapter 3- *Handbook of Experimental Pharmacology: “High Density Lipoproteins – from biological understanding to clinical exploitation”* Editors: Arnold von Eckardstein and Dimitris Kardassis

2013

• **Antohe Felicia.** Membrane –Cytoskeleton Interactions and Control of Vesicle Trafficking in Endothelial Cells. In: *Endothelial Cytoskeleton*, JA Rosado and PC Redondo, CRC Press, Taylor&Francis Group, pp.146-167, 2013.

2012

• **Manea A.,** Vascular biology of reactive oxygen species and NADPH oxidases: role in atherogenesis. In: *Atherogenesis*, Editor: Sampath Parthasarathy, InTech Open Access Publisher, pp. 425-446, 2012.

• **Simionescu M, Sima AV.** Morphology of atherosclerotic lesions. In: *Inflammation and atherosclerosis*. Editors: Wick G, Grundtman C, Springer-Verlag - Wien, pp. 19-37, 2012.

LIST OF PUBLICATIONS

• **Manea A.** Vascular biology of reactive oxygen species and NADPH oxidases: role in atherogenesis. Atherogenesis, Editor Dr. Sampath Parthasarathy, The Ohio State University, USA, 2012, Chapter 20, 425-446, ISBN 978-953-307-992-9.

• **Călin M.** Immunoliposomes for Specific Drug Delivery, in Antibody-Mediated Drug Delivery Systems: Concepts, Technology, and Applications (eds Y. Pathak and S. Benita), John Wiley & Sons, Inc., Hoboken, NJ, USA, 2012. doi: 10.1002/9781118229019.ch12.

2011

• **Heltianu C., Guja C., Manea S-A.** Genetic determinants of microvascular complications in type 1 diabetes. In: Type 1 Diabetes Complications, Editor: David Wagner, InTech Open Access Publisher, pp. 3-28, 2011.

• **Georgescu A, Antohe F.** (eds.) In: "From Vascular Cell Biology to Cardiovascular Medicine", published by Research Signpost Transworld Research Network, Trivandrum - 695023, Kerala, India, ISBN-978-81-7895-503-2, 2011.

• **Antohe F.** Receptors and molecular traffic in endothelial cells. In: From Vascular Cell Biology To Cardiovascular Medicine. Georgescu A., Antohe F. (Eds.), Transworld Research Network, ISBN - 978-81-7895-503-2 , pp. 99-123, 2011.

• **Georgescu A., Alexandru N., Popov D.** Ongoing data on vascular endothelial cell dysfunction: an update. In: From Vascular Cell Biology To Cardiovascular Medicine, Georgescu A., Antohe F. (Eds.), Transworld Research Network, ISBN - 978-81-7895-503-2, pp. 125-141, 2011.

• **Fenyo IM., Gafencu AV.** Molecular targets for atherosclerosis treatment. In: From Vascular Cell Biology To Cardiovascular Medicine, Georgescu A., Antohe F. (Eds.), Transworld Research Network, ISBN - 978-81-7895-503-2 , pp. 203-220, 2011.

• **Butoi (Dragomir) E., Manduteanu I.** Fractalkine and its receptor in vascular dysfunction. In: From Vascular Cell Biology To Cardiovascular Medicine, Georgescu A., Antohe F. (Eds.), Transworld Research Network, ISBN - 978-81-7895-503-2, pp.181-200, 2011.

• **Titorencu I., Jinga VV., Albu M.** The future of cardiovascular medicine. Biomaterials for tissue therapy. In: From Vascular Cell Biology To Cardiovascular Medicine, Georgescu A., Antohe F. (Eds.), Transworld Research Network, pp. 313-331, ISBN - 978-81-7895-503-2, 2011.

• **Albu G., Titorencu I., Ghica M.V.** Collagen-based Drug Delivery Systems for Tissue Engineering in

„Biomaterials Applications for Nanomedicine”, InTech, ISBN 978-953-307-661-4, 2011, p. 334-358.

2010

• **Alexandru N.** Disfunctia plachetara in imbatranire si patologia cardiovasculara, Editura Agir, Bucuresti, 159 pagini, ISBN 978-973-720-289-5, 2010.

2009

• **Helfand S. C., Lupu M.** Hematopoietic Cytokines: The Interleukin Array. In: Evolve Resources for Kirk's Current Veterinary Therapy XIV. Bonagura J.D., TwedtD.C.,(eds.), Saunders, Elsevier , 2009.

2006

• **Simionescu M.** Vascular endothelium: more complex than previously thought, In: "Entering an unseen world: the rise of modern cell biology", Eds: C.L. Moberg, P. Siekevitz, Rockefeller University Press, 2006

• **Simionescu M., Antohe F.** Functional ultrastructure of the vascular endothelium - changes in various pathologies. In: The Vascular Endothelium, Editors: Salvador Moncada and Annie Higgs, 2006

2004

• **Simionescu M., Sima A., Popov D.** (eds.) "Cellular Dysfunction in Atherosclerosis and Diabetes - Reports from Bench to Bedside", Romanian Academy Publishing House, 2004. Awarded by the Romanian Academy with "Nicolae Simionescu" Prize for Biological Sciences in 2004, 426 pages, ISBN: 973-27-1100-0

• **Simionescu M.** Endothelial cell – a key player in all stages of atherosclerosis. In: "Cellular Dysfunction in Atherosclerosis and Diabetes - Reports from Bench to Bedside", eds. Simionescu M., Sima A., Popov D., Romanian Academy Publishing House, p. 73-96, 2004.

• **Heltianu C.** Relationship of polymorphisms in candidate genes to endothelial function and development of atherosclerosis. In: "Cellular Dysfunction in Atherosclerosis and Diabetes - Reports from Bench to Bedside", eds. Simionescu M., Sima A., Popov D., Romanian Academy Publishing House, p. 129-142, 2004.

• **Popov D.** Towards understanding the mechanisms of impeded vascular function in diabetic kidney. In: "Cellular Dysfunction in Atherosclerosis and Diabetes - Reports from Bench to Bedside", eds. Simionescu M., Sima A., Popov D., Romanian Academy Publishing House, p.244-258, 2004.

• **Sima A., Stancu C., Constantinescu E.** The hyperlipidemic hamster, a model to study atheroma formation and anti-atherosclerotic drugs effects. In:

MONOGRAPHS AND CHAPTERS IN MONOGRAPHS

“Cellular Dysfunction in Atherosclerosis and Diabetes - Reports from Bench to Bedside”, eds. Simionescu M., Sima A., Popov D., Romanian Academy Publishing House, p. 309-322, 2004

• **Burlacu A.** Oxidative stress-induced apoptosis of vascular cells. In: “Cellular Dysfunction in Atherosclerosis and Diabetes - Reports from Bench to Bedside”, eds. Simionescu M., Sima A., Popov D., Romanian Academy Publishing House, p. 296-308, 2004.

• **Raicu M.** Effect of Calcium channel blockers and ACE inhibitors on atherogenesis. In: “Cellular Dysfunction in Atherosclerosis and Diabetes - Reports from Bench to Bedside”, eds. Simionescu M., Sima A., Popov D., Romanian Academy Publishing House, p. 352-362, 2004

• **Mânduțeanu I.** Mechanisms involved in the anti-inflammatory effects of heparin. In: “Cellular Dysfunction in Atherosclerosis and Diabetes - Reports from Bench to Bedside”, eds. Simionescu M., Sima A., Popov D., Romanian Academy Publishing House, p. 363-372, 2004.

• **Simionescu M., Popov D., Sima A.** Endothelial dysfunction in diabetes. In: “Vascular Involvement in Diabetes: Clinical, Experimental and Beyond”, D.M. Cheta (ed.), The Publishing House of the Romanian Academy, 2004, pp. 15-34.

• **Popov D., Radu D.L.** The role of hyperglycemia in the development of diabetic complications investigated in transgenic mouse model. In: “Vascular Involvement in Diabetes: Clinical, Experimental and Beyond” (D.M. Cheta, editor), The Publishing House of the Romanian Academy, 2004, pp. 120-134.

2002

• **Simionescu M., Popov D., Sima A.** Cellular and molecular alterations in diabetes – induced cardiovascular complications studied in an original experimental model, in “New Insights into experimental Diabetes”, D.M. Cheta (ed.), The Publishing House of the Romanian Academy, 173-209, 2002.

• **Popov D., Costache G., Georgescu A.** Altered vascular reactivity of the resistance arteries: lessons from the hyperlipemic-hyperglycemic hamster model, in “New Insights into experimental Diabetes”, D.M. Cheta (ed.), The Publishing House of the Romanian Academy, 210-222, 2002.

• **Simionescu M., Gafencu A., Antohe F.** Transcytosis of Plasma Macromolecules in Endothelial Cells: A Cell Biological Survey. In: Microscopy Research and Technique, J.E. Johnson, M. Bendayan (eds.), Wiley-Liss, Inc., 57(5), 269-288, 2002.

2001

• **Simionescu M.** Effect of hyperlipemia-hyperglycemia on the vascular endothelium, In: “Vascular endothelium source and target for inflammatory mediators”, NATO ASI Series, J.D. Catravas, A.D. Callow, U.S. Ryan, Simionescu M. (eds.) p. 87-99, 2001.

• **Popov D., Simionescu M.** Structural and transport property alterations of the lung capillary endothelium in diabetes. In: Advances in Microanatomy of Cells and Tissues, Biophysical and Biochemical Correlates, P.M. Motta, G. Macchiarelli, S.A. Nottola (eds.), Italian J. Anatomy and Embryology, 106 (supplement 1), No. 2, p. 405-412, 2001.

2000

• **Simionescu M.** Structural, biochemical and functional differentiation of the vascular endothelium. In: “Morphogenesis of the endothelium”, W. Risau (ed.), Harwood Academic Publishers, p.1-23, 2000

1997

• **Antohe F., Poznansky M.J.** The endothelium monolayer: Barrier to enzyme and drug delivery. In: Pharmaceutical Enzymes. Leuwers/Scharpe Eds., Marcel Decker Inc., Chapter II, 21-37, 1997.

• **Poznansky M.J., Antohe F.** Enzyme-Albumin conjugates: Advantages and problems with targeting. In: Pharmaceutical Enzymes. Leuwers/Scharpe Eds., Marcel Decker Inc., Chapter III, 39-51, 1997.

• **Simionescu M.** Lung endothelium: structure-function correlates. In: The Lung. Scientific Foundations, Second Edition, edited by: R. G. Crystal, J. B. West et al., Lippincot, Lippincot-Raven Publishers, Philadelphia, 615-628, 1997.

• **Simionescu M., Sima A., Popov D.** The vascular endothelium in diabetes-induced accelerated atherosclerosis. In: Vascular endothelium. Physiology, Pathology and Therapeutic Opportunities, vol. 3, New Horizon Series, G. V. R. Born, C. J. Schwarz, (eds.), Schattauer Stuttgart, New York, 329-344, 1997.

• **Simionescu M., Sima A., Popov D., Hasu M., Costache G.** Pathobiology of the wall in combined diabetes and atherosclerosis. In: Recent Advances in Microscopy of Cell, Tissues and Organs, P. M. Motta (ed.), Antonio Delfino Editore, Rome, 339-343, 1997.

1996

• **Stănescu M., Heltianu C., Simionescu M.** Different protein composition of vesicle membrane and plasmalemma proper of lung capillary endothelia, Rev. Roum. Biochim., 33: 125-134, 1996.

LIST OF PUBLICATIONS

1995

• **Simionescu M., Popov D., Sima A., Hasu M., Costache G., Fajter S., Vulpanovici A., Stancu C., Stern D., Simionescu N.** The hyperlipidemic and diabetic hamster, a novel animal model. *Excerpta Medica, Elsevier. Atherosclerosis X*, F. B. Woodfor, D. Davignon, A. Sniderman (eds.), 105-110, 1995.

1994

• **Simionescu M.** Biochemical and functional differentiation of endothelial cell plasma membrane: from microdomains to specific molecules. In: *Functionality of the Endothelium in Health and Diseased States: a comprehensive review*. G. Pastelin, R. Rubio, G. Ceballos, J. Suarez (eds.), Editora del Gobierno del Estado de Veracruz, Llave, Mexic, 19-40, 1994.

• **Simionescu N., Simionescu M.** Alteration of the endothelium and subendothelium at the inception of hypercholesterolemic atherogenesis. In: *Functionality of the Endothelium in Health and Diseased States: a comprehensive review*. G. Pastelin, R. Rubio, G. Ceballos, J. Suarez, (eds.), Editora del Gobierno del Estado de Veracruz, Llave, Mexic, 269-284, 1994.

• **Simionescu N., Simionescu M.** Monocyte migration into the athero-prone regions of the artery wall is preceded by characteristic pathobiochemical modifications of the local intima. In: *7th Munster International Arteriosclerosis Symposium. New Pathogenic Aspects of Arteriosclerosis*. W. H. Hauss, R. W. Wiessler, H. J. Bauch, (eds.), Westdeutcher Verlag, Germany, 53-65, 1994.

1993

• **Simionescu M., Simionescu N.** Modulations and dysfunctions in the artery intima at the inception of hypercholesterolemic atherogenesis. In: *New Horizons in Coronary Heart Disease*. G. V. Born. C. Schwartz (eds.), Current Science Ltd., London, 11.1-11.14, 1993. **Simionescu N., Sima A., Dobrian A., Tirziu D., Simionescu M.** Pathobiochemical changes of the arterial wall at the inception of atherosclerosis. In: *Current Topics in Pathology*, Vol. 87, E. Vollmer, A. Roessner (eds.), Springer-Verlag, Berlin, Heidelberg, 1-45, 1993.

1992

• **Simionescu N., Simionescu M.** (eds.). *Endothelial Cell Dysfunctions*. Plenum Press, New York and London, 656 pages, 72 contributors, 1992.

• **Simionescu M.** Endothelial cell response to normal and abnormal stimuli. Modulation, Dysfunction, Injury, Adaptation, Repair, Death. In: *Endothelial Cell*

Dysfunctions. Simionescu N., Simionescu M. (eds.), Plenum Press, New York, 3-10, 1992.

• **Simionescu N.** Endothelial cell dysfunction and injury in experimental hyperlipidemic atherogenesis. In: *Endothelial Cell Dysfunctions*. Simionescu N., Simionescu M. (eds.), Plenum Press, New York, 321-346, 1992.

1991

• **Simionescu M.** Lung endothelium: structure - function correlates. In: *The Lung: Scientific Foundation*. R. G. Crystal, J. B. West (eds.), Raven Press, New York, 301-312, 1991.

• **Simionescu M.** Cellular organization of the alveolar capillary unit: structural - functional correlations. In: *The Pulmonary Circulation and Acute Lung Injury*. S. I. Said (ed.), Second Edition, Futura Publishing Company, Inc. Mount Kisko, NY, 13-42, 1991.

• **Simionescu N., Simionescu M.** Cellular interactions of lipoproteins with the vascular endothelium: endocytosis and transcytosis. In: *Lipoproteins as Carriers of Pharmacological Agents*. M. Shaw (ed.), Marcel Dekker Inc., New York, Basel, Hong Kong, 45-95, 1991.

• **Simionescu M., Simionescu N.** (eds.) with collaboration of Antohe F., Dobrilă L., Ghinea N., Hasu M., Heltianu C., V. Jinga, I. Mănduțeanu, V. Partenie, G. Popescu, Popov D., Vasile E. *Endothelial Transport of Macromolecules: Transcytosis and Endocytosis. A look from Cell Biology*, Cell Biology Reviews, Springer International, Berlin, vol. 25, 1-80, 1991. Awarded by the Romanian Academy with "E. Racovita" Prize for Biological Sciences in 1994. **Antohe F., Heltianu C., Simionescu M.** Transport of albumin. B. Immunocytochemical detection of endothelial ABP, In *Endothelial Transport of Macromolecules: Transcytosis and Endocytosis. A Look from Cell Biology*, M. Simionescu, N. Simionescu, eds., Springer-Verlag Int., Berlin, vol. 25, 1-80, 1991.

• **Antohe F., Heltianu C.** Transport of albumin. C. Effect of free fatty acids and thyroxine on albumin transport, In *Endothelial Transport of Macromolecules: Transcytosis and Endocytosis. A Look from Cell Biology*, M. Simionescu, N. Simionescu, eds., Springer-Verlag Int., Berlin, vol. 25, 1-80, 1991.

• **Heltianu C., Antohe F.** Endothelial cell receptors potentially involved in transport, In *Endothelial Transport of Macromolecules: Transcytosis and Endocytosis. A Look from Cell Biology*, M. Simionescu, N. Simionescu, eds., Springer-Verlag Int., Berlin, vol. 25, 1-80, 1991.

MONOGRAPHS AND CHAPTERS IN MONOGRAPHS

• **Popov D.** Transport processes and pathways. In: Endothelial Transport of Macromolecules: Transcytosis and Endocytosis. A Look from Cell Biology, M. Simionescu, N. Simionescu, eds., Springer-Verlag Int., Berlin, vol. 25, p. 22-30, 1991.

• **Popov D.** Transport of albumin. In: Endothelial Transport of Macromolecules: Transcytosis and Endocytosis. A Look from Cell Biology, M. Simionescu, N. Simionescu, eds., Springer-Verlag Int., Berlin, vol. 25, 47-58, 1991.

1990

• **Simionescu N., Mora R., Vasile E., Lupu F., Filip D.A., Simionescu M.** Prelesional modification of the vessel wall in the hyperlipidemic atherosclerosis. Extracellular accumulation of modified and reassembled lipoprotein. *Ann.N.Y. Acad. Sci.*, 1990, 854: 1-10.

• **Simionescu M., Ghinea N.** The use of tracers in transport studies. In: Models of Lung Disease. Microscopy and Structural Methods (J. Gill, ed.), Lung Biology in Health and Disease (C. Lenfant, executive editor) Marcel Dekker Inc., New York, Basel, 359-408, 1990.

1989

• **Simionescu N., Simionescu M.** Endothelial specific binding sites for permeant plasma macromolecules:albumin binding proteins. In: Vascular endothelium: Receptors and Transduction Mechanisms. J. Catravas, N. Gillis, U. Ryan (eds.), NATO ASI Series A: Life Science, 175, Plenum Publ. Co., New York, 1989, 55-66

1988

• **Simionescu N., Simionescu M.** Chapter X. The cardiovascular system. In: Cell and Tissue. A Textbook of Histology, 6th edition, L. Weiss (ed.), Urban and Schwarzenberg, Baltimore and München, 353-401, 1988.

• **Simionescu N.** Prelesional changes of arterial endothelium in hyperlipoproteinemic atherogenesis. In: Endothelial Cell Biology in Health and Disease. Simionescu N., Simionescu M. (eds.), Plenum Press, New York, 385-430, 1988.

• **Simionescu M.** Receptor-mediated transcytosis of plasma molecules by vascular endothelium. In: Endothelial Cell Biology in Health and Disease. Simionescu N., Simionescu M. (eds.), Plenum Press, New York, London, 69-104, 1988.

• **Simionescu N., Simionescu M.** Endothelial Cell Biology in Health and Disease, Plenum Press, New York and London, 1-458, 1988.

1987

• **Simionescu M., Simionescu N.** Endothelial surface domains in pulmonary alveolar capillaries. In: Pulmonary Endothelium in Health and Disease. U. S. Ryan (ed.), Marcel Dekker Inc., New York, 35-62, 1987.

• **Simionescu M., Simionescu N.** Receptor mediated transcytosis of albumin: identification of albumin binding proteins in the plasma membrane of capillary endothelium. In: Microcirculation - an update. M. Tsuchiya et al. (eds.), Elsevier, Amsterdam, 1, 67-82, 1987.

• **Lupu F., Calb M., Fixman A., Simionescu N.** Alteration of phospholipid asymmetry in the membrane of spontaneously aggregated platelets in diabetes. In: Microcirculation - an update. M. Tsuchiya et al. (eds.), Elsevier, Amsterdam, 1, 637-638, 1987.

• **Ghinea N.** Plasmalemmal vesicles of fenestrated capillary endothelium contain charged groups corresponding to acids of high pKa values. In: Microcirculation - an update. M. Tsuchiya et al. (eds.), Elsevier, Amsterdam, 1, 157-160, 1987.

• **Hodor, P., Heltianu, C.** Structural and immunological studies on rabbit erythrocyte spectrin. *Rev. Roum. Biochim.* 24: 229-234, 1987.

1986

• **Simionescu M., Simionescu N.** Functions of the endothelial cell surface. *Ann. Rev. Physiol.*, 48, 279-293, 1986

1985

• **Simionescu M.** Cellular organization of the alveolar-capillary unit: structural-functional correlations. In: Pulmonary Circulation and Acute Lung Injury, S. Said (ed.), Futura Publ. Co. Inc., Mount Kisko, New York, 13-37, 1985.

• **Simionescu M.** Regional differentiation of the cell surface charge distribution in the continuous endothelium of the microvasculature. In: Glomerular Dysfunction and Biopathology of Vascular Wall. A. Copley, Y. Hamashima, S. Seno, M. A. Venkatachalam (eds.), Academic Press, Tokyo, 3-11, 1985

• **Vasile E., Simionescu N.** Transcytosis of low density lipoprotein through vascular endothelium. In: Glomerular Dysfunctions and Biopathology of Vascular Wall. S. Seno, A. L. Copley, M.A. Venkatachalam, Y. Hamashima, T. Tsujii (ed.), Acad. Press, Tokyo, 87-101, 1985.

LIST OF PUBLICATIONS

• **Simionescu M.** Metoda de inghetare-fracturare si aplicatiile ei in biologie. In: *Biologie Animala. Ghid practic (introdactiv) pentru biochimisti.* Coordonator: M. Suciu, Universitatea Bucuresti, 174-178, 1985.

1984

• **Simionescu M., Simionescu N.** The ultrastructure of the microvascular wall. Functional correlations. In: *Handbook of Physiology. Section 2. The Cardiovascular System, vol. IV, Chapter 3.* E. M. Renkin, C. C. Michel (ed.), American Physiological Society, Washington DC, 41-101, 1984.

• **Simionescu N.** Cercetarea fundamentala biomedicala si sanatatea. Necesitatea unui sistem de formare a cercetatorilor biomedicali. In: *Problematika sanatatii azi si in viitor.* Coordonator: C. Arseni. Editura Academiei, Bucuresti 109-121, 1984.

1983

• **Simionescu M.** Differentiated distribution of anionic sites on capillary endothelium. In: *The pathogenicity of cationic proteins.* P. P. Lambert, P. Bergmann, R. Beauwens (eds.), Raven Press, New York, 76-88, 1983.

• **Simionescu M.** Alveolar capillary endothelium, functional morphology. In: *The cells of the alveolar unit.* G. Favez, A. Junod, P. Leuenberger (eds.), Hans Huber Publishers, Bern, Stuttgart, Vienna, 74-82, 1983.

• **Simionescu M.** Specific labeling of membrane domains. In: *Nouvelles methodes d'etude de la microcirculation* Publ. INSERM, Paris, 35-45, 1983.

• **Simionescu N.** Macromolecular tracers in the study of endothelial functions. In: *Nouvelles methodes d'etude de la microcirculation.* Publ. INSERM, Paris, 46-55, 1983.

• **Simionescu N.** The cardiovascular system. In: *Histology - Cell and Tissue Biology, Vth edition,* L. Weiss (ed.), Elsevier Biomedical, New York, 371-433, 1983.

• **Tasca S.I., Jinga V.V.** Studiul biosintezei prostaciclinei (PGI₂) si a prostaglandinei F₂α in culturi de celule endoteliale si musculare netede de origine aortica. In: *Actualitati in studiul prostaglandinelor.* C.M. Popescu (ed), Uniunea Societatilor de Stiinte Medicale, Bucuresti, 1983.

1982

• **Palade G.E., Simionescu N., Simionescu M.** Differentiated microdomains in the vascular endothelium. In: *Pathobiology of the Endothelial Cell.* H. L. Nossel, H. J. Vogel (eds.), Academic Press, New York, 23-33, 1982.

• **Simionescu M., Simionescu N.** The ultrastructure of microvascular wall. Functional correlation. In: *Handbook of Pathobiology. The microcirculation.* E. M. Renkin, C. C. Michel (eds.), American Physiological Society, Bethesda, 30-51, 1982.

1981

• **Simionescu N.** Transcytosis and traffic of membranes in the endothelial cell. In: *International Cell Biology-1980-1981.* H.A.Schweiger (ed.), Springer Verlag, Berlin, 657-672, 1981.

• **Simionescu N., Simionescu M.** Hydrophilic pathways of capillary endothelium, a dynamic system. In: *Water transport across epithelia: barriers, gradients and mechanism.* H. H. Ussing, N.B. Bindeslev, O. Sten-Knudsen (eds.), Copenhagen, Munksgaard, 228-247, 1981.

• **P. Pevet, Buijs R.M., Dogterom J., Vivien-Roels B., Holder F.C., Guerne J.M., Reinharz A., Swaab D.F., Ebels I., Neacsu C.** Peptides in the mammalian pineal gland. In: *Pineal Function.* C.D. Matthews, R.F. Scamark (eds.), Elsevier, 173-184, 1981.

1980

• **Simionescu M.** Ultrastructural organization of the alveolar-capillary unit. In: *Ciba Foundation Symposium, 78, Metabolic function of the lung,* Excerpta Medica, London, 11-36, 1980.

• **Simionescu M.** Structural and functional differentiation of microvascular endothelium. In: *Ciba Foundation Symposium 71 (new series): Blood cells and vessel walls: functional interactions.* Excerpta Medica, London, 39-60, 1980.

1979

• **Simionescu N.** The microvascular endothelium. Segmental differentiation transcytosis: selective distribution of anionic sites. In: *Advances in Inflammation Research.* G. Weissman, B. Samuelsson, R. Paoletti (eds), Raven Press, vol. 1, 61-70, 1979.

• **Simionescu M.** Transendothelial movement of large molecules in the microvasculature. In: *Pulmonary Edema.* A. P. Fishman, E. M. Renkin (eds.), Monograph Series, vol. III, Am. Physiol. Soc., Bethesda, 39-52, 1979

2019

Fuior EV, Deleanu M, Constantinescu CA, Rebleanu D, Voicu G, Simionescu M, Calin M. Functional Role of VCAM-1 Targeted Flavonoid-Loaded Lipid Nanoemulsions in Reducing Endothelium Inflammation, *Pharmaceutics*. **2019** Aug 3;11(8). pii: E391.

Rebleanu D, Gaidau C, Voicu G, Constantinescu CA, Mansilla Sánchez C, Rojas TC, Carvalho S, Calin M. The impact of photocatalytic Ag/TiO₂ and Ag/N-TiO₂ nanoparticles on human keratinocytes and epithelial lung cells. *Toxicology*. **2019** Jan 31. pii: S0300-483X(18)30225-7.

Constantinescu CA, Fuior EV, Rebleanu D, Deleanu M, Simion V, Voicu G, Escrivou V, Manduteanu I, Simionescu M, Calin M. Targeted Transfection Using PEGylated Cationic Liposomes Directed Towards P-Selectin Increases siRNA Delivery into Activated Endothelial Cells. *Pharmaceutics*. **2019** Jan 21;11(1). pii: E47.

Nemecz M, Constantin A, Dumitrescu M, Alexandru N, Filippi A, Tanko G, Georgescu A. The distinct effects of palmitic and oleic acid on pancreatic beta cell function: the elucidation of associated mechanisms and effector molecules. *Frontiers in Pharmacology/Ethnopharmacology*, 9 (article1554):1-16, **2019**.

Constantin A, Dumitrescu M, Nemecz M, Picu A, Smeu B, Guja C, Alexandru N, Georgescu A, Tanko G. Sera of Obese Type 2 Diabetic Patients Undergoing Metabolic Surgery Instead of Conventional Treatment Exert Beneficial Effects on Beta Cell Survival and Function: Results of a Randomized Clinical Study. *Obesity Surgery*, 1-13, **2019**.

Alexandru N, Safciuc F, Constantin A, Nemecz M, Tanko G, Filippi A, Dragan E, Bădilă E, Georgescu A. Platelets of healthy origins promote functional improvement of atherosclerotic endothelial progenitor cells. *Frontiers in Pharmacology/Inflammation Pharmacology*, 10 (article 424): 1-14, **2019**.

Tucureanu MM, Filippi A, Alexandru N, Constantinescu CA, Ciortan L, Macarie R, Vadana M, Voicu G, Frunza S, Nistor D, Simionescu A, Simionescu DT, Georgescu A, Manduteanu I. Diabetes-induced early molecular and functional changes in aortic heart valves in a murine model of atherosclerosis, in *Diabetes & Vascular Disease Research*, accepted July 29, **2019**. (Tucureanu MM. and Filippi A. have equally contribution; Georgescu A. is corresponding author)

Antohe F, Kovarova H, Gadher SJ. Expert Rev Proteomics. **2019** Jul;16(7):549-552. doi: 10.1080/14789450.2019.1630276. Epub 2019 Jun 17. PMID:31204883

Lupan AM, Preda MB, Burlacu A. A standard procedure for lentiviral-mediated labeling of murine mesenchymal stromal cells in vitro. *Biotechnol Appl Biochem*. **2019** May 14. doi: 10.1002/bab.1765. [Epub ahead of print].

Hristov I, Mocanu V, Zugun-Eloae F, Labusca L, Cretu-Silivestru I, Oboroceanu T, Tiron C, Tiron A, Burlacu A, Pinzariu AC, Armasu I, Neagoie RM, Covic A, Scripcariu V, Timofte DV. Association of intracellular lipid accumulation in subcutaneous adipocyte precursors and plasma adipokines in bariatric surgery candidates. *Lipids Health Dis*. **2019** Jun 13;18(1):141. doi: 10.1186/s12944-019-1081-9.

Yakala GK, Cabrera-Fuentes HA, Crespo-Avilan GE, Rattanasopa C, Burlacu A, George BL, Anand K, Mayan DC, Corlianò M, Hernández-Reséndiz S, Wu Z, Schwerk AMK, Tan ALJ, Trigueros-Motos L, Chèvre R, Chua T, Kleemann R, Liehn EA, Hausenloy DJ, Ghosh S, Singaraja RR. FURIN Inhibition Reduces Vascular Remodeling and Atherosclerotic Lesion Progression in Mice. *Arterioscler Thromb Vasc Biol*. **2019** Mar;39(3):387-401. doi: 10.1161/ATVBAHA.118.311903.

Vlad ML, Manea SA, Lazar AG, Raicu M, Muresian H, Simionescu M, Manea A. Histone acetyltransferase-dependent pathways mediate up-regulation of NADPH oxidase 5 in human macrophages under inflammatory conditions: a potential mechanism of reactive oxygen species overproduction in atherosclerosis. *Oxidative Medicine and Cellular Longevity*, **2019**, In press

Popov LD. Mitochondrial peptides – appropriate options for therapeutic exploitation, *Cell and Tissue Research*, 377: 161-165, DOI: 10.1007/s00441-019-03049-z, **2019**.

Popov LD. Mitochondria - hypertension relationship, a novel ground for crossing the therapy frontier." *J. Hypertension Research*, Invited review, accepted **2019**.

Trusca VG, Fuior EV, Kardassis D, Simionescu M, Gafencu AV. *Int J Mol Sci*. **2019** Mar 23;20(6). pii: E1471. doi: 10.3390/ijms20061471.

Niculescu LS, Dulceanu MD, Stancu CS, Carnuta MG, Barbalata T, Sima AV. Probiotics administration or the high-fat diet arrest modulates microRNAs levels in hyperlipidemic hamsters. *Journal of Functional Foods* 56: 295–302, **2019**.

LIST OF PUBLICATIONS

Barbalata T, Deleanu M, Carnuta MG, Niculescu LS, Raileanu M, Sima AV, Stancu CS. Hyperlipidemia determines dysfunctional HDL production and impedes cholesterol efflux in the small intestine; alleviation by ginger extract. *Molecular Nutrition and Food Research*, e1900029, **2019**.

Roșca AE, Stancu CS, Badiu C, Popescu BO, Mirica R, Căruntu C, Gologan S, Voiculescu S.E., Zagrean AM. Lipid Profile Changes Induced by Chronic Administration of Anabolic Androgenic Steroids and Taurine in Rats. *Medicina (MDPI)*, **55**, **2019**.

Vlădescu A, Pruna V, Kulesza, Braic V, Titorencu I, Bramowicz M, Gozdziejewska A, Parau A, Cotrut CM, Pana I, Dinu M, Braic M. Influence of Ti, Zr or Nb carbide adhesion layers on the adhesion, corrosion resistance and cell proliferation of titania doped hydroxyapatite to the Ti6Al4V alloy substrate, utilizable for orthopaedic implants, *Ceramics International* **45(2)A**: 1710-1723, **2019**.

Bolmaro R, Parau AC, Pruna V, Surmeneva MA, Constantin LR, Avalos M, Cotrut CM, Tutuianu R, Braic M, Cojocaru DV, Dan I, Croitoru S, Surmenev RA, Vlădescu A. Investigation of cast and annealed Ti25Nb10Zr alloy as material for orthopedic devices. *Journal of Material Research and Technology*, **8**: 3399-3414, **2019**.

Mocioiu AM, Tutuianu R, Cursaru LM, Piticescu RM, Stanciu P, Vasile BS, Trusca R, Sereanu V, Meghea A. 3D structures of hydroxyapatite obtained from Rapana venosa shells using hydrothermal synthesis followed by 3D printing *Mater Sci*, in press, **2019**.

Mihai CM, Popa MA, Suica VI, Antohe F, Jackson EK, Simionescu M, Dubey RK. Mechanism of 17 β -estradiol stimulated integration of human mesenchymal stem cells in heart tissue. *Journal of molecular and cellular cardiology*, **133**, 115–124, **2019**.

Farcaș AD, Moț AC, Pârvu AE, Toma VA, Popa MA, Mihai CA, Sevastre B, Roman I, Vlase L, Pârvu M. In Vivo Pharmacological and Anti-inflammatory Evaluation of Xerophyte *Plantago sempervirens* Crantz. *Oxidative Medicine and Cellular Longevity*, Article ID 5049643, **13** pages, **2019**.

2018

Stępień EŁ, Durak-Kozica M, Kamińska A, Targosz-Korecka M, Libera M, Tyłko G, Opalińska A, Kapusta M, Solnica B, Georgescu A, Costa MC, Czyżewska-Buczyńska A, Witkiewicz W, Malecki MT, Enguita FJ. Circulating ectosomes: Determination of angiogenic microRNAs in type 2 diabetes. *Theranostics* **8(14)**: 3874-3890, **2018**.

Manea SA, Antonescu ML, Fenyó IM, Raicu M, Simionescu M, Manea A. Epigenetic regulation of vascular NADPH oxidase expression and reactive oxygen species production by histone deacetylase-dependent mechanisms in experimental diabetes. *Redox Biology* **16**: 332-343, **2018**.

Georgescu A. Understanding the functional role of microRNA-214-3p in atherosclerosis for the identification of novel targeted therapies to prevent or reverse endothelial cell dysfunction and stimulate autophagy. *Acta Physiologica* **222(3)**, **2018**.

David G, Clima L, Călin M, Constantinescu CA, Balan-Porcarasu M, Uritu CM, Simionescu BC. Squalene/polyethylenimine based non-viral vectors: Synthesis and use in systems for sustained gene release. *Polymer Chemistry* **9**: 1072-1081, **2018**

Tucureanu MM, Rebleanu D, Constantinescu CA, Deleanu M, Voicu G, Butoi E, Călin M, Mânduțeanu I. Lipopolysaccharide-induced inflammation in monocytes/macrophages is blocked by liposomal delivery of Gi-protein inhibitor. *International Journal of Nanomedicine* **13**: 63-76, **2018**.

Macarie RD, Vadana M, Ciortan L, Tucureanu MM, Ciobanu A, Vinereanu D, Mânduțeanu I, Simionescu M, Butoi E. The expression of MMP-1 and MMP-9 is up-regulated by smooth muscle cells after their cross-talk with macrophages in high glucose conditions. *J Cell Mol Med*. **22(9)**: 4366-4376, **2018**.

Roșca AM, Mitroi DN, Cismasiu V, Badea R, Necula-Petrareanu G, Preda MB, Niculite C, Tutuianu R, Szedlaczek S, Burlacu A. Collagen regulates the ability of endothelial progenitor cells to protect hypoxic myocardium through a mechanism involving miR-377/VE-PTP axis. *J Cell Mol Med* **22(10)**: 4700-4708, **2018**.

Liakos IL, Iordache F, Carzino R, Scarpellini A, Oneto M, Bianchini P, Grumezescu AM, Holban AM. Cellulose acetate - essential oil nanocapsules with antimicrobial activity for biomedical applications. *Colloids and Surfaces B: Biointerfaces* **172**: 471–479, **2018**.

Carnuta MG, Deleanu M, Barbalata T, Toma L, Raileanu M, Sima AV, Stancu CS. Zingiber officinale extract administration diminishes steroyl-CoA desaturase gene expression and activity in hyperlipidemic hamster liver by reducing the oxidative and endoplasmic reticulum stress. *Phytomedicine* **48**: 62-69, **2018**.

Toma L, Raileanu M, Deleanu M, Stancu CS, Sima AV. Novel molecular mechanisms by which ginger extract reduces the inflammatory stress in TNF α – activated human endothelial cells; decrease of Ninjurin-

1, TNFR1 and NADPH oxidase subunits expression. *Journal of Functional Foods* **48**: 654–664, **2018**.

Popa MA, Mihai MC, Constantin A, Șuică V, Țucureanu C, Costache R, Antohe F, Dubey RK, Simionescu M. Dihydrotestosterone induces pro-angiogenic factors and assists homing of MSC into the cardiac tissue. *J Mol Endocrinol* **60**(1): 1-15, **2018**.

Deftu AF, Filippi A, Gheorghe RO, Ristoiu V. CXCL1 activates TRPV1 via Gi/o protein and actin filaments. *Life Sciences* **193**: 282-291, **2018**.

Niculescu LS, Simionescu N, Fuior EV, Stancu CS, Carnuta MG, Dulceanu MD, Raileanu M, Dragan E, Sima AV. Inhibition of miR-486 and miR-92a decreases liver and plasma cholesterol levels by modulating lipid-related genes in hyperlipidemic hamsters. *Molecular Biology Reports* **45**(4): 497-509, **2018**.

Popov LD. Mitochondrial dysfunction signature in diabetic vascular endothelium. *J Clin Exp Pathol* **8**(1): 334, **2018**.

Deleanu M, Popa EE, Popa ME. Chemical composition and active properties evaluation of wild oregano (*Origanum Vulgare*) and ginger (*Zingiber Officinale-Roscoe*) essential oils. *Revista de Chimie* (Bucharest) **69**(8): 1927-1933, **2018**.

2017

Toma L, Sanda GM, Niculescu L, Deleanu M, Stancu C, Sima AV. Caffeic acid attenuates the inflammatory stress induced by glycated LDL in human endothelial cells by mechanisms involving inhibition of AGE-receptor, oxidative and endoplasmic reticulum stress”, *Biofactors*, doi: 10.1002/biof.1373, **2017**.

Cărnuță MG, Stancu CS, Toma L, Sanda GM, Niculescu LS, Deleanu M, Popescu AC, Popescu MR, Vlad A, Dimulescu DR, Simionescu M, Sima AV. Dysfunctional high-density lipoproteins have distinct composition, diminished anti-inflammatory potential and discriminate acute coronary syndrome from stable coronary artery disease patients, *Scientific Rep.* **7**(1): 7295, doi: 10.1038/s41598-017-07821-5, **2017**.

Sanda GM, Deleanu M, Toma L, Stancu CS, Simionescu M, Sima AV. Oxidized LDL-exposed human macrophages display increased MMP-9 expression and secretion mediated by endoplasmic reticulum stress. *J Cell Biochem.* **118**(4): 661-669, doi: 10.1002/jcb.25637, **2017**.

Boteanu RM, Suica VI, Uyy E, Ivan L, Dima SO, Popescu I, Simionescu M, Antohe F. *J Proteomics*. 2017 Feb 5; 153:21-29. doi: Epub 2016 Nov 11. Review. Published: Feb. 5, **2017**.

E Uyy, VI Suica, RM Boteanu, L Ivan, F Safciuc, F Antohe, High resolution mass spectrometry analysis of ribosomal proteins in experimental diabetes, *Romanian Reports in Physics*, **69**(1), 2017. Published: **2017**

E Baciu, E Uyy, VI Suica, R. M. Boteanu, AI Popescu, C Giulea, D Manda, C Badiu, F Antohe, Proteomic analysis of plasma molecular markers as predictors of differentiated thyroid cancer, *Romanian Reports in Physics*, **69**(1), 2017. Published: **2017**

V Grumezescu, AM Holban, LE Sima, M.B. Chiritoiu, GN Chiritoiu, AM Grumezescu, L Ivan, F Safciuc, F Antohe, C Florica, CR Luculescu, MC 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* **521** (2017) 184–195. Published: APR 15 **2017**

Trusca VG, Fuior EV, Fenyo IM, Kardassis D, Simionescu M, Gafencu AV. Differential action of glucocorticoids on apolipoprotein E gene expression in macrophages and hepatocytes. *PLoS One.* **2017**;12(3):e0174078.

Tudorache IF, Trusca VG, Gafencu AV. Apolipoprotein E - a multifunctional protein with implications in various pathologies as a result of its structural features –Computational and Structural Biotechnology Journal **2017**;15:359-365. doi: 10.1016/j.csbj.2017.05.003 **2017**.

Brehar FM, Gafencu AV, Trusca VG, Fuior EV, Arsene D, Amaireh M, Giovanni A, Gorgan MR. Preferential Association of Lissencephaly-1 Gene Expression with CD133+ Glioblastoma Cells. *J Cancer* **2017**; 8(7):1284-1291

Bulgar AC, Fuior EV, Gafencu AV, Brehar AC, Brehar FM, Paun DL, Dumitrache C. Association of TCF7L2 rs7903146 and rs290487 polymorphisms and type 2 diabetes in Romanian subpopulation, *Romanian Biotechnological Letters* **2017**, 22 (3), 12520

Dascălu AI, Ardeleanu R, Neamtu A, Maier SS, Uritu CM, Nicolescu A, Silion M, Peptanariu D, Calin M, Pinteala M. Transfection-capable polycationic nanovectors which include PEGylated-cyclodextrin structural units: a new synthesis pathway, *J. Mater. Chem. B* (**2017**), 5: 7164-7174.

Simionescu BC, Drobota M, Timpu D, Vasiliu T, Constantinescu CA, Rebleanu D, Calin M, David G, Biopolymers/poly(ϵ -caprolactone)/polyethylenimine functionalized nano-hydroxyapatite hybrid cryogel: Synthesis, characterization and application in gene delivery, *Materials Science and Engineering: C* (**2017**), 81: 167-176.

LIST OF PUBLICATIONS

Călin M, Mânduțeanu I, Emerging nanocarriers-based approaches to diagnose and reduce vascular inflammation in atherosclerosis, *Current Medicinal Chemistry* (2017), 24(6):550-567.

Alexandru N, Costa A, Constantin A, Cochior D, Georgescu A. Microparticles: From biogenesis to biomarkers and diagnostic tools in cardiovascular disease. *Current Stem Cell Research & Therapy*. 2017;12(2):89-102. doi: 10.2174/1574888X11666151203224058.

Titorencu I, Albu MG, Nemezc M, Jinga VV. Natural polymer-cell bioconstructs for bone tissue engineering. *Current Stem Cell Research & Therapy*. 2017;12(2):165-174. doi: 10.2174/1574888X10666151102105659.

Constantin A, Dumitrescu M, Mihai (Corotchi) MC, Jianu D, Simionescu M. CO2 laser increases the regenerative capacity of human adipose-derived stem cells by a mechanism involving the redox state and enhanced secretion of pro-angiogenic molecules. *Lasers in Medical Science*. 2017 Jan;32(1):117-127. doi: 10.1007/s10103-016-2093-6. Epub 2016 Oct 20.

Alexandru N, Andrei E, Niculescu L, Drăgan E, Ristoiu V, Georgescu A. Microparticles of healthy origins improve endothelial progenitor cell dysfunction via microRNA transfer in an atherosclerotic hamster model. *Acta Physiologica*, 221, 230-249, 2017.

Ciotu IM, Constantin A, Voinea L, Atansiu V. Matrix metalloproteinase and their inhibitors concentration and activity variations in aqueous humor and plasma of glaucoma patients. *Revista de Chimie*. 2017; 68:1829-1832.

Titorencu I, M.G. Albu, M.A. Nemezc, V.V. Jinga, Natural polymer-cell bioconstructs for bone tissue engineering, *Current Stem Cell Research & Therapy* 12(2):165-174, 2017, IF 2.21, AIS 0.6

Cotrut CM, Parau AC, Gherghilescu AI, Titorencu I, Pana I, Cojocaru DV, Pruna V, Constantin L, Dan I, Vrânceanu DM, Vlădescu A, Mechanical, in vitro corrosion resistance and biological compatibility of cast and annealed Ti25Nb10Zr alloy, *Metals*, 7(3), 86, 2017, IF 1.98, AIS 0.3

Roșca AM, Rayia DM, Tutuianu R. Emerging Role of Stem Cells - Derived Exosomes as Valuable Tools for Cardiovascular Therapy. *Curr Stem Cell Res Ther*. 2017;12(2):134-138.

Iordache F, Grumezescu AM, Maniu H, Curutiu C. *Development of Scaffolds for Vascular Tissue Engineering: Biomaterial Mediated Neovascularization*. *Curr Stem Cell Res Ther*. 2017;12(2):155-164. (FI = 2.68)

Tutuianu R, Popescu LM, Preda MB, Rosca A-M, Piticescu MR, Burlacu A. Evaluation of the ability of nanostructured PEI coated iron oxide nanoparticles to incorporate biologically active factors”, accepted for publication by *Nanomaterials*, September 2017.

2016

Simionescu N, Niculescu LS, Carnuta MG, Sanda GM, Stancu CS, Popescu AC, Popescu MR, Vlad A, Dimulescu DR, Simionescu M, Sima AV. Hyperglycemia Determines Increased Specific MicroRNAs Levels in Sera and HDL of Acute Coronary Syndrome Patients and Stimulates MicroRNAs Production in Human Macrophages. *PLoS One*. 2016 Aug 12;11(8):e0161201. doi: 10.1371/journal.pone.0161201. eCollection 2016.

A Năstase, S Dima, V Tica, R Florea, A Sorop, V Ilie, M Eftimie, Liliana Paslaru, Vlad Herlea, Nicolae Bacalbasa, Luminita Ivan, Elena Uyy, Viorel Iulian Suica, Felicia Antohe, Iulia V Iancu, Adriana Plesa, Anca Botezatu, Dan G Duda, Carmen C Diaconu, S100A4 and ERBB2 as Co-Factors in Pancreatic Cancer, *J. Transl. Med. Res* 2016;21(4):259-266 DOI: 10.21614/jtmr-21-4-100. Published: DEC 2016

Micheu MM, Roșca AM, Deleanu OC. Stem/progenitor cells and obstructive sleep apnea syndrome - new insights for clinical applications. *World J Stem Cells*. 2016 Oct 26;8(10):332-341.

Suica VI, Uyy E, Boteanu RM, Ivan L, Antohe F. Comparative proteomic analysis of membrane microdomains isolated from two hyperlipidemic animal models. *Biochim Biophys Acta*. Volume 1864, Issue 9, September 2016, Pages 1061–1071.

Vlădescu A, Padmanabhan SC, Ak Azem F, Braic M, Titorencu I, Birlik I, Morris MA, Braic V, Mechanical properties and biocompatibility of the sputtered Ti doped hydroxyapatite, *Journal of the Mechanical Behavior of Biomedical Materials*, 63: 314-325, Oct 2016, IF 2.87, AIS 0.9

E Uyy, VI Suica, RM Boteanu, D Manda, AE Baciuc, C Badiu, F Antohe. Endoplasmic Reticulum Chaperones Are Potential Active Factors in Thyroid Tumorigenesis, *Journal of Proteome Research* Volume: 15 Issue: 9 Pages: 3377-3387 Published: SEP 2016

Fenyo IM, Eftimie AM, Fuior EV, Gafencu AV- A system for in vivo endothelial-specific and conditional expression of apolipoprotein E3 Rom. *Biotech. Letters* 2016, Vol. 21 no. 5, p11803

Odent (Grigorescu) G*, Rosca AM*, Preda MB, Tutuianu R, Simionescu M, Burlacu A. Synergic effects of VEGF-A and SDF-1 on the angiogenic

properties of endothelial progenitor cells. *J Tissue Eng Regen Med.* **2016** Dec 12. doi: 10.1002/term.2233. [Epub ahead of print].

Zanfir AV, Voicu G, Busuioc C, Jinga SI, Albu MG, Iordache F. *New Coll-HA/BT composite materials for hard tissue engineering.* *Mater Sci Eng C Mater Biol Appl.* **2016** (FI = 4.16)

Simion V, Constantinescu CA, Stan D, Deleanu M, Tucureanu MM, Butoi E, Mânduțeanu I, Simionescu M, Calin M, P-Selectin Targeted Dexamethasone-Loaded Lipid Nanoemulsions: A Novel Therapy to Reduce Vascular Inflammation, *Mediators Inflamm.* (2016), 2016:1625149. Epub **2016** Sep 14.

Sanda G.M., Deleanu M., Toma L., Stancu C.S., Simionescu M., Sima A.V. Oxidized LDL-Exposed Human Macrophages Display Increased MMP-9 Expression and Secretion Mediated by Endoplasmic Reticulum Stress. *J Cell Biochem.* **2016 Jun** 24. doi: 10.1002/jcb.25637.

Nemecz M, Alexandru N, Tanko G, Georgescu A. Role of microRNA in endothelial dysfunction and hypertension. *Current Hypertension Reports.* **2016** Dec; 18(12):87. (*These authors contributed equally to this work). doi: 10.1007/s11906-016-0696-8.

Manea SA, Fenyo IM, Manea A. c-Src tyrosine kinase mediates high glucose-induced endothelin-1 expression. *Int J Biochem Cell Biol.* **2016 Jun**;75:123-30. doi: 10.1016/j.biocel.2016.04.008. Epub 2016 Apr 19.

Tucureanu MM, Butoi E, Gan AM, Stan D, Constantinescu CA, Călin M, Simionescu M, Mânduțeanu I. Amendment of the cytokine profile in macrophages subsequent to their interaction with smooth muscle cells: Differential modulation by fractalkine and resistin. *Cytokine.* **2016 Jul**;83:250-61. doi: 10.1016/j.cyto.2016.04.019. Epub 2016 May 12. PMID:27180200

Butoi E, Gan AM, Tucureanu MM, Stan D, Macarie RD, Constantinescu C, Călin M, Simionescu M, Mânduțeanu I. Cross-talk between macrophages and smooth muscle cells impairs collagen and metalloprotease synthesis and promotes angiogenesis. *Biochim Biophys Acta.* 2016 Jul;1863(7 Pt A):1568-78. doi: 10.1016/j.bbamcr.2016.04.001. Epub 2016 Apr 7. PMID:27060293

Georgescu A, Alexandru N, Andrei E, Drăgan E, Cochior D, Dias S. Effects of transplanted circulating endothelial progenitor cells and platelet microparticles in atherosclerosis development. *Biol Cell.* **2016 Aug**;108(8):219-43. doi: 10.1111/boc.201500104. Epub 2016 Apr 24. PMID:26968123

Cucuruz AT, Andronescu E, Ficai A, Ilie A, Iordache F. Synthesis and characterization of new composite materials based on poly(methacrylic acid) and hydroxyapatite with applications in dentistry. *Int J Pharm.* **2016 Aug** 30;510(2):516-23. doi: 10.1016/j.ijpharm.2016.01.061. Epub 2016 Feb 4. PMID: 26836709

Voicu G, Geanaliu-Nicolae RE, Pîrvan AA, Andronescu E, Iordache F. Synthesis, characterization and bioevaluation of drug-collagen hybrid materials for biomedical applications. *Int J Pharm.* 2016 Aug 30;510(2):474-84. doi: 10.1016/j.ijpharm.2015.11.054. Epub 2015 Dec 11. PMID: 26688040

Iordache F, Constantinescu A, Andrei E, Amuzescu B, Halitzchi F, Savu L, Maniu H. Electrophysiology, immunophenotype, and gene expression characterization of senescent and cryopreserved human amniotic fluid stem cells. *J Physiol Sci.* **2016 Apr** 6. [Epub ahead of print] PMID:27053101

Zanfir AV, Voicu G, Busuioc C, Jinga SI, Albu MG, Iordache F. *New Coll-HA/BT composite materials for hard tissue engineering.* *Mater Sci Eng C Mater Biol Appl.* **2016 May**;62:795-805. doi: 10.1016/j.msec.2016.02.041. Epub 2016 Feb 15. PMID:26952486

Oprea AE, Pandel LM, Dumitrescu AM, Andronescu E, Grumezescu V, Chifiriuc MC, Mogoantă L, Bălșeanu TA, Mogoșanu GD, Socol G, Grumezescu AM, Iordache F, Maniu H, Chirea M, Holban AM. Bioactive ZnO Coatings Deposited by MAPLE-An Appropriate Strategy to Produce Efficient Anti-Biofilm Surfaces. *Molecules.* **2016 Feb** 16;21(2). pii: E220. doi: 10.3390/molecules21020220. PMID:26891290

Alexandru N, Bădila E, Weiss E, Cochior D, Stępień E, Georgescu A. Vascular complications in diabetes: Microparticles and microparticle associated microRNAs as active players. *Biochem Biophys Res Commun.* **2016 Mar** 25;472(1):1-10. doi: 10.1016/j.bbrc.2016.02.038. Epub 2016 Feb 15. Review. PMID:26891868

Simion V, Stan D, Constantinescu CA, Deleanu M, Dragan E, Tucureanu MM, Gan AM, Butoi E, Constantin A, Mânduțeanu I, Simionescu M, Călin M. Conjugation of curcumin-loaded lipid nanoemulsions with cell-penetrating peptides increases their cellular uptake and enhances the anti-inflammatory effects in endothelial cells. *J Pharm Pharmacol.* **2016 Feb**;68(2):195-207. doi: 10.1111/jphp.12513. Epub 2016 Jan 8. PMID:26748549

LIST OF PUBLICATIONS

- Toma L., Sanda G.M., Deleanu M., Stancu C.S., Sima A.V.** Glycated LDL increase VCAM-1 expression and secretion in endothelial cells and promote monocyte adhesion through mechanisms involving endoplasmic reticulum stress. *Mol Cell Biochem.* **2016 Jun**;417(1-2):169-79. doi: 10.1007/s11010-016-2724-z.
- Deleanu M., Sanda G.M., Stancu C.S., Popa M.E., Sima A.V.** Profiles of fatty acids and the main lipid peroxidation products of human atherogenic low density lipoproteins, *Rev. Chim.* **67 (1), 2016.**
- Simion, V., Stan, D., Constantinescu, C. A., Deleanu, M., Dragan, E., Tureanu, M. M., Gan, A.-M., Butoi, E., Constantin, A., Mănduțeanu, I., Simionescu, M. and Calin, M.** (2016), Conjugation of curcumin-loaded lipid nanoemulsions with cell-penetrating peptides increases their cellular uptake and enhances the anti-inflammatory effects in endothelial cells. *Journal of Pharmacy and Pharmacology.* doi: 10.1111/jphp.12513
- Trusca VG, Mihai AD, Fuior EV, Fenyó IM, Gafencu AV.** High levels of homocysteine downregulate apolipoprotein E expression via nuclear factor kappa B. *World J Biol Chem.* **2016 Feb** 26;7(1):178-87. doi: 10.4331/wjbc.v7.i1.178. PMID:26981206
- Ion A, Andronescu E, Rădulescu D, Rădulescu M, Iordache F, Vasile BȘ, Surdu AV, Albu MG, Maniu H, Chifiriuc MC, Grumezescu AM, Holban AM.** Biocompatible 3D Matrix with Antimicrobial Properties. *Molecules.* **2016 Jan** 20;21(1):E115. doi: 10.3390/molecules21010115. PMID: 2680579
- Roșca AE, Stoian I, Badiu C, Gaman L, Popescu BO, Iosif L, Mirica R, Tivig IC, Stancu CS, Căruntu C, Voiculescu SE, Zăgrean L.** Impact of chronic administration of anabolic androgenic steroids and taurine on blood pressure in rats. *Brazilian Journal of Medical and Biological Research* **49(6):e5116 (2016) (IF 1.57, Q2).**
- 2015**
- Tokarz A, Szućik I, Kuśnierz-Cabala B, Kapusta M, Konkolewska M, Żurkowski A, Georgescu A, Stępień E.** Extracellular vesicles participate in the transport of cytokines and angiogenic factors in diabetic patients with ocular complications. *FOLIA MEDICA CRACOVIENSIA, PL ISSN 0015-5616, Vol LV, 4, 35–48, 2015.*
- Roblek M, Călin M, Schlesinger M, Stan D, Zeisig R, Simionescu M, Bendas G, Borsig L,** Targeted delivery of CCR2 antagonist to activated pulmonary endothelium prevents metastasis, *J Control Release.* **2015 Oct** 30;220(Pt A):341-347. doi: 10.1016/j.jconrel.2015.10.055.
- Marin L, Ailincăi D, Călin M, Stan D, Constantinescu CA, Ursu L, Doroftei F, Pinteala M, Simionescu BC, Barboiu M,** Dynameric Frameworks for DNA transfection, *ACS Biomater. Sci. Eng.*, **2016, 2 (1), pp 104–111, DOI: 10.1021/acsbomaterials.5b00423**
- Uritu CM, Călin M, Maier SS, Cojocaru C, Nicolescu A, Peptanariu D, Constantinescu CA, Stan D, Bărboiu M, Pinteală M,** Flexible cyclic siloxane core enhances the transfection efficiency of polyethylenimine-based non-viral gene vectors, *J. Mater. Chem. B,* (2015), DOI:10.1039/c5tb01342a.
- Schlesinger M, Zeisig R, Ortmann K, Calin M, Gerber U, Roblek M, Borsig L, Bendas G,** Inhibition of chemokine receptor CCR2 reduces sarcoma cell transendothelial migration and metastasis to the lungs, *Int J Clin Pharmacol Ther.* **2015 Dec**;53(12):1046-1048.DOI: 0.5414/CPXCES14EA04
- Uritu CM, Varganici C., Ursu L, Coroaba A, Nicolescu A, Dascălu AI, Peptanariu D, Stan D., Constantinescu CA, Simion V, Călin M, Maier SS, Pinteala M, Bărboiu M,** Hybrid Fullerene Conjugates as Vectors for DNA Cell-Delivery, *J. Mater. Chem. B.* **3 (2015) 2433-2446**
- Boteanu RM, E. Uyy (Puchianu) E, Suica VI, F. Antohe,** High-mobility group box 1 enhances the inflammatory process in diabetic lung. *Archives of Biochemistry and Biophysics, Volume 583, 55–64, 2015.*
- Antohe F.** Mass Spectrometry Based Proteomics, *Acta Endocrinologica, Volume XI, No.2, 139-142, 2015*
- Oprea M, Patriche DS, Străuț M, Antohe F.** Molecular characterization of staphylococcus aureus strains isolated from infective endocarditis. *Roum Arch Microbiol Immunol.* Jul-Dec;73(3-4):74-83, **2014**
- Lixandru BE, Cotar AI, Straut M, Usein CR, Cristea D, Ciontea S, Tatu-Chitoiu D, Codita I, Rafila A, Nica M, Buzea M, Baicus A, Ghita MC, Nistor I, Tuchiluş C, Indreas M, Antohe F, Glasner C, Grundmann H, Jasir A, Damian M.** Carbapenemase-producing *Klebsiella pneumoniae* in Romania: A six-month survey. *PlosOne, PLoS One.* **2015 Nov** 23;10(11):e0143214. doi: 10.1371/journal.pone.0143214
- Uyy (Puchianu) E, Suica VI, Boteanu RM, Ivan L, Safciuc F, Antohe F,** High resolution mass spectrometry analysis of ribosomal proteins in experimental diabetes, *Romanian Reports in Physics* **2015, in press.**
- Baciu AE, Uyy (Puchianu) E, Suica VI, Boteanu RM, Popescu AI, Giulea C, Manda D, Badiu C, Antohe F,** Proteomic analysis of plasma molecular

markers as predictors of differentiated thyroid cancer, Romanian Reports in Physics 2015, in press.

Suica VI, Uyy (Puchianu) E, Boteanu RM, Ivan L, Antohe F. Alteration of actin dependent signaling pathways associated with membrane microdomains in hyperlipidemia. *Proteome Science* (2015) 13:30; DOI 10.1186/s12953-015-0087-0.

Stavri S, Trusca VG, Simionescu M, Gafencu AV. Metformin reduces the endotoxin-induced down-regulation of apolipoprotein E gene expression in macrophages. *Biochem Biophys Res Commun.* 2015 May 29;461(2):435-40. doi: 10.1016/j.bbrc.2015.04.057.

Stavri S, Simionescu M, Kardassis D, Gafencu AV. Krüppel-like factor 4 synergizes with CREB to increase the activity of apolipoprotein E gene promoter in macrophages, *Biochem Biophys Res Commun.* 2015 ;468(1-2):66-72. doi: 10.1016/j.bbrc.2015.10.163.

Roman C, Fuior EV, Trusca VG, Kardassis D, Simionescu M, Gafencu AV. Thyroid hormones upregulate apolipoprotein E gene expression in astrocytes *Biochem Biophys Res Commun.* 2015 Oct 29. 468(1-2):190-5, doi: 10.1016/j.bbrc.2015.10.132.

Trusca VG, Fuior EV, Gafencu AV, Beyond Lipoprotein Receptors: Learning from Receptor Knockouts Mouse Models about New Targets for Reduction of the Atherosclerotic Plaque, *Current Molecular Medicine* vol 15, No 10, p 905-931, 2015.

Niculescu LS, Simionescu N, Sanda GM, Carnuta MG, Stancu CS, Popescu AC, Popescu MR, Vlad A, Dimulescu DR, Simionescu M, Sima A. MiR-486 and miR-92a Identified in Circulating HDL Discriminate between Stable and Vulnerable Coronary Artery Disease Patients. *PLoS ONE* 10(10): e0140958, 2015; doi:10.1371/journal.pone.0140958.

Stancu CS, Carnuta MG, Sanda GM, Toma L, Deleanu M, Niculescu LS, Sasson Sh, Simionescu M, Sima A. Hyperlipidemia-induced hepatic and small intestine ER stress and decreased paraoxonase 1 expression and activity is associated with HDL dysfunction in Syrian hamsters. *Mol Nutr Food Res.* 59(11):2293-302, 2015; DOI: 10.1002/mnfr.201500422.

Sanda GM., Deleanu M, Simionescu M, Sima A. Oxidized LDL induce C-reactive protein secretion in human macrophages through mechanisms involving oxidative stress. *Annals of R.S.C.B.*, Vol. XIX, Issue 3, 2015, pp. 9 – 20.

Manea A, Manea SA, Todirita A, Albulescu IC, Raicu M, Sasson Sh, Simionescu M. *Cell and Tissue Research*, 361(2), 593-604, 2015.

Manea A, Manea SA, Gan AM, Constantin A, Fenyo MI, Raicu M, Mureşian H, Simionescu M. Human monocytes and macrophages express NADPH oxidase 5; a potential source of reactive oxygen species in atherosclerosis. *Biochemical and Biophysical Research Communications*, 461(1), 172-179, 2015.

Manea SA, Constantin A, Manda G, Sasson Sh, Manea A. Regulation of Nox enzymes expression in vascular pathophysiology: Focusing on transcription factors and epigenetic mechanisms. *Redox Biology*, 5, 358-366, 2015.

Alexandru N, Andrei E, Drăgan E, Georgescu A. Interaction of platelets with endothelial progenitor cells in the experimental atherosclerosis; the role of transplanted endothelial progenitor cells and platelet microparticles. *Biology of The Cell*, 107: 189–204, 2015.

Orbe J, Alexandru N, Roncal C, Belzunce M, Bibiot P, Rodriguez JA, Meijers JCM, Georgescu A, Paramo JA. Lack of TAFI increases brain damage and microparticle generation after thrombolytic therapy in ischemic stroke. *Thrombosis Research*, 136(2): 445-450, 2015.

Bădilă E, Daraban AM, Țintea E, Bartoş D, Alexandru N, Georgescu A. Midkine in cardio-vascular disease: Where do we come from and where are we heading to? *European Journal of Pharmacology*, 762:464-471, 2015.

Alexandru N, Georgescu A. Microparticles as players in the pathogenesis of cardiovascular disease. *Fisiologia*, vol. 18(1):9-14, 2015. ISSN:1889-397X.

Andrei E, Alexandru N, Georgescu A. Circulating microparticles: major mediators of the pathogenesis of cardiovascular complications in diabetes. *Annals of the Romanian Society for Cell Biology*, vol. XIX, Issue 3, pp . 55-63, 2015.

Alexandru N, Costa A, Constantin A, Cochior A and Georgescu A. Microparticles: From biogenesis to biomarkers and diagnostic tools in cardiovascular disease. *Curr Stem Cell Res Ther.* 2015. Dec 3. [Epub ahead of print]

Grigorescu G, Preda MB, Radu E, Roşca AM, Tutuianu R, Mitroi DN, Simionescu M, Burlacu A. Combinatorial approach for improving the outcome of angiogenic therapy in ischemic tissues. *Biomaterials* 2015; 60:72-81.

Preda MB, Roşca AM, Tutuianu R, Burlacu A. Pre-stimulation with FGF-2 increases in vitro functional coupling of mesenchymal stem cells with cardiac cells. *Biochem Biophys Res Commun.* 2015; 464(2): 667-73.

LIST OF PUBLICATIONS

Roșca AM, Rayia DM, Tutuianu R. Emerging role of stem cells - derived exosomes as valuable tools for cardiovascular therapy. *Curr Stem Cell Res Ther.* 2015 Oct 26. [Epub ahead of print].

Călin M, Stan D, Schlesinger M, Simion V, Deleanu M, Constantinescu CA, Gan AM, Pîrvulescu M, Butoi E, Mânduțeanu I, Bota M, Enachescu M, Lubor Borsig, Bendas G, Simionescu M. VCAM-1 directed target-sensitive liposomes carrying CCR2 antagonists bind to activated endothelium and reduce adhesion and transmigration of monocytes. *European Journal of Pharmaceutics and Biopharmaceutics* 89 (2015) 18–29.

Iordache F, Grumezescu AM, Maniu H, Curutiu C. Development of Scaffolds for Vascular Tissue Engineering: Biomaterial Mediated Neovascularization. *Current Stem Cell Research & Therapy*, 12/2015; 11. DOI:10.2174/1574888X11666151203223658

Beregoi M, Busuioc C, Evangelidis A, Matei E, Iordache F, Radu M, Dinischiotu A, Enculescu I. Electrochromic properties of polyaniline-coated fiber webs for tissue engineering applications. *International Journal of Pharmaceutics*, 12/2015; DOI:10.1016/j.ijpharm.2015.11.055

2014

Alexandru N, Bădila E, Georgescu A. The role of endothelial progenitor cells in the cardiovascular disease pathogenesis. *J Stem Cells Res, Rev & Rep.* 1(2):1-2, 2014.

Grigorescu S, Pruna V, Titorencu I, Jinga VV, Mazăre A, Schmuki P, Demetrescu I, The two step nanotube formation on TiZr as scaffolds for cell growth, *Bioelectrochemistry*, 98:39-45, 2014.

Projahn D, Simsekyilmaz S, Singh S, Kanzler I, Kramp BK, Langer M, Burlacu A, Bernhagen J, Klee D, Zerneck A, Hackeng TM, Groll J, Weber C, Liehn EA, Koenen RR. Controlled intramyocardial release of engineered chemokines by biodegradable hydrogels as a treatment approach of myocardial infarction. *J Cell Mol Med.* 2014 May; 18(5): 790-800.

Titorencu I, Pruna V, VJinga VV, Simionescu M, Osteoblast ontogeny and implications for bone pathology: an overview, *Cell Tissue Res.*, 355(1):23-33, 2014.

Manea S-A, Todirita A, Raicu M, Manea A. C/EBP transcription factors regulate NADPH oxidase in human aortic smooth muscle cells. *Journal of Cellular and Molecular Medicine.* 2014 Jul; 18(7):1467-1477. doi: 10.1111/jcmm.12289.

Anghel AG, Grumezescu AM, Chirea M, Grumezescu V, Socol G, Iordache F, Oprea AE, Anghel I, Holban AM, MAPLE fabricated Fe₃O₄@Cinnamomum verum antimicrobial surfaces for improved gastrostomy tubes.” *Molecules*, 19 (7):8981-94, 2014.

Dumitriu C, Bogdan SA, Titorencu I, Pruna V, Jinga VV, Latonen RM, Bobacka J, Demetrescu I, Electrospun Ti₂ decorated Ti substrate for biomedical application, acceptata spre publicare 2014 in *Materials Science and Engineering C*.

Grumezescu V, Andronescu E, Holban AM, Mogoantă L, Mogoșanu GD, Grumezescu AM, Stănculescu A, Socol G, Iordache F, Maniu H, Chifiriuc CM, MAPLE fabrication of thin films based on kanamycin functionalized magnetite nanoparticles with anti-pathogenic properties, *Applied Surface Science*, November 3, accepted for publication, 2014.

Holban AM, Grumezescu V, Grumezescu AM, Vasile BS, Trușcă R, Cristescu R, Socol G, Iordache F. “Antimicrobial nanospheres thin coatings prepared by advanced pulsed laser technique”. *B. Journal of Nanotechnology*, 5, 872-880, 2014.

N.Simionescu, L.S. Niculescu, G.M. Sanda, D. Margina, A.V. Sima. Analysis of circulating microRNAs that are specifically increased in hyperlipidemic and/or hyperglycemic sera. *Molec. Biol. Rep.* 41(9):5765-73, 2014.

AM Grumezescu, AM Holban, E Andronescu, GD Mogoșanu, BS Vasile, MC Chifiriuc, V Lazăr, E Andrei, A Constantinescu, H.Maniu, Anionic polymers and 10 nm Fe₃O₄@UA wound dressings support human foetal stem cells normal development and exhibit great antimicrobial properties, *Int J Pharm.* 2014 Mar 25;463(2):146-54. doi: 10.1016/j.ijpharm.2013.08.026.

Andrei E, Alexandru N, Dragan E, Georgescu A. Flow cytometric analysis of circulating microparticles and endothelial progenitor cells in plasma; a research tool for atherosclerosis and therapy. *Experimental and Clinical Cardiology*, 20 (7): 1554-1563, 2014.

V. Braic, M. Bălăceanu, M. Braic, C. Vițelaru, I. Titorencu, V. Pruna, A.C. Parau, C. Fanara, A. Vladescu, Characterization of the Ti-10Nb-10Zr-5Ta alloy for biomedical applications. Part 2: Wettability, Tribological Performance and Biocompatibility, *JMEPEG* 23:326–332, (2014).

E. Bădila, A. M. Daraban, S. Ghiorghe, A. Georgescu, N. Alexandru, D. Bartoș, C. Tîrziu. Rethinking cardiovascular therapy - the effect of

irbesartan on circulating microparticles and endothelial progenitor cells in patients with hypertension and dyslipidemia. *Farmacia*, 62 (1): 93-106, 2014.

Popov D, Protein S-glutathionylation: from current basics to targeted modifications, *Arch Physiol Biochem*, 2014, doi:10.3109/13813455.2014.944544, PMID: 25112365.

Gan AM, Butoi E, Manea A, Pîrvulescu MM, Stan D, Simion V, Calin M, Simionescu M, Manduteanu I. Functional analysis of fractalkine gene promoter in human aortic smooth muscle cells exposed to pro-inflammatory conditions. *FEBS J*. 2014 Jul 8. doi: 10.1111/febs.12921.

Preda MB, Rønningen T, Burlacu A, Simionescu M, Moskaug JO, Valen G. Remote transplantation of mesenchymal stem cells protects the heart against ischemia-reperfusion injury. *Stem Cells*. 2014 Feb 27. doi: 10.1002/stem.1687. [Epub ahead of print]

Simionescu N, Niculescu LŞ, Sanda GM, Margina D, Sima A. Analysis of circulating microRNAs that are specifically increased in hyperlipidemic and/or hyperglycemic sera. *Mol Biol Rep*. 2014 Jun 14. DOI: 10.1007/s11033-014-3449-2.

Pîrvulescu MM, Gan AM, Stan D, Simion V, Călin M, Butoi E, Mânduţeanu I. Subendothelial resistin enhances monocyte transmigration in a co-culture of human endothelial and smooth muscle cells by mechanisms involving fractalkine, MCP-1 and activation of TLR4 and Gi/o proteins signaling. *Int J Biochem Cell Biol*. 2014 May;50:29-37.

Niculescu L.S., Sanda G.M., Simionescu N., Sima A.V. Bilberries exert an anti-atherosclerotic effect in lipid-loaded macrophages. *Cent. Eur. J. Biol*. 9(3): 268-276, 2014.

Stancu CS, Sanda GM, Deleanu M, Sima A. Probiotics determine hypolipidemic and antioxidant effects in hyperlipidemic hamsters. *Mol Nutr Food Res*. 2014 Mar; 58(3):559-68. doi: 10.1002/mnfr.201300224. Epub 2013 Sep 18.

Constantinescu A, Andrei E, Iordache F, Constantinescu E, Maniu H. Recellularization potential assessment of Wharton's Jelly derived endothelial progenitor cells using a human fetal vascular tissue model. *In vitro Cellular & Developmental Biology - Animal (accepted)*

V. Grumezescu, A. M. Holban, F. Iordache, G. Socol, G. D. Mogoşanu, A. M. Grumezescu, A. Ficai, B. S. Vasile, C. M. Chifiriuc, H. Maniu. MAPLE fabricated magnetite@eugenol and (3-hydroxybutyric acid-co-3-hydroxyvaleric acid) - polyvinyl alcohol

microspheres coated surfaces with anti-microbial properties. *Applied Surface Science*, 306, 16-22, 2014.

Curutiu C, Chifiriuc MC, Iordache F, Bleotu C, Lazăr V, Mogoanta C, Popescu CR, Grigore R, Vifor Ş, Berteşteanu G. Fluorescence analysis of apoptosis induced by *Pseudomonas aeruginosa* in endothelial cells. *Romanian Journal of Morphology and Embriology*, 55(2):313-317, 2014.

Durdureanu-Angheluţă A, Uritu CM, Coroaba A, Minea B, Doroftei F, Călin M, Maier SS, Pinteală M, Simionescu M, Simionescu BC. Heparin-anthranoil conjugates associated with nanomagnetite particles and their cytotoxic effect on cancer cells. *J Biomed Nanotechnol*. 2014 Jan; 10(1):131-42.

2013

Călin M, Stan D, Simion V, Stem Cell Regenerative Potential Combined With Nanotechnology And Tissue Engineering For Myocardial Regeneration, *Curr Stem Cell Res Ther*. 2013 Jul 1;8(4):292-303.

Manea SA, Todiriţă A, Manea A. High glucose-induced increased expression of endothelin-1 in human endothelial cells is mediated by activated CCAAT/enhancer-binding proteins. *PLoS One*, 2013, 8(12):e84170.

Burlacu A. Tracking the mesenchymal stem cell fate after transplantation into the infarcted myocardium. *Curr Stem Cell Res Ther*. 2013; 8(4): 284- 291.

Preda MB, Valen G. Evaluation of Gene and Cell-Based Therapies for Cardiac Regeneration. *Curr Stem Cell Res Ther*. 2013; 8 (4): 304-312.

Simion V, Stan D, Gan AM, Pîrvulescu MM, Butoi E, Mânduţeanu I, Deleanu M, Andrei E, Durdureanu-Angheluţă A, Bota M, Enachescu M, Călin M, Simionescu M. Development of curcumin-loaded poly(hydroxybutyrate-co-hydroxyvalerate) nanoparticles as anti-inflammatory carriers to human activated endothelial cells, *Journal of Nanoparticle Research*, 2013, DOI: 10.1007/s11051-013-2108-1.

Bich-Hoai Thi Ton, Qingmin Chen, Gaina G, Tucureanu C, Georgescu A., Strungaru C, Flonta ML, Dinah Sah, Ristoiu V. Activation profile of dorsal root ganglia Iba-1 (+) macrophages varies with the type of lesion in rats. *Acta Histochemica*, May 20. pii: S0065-1281(13)00079-2. doi: 10.1016/j.acthis.2013.04.007, 2013 [Epub ahead of print].

Nicoleta Alexandru, Adriana Georgescu. Circulating microparticles and microRNAs as players in atherosclerosis. *World Journal of Hematology*, 6; 2(2): 16-19, 2013.

LIST OF PUBLICATIONS

Fenyó IM, Gafencu AV. The involvement of the monocytes/macrophages in chronic inflammation associated with atherosclerosis. *Immunobiology*. 2013 Nov;218(11):1376-84. doi: 10.1016/j.imbio.2013.06.005. Epub 2013 Jun 19.

Gan AM, Pîrvulescu MM, Stan D, Simion V, Calin M, Mânduțeanu I, Butoi E. Monocytes and smooth muscle cells cross-talk activates STAT3 and induces resistin and reactive oxygen species and production. *J Cell Biochem*. 2013 Oct;114(10):2273-83. doi: 10.1002/jcb.24571

Uyy E, Ivan L, Boteanu RM, Suica VI, Antohe F. High-fat diet alters protein composition of detergent-resistant membrane microdomains. *Cell Tissue Res*. 2013 Aug 31. [Epub ahead of print]

Coroțchi MC, Popa MA, Remes A, Sima LE, Gussi I and Lupu Pleșu M. Isolation method and xeno-free culture conditions influence multipotent differentiation capacity of human Wharton's jelly-derived mesenchymal stem cells. *Stem Cell Res Ther*. 2013 Jul 11;4(4):81. [Epub ahead of print].

Popov D. An outlook on vascular hydrogen sulphide effects, signalling, and therapeutic potential. *Arch Physiol Biochem*. 2013 Jun 28. [Epub ahead of print].

Oprea M, Antohe F. Reverse-vaccinology strategy for designing T-cell epitope candidates for *Staphylococcus aureus* endocarditis vaccine. *Biologicals*. 2013 May;41(3):148-53. doi: 10.1016/j.biologicals.2013.03.001. Epub 2013 Apr 9.

Niculescu L.S., Sanda G.M., Sima A.V. HDL inhibit endoplasmic reticulum stress by stimulating apoE and CETP secretion from lipid-loaded macrophages. *Biochem Biophys Res Commun* 2013 Apr 26;434(1):173-8. doi: 10.1016/j.bbrc.2013.03.050. Epub 2013 Mar 26.

Preda MB, Burlacu A, Simionescu M. Defined-size embryoid bodies formed in the presence of serum replacement increases the efficiency of the cardiac differentiation of mouse embryonic stem cells. *Tissue Cell*. 2013 Feb;45(1):54-60. doi: 10.1016/j.tice.2012.09.005. Epub 2012 Oct 27.

Gan AM, Butoi E, Manea A, Simion V, Stan D, Pîrvulescu MM, Călin M, Mânduțeanu I, Simionescu M. Inflammatory effects of resistin on human smooth muscle cells: up-regulation of fractalkine and its receptor, CX3CR1 expression by TLR4 and Gi-protein pathways. *Cell Tissue Res*. 2013 Jan;351(1):161-74. doi: 10.1007/s00441-012-1510-9. Epub 2012 Oct 20.

Burlacu A, Grigorescu G, Roșca AM, Preda MB, Simionescu M. Factors secreted by mesenchymal stem cells and endothelial progenitor cells have complementary effects on angiogenesis in vitro. *Stem Cells Dev*. 2013 Feb 15;22(4):643-53. doi: 10.1089/scd.2012.0273. Epub 2012 Oct 19.

Alexandru N., Popov D., Drăgan E., Eugen Andrei E., Georgescu A. Circulating endothelial progenitor cell and platelet microparticle impact on platelet activation in hypertension associated with hypercholesterolemia. *PLoS One*, 8(1):e52058-e52068, 2013.

Georgescu A, Alexandru N, Nemezc M, Titorencu I, Popov D. Irbesartan administration therapeutically influences circulating endothelial progenitor cell and microparticle mobilization by involvement of pro-inflammatory cytokines. *European Journal of Pharmacology*, 711, 27-35, 2013.

2012

Manea A., Simionescu M. Nox enzymes and oxidative stress in atherosclerosis. Encyclopedia of Bioscience, Special issue: "Cellular and Molecular Mechanisms of Cardiovascular Diseases: Role of Oxidative Stress", Editor Ana Fortuno, PhD, University of Navarra, Pamplona, Spain. Publisher: Frontiers in Bioscience; New York, USA, 651-670, 2012.

Rosca AM, Burlacu A. The cardiomyocyte apoptosis in ischemia-reperfusion is mainly attributed to the exogenous oxidants at the time of reperfusion". *Cell Biol Int*. 2012; 36: 1207-1215.

Burlacu A. Umbilical Cord Blood: Medical Waste or Important Source of Stem Cells? *Human Genet Embryol S2*:005. doi:10.4172/2161-0436.

E Vasile, LM Popescu, RM Piticescu, A Burlacu, T Buruiana. Physico-chemical and biocompatible properties of hydroxyapatite based composites prepared by an innovative synthesis route. *Mater Lett* 2012; 79: 85-88.

Manea A, Manea SA., Florea IC., Luca CM., Raicu M. Positive regulation of Nox5-containing NADPH oxidase by pro-inflammatory-related mechanisms in human aortic smooth muscle cells. *Free Radical Biology and Medicine*, 52(9):1497-1507, 2012.

Alexandru N, Popov D, Georgescu A. Platelet dysfunction in vascular pathologies and how can it be treated. *Thromb Res*. 129(2):116-26, 2012.

Mânduțeanu I, Simionescu M. Inflammation in atherosclerosis: a cause or a result of vascular disorders? *J Cell Mol Med*. Review's Serie "Cellular Dysfunction in Inflammatory – Related Vascular Disorders", 2012. doi: 10.1111/j.1582-4934.2012.01552.x.

Pîrvulescu M, Mânduțeanu I, Gan AM, Stan D, Simion V, Butoi E, Calin M, Simionescu M. A novel pro-inflammatory mechanism of action of resistin in human endothelial cells: Up-regulation of SOCS3 expression through STAT3 activation. *Biochem Biophys Res Commun.* 422(2):321-326, 2012.

Postea O, Vasina EM, Cauwenberghs S, Projahn D, Liehn EA, Lievens D, Theelen W, Kramp BK, Butoi ED, Soehnlein O, Heemskerk JW, Ludwig A, Weber C, Koenen RR. Contribution of platelet CX(3)CR1 to platelet-monocyte complex formation and vascular recruitment during hyperlipidemia. *Arterioscler Thromb Vasc Biol.* 32(5):1186-1193, 2012.

Baron M, Boulanger CM, Staels B, Tailleux A, Simionescu M. Cell-derived microparticles in atherosclerosis: biomarkers and targets for pharmacological modulation? *J Cell Mol Med.* 16(7):1365-1376, 2012.

Popov D. Endoplasmic reticulum stress and the on site function of resident PTP1B. *Biochem Biophys Res Commun.* 422(4):535-538, 2012.

Georgescu A, Alexandru N, Andrei E, Titorencu I, Drăgan E, Tîrziu C, Ghiorghe S, Bădilă E, Bartos D, Popov D. Circulating microparticles and endothelial progenitor cells in atherosclerosis: pharmacological effects of irbesartan. *J Thromb Haemost.* 10(4):680-691, 2012.

Titorencu I, Albu M. G., Anton F., Georgescu A., Jinga V. V. Collagen – dexamethasone and collagen -D3 scaffolds for bone tissue engineering. *Molecular Crystals and Liquid Crystals,* 555(1): 208-217, 2012.

Albu M.G., Suflet D.M., Chitanu G.C., Budrugaec P., Titorencu I., Trandafir V. Biocomposites based on collagen and phosphorylated dextran for bone regeneration, *J. Mater. Res.,* 27(7): 1086-1096, 2012.

Albu M.G., Ferdes M., Kaya D.A., Ghica M.V., Titorencu I., Popa L., Albu L. Collagen wound dressings with anti-inflammatory activity, *Molecular Crystal and Liquid Crystal,* 555(1): 271-279, 2012.

Mazăre A., Dilea M., Ioniță D., Titorencu I., Trusca V., Vasile E. Changing bioperformance of TiO₂ amorphous nanotubes as an effect of inducing crystallinity, *Bioelectrochemistry,* 2012. doi: 10.1016/j.bioelechem.2012.01.002.

Ghica M.V., Albu M.G., Titorencu I., Popa L., Albu L. Collagen-doxycycline topical hydrogels: rheological, kinetic and biocompatibility studies. *Farmacia,* 2012 (in press).

Trusca VG, Florea IC, Kardassis D, Gafencu AV. STAT1 Interacts with RXR α to Upregulate ApoCII Gene Expression in Macrophages. *PLoS One.* 2012;7(7):e40463. Epub 2012.

Niculescu L.S., Toma L., Ianas O., Sima A.V. Gene polymorphisms of CETP and apolipoprotein E in elderly subjects with cognitive impairment. *Cent. Eur. J. Biol.,* 7(3): 419-430, 2012.

Sanda G.M., Rogoz D., Stancu C.S., Sima A.V. Glycated LDL increase intracellular calcium concentration in human vascular smooth muscle cells. *Annals of the Romanian Society for Cell Biology,* vol XVII (1): 37-44, 2012 .

Stancu C.S., Georgescu A., Toma L., Sanda G.M., Sima A.V. Glycated low density lipoproteins alter vascular reactivity in hyperlipidemic hyperglycemic hamsters. *Annals of the Romanian Society for Cell Biology,* vol XVII (1): 9-15, 2012.

Toma L., Sanda G.M., Stancu C.S., Rogoz D., Sima A.V. Combined effect of inflammatory C-reactive protein and hyperglycemia on endothelial cell dysfunction. *Annals of the Romanian Society for Cell Biology,* vol XVII (1): 29-36, 2012.

Stancu C.S., Toma L., Sima A.V. Dual role of lipoproteins in endothelial cell dysfunction in atherosclerosis. *Cell Tissue Res.* 2012;349(2):433-46.

2011

Alexandru N, Popov D, Dragan E, Andrei E, Georgescu A. Platelet activation in hypertension associated with hypercholesterolemia: effects of irbesartan. *J Thromb Haemost.;* 9(1):173-84, 2011.

Constantinescu E, Safciuc F, Sima AV. A hyperlipidemic diet induces structural changes in cerebral blood vessels. *Curr Neurovasc Res.;* 8(2):131-144, 2011.

Georgescu A, Popov D, Constantin A, Nemezc M, Alexandru N, Cochior D, Tudor A. Dysfunction of human subcutaneous fat arterioles in obesity alone or obesity associated with Type 2 diabetes. *Clin Sci (Lond),* 120(10):463-72, 2011.

Georgescu A. Vascular dysfunction in diabetes: The endothelial progenitor cells as new therapeutic strategy. *World J Diabetes.* 2011 Jun 15; 2(6):92-97.

Georgescu A, Alexandru N, Constantinescu A, Titorencu I, Popov D. The promise of EPC-based therapies on vascular dysfunction in diabetes. *Eur J Pharmacol.* 2011 Nov 1; 669(1-3):1-6.

Alexandru N, Georgescu A, Amuzescu M, C. Zamfir, A. Bădila, D. Popov. Platelet reactivity in chronic venous insufficiency. *Clin. Lab.,* 57 (7-8):527-534, 2011.

LIST OF PUBLICATIONS

- Georgescu A, Alexandru N, Nemez M, Titorencu I, Popov D.** Enoxaparin reduces adrenergic contraction of resistance arterioles in aging and in aging associated with diabetes via engagement of MAP kinase pathway. *Blood Coagulation and Fibrinolysis*, 22(4):310-316, 2011.
- Titorencu I, M. G. Albu, L. Popa, A. Ficai, V. Jinga, M.V. Ghica.** Collagen-doxycycline matrices used in tissue engineering. *Farmacia*, 59, 794-802, 2011
- Butoi ED, Gan AM, Mânduțeanu I, Stan D, Calin M, Pîrvulescu M, Koenen RR, Weber C, Simionescu M.** Cross talk between smooth muscle cells and monocytes/activated monocytes via CX3CL1/CX3CR1 axis augments expression of pro-atherogenic molecules. *Biochim Biophys Acta.*, 1813(12):2026-2035, 2011.
- Fenyó IM, Florea IC, Raicu M, Manea A.** Typhostin AG490 reduces NAPDH oxidase activity and expression in the aorta of hypercholesterolemic apolipoprotein E-deficient mice. *Vascul Pharmacol.*, 54(3-6):100-6, 2011.
- Haraba R, Uyy E, Suica VI, Ivan L, Antohe F.** Fluvastatin reduces the high mobility group box 1 protein expression in hyperlipidemia. *Internat J Cardiol*, 150(1): 105-107, 2011.
- Haraba R, Suica VI, Uyy E, Ivan L, Antohe F.** Hyperlipidemia stimulates the extracellular release of the nuclear high mobility group box 1 protein. *Cell Tissue Res*, 346(3): 361-368, 2011.
- Haraba R, Antohe F.** T cells are active participants in the progression of atherosclerotic plaques. *Digest J Nanomater Biostruct*. 6(4): 1529-1534, 2011.
- Cojocaru VM, Ciurtin C, Uyy E, Antohe F.** Nano-LC mass spectrometry proteomic tear secretion analysis in patients with secondary Sjögren's syndrome. *Digest J Nanomater Biostruct*. 6(2): 507-514, 2011.
- Ivan L, Dima SO, Antohe F.** Heat shock proteins in pancreatic diseases. *Rom J Biochem*, 48(1): 65-74, 2011.
- Heltianu C, Robciuc A, Botez G, Musina C, Stancu C, Sima AV, Simionescu M.** Modified low density lipoproteins decrease the activity and expression of lysosomal acid lipase in human endothelial and smooth muscle cells. *Cell Biochem Biophys*. 61(1):209-16, 2011.
- Heltianu C, Guja C.** Role of nitric oxide synthase family in diabetic neuropathy, *J Diab Metab. Special issue, Diabetic Neuropathy*, Ed. Yuriy K. Bashmakov, OMICS PUBLISHING GROUP/ACR, 2011, DOI: <http://dx.doi.org/10.4172/2155-6156.S5-002>, S5-002, 2011.
- Iordache F, Iordache C., Pop A., Lupu M., Andrei E., Buzila C., Maniu H.** The effects of some plant lectins and extracts on EPCs adhesion, *Cent. Eur. J. Biol.*, 6(3): 330-341, 2011.
- Liehn EA, Tuchscheerer N, Kanzler I, Drechsler M, Fraemohs L, Schuh A, Koenen RR, Zander S, Soehnlein O, Hristov M, Grigorescu G, Urs AO, Leabu M, Bucur I, Merx MW, Zernecke A, Ehling J, Gremse F, Lammers T, Kiessling F, Bernhagen J, Schober A, Weber C.** Double-Edged Role of the CXCL12/CXCR4 Axis in Experimental Myocardial Infarction. *J Am Coll Cardiol.*, 58(23):2415-23, 2011.
- Lupu M, Khalil M, Iordache F, Andrei E, Pfannkuche K, Spitkovsky D, Baumgartner S, Rubach M, Abdelrazik H, Buzila C, Brockmeier K, Simionescu M, Hescheler J, Maniu H.** Direct contact of umbilical cord blood endothelial progenitors with living cardiac tissue is a requirement for vascular tube-like structures formation. *J Cell Mol Med*. 15(9):1914-26, 2011.
- Lupu M, Khalil M, Andrei E, Iordache F, Pfannkuche K, Neef K, Georgescu A, Buzila C, Brockmeier K, Maniu H, Hescheler J.** Integration properties of Wharton's jelly-derived novel mesenchymal stem cells into ventricular slices of murine hearts. *Cell Physiol Biochem*, 28,63-76, 2011.
- Manea S.A., Robciuc A., Guja C., Heltianu C.** Identification of gene variants in NOS3, ET-1 and RAS that confer risk and protection against microangiopathy in type 2 diabetic obese subjects. *Biochem. Biophys. Res. Commun*. 407:486-490, 2011
- Pîrvulescu MM, Gan AM, Stan D, Simion V, Călin M, Butoi E, Tirgoviste CI, Mânduțeanu I.** Curcumin and a *Morus alba* extract reduce pro-inflammatory effects of resistin in human endothelial cells. *Phytother Res.*, 25(12):1737-42, 2011.
- Popov D.** 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(3):377-81, 2011.
- Roșca A.M., A. Burlacu.** The effect of 5-azacytidine: Evidence for alteration of the multipotent ability of mesenchymal stem cells. *Stem Cells Dev*. 20(7):1213-21, 2011.
- Stan D, Călin M, Mânduțeanu I, Pîrvulescu M, Gan AM, Butoi E, Simion V, Simionescu M.** High glucose induces enhanced expression of resistin in human U937 monocyte-like cell line by MAPK- and NF-κB-dependent mechanisms; the modulating effect of

insulin. *Cell Tissue Res.* 343(2):379-87, 2011.

Toma L, Stancu CS, Sanda GM, Sima AV. Anti-oxidant and anti-inflammatory mechanisms of amlodipine action to improve endothelial cell dysfunction induced by irreversibly glycated LDL. *Biochem Biophys Res Commun.* 411(1):202-207, 2011.

Trusca VG, Fuior EV, Florea IC, Kardassis D, Simionescu M, Gafencu AV. Macrophage-specific up-regulation of apolipoprotein E gene expression by STAT1 is achieved via long range genomic interactions. *J Biol Chem.*, 286(16):13891-904, 2011.

Niculescu L.S., Robciuc M.R., Sanda G.M., Sima A.V. Apolipoprotein A-I stimulates cholesteryl ester transfer protein and apolipoprotein E secretion from lipid-loaded macrophages; the role of NF- κ B and PKA signaling pathways. *Biochem Biophys Res Commun.* 415, 497-502, 2011.

Stancu C., Constantinescu E., Sima A. Ceruloplasmin and oxidized LDL colocalize in atherosclerotic lesions of hamster. *Centr Eur J Biol*, 6(1), 23-31, 2011.

2010

Albu M.G., M.V. Ghica, A. Ficai, I. Titorencu, L. Popa. Influence of freeze-drying process on porosity and kinetics release of collagen-doxycycline matrices. *Advanced Materials and Systems. Proc of 3rd Int Conference*, pp.181-186, 2010

Chahed S., A. S. Leroyer, M. Benzerroug, D. Gaucher, A. Georgescu, S. Picaud, J-S. Silvestre, A. Gaudric, A.Tedgui, P. Massin, C.M. Boulanger. Increased vitreous shedding of microparticles in proliferative diabetic retinopathy stimulates endothelial proliferation. *Diabetes*, 59: 694-701, 2010

Constantin A., Costache G. The emerging role of adipose tissue-derived leptin in inflammatory and immune responses in obesity. An update. *Proc.Rom.Acad. Ser. B.* 12:3-12, 2010.

Constantin A., G. Costache, A.V. Sima, C.S.Glavce, M.Vladica, D. Popov. Leptin G-2548A and leptin receptor Q223R gene polymorphisms are not associated with obesity in Romanian subjects. *Biochem. Biophys. Res. Commun.* 391: 282-286, 2010

Ivan L, F Antohe. Hyperlipidemia induces endothelial-derived foam cells in culture. *Recept. Signal Transduct. Res.* 30(2):106-14, 2010

Măduțeanu I, Pirvulescu M, Gan AM, Stan D, Simion V, Dragomir E, Calin M, Manea A, Simionescu M. Similar effects of resistin and high glucose on P-selectin and fractalkine expression and

monocyte adhesion in human endothelial cells. *Biochem. Biophys. Res. Commun.* 391(3):1443-8, 2010.

Manea A, Tanase LI, Raicu M, Simionescu M. JAK/STAT3 signaling pathway regulates Nox1 and Nox4-based NADPH oxidase in Human aortic smooth muscle cells. *Arterioscler. Thromb. Vasc. Biol.*, 30: 105-112, 2010.

Manea A, Tănase LI, Raicu M, Simionescu M. Transcriptional regulation of NADPH oxidase isoforms, Nox1 and Nox4, by nuclear factor-kappaB in human aortic smooth muscle cells. *Biochem Biophys Res Commun.* 2010; 396(4):901-7.

Manea A. NADPH oxidase-derived reactive oxygen species: involvement in vascular physiology and pathology. *Cell Tissue Res*, 342(3):325-39, 2010.

Manea S.A., Manea A., Heltianu C. Inhibition of the JAK/STAT signaling pathway prevents high glucose-induced increase in endothelin-1 synthesis in human endothelial cells. *Cell Tiss. Res.*, 340(1):71-79, 2010.

Niculescu L.S., M.Vladica, A.V.Sima. Association of APOA5 and APOC3 gene polymorphisms with plasma apolipoprotein A5 level in patients with metabolic syndrome. *Biochem. Biophys. Res. Commun.* 391(1):587-591, 2010

Popov D. Endothelial cell dysfunction in hyperglycemia: Phenotypic change, intracellular signaling modification, ultrastructural alteration, and potential clinical outcomes. *Intl J Diabetes Mellitus*, 2: 189-195, 2010.

Popov D. Vascular smooth muscle cells phenotypic modulation by hyperglycemia: an update on underlying mechanisms. *Proc. Rom. Acad. Ser. B*, 12: 83-89, 2010.

Preda M.B., A. Burlacu A. Electrocardiography as a tool for validating myocardial ischemia-reperfusion procedures in mice. *Comp Med.*, 60(6):443-7, 2010.

Robciuc M.R, J.Metso, A.Sima, C.Ehnholm, M. Jauhiainen. Human apoA-I increases macrophage foam cell derived PLTP activity without affecting the PLTP mass. *Lipids Health Dis.* 9: 9-59, 2010

Roșca AM, Burlacu A. Isolation of a mouse bone marrow population enriched in stem and progenitor cells by centrifugation on a Percoll gradient. *Biotechnol Appl Biochem.* 55(4):199-208, 2010.

Safciuc F, Constantinescu E, Sima A. The hyperlipidemic diet induces localized amyloidoses in hamster. *Proc. Rom. Acad., Series B*, 2: 91-99, 2010. Sima A.V., Botez G.M., Stancu C.S., Manea A., Raicu M., Simionescu M. Effect of irreversibly glycated LDL in human vascular smooth muscle cells: Lipid loading,

LIST OF PUBLICATIONS

oxidative and inflammatory stress. *J. Cell. Mol. Med.*, 14(12): 2790-2802, 2010.

Titorencu I., Albu M. G., Giurginca M., Jinga V., Antoniac I., Trandafir V., Cotrut C., Miculescu F., Simionescu M. In vitro biocompatibility of human endothelial cells with collagen-doxycycline matrices. *Mol. Cryst. Liq. Cryst.*, 523: 82[654]–96[668], 2010.

Uyy E., Antohe F., Ivan L., Haraba R., Radu D.L., Simionescu M. Upregulation of caveolin-1 expression is associated with structural modifications of endothelial cells in diabetic lung, *Microvasc. Res.* 79: 154-159, 2010.

Zaharia C, Niculescu M, Despa N, Simionescu M, Jinga V, Fleseriu I. Growth factors in orthopedic surgery. *J Med Life.* 3(1):36-51, 2010.

Nemecz M, Popov D, Georgescu A. Phosphorylation/dephosphorylation signaling events in the aorta of streptozotocin-injected Golden Syrian Hamsters. *Ann Rom Soc Cell Biol*, vol XV(1), 28-34, 2010.

Alexandru N., D. Popov, A. Georgescu. Intraplatelet oxidative/nitrative stress: inductors, consequences, and control. *Trends in Cardiovascular Medicine*, 20: 232-238, 2010.

Crăciunescu I., Șerban M., Iancu M., Revnic C., Popescu BA., Alexandru D., Rogoz D., Gînghină C. Remodelarea ventriculară post infarct și rolul matricei extracelulare. *Revista Romana de Cardiologie*, XXV (3), 153 – 158, 2010.

Crăciunescu I., Șerban M., Iancu M., Revnic C., Popescu BA., Alexandru D., Rogoz D., Gînghină C. Changes in plasma levels of MMP-9, MMP-7 and their inhibitors in patients with coronary artery disease. *Romanian Journal of Internal Medicine*, 48(2) 141-150, 2010.

Manea A., Fenyó I.M, Florea I.C, Raicu M. Distinct roles of NADPH oxidase isoforms in high glucose-induced reactive oxygen species formation in human aortic smooth muscle cells. *Annals of RSCB*, vol. XV, 26-32, 2010.

Raicu M., Manea A. Activator protein -1 regulates NOX1 and NOX4-containing NADPH oxidase transcription in human vascular smooth muscle cells. *Annals of RSCB*, vol. XV, 11-18, 2010. Preda M.B., Burlacu A. Animal models for in vivo ischemia studies, *Annals of the RSCB*, XV, 115-122, 2010.

Rosca A.-M., Burlacu A. Characterization of mesenchymal stem cells isolated from mouse bone marrow, *Annals of the RSCB*, XV, 57-64, 2010.

2009

Călin MV, Mânduțeanu I, Dragomir E, Drăgan E, Nicolae M, Gan AM, Simionescu M. Effect of depletion of monocytes/macrophages on early aortic valve lesion in experimental hyperlipidemia. *Cell and Tissue Res.* 336(2): 237-248, 2009.

Georgescu A, Alexandru N, Popov D, Amuzescu M, Andrei E, Zamfir C, Maniu H, Bădilă A. Chronic venous insufficiency is associated with elevated level of circulating microparticles. *J Thromb Haemost. Sep;* 7(9):1566-1575, 2009.

Heltianu C., Manea S.A., Guja C., Robciuc A., Ionescu-Tîrgoviște C. Polymorphism in exon 7 of the endothelial nitric oxide synthase gene is associated with low incidence of microvascular damage in type 1 diabetic neuropathy. *Central European Journal of Biology*, 4: 521–527, 2009.

Ianas O., Manda D., Heltianu C., Vlădoiu S., Popa O., Roșca R., Oros S., Dănciulescu R. The G894T polymorphism of endothelial nitric oxide synthase gene and the endocrine-metabolic changes in metabolic syndrome: A Romanian case-control study. *Acta Endocrinol.*, 5: 447-458, 2009.

Manduteanu I., Dragomir E., Calin M., Gan A.M., Stan D., Pirvulescu M., Simionescu M. Resistin up-regulates fractalkine expression in human endothelial cells; lack of additive effect with TNF-alpha. *Biochem. Biophys. Res. Commun.* 381: 95-101, 2009.

Simionescu M. Cellular dysfunction in inflammatory-related vascular disorders, *J. Cell. Molec. Med.* 13(11-12):4291-4292.

Sima A., Stancu C., Simionescu M. Vascular endothelium in atherosclerosis. *Cell Tissue Res.* 335(1):191-203, 2009.

Simionescu M., Popov D., Sima A. Endothelial transcytosis in health and disease, *Cell Tissue Res.*, 335, 27-40, 2009.

Toma L., Stancu C.S., Botez G.M., Sima A.V., Simionescu M. Irreversibly glycated LDL induce oxidative and inflammatory state in human endothelial cells; added effect of high glucose, *Biochem Biophys Res Commun.* 390: 877-882, 2009.

Voinea Calin M., Mânduțeanu I., Dragomir E., Dragan E., Nicolae M., Gan A.M., Simionescu M. Effect of monocytes/macrophages depletion on early aortic valve lesion in experimental hyperlipidemia, *Cell and Tissue Research*, 336(2):237-248, 2009.

Florea IC, Trusca VG, Fenyó IM, Gafencu AV. Expression of apoE3-HRP chimeric molecule in

HEK293 cells. *Ann Rom Soc Cell Biol*, vol. XIV(2): 21-27, 2009.

Popov D, Nemezc M, Dumitrescu M, Georgescu A, Böhmer FD. Long-term high glucose concentration influences Akt, ERK1/2, and PTP1B protein expression in human aortic smooth muscle cells. *Biochem Biophys Res Commun*, 388(1):51-55, 2009.

Avram S., Duda-Seiman D.M., Svab I., Mancas S., Duda-Seiman C., Mihăilescu D.F. Current Computer Aspirin and other non-steroidal anti-inflammatory drugs as Cyclooxygenase inhibitors: state of the art, barriers and perspectives, *Aided Drug Design*, 5(1), 1-12, 2009.

Raicu M., Tănase L., Manea A. Different effect of felodipine and amlodipine on NADPH oxidase expression and function in human smooth muscle cells. *Ann. Rom. Soc. Cell Biol.* vol. XV, 9-13, 2009

Niculescu L.S., Toma L., Ianăș O., Sima A.V. Functional polymorphisms of apoE and CETP genes in aged people from Romania; association with cognitive impairment, *Proc. Rom. Acad., Series B*, 10(2-3), 85-89, 2009.

Burlacu A. Stem Cells: present and perspectives. *Medic.ro* 2009, 54, 78-81.

Moraru A., Svab I., Mihăilescu D.F. Charmm Force Field Parametrization of bacterial lipopolysaccharides, *Rev. Roum. Chim.* 54(10), 799-805, 2009.

2008

Starodub OT, E.S. Demitrack, H.K. Baumgartner, M. Montrose. Disruption of COX-1 gene slows repair of microscopic lesions in the mouse gastric epithelium. *Am. J. Physiol. Cell. Physiol.* 249(1); C223-32, 2008.

Alexandru N., Constantin A., Popov D. Carbonylation of platelet proteins occurs as consequence of oxidative stress and thrombin activation, and is stimulated by ageing and type 2 diabetes. *Clin. Chem. Lab. Med.* 46, 528-536, 2008.

Alexandru N., Jardin I., Popov D., Simionescu M., Garcia-Estan J., Salido G. M., Rosado J.A. Effect of homocysteine on calcium mobilisation and platelet function in type 2 diabetes mellitus. *J. Cell. Mol. Med.* 12(5B): 2015-2026. 2008.

Burlacu A., Roșca A.M., Maniu H., Titorencu I., Dragan E., Jinga V., Simionescu M. Promoting effect of 5-azacytidine on the myogenic differentiation of bone marrow stromal cells. *Eur. J. Cell Biol.* 87: 173-184, 2008.

Chifiriuc M. C., Lixandru M., Iordache C., Bleotu C, Larion C., Olguta D., Lazar V., Antohe F., Israil A.M. Internalization of *Staphylococcus aureus* and *Pseudomonas aeruginosa* bacterial cells by non-phagocytic, epithelial human cells. *Rom Biotech Lett*, 13:3651-3658, 2008.

Dragomir E., Mânduțeanu I., Calin M., Gan A.M., Stan D., Koenen R.R., Weber C., Simionescu M. High glucose conditions induce up-regulation of fractalkine and MCP-1 in human smooth muscle cells. *Thromb. Haemost.* 100: 1155-1165, 2008.

Georgescu A, Popov D, Dragan E, Dragomir E, Badila E. Protective effects of nebivolol and reversal of endothelial dysfunction in diabetes associated with hypertension. *Eur J Pharmacol.* 81: 110-117, 2008.

Georgescu A., Pluteanu F., Flonta M-L., Bădilă E., Dorobanțu M., Popov D. Nebivolol induces the hyperpolarizing effect on smooth muscle cells in the mouse renal artery by activation of the β_2 - adrenoceptor, *Pharmacology*, 81, 110-117, 2008.

Heltianu C., Manea S.A., Guja C., Mihai C., Ionescu-Tirgoviste C. Correlation of low molecular weight advanced glycation end products and nitric oxide metabolites with chronic complications in type 1 diabetic patients, *Central Eur J Biol*, 3, 243-249, 2008.

Lupu M., Gooley T., Zellmer E., Graves S.S., Storb R. Principles of peripheral blood mononuclear cell apheresis in a preclinical canine model of hematopoietic cell transplantation. *Journal of Veterinary Internal Medicine* 22, 74-82, 2008.

Manea A., Manea S.A., Gafencu A.V., Raicu M., Simionescu M. Transcriptional regulation of NADPH oxidase by AP-1 in human aortic. *Arterioscler. Thromb. Vasc. Biol.*, 28: 878-885, 2008. Popov D., Constantinescu E. Arterial smooth muscle cells dysfunction in hyperglycaemia and hyperglycaemia associated with hyperlipidaemia, from causes to effects. *Arch. Physiol. Biochem.*, 114, 150-160, 2008.

Robciuc M.R., Sima A.V. Modulation of phospholipid and cholesteryl ester transfer activities by alpha-tocopherol administration in the hyperlipidemic hamster. *Proc. Rom. Acad. Series B*, 3, 137-143, 2008.

Sima A., Stancu C., Niculescu L., Constantinescu E., Glodeanu A., Simionescu M. The effect of simvastatin treatment on hyperlipemic hamsters. *Romanian Reports in Physics* 60, 857-876, 2008.

Stancu C, Serbancea F, Botez G, Sima A. The hypocholesterolemic effect of probiotics in the hyperlipidemic hamster. *Proc. Rom. Acad. Series B*, 3, 145-149, 2008.

LIST OF PUBLICATIONS

Titorencu I., Jinga V.V., Lungu A., Trandafir V., Albu M., Rau I., Iovu H. New scaffold structure based on collagen. Fabrication and biocompatibility evaluation. *Molecular Crystals and Liquid Crystals*, 486, 147[1189]-156[1198], 2008.

2007

Simionescu Maya. Implications of early structural-functional changes in the endothelium for vascular disease. *Arteriosclerosis, Thrombosis, and Vascular Biology*, 27:266-274, 2007

Mânduțeanu I., Dragomir E., Voinea M., Capraru M., Simionescu M. Enoxaparin Reduces H₂O₂-Induced Activation of Human Endothelial Cells by a Mechanism Involving Cell Adhesion Molecules and Nuclear Transcription Factors. *Pharmacology*. 79(3):154-162, 2007.

Niculescu L.S., J. Fruchart-Najib, J.-C. Fruchart, A. Sima. Apolipoprotein A-V gene polymorphisms in subjects with metabolic syndrome. *Clin.Chem.Lab.Med.* 45(9), 1133-9, 2007.

Sima A., A. Iordan, C. Stancu. Apolipoprotein E polymorphism – a risk factor for the metabolic syndrome. *Clin. Chem. Lab. Med.* 45(9): 1149-1153, 2007.

Georgescu A, Popov D, Dragan E, Dragomir E, Badila E. Protective effects of nebivolol and reversal of endothelial dysfunction in diabetes associated with hypertension. *Eur. J. Pharmacol*, 570,149-158, 2007.

Alexandru N., D. Popov, A. Sbarcea, M. Amuzescu. Platelet free cytosolic calcium concentration during ageing of type 2 diabetic patients, *Platelets*, 18(7): 473-480, 2007.

Gafencu A. V., M. R. Robciuc, E. Fuior, V. I. Zannis, D. Kardassis, M. Simionescu. Inflammatory signaling pathways regulating ApoE gene expression in macrophages. *Journal of Biological Chemistry* 282(30): 21776-21785, 2007.

Titorencu I., V.V. Jinga, E. Constantinescu, A.V. Gafencu, C. Ciohodaru, I. Manolescu, C. Zaharia, M. Simionescu. Proliferation, differentiation and characterization of osteoblasts from human BM mesenchymal cells. *Cytotherapy*, 9(7):682-696, 2007.

Safciuc F., 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, *Curr Neurovasc Res*, 4(4):228-234, 2007.

Corobea M. C., D. Donescu, C. Petcu, C.

Radovici, S. Serban, E. Constantinescu, M. Miculescu. Polyvinyl alcohol – Na montmorillonite nanocomposites films obtained by solution intercalation, *Journal of Optoelectronics and Advanced Materials*, 9(11): 3358-3360, 2007.

Manea A., Manea S.A., Gafencu A.V., Raicu M. Regulation of NADPH oxidase subunit p22 phox by NF- κ B in human aortic smooth muscle cells. *Arch. Physiol. Bioch.* 113, 163-172, 2007.

Titorencu I., Constantinescu E., Albu M., Trandafir V., Jinga V.V., Simionescu M. Proliferation of Human Endothelial Cells on Different Collagen Supports. *Proc.Rom.Acad., Ser. B*, 2, 89-94, 2007.

Toma L., Sima A. The effect of high glucose concentration on nitric oxide biodisponibility. *Proc. Rom. Acad., Ser. B*, 1, 11-15, 2007.

2006

Bălan S.A., R. Niculescu, M. Dorobantu, C. Heltianu. Association of C8002T poly-morphism in endothelin-1 gene with myocardial infarction. *Analele SNBC*, 10, 345-349, 2006.

Popov D., M. Simionescu. Cellular mechanisms and signaling pathways activated by high glucose and AGE-albumin in the aortic endothelium, *Arch Physiol Biochem* 112: 265-273, 2006.

Schneider Marc, Adriana Georgescu, Rose Kientsch-Engel, Peter Stahl, Doina Popov, Monika Pischetsrieder, Detection of DNA-bound advanced Glycation End-products by immunoaffinity chromatography coupled to HPLC-Diode array detection. *Molecular Nutrition & Food Research*, 50, 424-429, 2006.

Georgescu Adriana, Nicoleta Alexandru, Elena Constantinescu, Doina Popov, Effect of gap junction uncoupler heptanol on resistance arteries reactivity in experimental models of diabetes, hyperlipemia and hyperlipemia-Diabetes. *Vascular Pharmacology* 44, 513-518, 2006.

Georgescu A., F. Safciuc, E. Constantinescu. The effect of aging on the vasomotor function of rat basilar artery. *Proceedings of the Romanian Academy, Series B*, 1, 13-17, 2006.

Dragomir E., M.Tircol, I. Mânduțeanu, M. Voinea, M. Simionescu. Aspirin and PPAR- α activators inhibit MCP-1 expression induced by high glucose concentration in human endothelial cells, *Vascular Pharmacol.*, 44: 440-449, 2006.

Dragomir E., M. Simionescu. Monocyte Chemoattractant Protein-1 –a major contributor to the

inflammatory process associated with diabetes. *Archives of Physiology and Biochemistry*. 112(4):239-244, 2006.

Tircol M., D. Tîrziu, M. Simionescu. Chondroitin sulfate-modified LDL induces increased cholesteryl ester synthesis and down-regulation of LDL receptors in smooth muscle cells and macrophages., *Central European Journal of Biology*, 1, 150 – 166, 2006.

Simionescu M., F. Antohe. Functional ultrastructure of the vascular endothelium: changes in various pathologies. In: *The Vascular Endothelium*, Editors: Salvador Moncada and Annie Higgs, *Handb. Exp. Pharmacol.*, 41-69, 2006.

Corobea M.C., Uricanu V., Donescu D., Deladi S., Radovici C., Serban S., Constantinescu E. Variable morphologies of poly(vinyl acetate)-mont- morillonite nanocomposites obtained by emulsion polymerization in the presence of poly(vinyl pyrrolidone). *E-Polymers*, no. 060 (ISSN 1618-7229), 2006.

Stancu C., G. Botez, D. Alexandru, M. Vlădică, A. Sima. Lipoproteins from diabetic and hyperlipidemic patients induce an increase in scavenger receptors CD36 and LOX-1 gene expression in human endothelial cells, *Proc.Rom Acad., Series B*, 8, 37- 43, 2006.

Botez G., C. Stancu, D. Alexandru, M. Vlădică, A. Sima. Glycated LDL induce lipid loading in human smooth muscle cells, *Proceedings of the Romanian Academy, Series B*, vol 8, pg. 31-35, 2006.

Catană-Negreanu C., Albu R., Glavce C., Vladica M., Sima A. Apolipoprotein E genotype in the Romanian population - association with risk factors for metabolic syndrome. *Proceedings of the Romanian Academy, Series B*, vol 8, pg. 25-29, 2006.

Georgescu A., F. Safciuc, E. Constantinescu. The effect of aging on the vasomotor function of rat basilar artery. *Proc. Romanian Academy, Series B*, 8: 13-17, 2006.

Siska I. R., E. Deak, H. Maniu, D. Nistor, C. Bunu, G. Tanasie, C. Tatu, V. Ordodi, D. Szilagy, S. Anghel, C. Tatu, V. Paunescu. Isolation and culture of human adult stem cells for their differentiation towards endothelial and smooth muscle lineage. *Physiology*, 16/1(49): 46, 2006.

Burlacu A. Can 5-azacytidine convert the adult stem cells into cardiomyocytes? A brief overview. *Arch Physiol Biochem*. 112(4/5):260-264, 2006.

Popov D, Simionescu M. Cellular mechanisms and signaling pathways activated by high glucose and AGE-albumin in the aortic endothelium. *Arch Physiol Biochem*. 112: 265-273, 2006.

Antohe F. Endothelial cells and macrophages, partners in atherosclerotic plaque progression. *Arch Physiol Biochem*. 112(4):245-53, 2006.

Cojocaru V.M., Ciurtin C., Puchianu E., Antohe F. Lacrimal proteins electrophoretic analysis-diagnostic method in secondary Sjogren syndrome, *Oftalmologia*. 50(4), 60-63, 2006.

2005

Georgescu A., Pluteanu F., Flonta M.-L., E. Badila, M. Dorobantu, Popov D. The cellular mechanisms involved in the vasodilator effect of nebivolol on the renal artery. *Eur.J. Pharmacol.*, 508, 159-166, 2005

Antohe F., Radulescu L., Puchianu E., Kennedy M.D., Low P., Simionescu M. Increased uptake of folate conjugates by activated macrophages in experimental hyperlipemia, *Cell Tissue Res.*, 320:277-285, 2005.

Voinea M., Mânduțeanu I, Dragomir E., Capraru M., Simionescu M. Immunoliposomes Directed Toward VCAM-1 Interact Specifically with Activated Endothelial Cells-A Potential Tool for Specific Drug Delivery, *Pharm Res.*, 22(11):1906-1917, 2005.

Manea A., Raicu M., Simionescu M. Expression of functionally phagocyte-type NAD(P)H oxidase in rat pericytes. Role of angiotensin II and high glucose. *Biology of the Cell*, 97:723-734, 2005.

Constantin A, Constantinescu E, Dumitrescu M, Calin A, Popov D. Effects of ageing on carbonil stress and antioxidant defece in RBC of obese Type 2 diabetic patients. *J. Cell. Mol. Med.*, 9 (3): 683 – 691, 2005.

Nicolae M., M.Tircol, D.Alexandru. Inhibitory effect of acetylsalicylic acid on matrix metalloproteinase-2 activity in human endothelial cells exposed to high glucose. *J. Cell. Mol. Med.*, 9(4), 953-960, 2005.

Heltianu C., Costache G., Gafencu A., Diaconu M., Bodeanu M., Cristea C., Azibi K., Poenaru L., Simionescu M. Relationship of eNOS gene variants to diseases that have in common an endothelial cell dysfunction., *J.Cell.Mol.Med.*, 9, 135-142, 2005.

Bălan, S. A. Cretu, M. Fenyó, C. Heltianu. Association of G894T polymorphism of eNOS gene with type 2 diabetes mellitus in men. *Ann. Nat. Soc. Cell. Biol.*, 9(1), 32-38, 2005

Popov D, Georgescu A, Costache G. Perturbarea reactivitatii arterelor de rezistenta, manifestare a disfuncției vasculare in diabet. *Rev. Rom. Cardiol.*, 20:216-223, 2005.

LIST OF PUBLICATIONS

Glodeanu A. A non-linear kinetic approach for chemically interacting bio-molecules and some stability-instability problems. *Rom. J. Phys.*, 50(1-2), 199-210, 2005.

Glodeanu A. A semi empiric approach to compute the dissociation energy of hydrogen bound to small molecules of chemical and biological interest. *Rom. J. Phys.*, 50, 211-216, 2005.

Glodeanu A. A linear kinetic theory for chemically interacting bio-molecules with hyperlipemic diet and drug administered to living systems. *Rom.Rep.Phys.*, 57, 993-10001, 2005.

Antohe F. The Folate Receptor: A Potential Candidate for Drug Targeting to Atherosclerotic Plaques. invited commentary *Intl. Atherosclerosis Society (IAS) Website*, 2005

Manea A., A.V. Gafencu, S.A. Bălan, M. Raicu. Mecanisme moleculare implicate in reglarea complexului NAD(P)H oxidaza in cellule musculare netede vasculare. Rolul factorului nuclear kB. *Analele SNBC*, 10, 53-56, 2005.

Raicu M., Manea A. Efectul inhibitorilor ECA si al blocantilor de canale de calciu asupra stresului oxidativ Indus de conditiile pro-diabetice in pericite. *Analele SNBC*, X, p 49-52, 2005.

2004

Voinea M., Georgescu A., Manea A., Dragomir E., Mânduțeanu I., Popov D., Simionescu M. Superoxide dismutase entrapped-liposomes restore the impaired endothelium-dependent relaxation of resistance arteries in experimental diabetes, *Eur. J. Pharmacol.*, 484, 111-118, 2004.

Rădulescu L., Stancu C., Antohe F. Antibodies against human oxidized low-density lipoprotein (LDL) as markers for human plasma modified lipoproteins. *Medical Science Monitor*, 10(7), BR207-214, 2004

Rădulescu L., Antohe F., Jinga V., Ghetie V., Simionescu M. Neonatal Fc receptors discriminates and monitors the pathway of native and modified immunoglobulin G in placental endothelial cells. *Human Immunology* 65(6), 578-585, 2004

Manea A., Constantinescu E., Popov D., Raicu M. Changes in oxidantative balance in rat pericytes exposed to diabetic conditions. *J. Cell Mol. Med.*, 8, 117-126, 2004.

Radu D.L., Georgescu A., Stavaru C., Carale A., Popov D. Double transgenic mice with Type 1 diabetes develop somatic, metabolic and vascular disorders. *J. Cell. Mol. Med.*, 8(3), 349-358, 2004.

Fruchart-Najib J., Bauge E., Niculescu L., Pham T., Thomas B., Rommens C., Majd Z., Brewer B., Pennacchio L.A., Fruchart J-C. Mechanism of triglyceride lowering in mice expressing human apolipoprotein A5. *Biochem. Biophys. Res. Commun.* 319, 397-404, 2004

Makarenko I, Opitz CA, Leake MC, Neagoe C, Kulke M, Gwathmey JK, del Monte F, Kajjar RJ, Linke WA. Passive stiffness changes due to upregulation of compliant titin isoforms in human DCM hearts. *Circ. Res.* 95, 708-716, 2004

Dragomir E., Manduteanu I., Voinea M., Costache G., Manea A., Simionescu M. Aspirin rectifies calcium homeostasis, decreases reactive oxygen species and increases NO production in high glucose-exposed human endothelial cells. *J. Diab. Complications.* 18, 289-299, 2004.

Alexandru N., Rogoz D., Popov D., Sbârcea A., Amuzescu M. Efectele inaintarii in varsta asupra homeostaziei [Ca²⁺]_i din plachetele umane. *Analele SNBC*, 8, 21-26, 2004.

Svab I., Alexandru D., Vitos G., Flonta M.L. Binding affinities for sulfonamide inhibitors with matrix metalloproteinase-2 using a linear response method. *J. Cell. Mol. Med.*, 8(4), 551-562, 2004

Antohe F., Lin L., Kao G.Y., Poznansky M.J., Allen T.M. Transendothelial Movement of Liposomes in vitro Mediated by Cancer Cells, Neutrophils or Histamine. *Journal of Liposomes Research* , vol 14 (1-2), 1-25, 2004

Toma L., Catană-Negreanu C.I., Niculescu L., Sima A. Modulation of the gene expression for low density lipoprotei receptors induced by atorvastatin. *Proc. Rom. Acad., Series B*, 6(2), 125-128, 2004

Rootsi S., Magri C., Kivisild T., Benuzzi G., Help H., Bermisheva M., Kutuev I., Barac L., Pericic M., Balanovsky O., Pshenichnov A., Dion D., Grobei M., Zhivotovsky L.A., Battaglia V., Achilli A., Al-Zahery N., Parik J., King R., Cinnioglu C., Khusnutdinova E., Rudan P., Balanovska E., Scheffrahn W., Simionescu M., Brehm A., Goncalves R., Rosa A., Moisan J.P., Chaventre A., Ferak V., Furedi S., Oefner P.J., Shen P., Beckman L., Mikerezi I., Terzic R., Primorac D., Cambon-Thomsen A., Krumina A., Torroni A., Underhill P.A., Santachiara-Benerecetti A.S., Villems R., Semino O. Phylogeography of Y-Chromosome haplogroup I reveals distinct domains of prehistoric gene flow in Europe., *Am. J. Hum. Genet.*, 75, 128-137, 2004.

Popov D., Constantinescu E, Shepherd P.R. High

glucose-induced alterations in human aortic smooth muscle cells: phenotypic changes and signal transduction mediators, *Proc. Rom. Acad. Series B*, 6, 47-51, 2004.

Constantin A., Cheta D.M., Popov D. Effects of silymarin on red blood cells osmotic fragility in obesity associated with type 2 diabetes. *Proc. Rom. Acad., Series B*, 6(3), 187-190, 2004.

Bălan S.A., Cretu A., Fenyo M., Heltianu C. Asocierea polimorfismului G894T al genei eNos cu diabetul zaharat de tipul 2 la barbati. *Analele SNBC*, 9(1), 32-38, 2004.

Voinea M., Dragomir E., Mânduțeanu I. Gene transfer into endothelial cells using transferrin bound cationic liposomes. *Proc. Rom. Acad., Ser. B*, 3:203-206, 2004.

2003

Rădulescu L., Manduteanu I., Antohe F., Simionescu M. Detection of new antigens in activated endothelial cells by high-resolution 2-D gel technology, *Electrophoresis-Tech Note 2979*, Bio-Rad, 2003

Gafencu A.V., Heltianu C., Burlacu A., Hunziker W., Simionescu M. Investigation of IgG receptors expressed on the surface of human placental endothelial cells. *Placenta*, 24, 664-676, 2003.

Georgescu A., Popov D., Căpraru M., Simionescu M. Enoxaparin - a low molecular weight heparin, restores the altered vascular reactivity of resistance arteries in aged and aged-diabetic hamsters. *Vasc. Pharmacol.* 40, 167-174, 2003.

Georgescu A., Popov D. The contractile response of the mesenteric resistance arteries to prostaglandin F₂ α ; effects of simultaneous hyperlipidemia-diabetes. *Fundam. Clin. Pharmacol.* 17, 683-689, 2003

Popov D., Simionescu M., Shepherd P.R. Saturated-fat diet induces moderate diabetes and severe glomerulosclerosis in hamsters, *Diabetologia*, 46, 1408-1418, 2003

Burlacu A. Regulation of apoptosis by Bcl-2 family proteins. *J. Cell. Mol. Med.* 7, 249- 257, 2003.

Mânduțeanu I., Voinea M., Antohe F., Dragomir E., Căpraru M., Rădulescu L., Simionescu M. Effect of enoxaparin on high-glucose induced activation of endothelial cells, *Eur. J. Pharmacol.*, 477, 269-276, 2003.

Popescu I., Simionescu M., Tulbure D., Sima A., Catana-Negreanu C., Niculescu L., Hancu N., Gheorghe L., Mihăilă M., Ciurea S., Vidu V. Homozygous familial hypercholesterolemia: specific indication for domino liver transplantation. *Transplantation*, 76(9), 1345-1350, 2003.

Neagoe C., Makarenko I., Opitz C.A., Linke W.A. Gigantic variety: expression patterns of titin isoforms in striated muscles and consequences for myofibrillar passive stiffness. *J. Muscle Res Cell Motil.* 24, 175-189, 2003.

Opitz C.A., Kulke M., Leake M.C., Neagoe C., Hinssen H., Hajjar R.J., Linke W.A. Damped elastic recoil of the titin spring in myofibrils of human myocardium. *Proc. Natl. Acad. Sci. USA* .100:12688-12693, 2003.

Hunter R.J., Neagoe C., Jarvelainen H.A., Martin C.R., Lindros K.O., Linke W.A., Preedy V.R. Alcohol affects the skeletal muscle proteins, titin and nebulin in male and female rats. *J Nutr.* 133:1154-1157, 2003.

Avram S., Svab I., Bologa C., Flonta M.L. Correlation between the predicted and the observed biological activity of the symmetric and nonsymmetric cyclic urea derivatives used as HIV-1 protease inhibitors. A 3D-QSAR-CoMFA method for new antiviral drug design. *J. Cell Mol. Med.*, 7(3), 287-296, 2003.

Burlacu A., Drăgan E., Jinga V.V., Manolescu I. Aspecte morfo-functionale ale cardiomiocitelor in cultura. *Analele SNBC.*, 8, 89-94, 2003

Manea A., Raicu M. Efectul inhibitorilor ECA si al blocantelor de receptor AT1 asupra modificarilor induse de stresul oxidativ in retinopatia experimentală. *Analele SNBC*, 8, 17-20, 2003

Bălan S.A., Dobrin A., Heltianu C. Analiza polimorfismului sintetazei oxidului nitric endotelial in nefropatia diabetica. *Analele SNBC*, 8, 27-32, 2003

Tircol M, Tîrziu D, Simionescu M, Efecte ale activatorilor PPAR α in macrofagele incubate cu LDL modificat. *Analele SNBC*, vol 8, 13-16, 2003.

Glodeanu A., Sima A. A linear kinetic approach and near equilibrium thermodynamics of serum parameters from atherosclerosis- induced animals treated with drugs. *Rom. J. Physics*, 48, 649-657, 2003.

Dobrin A., Bălan S. A., Nesterov M., Guja C., Burtea M., Ionescu-Tîrgoviște C., Heltianu C., Simionescu M. Insertion/deletion polymorphism of the angiotensin-converting enzyme gene in Homozygous familial hypercholesterolemia: specific indication for domino liver transplantation. *Transplantation*, 76(9), 1345-1350, 2003.

Neagoe C., Makarenko I., Opitz C.A., Linke W.A. Gigantic variety: expression patterns of titin isoforms in striated muscles and consequences for myofibrillar passive stiffness. *J. Muscle Res Cell Motil.* 24, 175-189, 2003.

LIST OF PUBLICATIONS

Opitz C.A., Kulke M., Leake M.C., Neagoe C., Hinssen H., Hajjar R.J., Linke W.A. Damped elastic recoil of the titin spring in myofibrils of human myocardium. *Proc. Natl. Acad. Sci. USA* .100:12688-12693, 2003.

Hunter R.J., Neagoe C., Jarvelainen H.A., Martin C.R., Lindros K.O., Linke W.A., Preedy V.R. Alcohol affects the skeletal muscle proteins, titin and nebulin in male and female rats. *J Nutr.* 133:1154-1157, 2003.

Avram S., Svab I., Bologa C., Flonta M.L. Correlation between the predicted and the observed biological activity of the symmetric and nonsymmetric cyclic urea derivatives used as HIV-1 protease inhibitors. A 3D-QSAR-CoMFA method for new antiviral drug design. *J. Cell Mol. Med.*, 7(3), 287-296, 2003.

Manea A., Raicu M. Efectul inhibitorilor ECA si al blocantelor de receptor AT1 asupra modificarilor induse de stresul oxidativ in retinopatia experimentală. *Analele SNBC*, 8, 17-20, 2003

Bălan S.A., Dobrin A., Heltianu C., Analiza polimorfismului sintetazei oxidului nitric endotelial in nefropatia diabetica. *Analele SNBC*, 8, 27-32, 2003

Tircol M, Tirziu D, Simionescu M, Efecte ale activatorilor PPAR α in macrofagele incubate cu LDL modificat. *Analele SNBC*, vol 8, 13-16, 2003.

Glodeanu A., Sima A. A linear kinetic approach and near equilibrium thermodynamics of serum parameters from atherosclerosis- induced animals treated with drugs. *Rom. J. Physics*, 48, 649-657, 2003.

Dobrin A., Bălan S. A., Nesterov M., Guja C., Burtea M., Ionescu-Tirgoviste C., Heltianu C., Simionescu M. Insertion/deletion polymorphism of the angiotensin-converting enzyme gene in Homozygous familial hypercholesterolemia: specific indication for domino liver transplantation. *Transplantation*, 76(9), 1345-1350, 2003.

Neagoe C., Makarenko I., Opitz C.A., Linke W.A. Gigantic variety: expression patterns of titin isoforms in striated muscles and consequences for myofibrillar passive stiffness. *J.Muscle Res Cell Motil.* 24, 175-189, 2003.

Opitz C.A., Kulke M., Leake M.C., Neagoe C., Hinssen H., Hajjar R.J., Linke W.A. Damped elastic recoil of the titin spring in myofibrils of human myocardium. *Proc. Natl. Acad. Sci. USA* .100:12688-12693, 2003.

Hunter R.J., Neagoe C., Jarvelainen H.A., Martin C.R., Lindros K.O., Linke W.A., Preedy V.R.

Alcohol affects the skeletal muscle proteins, titin and nebulin in male and female rats. *J Nutr.* 133:1154-1157, 2003.

Avram S., Svab I., Bologa C., Flonta M.L. Correlation between the predicted and the observed biological activity of the symmetric and nonsymmetric cyclic urea derivatives used as HIV-1 protease inhibitors. A 3D-QSAR-CoMFA method for new antiviral drug design. *J. Cell Mol. Med.*, 7(3), 287-296, 2003.

Manea A., Raicu M. Efectul inhibitorilor ECA si al blocantelor de receptor AT1 asupra modificarilor induse de stresul oxidativ in retinopatia experimentală. *Analele SNBC*, 8, 17-20, 2003

Bălan S.A., Dobrin A., Heltianu C., Analiza polimorfismului sintetazei oxidului nitric endotelial in nefropatia diabetica. *Analele SNBC*, 8, 27-32, 2003

Tircol M, Tirziu D, Simionescu M, Efecte ale activatorilor PPAR α in macrofagele incubate cu LDL modificat. *Analele SNBC*, vol 8, 13-16, 2003.

Glodeanu A., Sima A. A linear kinetic approach and near equilibrium thermodynamics of serum parameters from atherosclerosis- induced animals treated with drugs. *Rom. J. Physics*, 48, 649-657, 2003.

Dobrin A., Balan S. A., Nesterov M., Guja C., Burtea M., Ionescu-Tirgoviste C., Heltianu C., Simionescu M. Insertion/deletion polymorphism of the angiotensin-converting enzyme gene in Homozygous familial hypercholesterolemia: specific indication for domino liver transplantation. *Transplantation*, 76(9), 1345-1350, 2003.

Neagoe C., Makarenko I., Opitz C.A., Linke W.A. Gigantic variety: expression patterns of titin isoforms in striated muscles and consequences for myofibrillar passive stiffness. *J.Muscle Res Cell Motil.* 24, 175-189, 2003.

Opitz C.A., Kulke M., Leake M.C., Neagoe C., Hinssen H., Hajjar R.J., Linke W.A. Damped elastic recoil of the titin spring in myofibrils of human myocardium. *Proc. Natl. Acad. Sci. USA* .100:12688-12693, 2003.

Hunter R.J., Neagoe C., Jarvelainen H.A., Martin C.R., Lindros K.O., Linke W.A., Preedy V.R. Alcohol affects the skeletal muscle proteins, titin and nebulin in male and female rats. *J Nutr.* 133:1154-1157, 2003.

Avram S., Svab I., Bologa C., Flonta M.L. Correlation between the predicted and the observed biological activity of the symmetric and nonsymmetric cyclic urea derivatives used as HIV-1 protease inhibitors.

A 3D-QSAR-CoMFA method for new antiviral drug design. *J. Cell Mol. Med.*, 7(3), 287-296, 2003.

Manea A., Raicu M. Efectul inhibitorilor ECA si al blocantelor de receptor AT1 asupra modificarilor induse de stresul oxidativ in retinopatia experimentală. *Analele SNBC*, 8, 17-20, 2003

Bălan S.A., Dobrin A., Heltianu C., Analiza polimorfismului sintetazei oxidului nitric endotelial in nefropatia diabetica. *Analele SNBC*, 8, 27-32, 2003

Tircol M, Tirziu D, Simionescu M, Efecte ale activatorilor PPAR α in macrofagele incubate cu LDL modificat. *Analele SNBC*, vol 8, 13-16, 2003.

Glodeanu A., Sima A. A linear kinetic approach and near equilibrium thermodynamics of serum parameters from atherosclerosis- induced animals treated with drugs. *Rom. J. Physics*, 48, 649-657, 2003.

Dobrin A., Balan S. A., Nesterov M., Guja C., Burtea M., Ionescu-Tirgoviste C., Heltianu C., Simionescu M. Insertion/deletion polymorphism of the angiotensin-converting enzyme gene in Romanian diabetic patients. *Proc. Rom.Acad.*, 5, 115-119, 2003.

2002

Mănușeanu I., Voinea M., Capraru M., Dragomir E., Simionescu M. A novel attribute of enoxaparin: inhibition of monocyte adhesion to endothelial cells by a mechanism involving cell adhesion molecules. *Pharmacology*, 65(1): 32-37, 2002.

Simionescu M., Stancu C., Costache G., Sima A. Endothelial cell response to hyperlipemia. Activation-dysfunction-injury, the protective role of simvastatin. *Vascular Pharmacology*, 38, 275-282, 2002.

Popov D., Costache G., Georgescu A., Enache M. Beneficial effects of L-Arginine supplementation in experimental hyperlipemia-hyperglycemia in the hamster. *Cell and Tissue Research*, 308, 109-120, 2002.

Constantinescu E., Alexandru D., Alexandru V. An ex vivo model to study the monocyte-endothelial cell interaction in the prelesional stage of experimentally-induced atherogenesis in hamster. *J. Submicrosc. Cytol. Pathol.*, 34(2), 115-124, 2002.

Heltianu C., Costache G., Azibi K., Poenaru L., Simionescu M. Endothelial nitric oxide synthase gene polymorphism in Fabry's disease. *Clinical Genetics*, 61, 423-429, 2002.

Voinea M., Dragomir E., Manduteanu I., Simionescu M. Binding and uptake of transferrin-bound liposomes targeted to transferrin receptors of endothelial cells. *Vascular Pharmacology*, 39, 13-20, 2002.

Neagoe C., Kulke M., del Monte F., Gwathmey J.K., de Tombe P.P., Hajjar R.J., Linke W.A. Titin isoform switch in ischemic human heart disease. *Circulation*, 106, 1333-41, 2002.

Minajeva A., Neagoe C., Kulke M., Linke W.A. Titin-based contribution to shortening velocity of rabbit skeletal myofibrils. *J Physiol.* 540, 177-188, 2002.

Linke W.A., Kulke M., Li H., Fujita-Becker S., Neagoe C., Manstein D.J., Gautel M., Fernandez J.M. PEVK domain of titin: an entropic spring with actin-binding properties. *J Struct Biol.* 137, 194-205, 2002.

Anderson J., Joumaa V., Stevens L., Neagoe C., Li Z., Mounier Y., Linke W.A., Goubel F. Passive stiffness changes in soleus muscles from desmin knockout mice are not due to titin modifications. *Pflügers Arch.* 444, 771-776, 2002.

Azibi K., Caillaud C., Heltianu C., Dussau J., Puech JP., Poenaru L. Novel mutations and genetic markers in Fabry disease. *Am. J. Human Genetics*, 71, 540, 2002.

Sima A., Stancu C. Modified lipoproteins accumulate in human coronary atheroma. *J. Cell. Mol. Med.* 6, 110-111, 2002.

Sima A. Experimental atheroma formation in the coronary artery of the hyperlipemic hamster. *J. Cell. Mol. Med.* 6, 276-277, 2002

Voinea M., Simionescu M. Designing of "intelligent" liposomes for efficient delivery of drugs. *J. Cell. Mol. Med.* 6, 465-474, 2002

Tircol M., Tirziu D., Simionescu M. Proprietatile aterogene ale LDL modificat cu condroitin sulfat si expresia genica a PPAR α in macrofagele umane. *Analele SNBC.* VII(1), 71 – 75, 2002.

Manea A., Constantinescu E., Raicu M. Condițiile pro-diabetice induc dezechilibrul balantei oxidanti/antioxidanti in pericite. *Analele SNBC.* VII (1), 76-81, 2002.

Gafencu A.V., Dutca M., Heltianu C. Caracterizarea proteinelor care leaga albumina in celulele endoteliale placentare umane. *Analele SNBC.* VII, 64-68, 2002.

2001

Antohe F., Radulescu L., Gafencu A., Ghetie V., Simionescu M. Expression of functionally active FcRn and differentiated bidirectional transport of IgG in human placental endothelial cells. *Human Immunology*, 62: 93-105, 2001.

LIST OF PUBLICATIONS

Firan M, Bawdon R, Radu C, Ober RJ, Eaken D, Antohe F, Ghetie V, Sally Ward E. The MHC class I-related receptor, FcRn, plays an essential role in the maternofetal transfer of γ -globulin in humans. *International Immunology*, 13(8): 993-1002, 2001.

Raicu M, Florea S. Deleterious effects of nifedipine on smooth muscle cells implies alterations of intracellular calcium signaling. *Fundamental and Clinical Pharmacology*, 15, 387-392, 2001.

Georgescu A, Popov D, Simionescu M. Mechanisms of decreased bradykinin-induced vasodilation in experimental hyperlipemia-hyperglycemia: contribution of nitric oxide and Ca^{2+} -activated K^{+} channels. *Fundamental and Clinical Pharmacology*, 15: 335-342, 2001.

Burlacu A, Jinga VV, Gafencu AV, Simionescu M. Severity of oxidative stress generates different mechanisms of endothelial cell death. *Cell and Tissue Research*, 306: 409-416, 2001.

Kulke M, Neagoe C, Kolmerer B, Minajeva A, Hinssen H, Bullard B, Linke WA. Kettin, a major source of myofibrillar stiffness in *Drosophila* indirect flight muscle. *J Cell Biol.*, 154, 1045-57, 2001.

Kulke M, Fujita-Becker S, Rostkova E, Neagoe C, Labeit D, Manstein DJ, Gautel M, Linke WA. Interaction between PEVK-titin and actin filaments: origin of a viscous force component in cardiac myofibrils. *Circ Res.*, 89, 874-881, 2001.

Sima A, Stancu C, Constantinescu E, Ologeanu L, Simionescu M. The hyperlipemic hamster – a model for testing the anti-atherogenic effect of amlodipine. *J. Cell. Mol. Med.*, 5(2), 153-162, 2001.

Niculescu L, Stancu C, Sima A, Toporan D, Simionescu M. The total peroxy radical trapping potential in serum – an assay to define the stage of atherosclerosis. *J. Cell. Mol. Med.*, 5(3), 285-294, 2001

Simionescu M. Cellular components of the air-blood barrier. *J. Cell. Mol. Med.*, 5(3), 320-321, 2001.

Stancu C, Sima A. Statins: mechanisms of action and effects. *J. Cell. Mol. Med.*, 5(4): 378-387, 2001

Stancu C, Sima A, Toporan D, Niculescu L, Catana-Negreanu CC, Simionescu M. Anti-atherosclerotic effects of simvastatin on atheroma cells: in vivo and in vitro studies. *Proceedings of the Romanian Academy*, 2, 171-174, 2001.

Georgescu A, Popov D. Vascular reactivity of the resistance arteries to potassium in combined hyperlipemia-hyperglycemia. *Proceedings Romanian Academy*, 2, 111-115, 2001.

Niculescu L, Stancu C, Vladimirescu L, Sima A. In vivo study of the antioxidant effect of vitamins E and C. *Proceedings of the Romanian Academy*, 3, 247-251, 2001.

Gafencu A, Heltianu C, Burlacu A, Hunziker, W, Simionescu M. Immortalization endothelial cells. *Proceedings of the Romanian Academy*, 2, 117-121, 2001.

Raicu M. Detectarea cailor de actiune ale nifedipinei in modificarea concentratiei ionilor de calciu intracelular in urma interactiei celulelor in cultura cu seruri de la donatori. *Probleme Curente de Biologie Celulara si Moleculara*, 6,121-126, 2001.

Sváb I, Avram S, Flonta ML A flexible ligand docking study of the HIV-1 protease–DMP323 complex. *Romanian J. Biophysical*, 11(3-4), 119-132, 2001.

Georgescu A, Popov D, Vladimirescu L. Efectul blocarii jonctiunilor de comunicare intercelulara asupra raspunsului contractil al arterelor de rezistenta. *Probleme Curente de Biologie Celulara si Moleculara*, 6, 85-89, 2001.

Gafencu A, Postea O, Heltianu C, Simionescu M. Serul hiperlipidemic stimuleaza legarea si endocitoza IgG de catre celulele endoteliale aortice. *Probleme Curente de Biologie Celulara si Moleculara*, 6, 79-84, 2001.

2000

Jinga VV, Gafencu A, Antohe F, Constantinescu E, Heltianu C, Raicu M, Manolescu I, Hunziker W, Simionescu M. Establishment of a pure microvascular endothelial cell line from human placenta. *Placenta*, 21(4), 325-336, 2000.

Costache G, Popov D, Georgescu A, Cenuse M, Jinga VV, Simionescu M. The effects of simultaneous hyperlipemia-hyperglycemia on the mesenteric resistance arteries, myocardium and kidney glomeruli. *J. Submicrosc. Cytol. Pathol.*, 32, 47-58, 2000.

Georgescu A, Popov D. Age-dependent accumulation of advanced glycation endproducts is accelerated in combined hyperlipemia and hyperglycemia, a process attenuated by L-Arginine. *J. Am. Aging Assoc.* 23, 33-40, 2000.

Constantinescu E, Alexandru D, Alexandru V, Raicu M., Simionescu M. Endothelial cell-derived foam cells fail to express adhesion molecules (ICAM-1 and VCAM-1) for monocytes. *J. Submicrosc. Cytol. Pathol.* 32 (2), 195-201, 2000.

Raicu M, Florea S, Costache G, Popov D, Simionescu M. Clotrimazole inhibits smooth muscle

cells proliferation and has a vasodilator effect on resistance arteries. *Fundamental and Clinical Pharmacology* 14: 477-485, 2000.

Dobrian A, Lazar V, Sinescu C, Mincu D, Simionescu M. Diabetic state induces lipid loading and altered expression of lipoprotein lipase in culture monocyte-derived macrophages. *Atherosclerosis*, 153: 191-201, 2000.

Raicu M, Florea S, Simionescu M. Clotrimazole inhibits the increase of intracellular free calcium induced by vasoactive agents in smooth muscle cells. *Current Problems and Techniques in Cellular and Molecular Biology*, 5, 89-94, 2000.

Stancu C, Sima A, Toporan D, Niculescu L, Simionescu M. Ex vivo parameters defining the stage of the atherosclerotic disease. *Current Problems and Techniques in Cellular and Molecular Biology*, 5, 95-100, 2000.

Sima A, Stancu C, Constantinescu E, Ologeanu L, Simionescu M. In vivo uptake and transcytosis of LDL in the arterial wall of the hyperlipemic hamster. *Current Problems and Techniques in Cellular and Molecular Biology*, 5, 101-105, 2000.

Niculescu L, Sima A, Stancu C, Vladimirescu L, Simionescu M. Antioxidant vitamin E and C treatment in hyperlipemic hamster. *Current Problems and Techniques in Cellular and Molecular Biology*, 5, 106-110, 2000.

Rădulescu L, Antohe F. Monoclonal antibodies to the synthetic polypeptide PS-19. *Current Problems and Techniques in Cellular and Molecular Biology*, 5, 511-516, 2000.

1999

Mânduțeanu I, Voinea M, Șerban G, Simionescu M. High glucose induces enhanced monocyte adhesion to valvular endothelial cells via a mechanism involving ICAM-1, VCAM-1 and CD18. *Endothelium*, 6, 315-324, 1999.

Voinea M. Targeting of immunoliposomes to endothelial cells. *B.I.F. Future*, 14, 251-252, 1999.

Tîrziu D, Jinga VV, Șerban G, Simionescu M. The effects of low density lipoproteins modified by incubation with chondroitin 6-sulfate on human aortic smooth muscle cells. *Atherosclerosis*, 147, 155-166, 1999.

Niculescu L, Stancu C, Simion L, Sima A, Simionescu M. In vivo study of the antioxidant capacity of the hyperlipemic hamster serum. *Current Problems and Techniques in Cellular and Molecular Biology*, 4, 128-131, 1999.

Stancu C, Niculescu L, Sima A. In vitro modified lipoproteins induce a differentiated lipid loading in cultured endothelial cells. *Current Problems and Techniques in Cellular and Molecular Biology*, 4, 132-135, 1999.

Costache G, Popov D, Georgescu A, Simionescu M. Functional-structural alterations of the resistance arteries in experimental hyperlipemia or hyperglycemia. *Proc. Rom. Acad. Ser.B*, 1, 33-37, 1999.

Antohe F, Poznansky M J, Simionescu M. Low density lipoprotein binding induces asymmetric redistribution of the low density lipoprotein receptors in endothelial cells. *Eur. J. Cell. Biol.*, 78, 407-415, 1999.

1998

Antohe F, Popov D, Rădulescu L, Simionescu N, Borchers T, Spener F, Simionescu M. Heart microvessels and aortic endothelial cells express the 15kDa heart-type fatty acid-binding proteins. *Eur. J. Cell Biol.*, 76, 102-109, 1998.

Borvac J, Richardson J, Medesan C, Antohe F, Radu C., Simionescu M, Ghetie V, Ward E.S. Functional expression of the MHC class I related receptor, FcRn, in endothelial cells of mice. *Internat. Immunol.*, 10, 1289-1298, 1998.

Cenuse M, Costache G, Popov D. Markers of oxidative stress in experimental diabetes and in diabetes associated with hyperlipemia. *Current Problems and Techniques in Cellular and Molecular Biology*, 3, 151-153, 1998.

Constantinescu E, Heltianu C. Evidentierea imunoelectronomicroscopica a spectrinei in eritrocite si celule endoteliale. *St. Cerc. Biochim.*, 41, 11-21, 1998.

Gafencu A, Stănescu M, Toderici A M, Heltianu C, Simionescu M. Protein and fatty acid composition of caveolae from apical plasmalemma of aortic endothelial cells. *Cell Tissue Res.*, 293, 101-110, 1998.

Georgescu A, Popov D. Influenta diabetului experimental asupra celulelor peretelui vascular. *St. Cerc. Biochim.*, 41, 107-117, 1998.

Georgescu A, Popov D, Costache G. Vascular reactivity of resistance arteries of hyperlipemic-hyperglycemic hamsters in the presence of vasoconstrictor agents. *Current Problems and Techniques in Cellular and Molecular Biology*, 3, 124-129, 1998.

Mompeo B, Popov D, Sima A, Constantinescu E., Simionescu M. Diabetes induced structural changes of venous and arterial endothelium and smooth muscle cells. *J. Submicrosc. Cytol. Pathol.*, 30, 475-484, 1998.

LIST OF PUBLICATIONS

Neagoe C, Gafencu A, Heltianu C. Transfection of type I receptor for immunoglobulin G in bovine aortic endothelial cells. *Current Problems in Cellular and Molecular Biology*, 3, 378-383, 1998.

Raicu M, Florea S, Simionescu M. Mechanisms of clotrimazole inhibition of smooth muscle cell proliferation induced by vasoactive agents. *Current Problems and Techniques in Cellular and Molecular Biology*, 3, 21-25, 1998.

Sima A, Toporan D, Raicu M, Stancu C, Ilescu C, Ioan AI, Simionescu M. The biological effect of modified lipoprotein isolated from coronary patients. *Current Problems and Techniques in Cellular and Molecular Biology*, 3, 119-123, 1998.

Sorop O, Niculescu L, Sinescu C, Dobrian A, Simionescu M. The differentiated effect of antioxidants upon serum lipid peroxy radicals in patients with type II diabetes mellitus (NIDDM) and cardiovascular diseases (CAD). *Current Problems and Techniques in Cellular and Molecular Biology*, 3, 146-150, 1998.

Stancu C, Raicu M, Ilescu C, Sima A. Study of the interaction between in vitro modified lipoproteins and cells of the atheroma. *Current Problems and Techniques in Cellular and Molecular Biology*, 3, 130-134, 1998.

Tîrziu D, Tîrcol M, Simionescu M. Uptake of chondroitin-6-sulfate modified low density lipoproteins by human aortic smooth muscle cells, in culture. *Current Problems and Techniques in Cellular and Molecular Biology*, 3, 135-140, 1998.

Voinea M, Mânduțeanu I. Effect of antioxidants on monocyte adhesion to valvular endothelial cells grown in high glucose concentration. *Current Problems and Techniques in Cellular and Molecular Biology*, 3, 141-145, 1998.

Voinea M, Mânduțeanu I, Simionescu M. Liposomes uptake by vascular endothelium. *Current Problems and Techniques in Cellular and Molecular Biology*, 3, 26-29, 1998.

1997

Alexandru D. Biochimia si rolul fiziopatologic al moleculelor de adeziune celulare (II). Implicarea moleculelor de adeziune celulare in patologie. *St. Cerc. Biochim.*, 40, 29-42, 1997.

Antohe F, Șerban G, Rădulescu L, Simionescu M. Transcytosis of albumin in endothelial cells is Brefeldin-A independent. *Endothelium*, 5, 125-136, 1997.

Constantinescu E., Alexandru D., Raicu M., Simionescu M. Exposure to hypercholesterolemic serum modifies the expression of cytoskeletal proteins

in cultured endothelia. *J. Submicrosc. Cytol. Pathol.*, 29, 543-551, 1997.

Costache G, Hasu M, Popov D, Georgescu A. The use of the myograph technique for the investigation of the vascular reactivity. A review. *Current Problems and Techniques in Cellular and Molecular Biology*, 2, 38-43, 1997.

Georgescu A, Popov D, Hasu M. Quantitative fluorimetric analysis of advanced glycation endproducts in mesenteric arteries and lens crystallin of hyperlipemic and simultaneously hyperlipemic-hyperglycemic hamsters. *Current Problems and Techniques in Cellular and Molecular Biology*, 2, 65-68, 1997.

Heltianu C, Șerban G, Alexandru V, Gafencu AV, Simionescu N, Simionescu M. Expression of transferrin receptors in endothelial cells transfected by electroporation. *Eur. J. Cell Biol.*, 72, 79-89, 1997.

Mânduțeanu I, Corot C, Simionescu N, Meyer D, Simionescu M. Experimental evaluation of the vascular effects and transport of an iodinated macromolecular contrast medium. *Invest. Radiol.*, 32, 447-452, 1997.

Popov D, Hasu M, Costache G, Stern D, Simionescu M. Capillary and aortic endothelia interact in situ with nonenzymatically glycosylated albumin, and develop specific interactions in early experimental diabetes. *Acta Diabetol.*, 34, 285-293, 1997.

Popov D, Simionescu M. Alterations of lung structure in experimental diabetes, and diabetes associated with hyperlipidaemia in hamsters. *Eur. Respir. J.*, 10, 1850-1858, 1997.

Raicu M, Rădulescu L, Simionescu M. Clotrimazole inhibits human smooth muscle cell proliferation induced by angiotensin and Bk. *Current Problems and Techniques in Cellular and Molecular Biology*, 2, 158-161, 1997.

Raicu M, Pojoga L, Simionescu N, Simionescu M. The effect of ACE inhibitors on atheroma formation is potentiated by association with a calcium channel blocker. A biochemical and ultrastructural study. *J. Submicrosc. Cytol. Pathol.*, 29, 317-328, 1997.

Sima A, Stancu C, Starodub O, Cristea C, Simionescu M. Immunodetection of modified lipoproteins in plasma and arterial walls of patients with coronary heart disease. *Rev. Roum. Med. Int.*, 35, 29-38, 1997.

Sima A, Popov D, Starodub O, Stancu C, Cristea C, Stern D, Simionescu M. Pathobiology of the heart in experimental diabetes: immunolocalization of lipoproteins, immunoglobulin G, and advanced

glycation endproducts proteins in diabetic and/or hyperlipidemic hamster. *Lab. Invest.*, 77, 3-18, 1997.

Stancu C, Sima A. High density lipoproteins (HDL) play an antioxidant role during in vitro oxidation of low density lipoproteins (LDL). *Current Problems and Techniques in Cellular and Molecular Biology*, 2, 53-57, 1997.

Rădulescu L, Antohe F. Preparation of cationized albumin. *Rev. Roum. Biochim.*, 34 (1-4), 147-153, 1997.

Heltianu C. Actualitati in terapia genica. Mod de abordare interdisciplinar. *Medicina Moderna*, 4, 598-600, 1997.

1996

Alexandru D. Biochimia si rolul fiziopatologic al moleculelor de adeziune celulare (I). *St. Cerc. Biochim.*, 39, 17-42, 1996.

Alexandru D, S. L. Făitar, Șerban G. A method for vitamin E determination in human plasma and lipoproteins. *Rev. Roum. Biochim.*, 33, 85-92, 1996.

Constantinescu E. Investigarea proteinelor citoscheletului celular. Metode biochimice, biofizice si moleculare. *St. Cerc. Biochim.*, 39, 63-68, 1996.

Dobrian A, Lazăr V, Simionescu M. Irreversibly glycosylated albumin induces physico-chemical alterations and increased macrophage uptake of low density lipoproteins of normal and diabetic subjects. *Rev. Roum. Biochim.*, 33, 91-102, 1996.

Dobrian A, Lazăr V, Tîrziu D, Simionescu M. Increased macrophage uptake of irreversibly glycosylated albumin modified-low density lipoproteins of normal and diabetic subjects is mediated by non-saturable mechanisms. *Biochim. Biophys. Acta*, 1317, 5-14, 1996.

Hasu M, Cristea C, Costache G, Popov D. Interaction of glycosylated albumins with myocardial vasculature in early experimental diabetes. *Rev. Roum. Biochim.*, 33, 103-109, 1996.

Mănduțeanu I, Corot C, Simionescu N, Meyer D, Simionescu M. Ultrastructural investigation of the vascular transport of an iodinated macromolecular contrast medium. *Acad. Radiol.*, 2, 353-355, 1996.

Popov D, Sima A, Stern D, Simionescu M. The pathomorphological alterations of endocardial endothelium in experimental diabetes and diabetes associated with hyperlipidemia. *Acta Diabetol.*, 33, 41-47, 1996.

Raicu M, Pojoga L, Simionescu N, Simionescu M. Differential effect of two calcium channel blockers - Nifedipine and Diltiazem - in atherogenesis in hypercholesterolemic hamster. *J.*

Submicrosc. Cytol. Pathol., 28, 265-275, 1996.

Sima A., Făitar S.L., Hobai I., Stancu C. Evidence of modification of circulating lipoproteins in patients with acute myocardial infarction or angor pectoris. *Rev. Roum. Biochim.*, 111-122, 1996.

Sima A, Hobai I, Stancu C, Cinteza M, Gherasim L. Correlated biochemical modifications of plasma lipoproteins in coronary heart disease: an accelerating pathologic factor. *Rom. J. Internal Med.*, 34, 55-64, 1996.

Simionescu M., Popov D., Sima A, Hasu M, Costache G, Făitar S, Vulpanovici A, Stancu C, Stern D, Simionescu N. Pathobiochemistry of combined diabetes and atherosclerosis studied on a novel animal model. The hyperlipemic-hyperglycemic hamster. *Am. J. Pathol.*, 148, 997-1014, 1996.

Dobrilă L, Șerban G, Heltianu C. Identification of albumin-binding proteins of thymocyte plasmalemma. *Biosci. Rep.*, 16, 425-438, 1996.

Stănescu M, Heltianu C, Simionescu M. Different protein composition of vesicle membrane and plasmalemma proper of lung capillary endothelia. *Rev. Roum. Biochim.*, 33, 125-134, 1996.

Constantinescu E, Alexandru D, Raicu M, Simionescu M. Cultured endothelial cells are converted into foam cells by exposure to hypercholesterolemic serum. *Current Problems and Techniques in Cellular and Molecular Biology*, 1, 38-42, 1996.

Sima A, Stancu C, Starodub O, Cristea C, Simionescu M. Immunodetection of modified lipoproteins in the plasma and the arterial walls of patients with coronary heart disease. *Current Problems and Techniques in Cellular and Molecular Biology*, 1, 29-32, 1996.

Sima A, Starodub O, Cristea C, Stancu C, Simionescu M. Immunolocalization of glycosylated and oxidized lipoproteins, age proteins and immunoglobulin G in the aorta, coronary arteries and aortic valves of the diabetic and/or hyperlipidemic hamster. *Current Problems and Techniques in Cellular and Molecular Biology*, 1, 387-390, 1996.

1995

Dobrian A, Simionescu M. Irreversibility glycosylated albumin alters the physico-chemical characteristics of low density lipoproteins of normal and diabetic subjects. *Biochim. Biophys. Acta*, 1270, 26-35, 1995.

Moldovan N, Heltianu C, Simionescu N, Simionescu M. Ultrastructural evidence of differential solubility in TritonX-100 of endothelial vesicles and plasma membrane. *Exp. Cell Res.*, 219, 309-313, 1995.

LIST OF PUBLICATIONS

Navarro P., Caveda L., Breviario F., Manduteanu I., Lampugnani, M.G., Dejana E. Catenin - dependent and independent functions of vascular endothelial cadherin. *J. Biol. Chem.*, 270, 30965-30972, 1995.

Tîrziu D, Dobrian A, Tasca C, Simionescu M, Simionescu N. Intimal thickenings of human aortas contain modified reassembled lipoproteins. *Atherosclerosis*, 112, 101-114, 1995.

1994

Costache G, Cristea C, Hasu M, Constantinescu E, Popov D. Alterations of extracellular matrix in endothelial cells cultured in high concentration of glucose. *Rev. Roum. Biochim*, 31, 221-226, 1994.

Heltianu C, Dobrilă L, Stănescu M, Antohe F, Simionescu N, Silverstein SC, Simionescu M. A method for selective radiolabeling of lung endothelium plasmalemmal vesicles, in situ. *Eur. J. Cell Biol.*, 64, 61-70, 1994.

Lupu C, Rizescu N, Calb M. Altered distribution of some surface glycosaminoglycans and glycoconjugates on human platelets in diabetes mellitus. *Platelets*, 5, 201-208, 1994.

Moldovan N, Lupu F, Moldovan L, Simionescu N. 4-Hydroxynonenal induces membrane perturbations and inhibition of basal prostacyclin production in endothelial cells, and migration of monocytes. *Cell Biol. Int.*, 18, 985-992, 1994.

Moldovan N, Moldovan L, Simionescu N. Binding of vascular anticoagulant alpha-Annexin V to the aortic intima of the hypercholesterolemic rabbit - an autoradiographic study. *Blood Coagul. Fibrin*, 5, 921-928, 1994.

Raicu M. Cellular structures involved in albumin interaction with preadipocytes in various stages of adipogenesis, in vitro. *J. Submicrosc. Cytol. Pathol.*, 26, 191-202, 1994.

Schmidt AM, Mora R, Cao R, Yan SD., Brett J, Ramakrishnan R, Tsang TC, Simionescu M, Stern D. The endothelial cell binding site for advanced glycation endproducts consists of a complex: an integral membrane protein and a lactoferrin-like polypeptide. *J. Biol. Chem.*, 269, 9882-9888, 1994.

Schmidt AM, Hasu M, Popov D, Zhang JH, Chen J, Yan SD, Brett J, Cao R, Kuwabara K, Costache G, Simionescu N, Simionescu M, Stern D. Receptor for advanced glycation endproduct (AGEs) has a central role in vessel wall interactions and gene activation in response to circulating proteins. *Proc. Nat. Acad. Sci. USA*, 91, 8807-8811, 1994.

1993

Antohe F, Dobrilă L, Heltianu C, Simionescu N, Simionescu M. Albumin binding proteins function in the receptor-mediated binding and transcytosis of albumin across cultured endothelial cells. *Eur. J. Cell Biol.*, 60, 268-275, 1993.

Atanasiu R, Radu A. The interaction of cationic nanoparticles with mouse capillary endothelial cells in situ and in vivo. *Int. J. Pharmaceutics.*, 90, 119-128, 1993.

Costache G, Hasu M, Cristea C, Popov D. Glicarea neenzimatică a proteinelor - un mecanism biochimic în patogenia complicațiilor diabetului. *St. Cerc. Biochim.*, 36, 29-44, 1993.

Dobrian A., Mora R., Simionescu M., Simionescu N. In vitro formation of oxidatively-modified and reassembled human LDL: antioxidant effect of albumin. *Biochim. Biophys. Acta*, 1169, 12-24, 1993.

Lupu C, Calb M, Ionescu M, Lupu F. Enhanced prothrombin and intrinsic factor X activation on blood platelets from diabetic patients. *Thromb. Haemostasis*, 70, 579-583, 1993.

Lupu C, Calb M, Rizescu M, Simionescu N. Distribution of some major glycoproteins on diabetic blood platelets. *J. Mol. Cell Cardiol.*, 25, S29, 1993.

Lupu C, Lupu F, Calb M, Simionescu N. Exposure of anionic phospholipid-rich surface promotes procoagulant activity on hyperlipidemic blood platelets. *Thromb. Haemostasis*, 69, 627, 1993.

Lupu C, Mânduțeanu I, Calb M, Ionescu M, Simionescu N, Simionescu M. Some major plasmalemma proteins of human diabetic platelets are involved in the enhanced platelet adhesion to cultured valvular endothelial cells. *Platelets*, 4, 79-84, 1993.

Lupu F, Moldovan N, Ryan J, Stern D, Simionescu N. Intrinsic procoagulant surface induced by hypercholesterolemia on rabbit aortic endothelium. *Blood Coagulation and Fibrinolysis*, 4, 743-752, 1993.

Raicu M, Vral A, Thierens H, De Ridder L. Radiation damage to endothelial cells in vitro, as judged by micronucleus assay. *Mutagenesis*, 8, 335-339, 1993.

Simionescu M, Simionescu N. Pro-atherosclerotic events: Pathobiochemical changes occurring in the arterial wall before monocyte migration. *FASEB J*, 7, 1359-1366, 1993.

Tasca SI, Hoffman RJ, Stoica G. Detection of Moloney murine sarcoma virus in tissues and culture cells by the polymerase chain reaction. *J. Virol. Meth.*, 41, 255-264, 1993.

1992

Alexandru D, Iftode C. Purification of albumin binding proteins by successive polyacrilamide gel electrophoresis. *Rev. Roum. Biochim.*, 29, 3-5, 1992.

Dobrilă L, Antohe F, Heltianu C, Simionescu M. Albumin binding proteins of endothelial cells identified by anti-idiotypic antibodies. *Int. Immunol.*, 4, 789-796, 1992.

Hasu M, Popov D, Ghinea N, Dobrilă L, Antohe F, Simionescu N, Simionescu M. Specific binding of albumin to cultured aortic endothelium. *Acta Histochem. Cytochem.*, 25, 231-237, 1992.

Jacob M, Heltianu C. One-step method for purification of immunoglobulin G from rabbit serum. *Rev. Roum. Biochim.*, 29, 107-109, 1992.

Iftode C, Alexandru D. Chromatographic purification of the albumin binding protein of about 31 kDa. *Rev. Roum. Biochim.*, 29, 111-115, 1992.

Lupu C, Calb M, Tudor A, Simionescu N. Localization and partial characterization of galactoside-specific lectins of the plasmalemma of platelets from normal and diabetic subjects. *Platelets*, 3, 323-330, 1992.

Mânduțeanu I, Calb M, Lupu C, Simionescu M, Simionescu N. Increased adhesion of human diabetic platelets to cultured valvular endothelial cells. *J. Submicrosc. Cytol. Pathol.*, 24, 539-547, 1992.

Movileanu L, Șerban G, Mihăilescu D, Flonta ML, Frangopol PT. An investigation on the topology of chaos in a multiply regulated biochemical system. *Roum. J. Biophys.*, 2, 77-83, 1992.

Popov D, Hasu M, Ghinea N, Simionescu N, Simionescu M. Cardiomyocytes express albumin binding proteins. *J. Mol. Cell. Cardiol.*, 24, 989-1002, 1992.

1991

Antohe F, Heltianu C, Simionescu M. Albumin binding proteins of endothelial cells : immunocytochemical detection of the 18kDa peptide. *Eur. J. Cell Biol.*, 56, 34-42, 1991.

Raicu M, Alexandru D, Fixman A, Simionescu N. Albumin binding sites are expressed on the abluminal plasma membrane of capillary endothelium. *J. Submicrosc. Cytol. Pathol.*, 23,1-8, 1991.

Radu A, Moldovan N. 4-Hydroxynonenal reduces junctional communications between endothelial cells in culture. *Exp. Cell Res.*, 196, 121-126, 1991.

Vasile E, Antohe F. An ultrastructural study of β-very low density lipoprotein uptake and transport by

valvular endothelium of hyperlipidemic rabbits. *J. Submicrosc. Cytol. Pathol.*, 23, 279-287, 1991.

Vasile E, Mânduțeanu I. Transport of LDL in "Endothelial transport of macromolecules: "Transcytosis and endocytosis". A look from Cell Biology, Simionescu M. Simionescu N. (eds.). *Cell Biology Reviews*, Springer International, Berlin, vol 25, 39-41. 1991.

1990

Mânduțeanu I, Vasile E, Simionescu M. Uptake of low density lipoproteins by valvular endothelial cells in culture. *Rev. Roum. Biochim.*, 27, 235-238, 1990.

Mora R, Simionescu M, Simionescu N. Purification and partial characterization of extracellular liposomes isolated from the hyperlipidemic rabbit aorta. *J. Lipid. Res.*, 31, 1793-1807, 1990.

Moroianu J, Hillebrand A, Simionescu M. Albumin binding proteins are highly expressed in actively proliferating fetal and adult tissues. *Eur. J. Cell Biol.*, 53, 20-26, 1990.

Sima A, Bulla A, Simionescu N. Experimental obstructive coronary atherosclerosis in the hyperlipidemic hamster. *J. Submicrosc. Cytol. Pathol.*, 22, 1-6, 1990.

1989

Badea M, Sima A, Jinga VV, Hörer O. The interaction between human low density lipoproteins and bovine aortic endothelial cells. Measurements of membrane fluidity. *Rev. Roum. Morphol. Embryol. Physiol.*, 26, 95-100, 1989.

Ghinea N, Eskenasy M, Simionescu M, Simionescu N. Endothelial albumin binding proteins are membrane-associated components expressed on the cell surface. *J. Biol. Chem.*, 264, 4755-4758, 1989.

Ghinea N, Hasu M, Popov D. Selective radioiodination of the apical and luminal cell surfaces: In vitro and in situ experiments on vascular endothelial cells with Iodogen - coated Sephadex. *Anal. Biochem.*, 179, 274-279, 1989.

Heltianu C, Dobrilă L, Antohe F, Simionescu M. Evidence for thyroxine transport by the lung and heart capillary endothelium. *Microvasc. Res.*, 37, 188-203, 1989. Hodor P, Heltianu C. Immunocytochemical localization of glyceraldehyde-3-phosphate dehydrogenase in cultured smooth muscle cells. *Microcirculation, Endothelium and Lymphatics*, 5, 485-503, 1989.

Lupu F, Constantinescu E. A new freeze-drying device for platinum replica studies of the cell surface and cytoskeleton: an example using immunogold-labeled

LIST OF PUBLICATIONS

human erythrocyte. *J. Electr. Microsc. Tech*, 11, 76-82, 1989.

Mora R, Lupu F, Simionescu N. Cytochemical localization of beta-lipoproteins and their components in successive stages of hyperlipidemic atherogenesis of rabbit aorta. *Atherosclerosis*, 79, 183-195, 1989.

Moroianu J, Simionescu M. Affinity isolation of albumin binding proteins using nitrocellulose bound albumin. *Eur. J. Cell. Biol.*, 50, 447-452, 1989.

Vasile E, Antohe F, Simionescu M, Simionescu N. Transport pathways of beta-VLDL by aortic endothelium of normal and hypercholesterolemic rabbits. *Atherosclerosis*, 75, 195-210, 1989.

1988

Antohe F, Dobrilă LN, Heltianu C. Histamine receptors on mast cells. *Microcirculation, Endothelium and Lymphatics*, 4, 469-488, 1988.

Eskenasy M, Tasca SI. Culture of pericytes isolated from rat adipose tissue microvasculature and characterization of their prostanoid production. *Cell Biol. Int. Rep.*, 12, 1055-1066, 1988.

Galis Z, Ghițescu L, Simionescu M. Fatty acid binding to albumin increases its uptake and transcytosis by the lung capillary endothelium. *Eur. J. Cell Biol.*, 47, 358-365, 1988.

Ghinea N, Fixman A, Alexandru D, Popov D, Hasu M, Ghițescu L, Eskenasy M, Simionescu M., Simionescu N. Identification of albumin-binding proteins in capillary endothelial cells. *J. Cell Biol.*, 107, 231-239, 1988.

Ghițescu L, Galis Z, Simionescu M, Simionescu N. Differentiated uptake and transcytosis of albumin in successive vascular segments. *J. Submicrosc. Cytol. Pathol.*, 20, 657-670, 1988.

Liu B, Poulter L, Neacșu C, Burbach JPH. Isolation and identification of vasopresin and oxytocin-immunoreactive substances from bovine pineal gland. *J. Biol. Chem.*, 263, 72-75, 1988.

Lupu C, Calb M. Changes in platelet surface in rabbits with experimental hypercholesterolemia. *Atherosclerosis*, 72, 77-82, 1988.

Lupu F, Calb M, Fixman A. Alteration of phospholipid asymmetry in the membrane of spontaneously aggregated platelets in diabetes. *Thromb. Res.*, 50, 605-617, 1988.

Lupu F, Constantinescu E. Erythrocyte skeleton replicas obtained with a new freeze drying device. *Inst. Phys. Conf. Ser.*, 93, 39-40, 1988.

Mânduțeanu I, Popov D, Radu A, Simionescu M. Calf cardiac valvular endothelial cells in culture. Production of glycosaminoglycans, prostacyclin and fibronectin. *J. Mol. Cell. Cardiol.*, 20, 103-118, 1988.

Mânduțeanu I, Radu A, Simionescu M. Isolation and cultivation of rabbit endocardial cells in culture. Preliminary data. *Rev. Roum. Morphol. Embryol.*, 34, 165-169, 1988.

Neacșu C. Endocrine system - sanguine system relationship; antiaggregant activity of the pineal polypeptidic hormone E5 on blood platelets. *Arch. Roum. Path. Exp. Microbiol.*, 47, 125-131, 1988.

Alexandru D, Popov D. Izolarea si caracterizarea partiala a unui proteoglican din membrana plasmatica a ficatului de sobolan. *St. Cerc. Biochim.*, 31, 3-7, 1988.

Filip DA, Popov D, Alexandru D. Proteoglicani și glicozaminoglicani secretati în mediul de cultură de către celulele interstițiale valvulare ale iepurilor hipercolesterolemici. *St. Cerc. Biochim.*, 31, 129-132, 1988.

Popov D, Alexandru D. Guinea-pig antibodies to proteoglycans of the culture medium of bovine aortic endothelial cells. *Rev. Roum. Bioch.*, 25, 151-157, 1988.

Popov D, Alexandru D, Filip DA. Proteoglycans and glycosaminoglycans of valvular interstitial cells. *Rev. Roum. Biochim.*, 25, 347-353, 1988.

Popov D, Calb M, Lupu C. Marcarea cu 35SO42 a proteoglicanilor plachetari. *St. Cerc. Biochim.*, 31, 163-169, 1988.

Predescu D, Simionescu N, Simionescu M, Palade G.E. Binding and transcytosis of glycoalbumin by the microvascular endothelium of the murine myocardium. Evidence that the glycoalbumin behaves as a bifunctional ligand. *J. Cell Biol.*, 107, 1729-1738, 1988.

Simionescu M, Ghinea N, Fixman A, Lasker M, Kukes L, Palade GE. The cerebral microvasculature of the rat: structure and luminal surface properties during early development. *J. Submicrosc. Cytol. Pathol.*, 20, 243-261, 1988.

Tasca S, Galis Z. Ultrastructural autoradiographic localization of exogenous arachidonic acid in cultured endothelial and smooth muscle cells. *Prostaglandins, Leukotrienes and Essential Fatty Acids*, 33, 165-171, 1988.

1987

Alexandru D, Popov D. Sulphated proteoglycans of the endothelial cell surface of pig heart valves. *Rev. Roum. Biochim.*, 24, 289-297, 1987.

Clark M.R., Mel S., Lupu F, Friend D.S. Influence of the membrane undercoat on filipin perturbation of the red blood cell membrane. *Exp. Cell Res.*, 171, 321-330, 1987.

Filip DA, Nistor A, Bulla A, Radu A, Simionescu M. Cellular events in the development of the valvular atherosclerotic lesions induced by experimental atherosclerosis. *Atherosclerosis*, 67, 199-214, 1987.

Ghinea N, Leabu M, Hasu M, Mureşan V, Colceag J, Simionescu N. Prelesional events in atherogenesis. Changes induced by hypercholesterolemia in the cell surface chemistry of arterial endothelium and blood monocytes in rabbit. *J. Submicrosc. Cytol. Pathol.*, 19, 209-227, 1987.

Leabu M, Ghinea N, Mureşan V, Colceag J, Hasu M, Simionescu N. Cell surface chemistry of arterial endothelium and blood monocytes in the normolipidemic rabbit. *J. Submicrosc. Cytol. Pathol.*, 19, 193-208, 1987.

Lupu F. Criofixarea si crioprezervarea probelor biologice. *St.Cerc.Bioch.*, 30, 77-90, 1987

Lupu F. Dezvoltari recente ale tehnicii de inghetare fracturare. *St.Cerc.Biol., Biol.Anim.*, 39, 125-131, 1987.

Lupu F, Danaricu I, Simionescu N. Development of intracellular lipid deposits in the lipid laden cells of the atherosclerotic lesions. A cytochemical and ultrastructural study. *Atherosclerosis*, 67, 127-142, 1987.

Lupu F, Petrescu S. Two improvements of polaron quick freezing slammer. *J. Electron Microsc. Tech.*, 7, 235-236, 1987.

Moldovan N, Radu A, Simionescu N. Endothelial cell plasma membrane obtained by chemically induced vesiculation. *Exp. Cell. Res.*, 17, 499-510, 1987.

Mora R, Lupu F, Simionescu N. Prelesional events in atherogenesis. Colocalization of apolipoprotein B, unesterified cholesterol and extracellular phospholipid liposomes in the aorta of hyperlipidemic rabbit. *Atherosclerosis*, 68, 143-154, 1987.

Mureşan V. Intracellular fate of a multivalent ligand covalently bound to cell surface components. An electronmicroscopic study. *J. Submicrosc. Cytol. Pathol.*, 19, 375-385, 1987.

Mureşan V, Simionescu N. High and low molecular weight tracers for the electron microscopical detection of sialoglycoconjugates. *Histochem. J.*, 19, 170-178, 1987.

Nistor A, Bulla A, Filip DA, Radu A. The hyperlipidemic hamster as a model of experimental atherosclerosis. *Atherosclerosis*, 68, 159-173, 1987.

Popov D, Mânduţeanu I. Synthesis and secretion of 3H-mannose labeled proteins by valvular endothelial cells in culture. *Rev. Roum. Biochim.*, 24, 49-54, 1987.

Simionescu M, Ghitescu L, Fixman A, Simionescu N. How plasma macromolecules cross the endothelium. *News Physiol. Sci.*, 2, 97-100, 1987.

Simionescu N. Cell biology trends in biomedical basic research. *Revue Journal, Romania*, 2/1987, 112-119, 1987.

Simionescu N. Tendinte ale biologiei celulare in cercetarea fundamentala biomedicala. *Revista UNESCO, Romania*, 2/1987, 103-109, 1987.

Simionescu N. Tendence de le biologie cellulaire dans la recherche biomédicale fondamentale. *Revue Journal, Romania*, 2/1987, 27-34, 1987.

Popov D, Mânduţeanu I. Synthesis and secretion of 3H-mannose labeled proteins by valvular endothelial cells in culture. *Rev.Roum. Biochem.*, 24,1, 48-54, 1987.

Hodor P, Heltianu C. Structural and immunochemical studies on rabbit erythrocyte spectrin. *Rev. Roum. Biochim.*, 24, 229-234, 1987.

1986

Antohe F, Heltianu C, Simionescu M. Further evidence for the distribution and nature of histamine receptors on microvascular endothelium. *Microcirculation, Endothelium and Lymphatics*, 3, 163-185, 1986.

Constantinescu E, Heltianu C, Simionescu M. Immunological detection of an analogue of the erythroid protein 4.1 in endothelial cells. *Cell. Biol. Int. Rep.*, 10, 861-868, 1986.

Filip DA, Radu A, Simionescu M. Interstitial cells of heart valves possess characteristics similar to smooth muscle cells. *Circ. Res.*, 59, 310-320, 1986.

Georgescu L, Antohe F, Simionescu N. The permeability of aortic endothelium to 125I-BSA in hyperlipidemic hamster. Effect of histamine and serotonin. *Rev. Roum. Morphol. Embryol. Physiol.*, 23, 231-235, 1986.

Ghinea N. Cationic hemeundecapeptide as stain for detecting glycosaminoglycans on cellulose acetate strips. *Anal. Biochem.* 155, 78-82, 1986.

Ghinea N, Hasu M. Charge effect on binding uptake and transport of ferritin through fenestrated endothelium. *J. Submicrosc. Cytol.*, 18, 647-659, 1986.

Ghitescu L, Fixman A, Simionescu M., Simionescu N. Specific binding sites for albumin restricted to plasmalemmal vesicles of continuous capillary endothelium: receptor-mediated transcytosis. *J. Cell Biol.*, 102,1304-1311, 1986.

Heltianu C, Bogdan I, Constantinescu E, Simionescu M. Endothelial cells express a spectrin-like cytoskeletal protein. *Circ. Res.*, 58, 605-610, 1986.

LIST OF PUBLICATIONS

Heltianu C, Constantinescu E, Simionescu M. Blood platelets express proteins immunologically related to red cell spectrin and band 4. 1. *Rev. Roum. Biochim.*, 23, 189-194, 1986.

Jinga VV, Badea MG, Hörer O. Evidence that some membrane ligands modulate the plasmalemma fluidity of endothelial cells in culture *Rev. Roum. Morphol. Embryol. Physiol.: Physiologie*, 23, 91-98, 1986.

Jinga VV, Bogdan I, Fruchter J. Experimental model for the quantitative estimation of transendothelial transport in vitro; a two-compartment system. *Rev. Roum. Morphol., Embryol. Physiol.: Physiologie*, 23, 227-236, 1986.

Lupu F. Tehnica de inghetare - fracturare: principii, metodologie, aplicatii si interpretare. *St. Cerc. Biol., Seria Biol. Anim.*, 38, 115-123, 1986.

Lupu F, Calb M, Scurei C, Simionescu N. Changes in the organization of membrane lipids during human platelet activation. Study by fluorescent and freeze-fracture cytochemistry, *Lab. Invest.*, 54, 136-142, 1986.

Mora R, Eskenasy M, Hillebrand A, Simionescu M. Immunocytochemical localization of apoprotein B in the aorta during prelesional stages of hyperlipidemia in rabbit. *Acta Biol. Hung.*, 37, 252-260, 1986.

Mureşan V. A hemagglutination test for hydrazide-derivatized cytochemical markers. *Acta Histochem.* 79, 193-198, 1986.

Nistor A, Simionescu M. Uptake of low density lipoproteins by the hamster lung. Interaction with capillary endothelium. *Am. Rev. Resp. Dis.*, 134, 1266-1272, 1986.

Popov D, Alexandru D. Isolation and characterization of rabbit vascular and valvular glycosaminoglycans (GAGs). *Rev. Roum. Biochim.* 23, 135-143, 1986.

Rus HG, Niculescu F, Constantinescu E, Cristea A, Vlaicu R. Immunoelectron microscopic localization of the terminal C5b-9 complement complex in human atherosclerotic fibrous plaque. *Atherosclerosis*, 61, 35-42, 1986.

Scurei C, Calb M, Simionescu N. Study on the endogenous lectins of the human platelet plasma membrane. *Thromb. Res.*, 43, 15-31, 1986.

Simionescu N, Vasile E, Lupu F, Popescu G, Simionescu M. Prelesional events in atherogenesis: accumulation of extracellular cholesterol rich liposomes in the arterial intima and cardiac valves of hyperlipidemic rabbits, *Am. J. Pathol.*, 123, 85-101, 1986.

1985

Ghinea N, Simionescu N. Anionized and cationized hemeundecapeptides as probes for cell surface charge and permeability studies: Differentiated labeling of endothelial plasmalemmal vesicles. *J. Cell. Biol.*, 100, 606-612, 1985.

Lupu F, Simionescu M. Organization of the intracellular junctions in the endothelium of the cardiac valves. *J. Submicrosc. Cytol.*, 17, 119-132, 1985.

Mureşan V, Constantinescu M. Distribution of sialoglycoprotein conjugates on the luminal surface of the endothelial cell in the fenestrated capillaries of the pancreas. *J. Histochem. Cytochem.*, 33, 474-476, 1985.

Mureşan V, Constantinescu M. A mixed hemagglutination test for binding of glycosylated cytochemical markers. *Anal. Biochem.*, 148, 503-509, 1985.

Popov D. Proteoglicanii si glicozaminoglicanii membranari si rolul lor in interactiunile celulare. *St. Cerc. Biochim.*, 28, 76-87, 1985.

Simionescu M, Simionescu N, Santoro F, Palade G.E. Differential microdomains of the luminal plasmalemma of murine muscle capillaries: segmental variation in young and old animals. *J. Cell Biol.*, 100, 1396-1407, 1985.

Simionescu N, Simionescu M. Interaction of endogenous lipoproteins with capillary endothelium in spontaneously hyperlipoproteinemic rats. *Microvasc. Res.*, 30, 314-332, 1985.

Ciobotaru C, Alessandrescu D, Rusanescu T. Cresterea si maturarea placentara. Nota III. Consideratii privind fibronectina in dezvoltarea structurilor placentare; *Obstetrica si Ginecologie*, 33, 153-158, 1985.

1984

Badea M, Jinga VV, Hörer O. Experimental modulation on the plasmalemmal microfluidity. Studies on endothelial and aortic smooth muscle cells. *Rev. Roum. Morphol. Embryol. Physiol.: Physiologie*, 21, 39-44, 1984.

Brown W.L., Constantinescu E, Farquhar M.G. Redistribution of mannose-6-phosphate receptors induced by tunicamycin and chloroquine. *J. Cell Biol.*, 99, 320-326, 1984.

Eskenasy M, Mora R, Simionescu N. In vitro study of low density lipoprotein-collagen interaction. *Rev. Roum. Morphol. Embryol.*, 30, 147-152, 1984.

Filip D. Mouse atrio-ventricular valve ultrastructure. Morphometrical correlations. *Rev. Roum. Morphol. Embriol. Physiol.: Morphol. Embriol.*, 30, 163-173, 1984.

Ghițescu L, Fixman A. Surface change distribution on the endothelial cell of liver sinusoids. *J. Cell Biol.*, 99, 639-647, 1984.

Heltianu C, Simionescu M, Simionescu N. Detection of histamine receptors at cellular level. *Biochem. Pharmacol.*, 33, 343-446, 1984.

Mureșan V, Constantinescu M. Use of ferritin hydrazide for the detection sialoglycoconjugates. I. Methodological aspects. *Rev. Roum. Biochim.*, 21, 189-197, 1984.

Popov D. Study on proteins and sulfated glycoconjugates of the luminal surface of pulmonary vascular endothelium. *Rev. Roum. Biochim.*, 21, 57-63, 1984.

Simionescu N, Simionescu M, Palade G.E. Partial chemical characterization of the anionic sites in the basal lamina of fenestrated capillaries. *Microvasc. Res.*, 28, 352-367, 1984.

Hăulica I, Neacșu C, Stratone A, Brănișteanu D, Neamțu C, Roșca V, Petrescu Gh, Slătineanu C. Cardiovascular effects of the hog pineal E5 peptide in rats. *Clin. Exp. - Theory and Practice*, A6, 2091-2096, 1984.

1983

Simionescu D, Simionescu M. Differentiated distribution of the cell surface charge on the alveolar-capillary unit. Characteristic paucity of anionic sites on the air-blood barrier. *Microvasc. Res.*, 25, 85-101, 1983.

Simionescu M. Cellular aspects of transcapillary exchanges. *Physiol.Rev.*, 63,1563-1579, 1983.

Simionescu N, Lupu F, Simionescu M. Rings of membrane sterols surround the opening of vesicles and fenestrae in capillary endothelium. *J. Cell Biol.*, 97, 1592-1600, 1983.

Vasile E, Nistor A, Simionescu M, Simionescu N. Visualization of the binding, endocytosis and transcytosis of low density lipoproteins in the arterial endothelium, in situ. *J. Cell Biol.*, 96, 1677-1689, 1983.

1982

Heltianu C, Simionescu M, Simionescu N. Histamine receptors of the microvascular endothelium revealed in situ with a histamine- ferritin conjugate: Characteristic high affinity binding sites in venules. *J. Cell Biol.*, 93, 357-364, 1982.

Mureșan V, Sarras M.P.Jr., Jamieson J.D. Distribution of sialoglycoconjugates on acinar cells of the mammalian pancreas. *J. Histochem. Cytochem.*, 30, 947-955, 1982.

Mureșan V, Iwanij V, Zaid, Smith D.J., Jamieson J.D. Purification and use of limulin: A sialic acid - specific lectin. *J. Histochem. Cytochem.*, 30, 938-946, 1982.

Radu A, Dahl G, Loewenstein W.R. Hormonal regulation of cell junction permeability: upregulation by catecholamine and prostaglandin E1. *J. Membr. Biol.*, 70, 239-251, 1982.

Rosenfeld M.G., Kreibich G, Popov D, Kato A, Sabatini D. Biosynthesis of lysosomal hydrolases: Their synthesis in bound polysomes and the role of co- and post-translational processing in determining their subcellular distribution. *J. Cell Biol.*, 93, 135-143, 1982.

Simionescu M, Simionescu N, Palade G.E. Preferential distribution of anionic sites on the basement membrane and the abluminal aspect of the endothelium, in fenestrated capillaries. *J. Cell Biol.*, 95, 425-435, 1982.

Simionescu M, Simionescu N, Palade G.E. Biochemically differentiated microdomains of the cell surface of capillary endothelium. *Ann. N. Y. Acad. Sci.*, 401, 9-24, 1982.

Simionescu N, Heltianu C, Antohe F, Simionescu M. Endothelial cell receptors for histamine. *Ann. N. Y. Acad. Sci.*, 401, 132-149, 1982.

Simionescu N, Simionescu M, Palade G.E. Differentiated microdomains on the luminal surface of capillary endothelium: distribution of lectin receptors. *J. Cell Biol.*, 94, 406-413, 1982. Noteborn H.P.J.M., Ebels I., Pevet P.,

Reinharz A.C., Neacșu C, Salemink C.A. Comparison of some peptidic and proteic ovine pineal fractions with E5 fraction. *J. Neural Transmission*, 55, 27-44, 1982.

Noteborn H.P.J.M., Ebels I, Pevet P, Reinharz A.C., Neacșu C, Salemink C.A. Comparison of some peptidic and proteic ovine pineal fractions with E5 fraction. *J. Neural Transmission*, 55, 27-44, 1982.

1981

Simionescu N, Simionescu M, Palade G.E. Differentiated microdomains on the luminal surface of the capillary endothelium. I. Preferential distribution of anionic sites. *J. Cell Biol.*, 90, 605-613, 1981.

Simionescu M, Simionescu N, Palade G.E., Silbert J.E. Differentiated microdomains on the luminal surface of the capillary endothelium. II. Partial characterization of their anionic sites. *J. Cell Biol.*, 90, 614-621, 1981.

Palade G.E., Simionescu M, Simionescu N. Differentiated microdomains on the luminal surface of the capillary endothelium. *Biorheology*, 17, 563- 568, 1981.

LIST OF PUBLICATIONS

Vaughan M.K, McGill J.R, Richardson B.A, Johnson L.Y, Pevet P, Neacșu C, Reiter R.J. Responsiveness of a prolactin-secreting clonal cell (288) or male rat hemipituitaries to incubation with arginine vasotocin, threonylseryllysine (TLS) or a partially purified peptide (E5) from bovine pineal glands. *Neuroendocrinol. Lett.* 3, 189-194, 1981.

Pevet P, Neacșu C, Holder F.C, Reinhartz A, Dogterom J, Buijs R.M, Guerne J.M, Vivien-Roels B. The vasotocin-like biological activity present in the bovine pineal is due to a compound different from vasotocin. *J. Neural Transmission*, 51, 295-302, 1981.

Babes L, Drăghici C, Teodorescu M, Tasca S.I. Studiu histochimic asupra distribuției prostaglandin-15-hidroxi-dehidrogenazei în tesuturile animale. *St. Cerc. Biol.*, 1981.

1980

Popov D. Sinteza proteinelor la eucariote. *St. Cerc. Biochim.* 23, 217-231, 1980.

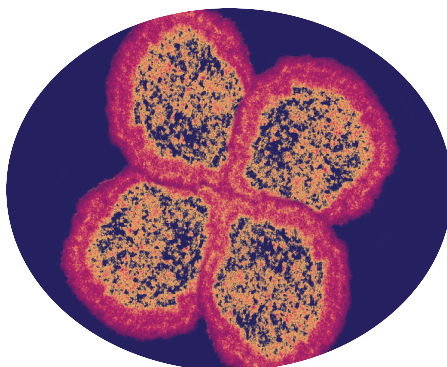
1979

Simionescu N. Enzymatic tracers in the study of vascular permeability. *J. Histochem. Cytochem.*, 27, 1120-1130, 1979.

Simionescu N, Palade G.E, Simionescu M. Structural aspects of the permeability in the microvascular endothelium. *Acta Physiol. Scand. Suppl.*, 463, 11-32, 1979.



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