

CURRICULUM VITAE

Name: **AMUZESCU P. BOGDAN**

Date and place of birth: November 27, 1965, Bucharest, Romania

Marital status: divorced

Children: one daughter (born on April 4, 1994)

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EDUCATION

- 1972 - 1976 Elementary school no. 80 in Bucharest
1976 - 1980 Secondary school (gymnasium) no. 117 in Bucharest
1980 - 1984 "Nicolae Balcescu" college in Bucharest (former and present St. Sava National College), mathematics-physics class; Diploma
1985 - 1991 Faculty of Medicine of the "Carol Davila" University of Medicine and Pharmacy in Bucharest; Diploma
1999 - 2000 Master in neurobiology, University of Bucharest
2000 - 2003 PhD student, Faculty of Biology, University of Bucharest; thesis title: "Properties of ion channels in biomembranes" Supervisor: Prof. Maria-Luisa Flonta, Co-promotors: Prof. Willy van Driessche, Prof. Gordon Reid
2000 - 2003 Research fellowship, Dept Mol. Cell Biol, Faculty of Medicine, KU Leuven (Prof. Willy van Driessche)
2003 - 2004 Postdoctoral research fellowship, Cardiac Electrophysiology Group, Center for Experimental Surgery & Anaesthesiology, KU Leuven (Prof. K. Mubagwa)

TRAINING

- 1986-1992 Member of the research team of Andrei Dumitru Iacobas, PhD, lecturer, at the Dept. of Biophysics, Faculty of Medicine; attempts to set up an experimental line for patch-clamp in order to correlate the data obtained in macroscopic and microscopic (single-channel) experiments, with substantial help and encouragement from Prof. Peter N.R. Usherwood, Faculty of Zoology, University of Nottingham, U.K.
1990-1992 Studies concerning the serodiagnosis of HIV infection and research methods in immunology (ELISA, immunoblotting, immunofluorescence, PBMCs separation, lymphocyte cultures) in the Laboratory of Retrovirology, "Stefan S. Nicolau" Institute of Virology, under the direction of I.V. Patrascu, MDV, PhD, and in the Dept. of Microbiology, Faculty of Medicine in Craiova, under the direction of Prof. Constantin Voiculescu; contribution to the establishment of a laboratory for HIV serodiagnosis in Craiova; clinical and serological study of HIV infection in children.
1992-1994 Training in hematology and immunology at the Clinic of Hematology (head Prof. Dan Colita, MD), Fundeni Hospital, Bucharest, under the direction of George M. Grigoriu, MD, assistant lecturer; study of clinical and laboratory features and up-to-date literature in autoimmune diseases, bone marrow grafting.
1993 Course of medical informatics
1993 Course of homeopathy
1994-1995 Training in internal medicine-hepatology at the Iind Medical Clinic, Bucharest University Hospital, under the direction of Prof. Dan Olteanu, MD; study of immune mechanisms and immune modulator therapies in liver diseases (prednisone, azathioprine, human recombinant interferon).
1995-1997 English-Romanian translations: Steven Weinberg – Dreams of a Final Theory; Part three: Genetics and human diseases from Harrison's Principles of Internal Medicine, thirteenth edition.
1999-present Member of the electrophysiology research team, Dept. Animal Physiol. & Biophysics, Faculty of Biology, University of Bucharest
2000-2003 Several 3-months training periods at Dept Mol. Cell Biol, Faculty of Medicine, KU Leuven with Prof. Willy van Driessche: fluctuation analysis and impedance analysis in tight epithelia, two-microelectrode voltage clamp recordings in *Xenopus* oocytes expressing $\alpha\beta\gamma$ rENaC

- 2001 1-month training programme in patch-clamp recordings on neurons in slices at the Physiologisches Institut, Justus Liebig Universität Gießen under the supervision of Prof. Werner Vogel and Prof. Andreas Scholz
- 2003-2004 postdoctoral researcher in the Cardiac Electrophysiology Group, Center for Experimental Surgery & Anaesthesiology, KU Leuven (Prof. K. Mubagwa): electrophysiology (whole-cell patch clamp on ventricular cardiomyocytes) and molecular biology study of a nonspecific cation conductance blocked by divalent cations in cardiomyocytes

EMPLOYMENTS

- 1991 - 1992 Stagiary physician in Constanta Departmental Hospital, Laboratory of Nuclear Medicine and Ist Medical Clinic
- 1991 - 1992 Associated assistant in the Department of Biophysics, Biotechnology, Medical Informatics and Biostatistics, Faculty of Medicine, "Ovidius" University of Constanta
- 1992 - 1994 Secondary physician (specialization in clinical hematology) in Fundeni Hospital, Clinic of Hematology
- 1994 - 1995 Secondary physician (specialization in internal medicine) in Bucharest University Hospital, IInd Medical Clinic
- 1995 - 2000 Specialist physician (internal medicine) in Bolintin Hospital
- 2000 - 2002 Assistant Lecturer, Dept. Animal Physiol. & Biophysics, Univ. of Bucharest
- 2002 - 2005 Lecturer, Dept. Animal Physiol. & Biophysics, Univ. of Bucharest
- 2005 - present Associate Professor, Dept. Animal Physiol. & Biophysics, Univ. of Bucharest
- 2014 -2015 Application Scientist, Cytocentrics Bioscience GmbH, Rostock, Germany

TEACHING

[neurobiophysics](#), [anatomy&physiology](#), [data processing](#), [clinical diagnosis & therapy](#)

RESEARCH GRANTS

Program/Project	Position	Duration
World Bank Grant D-22 "Development of an advanced studies & PhD program in molecular physiology centered on neurobiology & membrane biophysics of excitable and nonexcitable cells" (100000 USD)	researcher	1999 - 2002
World Bank Grant PU-19 "Modernizing and optimizing physiology teaching via equilibrated use of interactive computer-assisted training and electrophysiology techniques"(225000 USD)	researcher	1999 - 2002
World Bank Grant B-50 "Molecular Physiology: Electrophysiology techniques and computer modeling of cellular/molecular interactions" (525000 USD)	researcher	1999 - 2002
Flanders-Romania bilateral agreement BIL96 (180000 EUR)	researcher	2000
Flanders-Romania bilateral agreement BIL00 (74000 EUR)	researcher	2001 - 2003
Volkswagen Foundation research grant: "Generation of spontaneous activity in damaged nerve: novel experimental approaches" (135000 EUR)	researcher	2001 - 2004
NATO grant CLG976246 "Mechanisms of diabetic neuropathic pain in the primary sensory neurone" (20000 USD)	researcher	2000 - 2002
Postdoctoral research grant–Dept. Exp. Surgery&Anaesthesiology, KULeuven, Belgium (15000 EUR)	researcher	2003 - 2004
CERES 1/3/2002 "In vitro study of changes within the intracellular signaling network during energy deprivation stress" (10000 EUR)	researcher	2002 - 2003
VIASAN 199/2003 "Modulation mechanisms of ion channels activated by tissue acidosis in peripheral nerve fibers and blood vessels" (50000 EUR)	researcher	2003 - 2005
CEEX 67/2005 "Health protection by development of new complex instruments (laboratory-on-a-chip)" (28570 EUR)	researcher	2005 - 2008
CNCSIS 1030/2006 "Modulation of ENaC/Deg ion channels by intracellular divalent cations and their roles in neuronal ischemia-putative pharmacological targets in stroke therapy" (22857 EUR)	grant coordinator	2006 - 2007

CEEX 3191/2005 “Molecular, cellular, and integrated pain mechanisms-medical applications” (100000 EUR)	researcher	2005 - 2010
PNCDI2 Cooperation Grant 61-010/2007 “Mathematical modeling of the electrical activity of neurons and cardiomyocytes – isolated and in tissue – applied to prediction of arrhythmia and response to antiarrhythmics” (500000 EUR)	researcher	2007 - 2010
PNCDI2 Cooperation Grant 80/2012 “Cellular Therapeutic Approaches for Regenerative Stroke Therapy” (465000 EUR)	Scientific manager	2012-2016
POC EU-funded structural grant P_37_675 “Development of automated patch-clamp technologies for pro-arrhythmogenic risk testing of drug candidates” (~1000000 EUR)	Management team member	2016-2020
PCE grant 39/2022: PN-III-P4-PCE-2021-1422 “Drug safety profiles of two newly-approved antiepileptics by in vitro screening for pro-arrhythmogenic risk and BBB drug transport” (250000 EUR)	researcher	2022-2024

PRIZES

1st prize for a scientific communication, Romanian Neuroscience Society, 2005

REVIEWER

Invited reviewer: European Journal of Pharmacology, Central European Journal of Biology (currently Open Life Sciences), Romanian Journal of Biophysics, American Journal of Modern Physics, European Journal of Biophysics, Journal of Physical Chemistry and Biophysics, Journal of Neuroscience Methods

COORDINATION ACTIVITY

2007-present: **Coordinator** of *the Group of Mathematical Modeling of Complex Biological Systems*, part of the Research Center in Neurobiology, Department of Biophysics & Physiology, Faculty of Biology, University of Bucharest (<http://neurobiologie.bio.unibuc.ro>)

2006-2008: **Coordinator** of Grant CNCSIS A 1030/2006 - “Modulation of ENaC/Deg ion channels by intracellular divalent cations and their roles in neuronal ischemia-putative pharmacological targets in stroke therapy”

2004-2012: **Advisory board**, Romanian Society of Neuroscience, Bucharest, Romania

2001-present: Teaching staff & co-organizer of the Master in Neurobiology Programme, launched in 1996 by the initiative of Prof. univ. dr. Maria-Luisa Flonta, a programme where over time several prestigious researchers started their scientific career. This programme is internationally recognized and included within the NENS network (Network of European Neuroscience Schools).

RESEARCH INTERESTS AND EXPERTISE

Areas of expertise:

- Mathematical modeling&analysis of complex biological systems (heart, neuronal networks)
- Membrane biophysics and transport phenomena in biomembranes
- Thermodynamics of biological systems
- Molecular electrophysiology&pharmacology – the patch-clamp technique
- Thermotransduction, nociception and pain

- Molecular pathophysiology and experimental models of various diseases: inflammatory and neuropathic pain, diabetic neuropathy, neuronal and myocardial ischemia, Alzheimer's disease
- Cardiomyocyte electrophysiology, modeling and pharmacology; Cardiac safety pharmacology

Professional memberships:

Biophysical Society, Safety Pharmacology Society, American Association for the Advancement of Science, Federation of American Societies for Experimental Biology, Federation of European Neuroscience Societies, Romanian Society of Neuroscience, Romanian Society of Pure and Applied Biophysics

Achievements:

39 original scientific papers, of which 23 in international ISI-quoted journals, and presentations at >140 internal or international scientific meetings. >365 citations (682 – Google Academic), Hirsch index: 12 (WOS), 15 (Google Academic)

I took part in successful completion of 8 international research grants and 6 internal (Romanian) research grants (1 as grant coordinator). I also had an important contribution in submission of 3 European grant applications, one as Principal Investigator: FP7-206374-1 (ERC-2007-StG), FP7-268842 (ERC-2010-AdG_20100317), 278982(FP7-HEALTH-2011-two-stage).

MAIN SCIENTIFIC RESULTS

- set up of a system for delivery of thermal stimuli to cells during patch-clamp recordings and/or ion imaging experiments, followed by a detailed study of the effects of cooling on capsaicin- or proton-elicited TRPV1 currents in cultured dorsal root ganglia primary sensory neurons

- description and analysis of a biphasic effect of Zn^{2+} on native and heterologously expressed epithelial Na^+ channels (ENaC)

- study of permeation, gating, and regulation properties of a nonselective cation current in ventricular myocytes inhibited by intracellular magnesium and blocked by extracellular divalent and trivalent cations (I_{MIC} – magnesium-inhibited cation current) leading to its identification as TRPM7, and proof of its role in heavy metal ion transport, intracellular Mg^{2+} homeostasis, and activation by exogenous free oxygen radicals

- study of the permeation and gating properties of ASIC1a, analysis of single-channel recordings and validation of an 8-state linear connectivity Markov model for gating, correlation analysis of adjacent events durations, demonstration of an effect of extracellular trypsin on Ca^{2+} permeability and on activation by amitriptyline and FMRF-amide; the activatory effect of low concentrations of amitriptyline (within the therapeutic range) on ASIC1a conductance and gating, evidenced in whole-cell and single-channel experiments, may contribute to the well-known but incompletely understood analgesic effect of tricyclic antidepressants

- set up of detailed electrophysiology models for cardiomyocytes from different cardiac territories starting from a reduced compartmented model of guinea pig ventricular cardiomyocyte (Faber-Rudy 2007) comprising Markov models for the L-type Ca^{2+} channel and ryanodine receptor and Ca^{2+} dynamics between various intracellular compartments (network and junctional sarcoplasmic reticulum, bulk myoplasm, and the “subspace” between t tubules

and junctional sarcoplasmic reticulum), to be further used for “in silico” models of human heart electrophysiology and pharmacology

- mathematical study of an early ventricular cardiomyocyte model (Luo-Rudy I 1991) using the tools of dynamic systems analysis and bifurcation theory, for different values of model parameters, and finding configurations of parameters leading to sustained oscillations, important in defining arrhythmogenic mechanisms

- automated patch-clamp recordings on hiPSC-cardiomyocytes, development of a patented complex in vitro pharmacology assay on hiPSC-CM integrating all the 3 stages of the CiPA paradigm, study of proarrhythmic risk predictors and arrhythmogenesis mechanisms for several drugs, including chloroquine and hydroxychloroquine, cenobamate

- exploration of the cellular and molecular mechanisms of photobiomodulation with NIR laser and biophoton emission

PUBLICATIONS

1. Iacobas A.D., Amuzescu B., Ciontu Cristina (1990) : Procedeu de realizare a micropipetelor pentru culegerea curentilor ionici unicanal din biomembrane; Brevet RO-102203. Monitorul Oficial, Bucuresti.
2. Iacobas A.D., Amuzescu B., Ciontu Cristina (1990) : Aspecte energetice si informationale in studiile de bioelectrogenera. in "Aspecte energetice si informationale in ecosisteme" (ed. Marioara Godeanu), A.O.S. Braila.
3. Iacobas A.D., Amuzescu B., Ciontu Cristina (1990) : Sistem de filtrare, detectie si prelucrare numerica a semnalelor canalelor ionice. in "Cibernetica aplicata", Ed. Acad., Bucuresti.
4. Reid G., Amuzescu B., Zech E., Flonta M.-L. (2001) : A system for applying rapid warming or cooling stimuli to cells during patch clamp recording or ion imaging. *J. Neurosci. Methods* 111(1):1-8. (38 citations)
5. Babes A., Amuzescu B., Krause U., Scholz A., Flonta M.-L., Reid G. (2002) : Cooling inhibits capsaicin-induced currents in cultured rat dorsal root ganglion neurones. *Neurosci. Lett.* 317(3):131-134. (43 citations)
6. Amuzescu B., Ion S., Popescu D., Movileanu L., Avram S., Macri B., Flonta M.-L. (2002) : Thermal group motion creates stochastic pores in plane phosphatidylcholine bilayers. *Romanian J. Biophys.* 12 (1-2): 37-52.
7. Pena F., Neaga E., Amuzescu B., Nitu A., Flonta M-L (2002) : Amitriptyline has a dual effect on the conductive properties of the epithelial Na channel. *J Pharm. Pharmacol.* 54:1393-1398. (5 citations)
8. Amuzescu B., Segal A., Flonta M-L., Simaels J., Van Driessche, W. (2003) : Zinc is a voltage-dependent blocker of native and heterologously expressed epithelial Na⁺ channels. *Pflügers Arch.* 446: 69-77. (6 citations)
9. Gwanyanya A., Amuzescu B., Zakharov S., Macianskiene R., Sipido K., Bolotina V., Vereecke J., Mubagwa K. (2004) : Magnesium-inhibited, TRPM6/7-like channel in cardiac myocytes: permeation of divalent cations and pH-mediated regulation. *J. Physiol.*, 559(3): 761-776. (92 citations)
10. Neaga E., Amuzescu B., Dinu C., Macri B., Pena F., Flonta M.-L. (2005) : Extracellular trypsin increases ASIC1a selectivity for monovalent versus divalent cations. *J. Neurosci. Methods* 144: 241-248. (19 citations)
11. Pena F., Amuzescu B., Neaga E., Flonta M.-L. (2006): Thermodynamic properties of hyperpolarization-activated current (I_h) in a subgroup of primary sensory neurons, *Exp. Brain Res.*, 173(2):282-290. (13 citations)
12. Marin A., Prica C., Amuzescu B., Neaga E., Flonta M.-L. (2008): ASIC1a activation by amitriptyline and FMRF-amide is removed by serine proteases, *Channels* 2(6):419-428. (9 citations)
13. Popescu D., Popescu A.G., Amuzescu B. (2010): Pulsatory liposomes – a possible biotechnological device for controlled drug delivery. I. The liposome swelling, *Rom. J. Biophys.* 20(1):37-46.
14. Popescu D., Popescu A.G., Amuzescu B., Maries E. (2010): Pulsatory liposomes – a possible biotechnological device for controlled drug delivery. II. The pore appearance, *Rom. J. Biophys.* 20(2):171-181.
15. Popescu A.G., Popescu D., Ion S., Amuzescu B. (2010): Pulsatory liposomes – a possible biotechnological device for controlled drug delivery. III. The liposome relaxation, *Rom. J. Biophys.* 20 20(3):223-234.
16. Bichir C.L., Georgescu A., Amuzescu B., Nistor G., Popescu M., Flonta M.-L., Corlan A.D., Svab I. (2011): Limit cycles by FEM for a one-parameter dynamical system associated to the Luo-Rudy I model, *ROMAI J.* 6(2):27-39.
17. Corlan A.D., Amuzescu B., Milicin I., Iordachescu V., Poenaru E., Corlan I., De Ambroggi L. (2011): Intercellular conductance variability influences early repolarization potentials in a myocardial tissue model with stochastic architecture, *Advanced Topics in Electrical Engineering (IEEE Proceedings, ISSN 2068-7966):*1-4. http://ieeexplore.ieee.org/xpl/freeabs_all.jsp?arnumber=5952183 (3 citations)

18. Chioncel V., Paun D., Amuzescu B., Sinescu C. (2012): Evolution features of hypertensive patients with primary aldosteronism – prospective study, *J. Med. Life* 5(3): 354-359. (2 citations)
19. Kusko M., Craciunoiu F., Amuzescu B., Halitzchi F., Selescu T., Radoi A., Popescu M., Simion M., Bragaru A., Ignat T. (2012): Design, fabrication and characterization of a low-impedance 3D electrode array system for neuro-electrophysiology, *Sensors (Basel)* 12(12):16571-16590. (9 citations)
20. Amuzescu B., Georgescu A., Nistor G., Popescu M., Svab I., Flonta M.-L., Corlan A. (2012): Stability and sustained oscillations in a ventricular cardiomyocyte model, *Interdisciplinary Sciences: Computational Life Sciences* 4(1):1-18. (6 citations)
21. Amuzescu B., Scheel O., Knott T. (2014): Novel automated patch-clamp assays on stem cell-derived cardiomyocytes: will they standardize in vitro pharmacology and arrhythmia research? *J. Phys. Chem. Biophys.* 4(4):153. <http://dx.doi.org/10.4172/2161-0398.1000153>
22. Chevalier M., Amuzescu B., Gawali V., Todt H., Knott T., Scheel O., Abriel H. (2014): Late cardiac sodium current can be assessed using automated patch-clamp, *F1000Research* <http://f1000research.com/articles/3-245/v1> (14 citations)
23. Scheel O., Frech S., Amuzescu B., Eisfeld J., Lin K.-H., Knott T. (2014): Action potential characterization of human induced pluripotent stem cell-derived cardiomyocytes using automated patch-clamp technology, *Assay Drug Dev. Technol.* 12(8):457-69. (69 citations)
24. Halitzchi F., Jianu L., Amuzescu B. (2015): Electrophysiology and pharmacology study of a human neuroblastoma cell line, *Rom. Rep. Phys.* 67(2):439-451 (7 citations)
25. Iordache F., Constantinescu A., Andrei E., Amuzescu B., Halitzchi F., Savu L., Maniu H. (2016): Electrophysiology, immunophenotype, and gene expression characterization of senescent and cryopreserved human amniotic fluid stem cells, *J. Physiol. Sci.* 66:463-476 <http://link.springer.com/article/10.1007/s12576-016-0441-8/fulltext.html> (13 citations)
26. Filippi A., Caruntu C., Gheorghe R.O., Deftu A., Amuzescu B., Ristoiu V. (2016): Catecholamines reduce TRPV1 desensitization in cultured dorsal root ganglia neurons, *J. Physiol. Pharmacol.* 67(6):843-850 (20 citations)
27. Amuzescu B., Cocina G., S. Florica (2016): Miniature electrode array and system for experimental surface EEG recordings, *Rom. J. Biophys.* 26(2):69-82 http://www.rjb.ro/articles/445/RJB2-2016_a1.pdf
28. Amuzescu B., Airini R., Ghica L., Epureanu F.B., Deftu A.F., Cucu D.M., Ristoiu V.P., Mihailescu D.F., Radu B.M. (2017): Novel approaches to proarrhythmogenic risk testing using automated patch-clamp platforms, *Rom. J. Biophys.* 27(1):13-22 http://www.rjb.ro/articles/449/Amuzescu-2_SH.pdf
29. Mann S.A., Heide J., Knott T., Airini R., Epureanu F.B., Deftu A.-F., Deftu A.-T., Radu B.M., Amuzescu B. (2019): Recording of multiple ion current components and action potentials in human induced pluripotent stem cell-derived cardiomyocytes via automated patch-clamp, *J. Pharmacol. Toxicol. Meth.* 100:106599 (17 citations)
30. Airini R., Iordache F., Alexandru D., Savu L., Epureanu F.B., Mihailescu D., Amuzescu B., Maniu, H. (2019): Senescence-induced immunophenotype, gene expression and electrophysiology changes in human amniocytes, *J. Cell. Mol. Med.* 23(11):7233-7245 (6 citations)
31. Iacobas S., Amuzescu B., Iacobas D.A. (2021): Transcriptomic uniqueness and commonality of the ion channels and transporters in the four heart chambers, *Sci. Rep.* 11(1):2743 (12 citations)
32. Amuzescu B., Airini R., Epureanu F.B., Mann S.A., Knott T., Radu B.M. (2021): Evolution of mathematical models of cardiomyocyte electrophysiology, *Math. Biosci.* 334:108567 (20 citations)

33. Deftu A.T., Amuzescu B. (2022) Protective Effects of Nanosof® Suspension on Cultured Cells Exposed to H₂O₂, *Biointerface Research in Applied Chemistry*, 12(2):2548-2559 https://biointerfaceresearch.com/?page_id=8308, <https://doi.org/10.33263/BRIAC122.25482559> (1 citation)
34. Thomet U., Amuzescu B., Knott T., Mann S.A., Mubagwa K., Radu B.M. (2021): Assessment of proarrhythmogenic risk for chloroquine and hydroxychloroquine using the CiPA concept, *Eur. J. Pharmacol.* 913:174632 (11 citations)
35. Coman A., Amuzescu B., Nistor G. (2023): Theoretical Assumptions in Conductivity and Dielectric Properties Assessment of Biological Tissues - Errors and Resulting Consequences, *IEEEExplore® 2023 13th International Symposium on Advanced Topics in Electrical Engineering (ATEE)* (<https://ieeexplore.ieee.org/document/10108270>) (<https://doi.org/10.1109/ATEE58038.2023.10108270>)
36. Shaher S.A.A., Galateanu B., Hudita A., Maitham A., Mihailescu D.F., Amuzescu B. (2023): An *in vitro* model of aspartame cytotoxicity via heterologous expression of NMDA receptors, *Farmacia* 71(3):581-590 <https://doi.org/10.31925/farmacia.2023.3.17> (1 citation)
37. Shaher S.A.A., Mihailescu D.F., Amuzescu B. (2023): Aspartame safety as a food sweetener and related health hazards, *Nutrients* 15:3627 (28 p.) <https://doi.org/10.3390/nu15163627> (14 citations)
38. Iordache F., Petcu (Ionescu) A., Pisoschi A.M., Stanca L., Geicu O.I., Bilteanu L., Curutiu C., Amuzescu B., Serban A.I. (2024): PCR array profiling of miRNA expression involved in the differentiation of amniotic fluid stem cells toward endothelial and smooth muscle progenitor cells, *Int. J. Mol. Sci.* 25(1):302 (14 p.) <https://doi.org/10.3390/ijms25010302> (1 citation)
39. Amuzescu B., Corlan A.D., Radu B. (2023): Inhibitory effects of cenobamate on multiple human cardiac ion channels and possible arrhythmogenic consequences, (in preparation for resubmission, preprint available at <https://www.researchsquare.com/article/rs-3735338/v1>)
40. Mateias A.L., Armasescu F., Amuzescu B., Corlan A.D., Radu B.M. (2024): Inhibitory effects of cenobamate on multiple human cardiac ion channels and possible arrhythmogenic consequences, *Biomolecules* 14:1582 (19 p.) <https://doi.org/10.3390/biom14121582>
41. Şulea T.A., Draga S., Mernea M., Corlan A.D., Radu B.M., Petrescu A.-J., Amuzescu B. (2025): Differential inhibition by cenobamate of canonical human Nav1.5 ion channels and several point mutants, *Int. J. Mol. Sci.* 26:358 (19 p.) <https://doi.org/10.3390/ijms26010358>
42. Armasescu F., Amuzescu B., Gheorghe R.-O., Ghenghea M., Ristoiu V., Ciurea J., Gruia I. (2025): Fiber-optic-guided near-infrared laser exposure induces depolarization of cultured primary sensory neurons and modifies biophysical properties of human Nav1.5 channels, *J Photochem Photobiol B* 269:113191 (12 p.) <https://doi.org/10.1016/j.jphotobiol.2025.113191>
43. Negoită A.-I., Amuzescu B., Mihăilescu D.F., Bordea C. (2025): The serotonergic system and its role in thermoregulation, *Physiologia* 5:37 (32 p.) <https://doi.org/10.3390/physiologia5040037>
44. Negoită A.-I., Amuzescu B., Mihăilescu D.F., Banciu D.D., Banciu A. (2026): Expression of serotonin transporter (SERT) and receptors 5-HTR1A and 5-HTR2A in an animal model of hypothermia, *Neurosci Lett* 870:138448 <https://doi.org/10.1016/j.neulet.2025.138448>
45. Iordache F, Dulceanu M, Holban AM, Badaluta AV, Pisoschi AM, Vasile BS, Amuzescu B, Curutiu C (2026): 3D Bioprinting of Blood Vessel Model for Improving Wound Healing, *Int J Mol Sci* 27(9):4019 <https://doi.org/10.3390/ijms27094019>

INVITED LECTURES / CHAIRMANSHIP

Effects of different transitional elements (group VIIIb-IIb) and of certain lanthanides on the

apical Na⁺ channels of A6 cells. BIL 96 symposium, KU Leuven, 2000.

Extracellular trypsin improves Na⁺ selectivity of ASIC1a, presentation at Sensing Physiology : a Symposium on Biosensors and Cell Physiology, Limburgs Universitair Centrum, Diepenbeek, December 5, 2003.

Magnesium-inhibited, TRPM6/M7 like channels in cardiomyocytes: divalent cation permeation and pH-mediated regulation. Neuroscience 2005 International Symposium Timisoara-München, Timisoara, 14-15 October, 2005.

Magnesium-inhibited TRPM6/M7 like channels in cardiomyocytes. 2nd International Conference of the Romanian Neuroscience Society, Bucharest, 1-3 September, 2006.

Co-chair (with Dr. Thomas Dierk, Heidelberg Univ.), Platform session BC: Cardiac electrophysiology, 53rd Biophysical Society Annual Meeting, Boston, March 4, 2009.

Myocardial TRPM7 channels: biophysical properties and involvement in cardiac diseases. 3rd International Conference on Clinical & Experimental Cardiology, Chicago, April 15-17, 2013

Diaryldiamidines Interaction with ASIC1a as a Basis for Novel Pharmacological Targets in Neuronal Ischemia, Drug Discovery for Ion Channels XIV - Satellite Meeting to 58th Biophysical Society Meeting, San Francisco, CA, 14 Feb 2014

A New CiPA-compliant Cardiac Safety Pharmacology Automated Patch-Clamp Assay, Ncardia Applications Workshop 2018, Cologne, November 7-9 2018, abstract p. 13

In vitro and *in silico* cardiac safety drug testing: advancing the CiPA paradigm, invited lecture within the CIVIS Summer School "Drug Design and Discovery", Dept. Pharmacy, School of Health Science, National and Kapodistrian University of Athens, July 4-8, 2022

Introduction to cardiac channelopathies: basics and clinical aspects. Phenotypic analysis to diagnosis and principles of therapy using iPSC cardiomyocytes, invited lecture within the "Rare Diseases" BiP-CIVIS Summer School, Institute MarMaRa (Marseille Maladies Rares), Aix-Marseille Université, June 27, 2025

PRESENTATIONS AT CONFERENCES PUBLISHED IN ABSTRACT

1. Babes A., Amuzescu B., Krause U., Scholz A., Flonta M.-L., Reid G. (2001) : Cooling inhibits capsaicin- and proton-induced currents in cultured rat dorsal root ganglion neurones. *J. Physiol.* 533P:57P-58P. (1 citation)
2. Babes A., Amuzescu B., Krause U., Scholz A., Flonta M.-L., Reid G. (2001) : Capsaicin-induced currents in cultured rat dorsal root ganglion neurones are inhibited by cooling. *Pflügers Arch.* 441:R159.
3. Babes A., Amuzescu B., Flonta M.-L., Reid G. (2001) : Temperature sensitivity of capsaicin-induced activity in VR1-like channels from rat dorsal root ganglion neurones. *J. Physiol.* 536P, S257.
4. Amuzescu B., Babes A., Krause U., Scholz A., Flonta M.-L., Reid G. : Cooling reduces open probability of VR1-related channels in rat primary sensory neurons. (poster) 31th Society for Neuroscience Meeting, San Diego, California, 10-15 November, 2001 (<http://sfn.scholarone.com/itin2001>).
5. Van Driessche W., Segal A., Flonta M.-L., Amuzescu B. : Zinc is a voltage-dependent blocker of native and heterologously expressed epithelial Na⁺ channels. (poster) 47th Biophysical Society Meeting, San Antonio, Texas, 1-5 March, 2003 (abstract in *Biophysical Journal*, 84(2S):530A Abstract: 2590-Pos) (<http://www.biophysics.org/abstractsearch/Default.asp>).
6. Gwanyanya A., Amuzescu B., Vereecke J., Mubagwa K. : TRPM6/7-like cardiac ion channels: divalent cation permeation and regulation by pH. (poster) Spring Meeting 2004 of the Belgian Society for Fundamental and Clinical Physiology and Pharmacology, Gent, 8 May, 2004. *Pflügers Archiv – European Journal of Physiology* 448(6):R7
7. Gwanyanya A., Amuzescu B., Vereecke J., Mubagwa K. : Magnesium-inhibited cation channel in cardiac myocytes: intracellular ATP-dependent activation and G protein-mediated modulation (poster) Autumn Meeting 2004 of the Belgian Society for Fundamental and Clinical Physiology and Pharmacology, Leuven, 20 November, 2004. *Pflügers Archiv – European Journal of Physiology*, 449(6):R10
8. Gwanyanya A., Amuzescu B., Vereecke J., Mubagwa K. : Mg²⁺-Inhibited Cation Channel in Cardiac Myocytes: Dependence of Activation on Intracellular ATP and Modulation by Guanine Nucleotide Analogues (poster) 49th Biophysical Society Meeting, Long Beach, California, 12-16 February, 2005 (abstract in *Biophysical Journal*, searchable online suppl., 579-Pos)
9. Corlan A.D., Amuzescu B.P., Milicin I., Nistor G., Popescu M.N., Georgescu A., Vlad M.O. (2009): Feasibility of estimating maximum ion conductance parameters from the shape of the action potential. A simulation study, *Biophys. J.* 96(3):664a.
10. Popescu M.N., Nistor G., Georgescu A., Corlan A.D., Amuzescu B.P., Barbu C.I., Flonta M.-L. (2009): Stability and oscillations in a ventricular cardiomyocyte model studied using the tools of dynamic systems analysis and bifurcation theory, *Biophys. J.* 96(3):664a.
11. Corlan A.D., Amuzescu B., Milicin I., De Ambroggi L. (2009): Electrocardiographic patterns of early repolarization attributable to increased transient outward current in the subepicardial region. A simulation study, *Eur. Heart J.* 30(1):491.
12. Amuzescu B.P., Bichir C.L., Georgescu A., Nistor G., Popescu M.N., Svab I., Corlan A.D., Flonta M.L. (2011): Stability and self-sustained oscillations in a ventricular cardiomyocyte model, *Biophys. J.* 100(3):437a.
13. Chirculescu A.R.M., Amuzescu B., Morris J.F. (2011): Immunocytochemical examination of voltage-gated potassium channel expression in the pituitary folliculo-stellate cell line TtT/GF, *J. Anat.* 218(5): 587.
14. Chirculescu A.R.M., Amuzescu B., Morris J.F. (2014): Pituitary folliculo-stellate cells: highly specialised or non-differentiated cells? *Annals of Anatomy* 196S1

15. Amuzescu B., Knott T., Scheel O., Mihailescu D., Mernea M. (2014): Diminazene interaction with ASIC1a channels, *Biophys. J.* 106(2):550a
16. Scheel O., Frech S., Amuzescu B.P., Eisfeld J., Lin K.-H., Knott T. (2015): Automated Patch-Clamp Pharmacology Assays using Human Induced Pluripotent Stem Cell-Derived Cardiomyocytes, *Biophys. J.* 108(2):585a
17. Lassen D., Frech S., Amuzescu B., Scheel O., Knott T. (2015): Cytocentering patch clamp recordings of iPSC-derived cardiomyocytes and of HEK cells expressing cardiac ion channels at physiological temperature, *J. Pharmacol. Toxicol. Meth.* 75:165-166
18. Scheel O., Frech S., Amuzescu B., Crumb W., Roberts M., Knott T. (2015): Biophysical and pharmacological characterization of the CiPA ion channel panel and iPSC cardiomyocytes using automated patch-clamp, *J. Pharmacol. Toxicol. Meth.* 81:347
19. Mann S., Heide J., Radu B.M., Amuzescu B., Knott T. (2018): Measuring multiple ion current components in human induced pluripotent stem cell-derived cardiomyocytes via automated patch-clamp, *J. Pharmacol. Toxicol. Meth.* 93:112-113
20. Mann S., Heide J., Airini R., Epureanu F., Deftu A., Deftu A.T., Radu B.M., Knott T., Amuzescu B. (2019): Development of a new CiPA-compliant MOA in vitro assay on stem cell-derived cardiomyocytes including automated data analysis and model parameter optimization, *J. Pharmacol. Toxicol. Meth.* 99:20
21. Amuzescu B.P., Knott T., Mann S., Knuepling J., Airini R., Epureanu F., Radu B.M. (2020): Using onset-of-block kinetic analysis of hERG1 current with a Markov model to improve in silico proarrhythmogenic risk prediction, *Biophys. J.* 118(3)(Suppl.1):265A

OTHER PUBLICATIONS

Amuzescu B, Avram S, Macri B: *Lucrări practice de biofizică*, Editura Universității din București, 2005, ISBN 973575980-2

Weinberg S.: *Dreams of a Final Theory* (Rom. transl.), Humanitas, Bucharest, 2008.

Amuzescu B., Mubagwa K.: Cardiac Ion Channels and Transporters, in *From Vascular Cell Biology to Cardiovascular Medicine*, A. Georgescu, F. Antohe (eds.), Research Signpost, Kerala, 2011, pp.51-98, ISBN 978-81-7895-503-2

Amuzescu B., Istrate B., Musat S.: Channelopathies and Heart Disease, in *Cardiac Arrhythmias: from Basic Mechanisms to State-of-the-art Management*, Kibos A.S. et al. (eds.), Springer, London, 2013, pp.95-129, ISBN 978-1-4471-5315-3

Amuzescu B., Corlan D., Nistor G.: Modelarea matematică a electrofiziologiei cardiace, Editura Universității din București, 2012, ISBN 978-606-16-0145-5

Amuzescu B.: Modelarea matematică a sistemelor biologice complexe, in *Problema minte-creier în neuroștiința cogniției*, G. Vacariu, Stefanov G. (eds.), Editura Universității din București, 2013, ISBN 978-606-16-0224-7

Amuzescu B., Istrate B., Mubagwa K: Impact of Cellular Mechanisms of Ischemia on CABG Failure, in *Coronary Graft Failure: State-of-the-Art*, Ion C. Tintoiu, Malcolm John Underwood, Stephane Pierre Cook, Hironori Kitabata, Aamer Abbas (eds.), Springer, New York, 2016, pp.351-391 ISBN 978-3-319-26515-5

Amuzescu B., Maniu H.: Molecular and Cellular Biology of the Right Heart, in *Right Heart Pathology. From Mechanism to Management*, Silviu Dumitrescu, Ion C. Tintoiu, Malcolm John Underwood (eds.), Springer Nature, New York, 2018, 935p, pp.57-89, ISBN 978-3-319-73764-5, https://doi.org/10.1007/978-3-319-73764-5_3

PATENTS

1. Iacobas A.D., Amuzescu B., Ciontu Cristina: Manufacturing procedure for micropipettes for single-channel recordings in biomembranes - Patent RO-102203/06.10.1988
2. Iacobas A.D., Amuzescu B.: Procedure and device for cleaning patch-clamp micropipettes - Patent RO-108844/04.11.1991
3. Amuzescu B., Radu B.M., Mihailescu D.F., Mann S.: Method for *in vitro* detection of the proarrhythmogenic risk of a drug candidate on human induced pluripotent stem cell-derived cardiomyocytes (hiPSC-CM) - EPO patent application EP18465611/24.10.2018
4. Amuzescu B., Radu B.M., Mihailescu D.F., Mann S.: Method for *in vitro* detection of the proarrhythmogenic risk of a drug candidate on human induced pluripotent stem cell-derived cardiomyocytes (hiPSC-CM) - USPTO patent application US2020/01326601/ filed 10.10.2019, published 30.04.2020

SCIENTIFIC MEETINGS ATTENDANCE

1. *Arsene G., Amuzescu B.* : Valoarea si limitele psihanalizei ca teorie si metoda ; indrumator stiintific : Conf. dr. Georgeta Florea. SCSS, Bucuresti, 1986; Rezumat p. 198.
2. *Iacobas A.D., Variu S., Ciontu Cristina, Amuzescu B.* : Experimental line for single-channel studies on neurolemma. Al VII-lea Congres National de Fiziologie, Bucuresti, 1986; Rezumat pp. 135-136.
3. *Amuzescu B.* : Viata medicului reflectata in opera literara a lui Archibald Joseph Cronin ; indrumator stiintific : Asist. Magda Cuturicu. SCSS, Bucuresti, 1987; Rezumat p. 193.
4. *Amuzescu B., Ciontu Cristina* : Studii privind actiunea ouabainei si acidului ascorbic asupra lantului ganglionar de *Lumbricus terrestris* ; indrumator stiintific : Asist. dr. Andrei Dumitru Iacobas. SCSS, Bucuresti, 1987; Rezumat p. 18.
5. *Iacobas A.D., Amuzescu B., Ciontu Cristina* : Sistem de filtrare, detectie si prelucrare numerica a semnalelor canalelor ionice. Al IV-lea Colocviu de Sisteme-Modele-Informatica si Cibernetica, Bucuresti, 1987; Rezumat p. 394.
6. *Iacobas A.D., Amuzescu B., Ciontu Cristina, Iacobas Sanda* : Instalatie experimentală si sistem de prelucrare a datelor pentru inregistrari unicanal din neurolema. A IX-a Sesiune Stiintifica Anuala a ICEFIZ "Progrese in fizica", Bucuresti, 1987; Rezumat p. 394.
7. *Amuzescu B., Iacobas A.D., Iacobas Sanda, Ciontu Cristina* : Metoda imbunatatita de realizare a micropipetelor necesare studierii curentilor canalelor ionice prin tehnica patch-clamp. A X-a Sesiune Stiintifica Anuala a ICEFIZ "Progrese in fizica", Bucuresti, 1988; Rezumat p. 827.
8. *Munteanu F., Iacobas A.D., Amuzescu B.* : Sistem de inregistrare, achizitie si prelucrare numerica a semnalelor unicanal din membranele biologice. A X-a Sesiune Stiintifica Anuala a ICEFIZ "Progrese in fizica", Bucuresti, 1988; Rezumat p. 827.
9. *Iacobas A.D., Amuzescu B., Ciontu Cristina, Iacobas Sanda* : Aspecte energetice si informationale in studiile de bioelectrogeneza. Simpozionul A.O.S. "Aspecte energetice si informationale in ecosisteme", Braila, 1989.
10. *Iacobas A.D., Amuzescu B., Ciontu Cristina* : Culegerea si prelucrarea semnalelor canalelor ionice. Simpozionul A.O.S. "Aspecte energetice si informationale in ecosisteme", Braila, 1989.
11. *Amuzescu B., Iacobas A.D., Ciontu Cristina, Iacobas Sanda* : The patch-clamp technique. I. Preparation of membrane structures. II. Micropipette technology. Al III-lea Simpozion National de Chimia Suprafetelor si Coloizilor, Timisoara, 1989; Rezumat pp. 135-136.

12. *Amuzescu B., Iacobas A.D., Ciontu Cristina* : Gamma-lactonsaction on Lumbricus terrestris ganglia chain bioelectrogenesis. VIIIth Balkan Biochemical and Biophysical Days, Cluj-Napoca, 1990; Rezumat p. 152.
13. *Voiculescu C., Patrascu I.V., Tunculeanu Adriana, Balasoiu Maria, Amuzescu Manuela, Amuzescu B.* : Unele date epidemiologice privind copiii HIV-seropozitivi in colectivitati inchise si unitati spitalicesti. SCS si workshop despre AIDS si organizarea antiepidemica, Brasov, 1991.
14. *Amuzescu Manuela, Amuzescu B.* : Aspecte teoretice si practice in diagnosticul infectiei cu HIV. Comunicare SOMS, Bucuresti, 1991.
15. *Constantin Manuela, Amuzescu B.* : Infectia cu HIV in Leaganul de copii nr. 1 Craiova : studiu serologic, epidemiologic si clinic; indrumator stiintific : Prof. univ. dr. Constantin Voiculescu. SCS, Craiova, 1991.
16. *Iacobas A.D., Amuzescu B.* : Actiunea acidului ascorbic asupra bioelectrogenezei lantului ganglionar de Lumbricus terrestris. SCS Fac. Med. Constanta, 1991.
17. *Constantin Manuela, Amuzescu B.* : Studiul prin imunofluorescenta indirecta al limfocitelor T de la copiii infectati cu HIV. SCS Univ. Ovidius 30, Constanta, 1991; Rezumat p. 258.
18. *Voiculescu C., Patrascu I.V., Constantin Manuela, Amuzescu B., Tunculeanu Adriana, Balasoiu Maria* : Infectia cu HIV in Leaganul de copii nr. 1 Craiova : studiu serologic, epidemiologic si clinic. SCS Univ. "Ovidius" 30, Constanta, 1991; Rezumat p. 259.
19. *Iacobas A.D., Amuzescu B.* : Improvements in the technology of patch-clamp micropipettes. SCS Univ. Ovidius 30, Constanta, 1991; Rezumat p. 270.
20. *Iacobas A.D., Amuzescu B.* : Actiunea acidului ascorbic asupra bioelectrogenezei lantului ganglionar de Lumbricus terrestris. Conferinta Nationala de Fiziologie, Constanta, 1991; Rezumat p. 52.
21. *Iacobas A.D., Amuzescu B.* : Ansamblu experimental pentru analiza curentilor transmembranari prin metoda patch-clamp. SCS Fac. Med. Constanta, 1992.
22. *Amuzescu B., Marinoiu Silvia, Dima Ileana, Popp Anca, Grigoriu G.* : Anemia in LES. (poster) Zilele Medicale ale Spitalului Fundeni, sectiunea postere, Bucuresti, 1993.
23. *Amuzescu B.*: Effects of different transitional elements (group VIIIb-IIb) and of certain lanthanides on the apical Na⁺ channels of A6 cells. BIL 96 symposium, KU Leuven, 2000.
25. *Babes A., Amuzescu B., Krause U., Scholz A., Flonta M-L, Reid G.* : Temperature dependence of gating in VR1-like channels from small rat DRG neurones. (poster) Advanced Workshop in Neuroscience for Young Physiologists and 4th Conference of Czech Neuroscience Society, Prague, 2001.
26. *Amuzescu B., Babes A., Krause U., Scholz A., Flonta M-L, Reid G.* : Cooling reduces open probability of VR1-related channels in rat primary sensory neurons. (poster) 31th Society for Neuroscience Meeting, San Diego, California, 10-15 November, 2001 (<http://sfn.scholarone.com/itin2001>)
27. *Van Driessche W., Segal A., Flonta M.-L., Amuzescu B.* : Zinc is a voltage-dependent blocker of native and heterologously expressed epithelial Na⁺ channels. (poster) 47th Biophysical Society Meeting, San Antonio, Texas, 1-5 March, 2003 (abstract in *Biophysical Journal*, in press) (Pos2590) (<http://www.biophysics.org/abstractsearch/Default.asp>)
28. *Amuzescu B., Ristoiu V.* : Patch-clamp basics. (demonstration) "Ischemia/Hypoxia in the Brain" Workshop in Neuroscience and 1st International Conference of the National Neuroscience Society of Romania, Bucharest, 23-27 September, 2003.

30. Gwanyanya A., Amuzescu B., Vereecke J., Mubagwa K. : TRPM6/7-like cardiac ion channels: divalent cation permeation and regulation by pH. (poster) Spring Meeting 2004 of the Belgian Society for Fundamental and Clinical Physiology and Pharmacology, Gent, 8 May, 2004 (abstract in *Pflügers Archiv – European Journal of Physiology*, in press).
31. Gwanyanya A., Amuzescu B., Vereecke J., Mubagwa K. : TRPM6/7-like cardiac ion channel: divalent cation permeation and regulation by pH. (poster) 28th Meeting of the European Working Group on Cardiac Cellular Electrophysiology, Szeged, 10-12 September 2004.
32. Gwanyanya A., Amuzescu B., Vereecke J., Mubagwa K. : Magnesium-inhibited cation channel in cardiac myocytes: intracellular ATP-dependent activation and G protein-mediated modulation (poster) Autumn Meeting 2004 of the Belgian Society for Fundamental and Clinical Physiology and Pharmacology, Leuven, 20 November, 2004 (abstract in *Pflügers Archiv – European Journal of Physiology*, 449:R10).
33. Gwanyanya A., Amuzescu B., Vereecke J., Mubagwa K. : Mg²⁺-Inhibited Cation Channel in Cardiac Myocytes: Dependence of Activation on Intracellular ATP and Modulation by Guanine Nucleotide Analogues (poster) 49th Biophysical Society Meeting, Long Beach, California, 12-16 February, 2005 (abstract in *Biophysical Journal*, searchable online suppl., 579-Pos) (Pos579) (<http://www.biophysics.org/abstractsearch/Default.asp>)
34. Amuzescu B., Gwanyanya A., Bigabwa S., Mubagwa K. : Electrophysiological characterization of a native TRP M6/M7 - like cation conductance in cardiomyocytes. 2nd Symposium of the Romanian Neuroscience Society, Iassy, 13-14 May, 2005
35. Neaga E., Amuzescu B., Dinu C., Macri B., Pena F., Flonta M.-L. : Extracellular trypsin increases ASIC1a selectivity for monovalent versus divalent cations. 2nd Symposium of the Romanian Neuroscience Society, Iassy, 13-14 May, 2005
36. Amuzescu B. : Magnesium-inhibited, TRPM6/M7 like channels in cardiomyocytes: divalent cation permeation and pH-mediated regulation. Neuroscience 2005 International Symposium Timisoara-München, Timisoara, 14-15 October, 2005
37. Amuzescu B., Svab I., Mubagwa K., Flonta M.-L. : A detailed structural model of the TRPM7 selectivity filter accounts for its permeation properties. ICTP Conference on Drug Development for the Third World, Trieste, 5-9 June, 2006
38. Amuzescu B. : Magnesium-inhibited TRPM6/M7 like channels in cardiomyocytes. 2nd International Conference of the Romanian Neuroscience Society, Bucharest, 1-3 September, 2006, abstract p. 39
39. Marin A., Prica C., Neaga E., Amuzescu B., Flonta M.-L. : Dual effects of amitriptyline on ASIC1a (poster) 2nd International Conference of the Romanian Neuroscience Society, Bucharest, 1-3 September, 2006, abstract p. 63
40. Amuzescu B., Svab I., Mihailescu D., Oprea I., Mubagwa K., Flonta M.-L. : A Detailed Structural Model of the TRPM7 Selectivity Filter Accounts for its Permeation Properties (poster) 51st Biophysical Society Meeting, Baltimore, Maryland, 3-7 March, 2007, abstract p. 3.
41. Prica C., Marin A., Amuzescu B., Neaga E., Calborean O., Strimbeanu S., Flonta M.-L. : Dual Effects of Amitriptyline on ASIC1a (poster) 51st Biophysical Society Meeting, Baltimore, Maryland, 3-7 March, 2007, abstract p. 21
42. Amuzescu B. : A detailed structural model of the magnesium-selective ion channel TRPM7, RSPAB annual meeting, Bucharest, May 2007, abstract p. 58
43. Amuzescu B., Prica C., Marin A., Neaga E., Flonta M.-L. : Un situs activator pentru antidepresive triciclice în vestibulul extern al ASIC1a, Simpozionul "Gheorghe Marinescu" al Societății Naționale de Neuroștiințe, București, 2-3 iunie 2007, abstract p. 24

44. *Marin A., Prica C., Amuzescu B., Neaga E., Calborean O., Strîmbeanu S., Flonta M.-L.* : An activatory site for amitriptyline and FMRF-amide in the outer vestibule of ASIC1a removed by serine proteases. "Mechanotransduction and Nociception" PENS Workshop 2007, Bucharest, August 25-30, abstract p. 25
45. *Nestianu V., Amuzescu B., Nestianu A.*: Influențe endocrine asupra epileptogenezei, A XVIa Conferința Națională de Epilepsie, București 1-3 noiembrie 2007
46. *Nestianu V., Amuzescu B., Nestianu A.*: Date recente privind canalopatiile în epileptogeneza, A XVIa Conferința Națională de Epilepsie, București 1-3 noiembrie 2007
47. *Neacsu Pascu N., Amuzescu B., Flonta M.-L.* : Electrofiziologia neuronilor senzitivi primari din secțiuni organotipice de sobolan nou născut în condiții acute și în cultură, Al IV-lea Simpozion al Societății Naționale de Neuroștiințe "Transdisciplinaritate în Neuroștiințe", București 30-31 mai 2008, abstract p. 27
48. *Amuzescu B., Barbu I.C., Neacsu Pascu N., Flonta M.-L.* : Electrophysiology and mathematical modeling of ventricular cardiomyocytes, Al IV-lea Simpozion al Societății Naționale de Neuroștiințe "Transdisciplinaritate în Neuroștiințe", București 30-31 mai 2008, abstract p. 11
49. *Amuzescu B., Marin A., Prica C., Neaga E., Flonta M.-L.* : ASIC1a activation by amitriptyline and FMRF-amide is removed by serine proteases. FENS Forum 2008, Gêneve, July 12-16.
50. *Amuzescu B., Corlan A., Popescu M.N., Nistor G., Georgescu A.* : Estimation of ion conductance of cardiomyocytes, 16th Conference on Applied and Industrial Mathematics, Oradea 9-11 Oct. 2008
51. *Corlan A., Amuzescu B., Georgescu A., Popescu M.N., Nistor G.*: Further results on the dynamics for a model in electro-cardiology, 16th Conference on Applied and Industrial Mathematics, Oradea 9-11 Oct. 2008
52. *Amuzescu B.* : Electrofiziologia și modelarea matematică a cardiomiocitelor ventriculare, Curs postuniversitar de perfecționare cu participare internațională "De la Biologia Celulară și Moleculară la Medicina Secolului XXI" ed. 8, IBPC "Nicolae Simionescu", București, 20-29 octombrie 2008
53. *Nestianu V., Amuzescu B., Nestianu A.* : Metode electrofiziologice în investigarea funcțiilor hipocampului și a rolului său în patologia comitală, A XVIIa Conferința Națională de Epilepsie, București 7-8 noiembrie 2008
54. *Amuzescu B., Nestianu V., Nestianu A.* : Modificări morfologice la nivelul formațiunii hipocampice în procesele patologice ale epilepsiei. Cauza sau efect ? A XVIIa Conferința Națională de Epilepsie, București 7-8 noiembrie 2008
55. *Amuzescu B., Barbu I.C., Pascu N., Flonta M.-L.* : Experiment și modelare în electrofiziologia fibrelor miocardice, Sedința de Comunicări Științifice a SRSF București, 22 ian 2009
56. *Corlan A.D., Amuzescu B.P., Milicin I., Nistor G., Popescu M.N., Georgescu A., Vlad M.O.*: Feasibility of Estimating Maximum Ion Conductance Parameters from the Shape of the Action Potential. A Simulation Study (poster) 53rd Biophysical Society Meeting, Boston, Mass., 28 Feb-4 March, 2009 (abstract in *Biophysical Journal* 96(3):664a, <http://linkinghub.elsevier.com/retrieve/pii/S000634950803751X>)
57. *Popescu M.N., Nistor G., Georgescu A., Corlan A.D., Amuzescu B.P., Barbu C.I., Flonta M.-L.*: Stability and Oscillations in a Ventricular Cardiomyocyte Model Studied using the Tools of Dynamic Systems Analysis and Bifurcation Theory (poster) 53rd Biophysical Society Meeting, Boston, Mass., 28 Feb-4 March, 2009 (abstract in *Biophysical Journal* 96(3):664a, <http://linkinghub.elsevier.com/retrieve/pii/S000634950803751X>)
58. *Selescu T., Vasile A., Amuzescu B., Flonta M.-L.*: Capsaicin-activated currents in cultured primary sensory neurons – desensitization properties and effects of acute NGF application, Annual Scientific Conference, Faculty of Physics, University of Bucharest, 5 June 2009 (abstract p. 97-98)
59. *Amuzescu B., Barbu I.C., Pascu N., Selescu T., Flonta M.-L.*: A unified reduced multicompartiment electrophysiology model of cardiomyocytes from different territories, Annual Scientific Conference, Faculty of Physics, University of Bucharest, 5 June 2009 (abstract p. 95-96)

60. Corlan A.D., Amuzescu B., Milicin I., De Ambroggi L.: Increased transient outward current in the subepicardial region can explain the slurring of the QRS. A simulation study (poster) 36th Congress of the International Society of Cardiology, Wroclaw, 24-27 Jun 2009, abstract p. 46 (<http://www.electrocardiology.org/conf09/ICE2009-Final-Program.pdf>)
61. Corlan A.D., Amuzescu B., Milicin I., De Ambroggi L.: Electrocardiographic patterns of early repolarization attributable to increased transient outward current in the subepicardial region. A simulation study (poster) European Society of Cardiology Congress, Barcelona, 29 Aug-2 Sept 2009 (abstract in *Eur. Heart J.*, vol. 30(1), p. 491, <http://spo.escardio.org/AbstractDetails.aspx?id=68302&eevtid=33>)
62. Amuzescu B., Barbu I.C., Pascu N., Selescu T., Flonta M.-L.: Unified computational model of cardiomyocytes from various territories, 10th National Conference of Biophysics, Cluj, 1-3 Oct 2009 (abstract p. 27)
63. Amuzescu B., Nestianu V., Nestianu A.: Studiul mecanismelor de epileptogeneza cu ajutorul *brain slices*, A XVIIIa Conferinta Nationala de Epilepsie, Bucuresti 16-17 Oct 2009
64. Nestianu V., Amuzescu B., Nestianu A.: Terapii celulare in epilepsie, A XVIIIa Conferinta Nationala de Epilepsie, Bucuresti 16-17 Oct 2009
65. Selescu T., Amuzescu B., Dumitru S., Cocina G., Ristoiu V., Flonta M.-L.: Multiple effects of ω -3 polyunsaturated fatty acids on vanilloid receptors (rTRPV1wt) expressed in HEK293 cells, Annual Scientific Conference, Faculty of Physics, University of Bucharest, 18 June 2010 (abstract p. 99-101)
66. Amuzescu B., Selescu T., Dumitru S., Popoiu G., Ionita I., Zamfirescu M., Jipa F., Chirculescu A.R.M., Flonta M.L.: Experiments on brain slices used in mathematical modeling of hippocampal neuronal networks, Annual Scientific Conference, Faculty of Physics, University of Bucharest, 18 June 2010 (abstract p. 117-118)
67. Dumitru S., Selescu T., Amuzescu B., Cocina G., Pascu N., Flonta M.L.: Sensitivity to algescic stimuli and growth factors in neurite endings of cultured newborn rat primary sensory neurons, Annual Scientific Conference, Faculty of Physics, University of Bucharest, 18 June 2010 (abstract p. 117-118)
68. Amuzescu B., Selescu T., Dumitru S., Popoiu G., Ionita I., Zamfirescu M., Jipa F., Chirculescu A.R.M., Flonta M.-L.: Experiments on brain slices used in mathematical modeling of hippocampal neuronal networks, EMBO|EMBL Symposium: Structure and Function of Neural Circuits, Heidelberg, 5-8 Sept 2010, abstract p. 61
69. Amuzescu B., Chirculescu A.R.M., Selescu T., Dumitru S., Ionita I., Flonta M.-L.: Preliminary immunocytochemical data on potassium ionic channels in the newborn rat hippocampus. XXIst International Symposium on Morphological Sciences, Messina, 18-22 Sept 2010, abstract p. 20 (<http://ismstaormina2010.com/final-program.pdf>)
70. Selescu T., Amuzescu B., Dumitru S., Cocina G., Ristoiu V., Flonta M.-L.: Multiple effects of ω -3 polyunsaturated fatty acids on vanilloid receptors (rTRPV1wt) expressed in HEK293 cells, 3rd International Neuroscience Conference of the National Neuroscience Society of Romania, Bucharest, 29 Sept-2 Oct 2010 (<http://www.snn.ro/simp2010/program%20final.pdf>)
71. Amuzescu B., Selescu T., Dumitru S., Popoiu G., Ionita I., Zamfirescu M., Jipa F., Chirculescu A.R.M., Flonta M.L.: Experiments on brain slices used in mathematical modeling of hippocampal neuronal networks, 3rd International Neuroscience Conference of the National Neuroscience Society of Romania, Bucharest & Conferința "Diaspora în cercetarea științifică și învățământul superior din România" București Workshop: Noi perspective de investigare a creierului 22-23 Sept 2010) (<http://www.diaspora-stiintifica.ro/admin/upload/Program%20Wk%2012.pdf>)
72. Amuzescu B., Nestianu V.: Metodele electrofiziologice și structurale în explorarea rețelelor neuronale la nivelul formațiunii hipocampice, A XIXa Conferinta Nationala de Epilepsie, Bucuresti 5-6 Nov 2010

73. *Nestianu V, Amuzescu B., Nestianu A.*: Explorarea rețelelor neuronale – arhitectura funcțională a hipocampului: aplicații în neurologie, A XIXa Conferința Națională de Epilepsie, București 5-6 Nov 2010
74. *Nestianu V, Amuzescu B.*: Terapii celulare în epilepsie, A XIXa Conferința Națională de Epilepsie, București 5-6 Nov 2010
75. *Corlan A.D., Capatto R., Amuzescu B., De Ambroggi L.*: Maximum I_{to} Conductivity in the Subepicardial Myocardium Determines the Extent of Body Surface Early Repolarization Potentials. A Simulation Study. American Heart Association Scientific Session 2010, Chicago, IL, 13-17 Nov 2010
76. *Amuzescu B.P., Bichir C.L., Georgescu A., Nistor G., Popescu M.N., Svab I., Corlan A.D., Flonta M.L.*: Stability and self-sustained oscillations in a ventricular cardiomyocyte model, 55th Biophysical Society Meeting, Baltimore, MD., 5-9 March, 2011 (abstract in *Biophysical Journal* 100(3)S1:437a)(http://images.cell.com/images/EdImages/Biophys/Abstracts_2011/Tuesday_03082011.pdf)
77. *Corlan A.D., Amuzescu B., Milicin I., Iordachescu V., Poenaru E., Corlan I., De Ambroggi L.*: Intercellular conductance variability influences early repolarization potentials in a myocardial tissue model with stochastic architecture, 7th International Symposium on Advanced Topics in Electrical Engineering, Bucharest, 12-14 May 2011 (full paper in IEEE Proceedings, ISSN 2068-7966):1-4
78. *Amuzescu B., Bichir C.L., Nistor G., Popescu M., Corlan A.D.* : Stability analysis of a ventricular cardiomyocyte model, Annual Scientific Conference, Faculty of Physics, University of Bucharest, 17 June 2011 (abstract p. 55-56)
79. *Musat S., Farcas C.P., Dumitrescu M., Amuzescu B., Mischianu D.*: A multiplex system for processing and analysis of prostate biopsies. Romuro 2011- al 27lea Congres Național de Urologie, Timisoara, 26-27 oct abstract p. 9
80. *Farcas, C.P., Dinu M., Ilie C.P., Madan V., Popescu R., Spinu D., Amuzescu B., Mischianu D.*: The statistical and clinical importance of ERSPC risk indicator in the management of patients with prostate cancer. Romuro 2011- al 27lea Congres Național de Urologie, Timisoara, 26-27 oct abstract p. 8
81. *Amuzescu B., Nestianu V.*: Metode electrofiziologice și morfologice în explorarea rețelelor neuronale implicate în epileptogeneză, A XXa Conferința Națională de Epilepsie, București 4-5 Nov 2011
82. *Nestianu V., Amuzescu B., Nestianu A.*: Actualități în terapia cu celule stem a epilepsiei, A XXa Conferința Națională de Epilepsie, București 4-5 Nov 2011
83. *Halitzchi F., Galateanu B., Amuzescu B., Radu E., Comorosan S.*: Efectul antioxidant al câmpului electromagnetic, Students Scientific Session, Faculty of Biology, May 25, 2012
84. *Halitzchi F., Galateanu B., Amuzescu B., Radu E., Comorosan S.*: Cytoprotective effects of high intensity green light, Annual Scientific Conference, Faculty of Physics, June 22, 2012
85. *Amuzescu B.*: Novel approaches in realistic neuronal network modeling, Annual Scientific Conference, Faculty of Physics, June 22, 2012
86. *Amuzescu B.*: Novel experimental approaches in detailed modeling of neural networks, 3rd Conference of the National Neuroscience Society of Romania, Bucharest, 18-19 October 2012, abstract p. 10
87. *Amuzescu B., Nestianu V., Nestianu A.*: Electrophysiology methods in modeling neural networks involved in epileptogenesis, XXIth National Conference of Epilepsy, Bucharest, 1-3 November 2012
88. *Nestianu V., Amuzescu B., Nestianu A.*: Morphology methods in modeling neural networks involved in epileptogenesis, XXIth National Conference of Epilepsy, Bucharest, 1-3 November 2012

89. Amuzescu B., Nestianu V., Nestianu A.: Recent developments in stem cells therapy of neurodegenerative disorders, XXIth National Conference of Epilepsy, Bucharest, 1-3 November 2012
90. Amuzescu B., Istrate B., Gwanyanya A., Macianskiene R., Mubagwa K.: Myocardial TRPM7 channels: biophysical properties and involvement in cardiac diseases, 3rd International Conference on Clinical & Experimental Cardiology, Chicago, April 15-17, 2013
91. Amuzescu B., Istrate B., Gwanyanya A., Macianskiene R., Mubagwa K.: Biophysical properties of myocardial TRPM7 channels and involvement in pathology, Annual Scientific Conference, Faculty of Physics, June 21-22, 2013, abstract p. 48-49
92. Halitzchi F., Jianu L., Amuzescu B.: Electrophysiology and pharmacology study of a human neuroblastoma cell line, Annual Scientific Conference, Faculty of Physics, June 21-22, 2013, abstract p. 58-59
93. Amuzescu B., Istrate B., Gwanyanya A., Macianskiene R., Mubagwa K.: TRPM7: channel-enzymes with multiple roles in physiology and pathology, XIth National Symposium of Microscopic Morphology with International Attendance, Craiova, May 22-24, 2013, abstract p. 7
94. Amuzescu B., Knott T., Scheel O., Mihăilescu D., Mernea M.: Diminazene interaction with ASIC1a channels (poster) 58th Biophysical Society Meeting, San Francisco, CA, 15-19 Feb 2014 (abstract in *Biophysical Journal* 106(2):550a, [http://www.cell.com/biophysj/fulltext/S0006-3495\(13\)04321-X](http://www.cell.com/biophysj/fulltext/S0006-3495(13)04321-X))
95. Amuzescu B.: Diaryldiamidines Interaction with ASIC1a as a Basis for Novel Pharmacological Targets in Neuronal Ischemia, Drug Discovery for Ion Channels XIV - Sattelite Meeting to 58th Biophysical Society Meeting, San Francisco, CA, 14 Feb 2014
96. Scheel O., Frech S., Amuzescu B., Eisfeld J., Lin K.-H., Knott T.: Automated patch-clamp pharmacology assays using human induced pluripotent stem cell-derived cardiomyocytes, Abstract for Biophysical Society 59th Annual Meeting, Baltimore, Maryland, February 7-11, 2015
97. Chevalier M., Amuzescu B., Knott T., Scheel O., Abriel H.: Automated patch-clamp in characterization of late Na⁺ current and drug-induced LQT syndromes, Abstract for Biophysical Society 59th Annual Meeting, Baltimore, Maryland, February 7-11, 2015
98. Amuzescu B.: Using hiPSC-derived cardiomyocytes for cardiac safety drug screening via automated patch-clamp: transition from the "hERG-centric" to the CiPA paradigm, 4th International Symposium on Adipobiology and Adipopharmacology, Bucharest, Oct.28-31, 2013
99. Amuzescu B.: Recent advances in neuronal networks modeling and experimental approaches, XXIIIrd International Conference of the Romanian Society against Epilepsy, Bucharest, Nov. 19-21, 2015
100. Amuzescu B., Scheel O., Knott T., Frech S., Eisfeld J., Lin K.-H.: Cardiac safety drug testing via automated patch-clamp using hiPSC-derived cardiomyocytes, XIVth Annual Meeting of the Romanian Society of Pure and Applied Biophysics, Cluj-Napoca, June 2-3, 2016, abstract p.73
101. Amuzescu B., Scheel O., Knott T., Frech S., Eisfeld J., Lin K.-H.: Using hiPSC-derived cardiomyocytes for cardiac safety drug screening via automated patch-clamp: transition from the "hERG-centric" to the CiPA paradigm, Channelopathy Meeting 2016, Paris, June 15-17, 2016, abstract p.88-89
102. Amuzescu B., Iordache F., Constantinescu A., Andrei E., Halitzchi F., Savu L., Maniu H.: Neural differentiation of amniotic fluid-derived mesenchymal stem cells in culture, XXIVth Conference of the Romanian Society against Epilepsy, Bucharest 17-19 nov. 2016, abstract p. 30-31
103. Amuzescu B.: Evolution and perspectives in neural networks modeling, Research Institute of University of Bucharest (Humanities section) Seminar "Consciousness and Cognition III", Bucharest, March 28, 2017
104. Airini R., Deftu A.F., Epureanu F.B., Mihăilescu D.F., Amuzescu B.: Blocarea canalelor de potasiu HERG cu ajutorul compusului E-4031 prin experimente de patch-clamp clasic și automat, Student Scientific Session, Faculty of Biology, June 2, 2017, abstract p.

105. *Amuzescu B., Iordache F., Constantinescu A., Andrei E., Halitzchi F., Savu L., Maniu H.*: Characterization of cryopreserved and senescent amniotic fluid stem cells in culture. Faculty of Physics 2017 Annual Scientific Conference "Knowledge means Physics", June 23, 2017, abstract p. 59-60
106. *Amuzescu B., Cocină G., Florică Ș., Cîrlig V., Dacălu A.*: Design, construction and testing of an 8-channel system for surface EEG recordings in small animals, Faculty of Physics 2017 Annual Scientific Conference "Knowledge means Physics", June 23, 2017, abstract p.
107. *Airini R., Deftu A.F., Epureanu B.F., Amuzescu B.*: Comparison between automated and manual patch-clamp platforms in assessment of proarrhythmogenic effects of drugs via hERG channels blockade, Faculty of Physics 2017 Annual Scientific Conference "Knowledge means Physics", June 23, 2017, abstract p. 65-66
108. *Amuzescu B.*: Evolution and perspectives in neural networks modelling, Polish-Romanian Workshop on Scientific Modelling and Explanation: Philosophical investigations from cognitive science and beyond, Faculty of Philosophy, University of Bucharest, June 26, 2017
109. *Mann S., Heide J., Radu B.M., Amuzescu B., Knott T.*: Measuring multiple ion current components in human induced pluripotent stem cell-derived cardiomyocytes via automated patch-clamp, Safety Pharmacology Society Annual Meeting, Berlin, September 24-27, 2017-12-20
110. *Amuzescu B., Iordache F., Constantinescu A., Andrei E., Halitzchi F., Savu L., Maniu H.*: Neural differentiation of amniotic fluid stem cells in culture, 8th Conference of the National Neuroscience Society of Romania, Craiova, 19-21 October, 2017, abstract p. 24
111. *Amuzescu B., Cocină G., Florică S., Cîrlig V., Dacălu A.*: Design, construction and testing of an 8-channel system for surface EEG recordings in small animals, XXVth Conference of the Romanian Society against Epilepsy, Bucharest, 15-17 Nov. 2017
112. *Amuzescu B.*: Recent advances in detailed compartmental neuronal networks modeling, National Conference of Neuroscience of the Romanian Academy, Bucharest, 17-18 Nov. 2017
113. *Knott T., Mann S., Heide J., Airini R., Epureanu F., Deftu A., Deftu T.A., Radu B.M., Amuzescu B.P.*: Recording and modeling multiple ion current components and action potentials in human induced pluripotent stem cell-derived cardiomyocytes, Biophysical Society 62nd Annual Meeting, San Francisco, CA, February 17-21, 2018
114. *Amuzescu B.*: Evoluție și perspective în modelarea rețelelor neuronale, "Psychosomatics of Architecture" Conference of Neuroscience of the Romanian Academy, Bucharest, 17 May 2018
115. *Airini R., Iordache F., Alexandru D., Savu L., Epureanu F., Mihailescu D., Amuzescu B., Maniu H.*: Investigarea fenomenului de senescență celulară în celulele stem din lichidul amniotic, Sesiunea Științifică Studențească a Facultății de Biologie, Bucharest, May 19, 2018, abstract p. 65-66
116. *Amuzescu B., Airini R., Epureanu F., Deftu A.F., Deftu A.T., Radu B., Mihailescu D.F., Mann S., Heide J., Knott T.*: Automated data analysis and optimization algorithms for electrophysiology and pharmacology studies on human induced pluripotent stem cell-derived cardiomyocytes, Faculty of Physics 2018 Annual Scientific Conference dedicated to the Centenary of Great Union, Bucharest, June 21-22, 2018, abstract p. 84-85
117. *Airini R., Iordache F., Alexandru D., Savu L., Epureanu F., Mihailescu D.F., Amuzescu B., Maniu H.*: Senescence changes in mesenchymal stem cells cultures, Faculty of Physics 2018 Annual Scientific Conference dedicated to the Centenary of Great Union, Bucharest, June 21-22, 2018, abstract p. 90-91
118. *Amuzescu B., Airini R., Epureanu F., Deftu A.F., Deftu A.T., Radu B., Mihailescu D.F., Mann S., Heide J., Knott T.*: A New CiPA-compliant Cardiac Safety Pharmacology Automated Patch-Clamp Assay on Cor.4U[®] Cardiomyocytes, National Conference of Biophysics, Bucharest, September 7-10, 2018, abstract p. 23

119. *Epureanu F., Airini R., Deftu A.F., Deftu A.T., Radu B., Mihailescu D.F., Mann S., Heide J., Knott T., Amuzescu B.*: Development of a complex assay for measurement of multiple ion current components and action potentials on human induced pluripotent stem cell-derived cardiomyocytes, National Conference of Biophysics, Bucharest, September 7-10, 2018, abstract p. 72
120. *Airini R., Iordache F., Alexandru D., Savu L., Epureanu F., Mihailescu D.F., Amuzescu B., Maniu H.*: Changes induced by senescence in human amniotic fluid stem cells, National Conference of Biophysics, Bucharest, September 7-10, 2018, abstract p. 33
121. *Deftu A.T., Amuzescu B.*: Protective Effects of Nanosof on Different Cultured Cells Exposed to H₂O₂, National Conference of Biophysics, Bucharest, September 7-10, 2018
122. *Amuzescu B.*: Neuronal networks modelling approaches and their role in understanding complex cognitive functions, 9th Conference of the National Neuroscience Society of Romania, Bucharest, 18-20 October, 2018, abstract p.
123. *Amuzescu B.*: Electrophysiology experiments on brain slices, workshop demonstration, 9th Conference of the National Neuroscience Society of Romania, Bucharest, 18-20 October, 2018, abstract p.
124. *Amuzescu B.*: Use of automated patch-clamp platforms for electrophysiology and pharmacology experiments, workshop demonstration, 9th Conference of the National Neuroscience Society of Romania, Bucharest, 18-20 October, 2018
125. *Mann S., Heide J., Airini R., Epureanu F.B., Deftu A.F., Deftu A.T., Radu B., Knott T., Amuzescu B.*: Development of a New CiPA-compliant MOA in vitro Assay on Stem Cell-Derived Cardiomyocytes including Automated Data Analysis and Model Parameter Optimization, Safety Pharmacology Society (SPS) 18th Annual Meeting, Washington DC, Sep. 30 - Oct. 03, 2018, abstract 014 in Journal of Pharmacological and Toxicological Methods vol. 93 (Sep.-Oct. 2018) special issue pp. 112-113
126. *Mann S., Heide J., Airini R., Epureanu F.B., Deftu A.F., Deftu A.T., Radu B., Knott T., Amuzescu B.*: Development of a New CiPA-compliant MOA in vitro Assay on Stem Cell-Derived Cardiomyocytes including Automated Data Analysis and Model Parameter Optimization, Ncardia Applications Workshop 2018, Cologne, November 7-9 2018, abstract p. 7
127. *Amuzescu B.*: A New CiPA-compliant Cardiac Safety Pharmacology Automated Patch-Clamp Assay, Ncardia Applications Workshop 2018, Cologne, November 7-9 2018, abstract p. 13
128. *Amuzescu B., Le Goc P., Airini R., Epureanu F.B., Deftu A.F., Deftu A.T., Radu B., Mihailescu D.F.*: Analysis of proarrhythmogenic risk predictors using advanced cardiomyocyte electrophysiology models combined with experimental pharmacology data on human cardiac ion channels in heterologous expression systems and induced pluripotent stem cell-derived cardiomyocytes, Faculty of Physics 2019 Annual Scientific Conference, Bucharest, June 21-22, 2019, abstract p. 46-47
129. *Amuzescu B., Epureanu F.B., Iordache F., Deftu A.T., Airini R., Alexandru D., Savu L., Mihailescu D.F., Maniu H.*: Expression of pluripotency, surface and senescence markers in human amniocytes and in vitro induction of neural progenitor formation, Faculty of Physics 2019 Annual Scientific Conference, Bucharest, June 21-22, 2019, abstract p. 33-34
130. *Amuzescu B., Knott T., Mann S., Knuepling J., Airini R., Epureanu B.F., Radu B.*: Using onset-of-block kinetic analysis of hERG1 current with a Markov model to improve in silico proarrhythmogenic risk prediction, Biophysical Society 64th Annual Meeting, San Diego, CA, February 15-19, 2020
131. *Amuzescu B., Knott T., Mann S., Knuepling J., Airini R., Epureanu B.F., Radu B.M., Mihailescu D.F.*: Cardiac safety pharmacology assays on cell lines expressing human cardiac ion channels and iPSC cardiomyocytes combined with in silico methods for improved proarrhythmogenic risk prediction, National Online Conference of Biophysics (with international participation), CNB 2020, (online event), June 14-16, 2020

132. Amuzescu B., Thomet U., Knott T., Mann S., Radu B.: CiPA-compliant assessment of proarrhythmogenic risk for chloroquine and hydroxychloroquine, Safety Pharmacology Society 20th Annual Meeting, (online event), September 14-17, 2020 (presented on Sept. 17th during the Lightning Round Poster Competition, and poster presented on Oct. 27 during poster group presentation #6-Stem cells, in silico & CiPA)
133. Amuzescu B., Thomet U., Knott T., Mann S., Radu B., Mubagwa K.: Detailed analysis of chloroquine and hydroxychloroquine effects on kinetics, voltage-dependent gating and block of multiple human cardiac ion channels, Safety Pharmacology Society 21th Annual Meeting, (online event), October 4-8, 2021 (presented on Oct. 6th during Rapid Fire Poster Session 2: Integrated Risk Assessment, Non Rodent, Regulatory, Disease Models and more!)
134. Amuzescu B.: *In vitro* and *in silico* cardiac safety drug testing: advancing the CiPA paradigm, invited lecture within the CIVIS Summer School "Drug Design and Discovery", Dept. Pharmacy, School of Health Science, National and Kapodistrian University of Athens, July 4-8, 2022
135. Amuzescu B., Armasescu F., Ghenghea M., Gheorghe R.-O., Mihailescu D.F.: Infrared laser effects on excitability of primary sensory neurons and gating of Nav1.5 ion channels, presentation within SNN - SRF 2022 Conference "From brain to heart and back", Faculty of Medicine, "Carol Davila" University of Medicine and Pharmacy, Bucharest, Sept. 30-Oct. 2, 2022
136. Coman A., Amuzescu B., Nistor G.: Theoretical Assumptions in Conductivity and Dielectric Properties Assessment of Biological Tissues - Errors and Resulting Consequences, 13th International Symposium on Advanced Topics in Electrical Engineering (ATEE), Bucharest, March 23-25, 2023, IEEEExplore® 2023 (<https://ieeexplore.ieee.org/document/10108270>) (<https://doi.org/10.1109/ATEE58038.2023.10108270>)
137. Amuzescu B., Armasescu F., Gheorghe R.-O., Ghenghea M., Mihailescu D.F., Ciurea J., Gruia I.: Near-infrared laser effects on sensory neuron excitability and gating of voltage-dependent sodium channels, 16th International Conference CORRELATION OPTICS 2023, Yuriy Fedorovych Cernivtsi National University, Cernivtsi, Ukraine, September 18-21, 2023
138. Armasescu F., Amuzescu B., Gheorghe R.-O., Ghenghea M., Mihailescu D.F., Ciurea J.: Effects of acute near-infrared laser exposure on primary sensory neuron excitability and gating properties of heterologously expressed voltage-dependent Na⁺ channels, 3rd International Conference on Neuroscience, Neuroinformatics, Neurotechnology and Neuro-Psycho-Pharmacology, Bucharest, October 26-28, 2023
139. Shaher S.A.A., Galateanu B., Hudita A., Pop C.E., Mihailescu D.F., Amuzescu B.: NMDAR activation, cytotoxicity and oxidative stress induced by aspartame in native and heterologously expressed cell lines, 3rd International Conference on Neuroscience, Neuroinformatics, Neurotechnology and Neuro-Psycho-Pharmacology, Bucharest, October 26-28, 2023
140. Amuzescu B., Corlan A.D., Radu B.M.: Inhibitory effects of cenobamate on multiple human cardiac ion channels and possible arrhythmogenic consequences, A XXXI-a Conferință Națională a Societății Române Impotriva Epilepsiei (SRIE), Bucharest, November 22-25, 2023
141. Armasescu F., Amuzescu B., Gheorghe R.-O., Ghenghea M., Mihailescu D.F., Ciurea J., Gruia I.: Biophysical mechanisms of photobiomodulation using NIR laser: effects on primary sensory neurons electrophysiology, voltage-dependent Na⁺ channels and ATP production, 18th National Conference of Biophysics, Iași, September 5-7, 2024
142. Amuzescu B., Mateiaș A.L., Armășescu F., Draga S., Șulea T., Corlan A.D., Radu B.M.: Electrophysiological and pharmacological properties of human Nav1.5 channels: experimental and simulation studies, SNN 2024 Conference "Nervous System-Body-Environment Connections in Health and Disease", Bucharest, October 31-November 2, 2024
143. Nuțu M.A., Vătămanu C., Mateiaș A.L., Amuzescu B.: Effects of Diesel exhaust particles on cell lines and nervous tissue, poster presentation at SNN 2024 Conference "Nervous System-Body-Environment Connections in Health and Disease", Bucharest, October 31-November 2, 2024

144. *Armasescu F., Amuzescu B., Gheorghe R.-O., Ghenghea M., Mihailescu D.F., Ciurea J., Gruia I.*: Mechanisms of NIR laser photobiomodulation: in vitro studies on primary sensory neurons and voltage-dependent Na⁺ channels, The Annual National Neuroscience Society of Romania (SNN) Conference with international participation, Braşov, May 29-31, 2025
145. *Nutu M.A., Vatamanu C., Amuzescu B.*: Fine Particles, Fine Damage: Cytotoxic and metabolic effects of Diesel microparticles on different cell components of the central nervous system, The Annual National Neuroscience Society of Romania (SNN) Conference with international participation, Braşov, May 29-31, 2025
146. *Negoita A., Banciu A., Banciu D.D., Amuzescu B.*: Effects of hypothermia on brain serotonergic circuits – expression levels of serotonin transporter (SERT) and receptors 5-HTR1A and 5-HTR2A, The Annual National Neuroscience Society of Romania (SNN) Conference with international participation, Braşov, May 29-31, 2025
147. *Amuzescu B.*: Introduction to cardiac channelopathies: basics and clinical aspects. Phenotypic analysis to diagnosis and principles of therapy using iPSC cardiomyocytes, invited lecture within the “Rare Diseases” BiP-CIVIS Summer School, Institute MarMaRa (Marseille Maladies Rares), Aix-Marseille Université, June 27, 2025
148. *Amuzescu B.*: Exploring biophysical and pharmacological properties of Nav1.5 channels with experimental and simulation methods, 12th Balkan Physics Union Congress BPU12, Politechnica University, Bucharest, July 8-12, 2025 (<https://indico.bpu11.info/event/3/sessions/53/#20250709>)
149. *Amuzescu B.*: In vitro and in silico cardiac safety drug testing: advancing the CiPA paradigm, 9th International Symposium New Frontiers in Cardiovascular Research, Faculty of Biology, University of Bucharest, August 25-28, 2025 (<https://www.newfrontierscardiovascularresearch.com/scientific-program>)
150. *Amuzescu B., Corlan A.D., Radu B.M., Mateias A.L., Armasescu F., Draga S., Sulea T.A., Mernea M., Petrescu A.-J.*: Cenobamate effects on multiple cardiac ion channels and potential arrhythmogenic consequences – experimental and simulation studies, 7th International Channelopathy Conference “Channelopathies in Focus”, Marrakesh, Morocco, March 25-29, 2026 (abstract p. 35-36)
151. *Rebeca G., Vatamanu C., Amuzescu B., Banciu A., Banciu D.*: Effects of near infrared radiation (NIR) on an in vitro model of beta-amyloid-induced neurodegeneration, Students Scientific Session, Faculty of Biology, May 22, 2026
152. *Vatamanu C., Nutu M.A., Amuzescu B.*: Cytotoxic and metabolic effects of Diesel microparticles on different cellular components of the central nervous system, Students Scientific Session, Faculty of Biology, May 22, 2026
153. *Costake D., Amuzescu B., Popescu I.*: Neuronal oscillators: synchrony analysis of a thalamo-cortical network, Annual Meeting of the National Neuroscience Society of Romania, Bucharest, May 28-30, 2026

20.05.2026

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