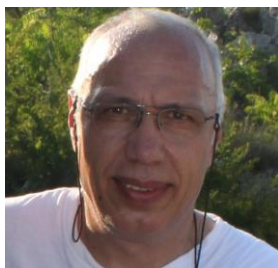




Europass Curriculum Vitae

Personal information



Mihai Radu

Horia Hulubei National Institute of Physics and Nuclear Engineering

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Sex Male | **Date of birth** 14/11/1958 | **Nationality** Romanian

POSITION WITHIN THE PROJECT

Key member

WORK EXPERIENCE

Dates	1987-present
Occupation or position held	Researcher (1987-2001), senior researcher (2001-present), scientific director (2017-present)
Main activities and responsibilities	<i>Main activities:</i> research in the field of cellular and molecular biophysics: radiobiology, protein-lipids bilayer interaction, oxidative stress involved in ionizing radiation effects on living matter and in large impact diseases (diabetes, cardiovascular and neuronal diseases), biocompatibility of materials, development of fluorescence techniques for molecular and cellular investigation <i>Responsibilities:</i> project management and execution.
Name and address of employer	Horia Hulubei National Institute for Physics and Nuclear Engineering (IFIN-HH), Atomistilor 407, Magurele, 077125, Romania
Type of business or sector	Research.
Dates	2012-2016
Occupation or position held	Postdoctoral researcher
Main activities and responsibilities	<i>Main activities:</i> research focused on the role of brain endothelial cells in epilepsy. <i>Responsibilities:</i> calcium imaging, cell cultures (brain endothelial cells – primary and immortalized cells), installation of new set-ups (patch clamp and calcium imaging), preparing samples for qRT-PCR, WB and IF analysis
Name and address of employer	University of Verona, Department of Neurological and Movement Sciences, Strada Le Grazie 8, 37134, Verona, Italy
Type of business or sector	Research.
Dates	2003-2011
Occupation or position held	Associate Professor
Main activities and responsibilities	<i>Main activities:</i> education (courses in the field of effects of electrical fields on living matter and fluorescence microscopy) and research (effects of variable electrical fields on cells in suspensions) <i>Responsibilities:</i> teaching, project execution.
Name and address of employer	Carol Davila University of Medicine and Pharmacy (UMF Carol Davila), Department of Biophysics and Cellular Biotechnology; Eroilor Sanitari Street 8, Bucharest, Romania
Type of business or sector	Education and Research
Dates	2002-2005
Occupation or position held	Associate Professor
Main activities and responsibilities	<i>Main activities:</i> education in biophysics (theoretical and practical courses in Physics and Biophysics) <i>Responsibilities:</i> teaching
Name and address of employer	University of Bucharest, Faculty of Biology, Department of Animal Physiology and Biophysics, Splaiul Independentei, 91-95, Bucharest, Romania

Type of business or sector	Education
Dates	1983-1987
Occupation or position held	Physics teacher.
Name and address of employer	No 1 Highs School, Cugir, Alba county, Romania
Type of business or sector	Education
Visiting scientist	<i>Nov01, 1999-Oct30, 2000:</i> Postdoctoral fellow at Department of Biophysics and Biophysical Chemistry, Faculty of Chemistry, University of Bielefeld, Bielefeld, Germany: research in the field of DNA passage through lipid bilayer investigated by voltage clamp and fluorescence techniques <i>May15-Aug08, 2002; Aug04-Sep29, 2003; Nov01-Dec22, 2003; Jan01-Mar12, 2004:</i> Stages in a postdoctoral position at Department of Physiology, Faculty of Medicine, Hasselt University, Hasselt, Belgium (former LUC, Diepenbeek, Belgium), Research in the field of concentration of cytosolic ions and membrane lipids organisation by microfluorimetry technique (wide field fluorescence microscopy, confocal microscopy, FRET). <i>Jan 2012-2016:</i> postdoctoral fellow at Faculty of Medicine, Univeristy of Verona, Italy; research focused on the neurovascular unit role in neurodegenerative diseases.
Review panels, editorial boards, and affiliation to professional societies	<i>1995-present:</i> Referee (occasionally) for the journals in different topics (e.g.: Bioelectrochemistry, Journal of Peptide Science, British Journal of Medicine and Medical Research, etc.) <i>2010:</i> Member in the scientific panels for evaluation of project proposals (Biology committee) at the national scientific grants competition. <i>2007-present:</i> Editorial board, Romanian Journal of Biophysics (www.biophysicsnet.ro/rjb) <i>2013-present:</i> Editorial Board, International Journal Bioautomation (http://www.clbme.bas.bg/bioautomation/) <i>1995-present:</i> Member of Romanian Society of Pure and Applied Biophysics (affiliated to EBSA and IUPAB); 2004-2006, secretary of Bucharest branch <i>2005-present:</i> Member of Bioelectrochemistry Society <i>2009-present:</i> Member of European Society of Microscopy <i>2011-prezent:</i> Member of Biophysical Society

EDUCATION AND TRAINING

Dates	1990-1999
Title of qualification awarded	PhD (in Physics/Biophysics)
Principal subjects/occupational skills covered	Title of thesis: Study on the interaction of variable electric fields with the cellular suspensions
Name and type of organisation providing education and training	Babes-Bolyai University, Cluj Napoca, Romania
Level in national or international classification	ISCED 8
Dates	1979-1983
Title of qualification awarded	Bachelor of science / Master of science (in Physics)
Principal subjects/occupational skills covered	Basic education in physics, one year specialization in Biophysics
Name and type of organisation providing education and training	Faculty of Physics, University of Bucharest, Romania
Level in national or international classification	ISCED 6
Training fellowships	<i>1993, June 14-26:</i> Scholarship at NATO Advanced Course Structure, Biogenesis and Dynamics of Biological Membranes, Institut D'Etuds Scientifique de Cargese, France, <i>1994, September 26-October 14:</i> Scholarship at ICTP Trieste, College on biophysics: structure and function of biopolymers – experimental and theoretical techniques, Trieste, Italy <i>1995, November 19-December 14:</i> Scholarship at Department of Chemistry (practical training in electrochemistry techniques), University of Coimbra, Coimbra, Portugal <i>2002, April 15-28:</i> Scholarship at University of Konstanz, Special Course in Membrane Biophysics, Konstanz, Germany <i>2011, May 11-16:</i> Scholarship at Erice School of Biophysics – Course on Channels and Transporters, Ettore Majorana Scientific Cultural Fundation, Erice, Italy

PERSONAL SKILLS AND COMPETENCES

Mother tongue(s)	Romanian				
Other language(s)					
Self-assessment					
European level (*)					
	Understanding		Speaking		Writing
Language	Listening	Reading	Spoken interaction	Spoken production	
English	B2	B2	B1	B2	B2
French	A1	A1	A1	A1	A1

Social skills and competences I am a serious and friendly person, easy relating with others, with an equilibrate style in relationships. I am a good negotiator. This was one of the reasons for that I was nominated for the position of head of department

Organisational skills and competences I consider that I have the abilities to work in a programmed way with defined tasks and deadlines. I was involved in 4 national research projects as project leader and in the period of 2009-2011 I had the position of head at the Department of Life and Environmental Physics in IFIN-HH. I am the head of BioEval Laboratory which is working under the quality management standard ISO 17025.

Technical skills and competences I have the ability to work with laboratory equipments and tools. I am familiar with standard cellular and molecular biophysics laboratory instruments as: spectroscopy (UV-VIS, fluorescence), microscopy (bright field, fluorescence, confocal), biochemistry (electrophoresis, multireader plates), cellular cultures techniques, ionizing radiation measurements instruments etc.

Computer skills and competences Familiar in using PC (MS Office, Microcal Origin, Matlab, statistical analysis, programming)

Driving licence Yes, vehicle category: B

ADDITIONAL INFORMATION

Publications 75 publications indexed in WoS Core collections, citations more than 1200, Hirsh index 21 (acc WoS), complet list: <https://scholar.google.com/citations?user=YqHh-sUAAAAJ>

- Relevant publications in field of the project (last 5 years)**
- Roxana Cristina Popescu, Mihai Straticiuc, Cosmin Mustăciosu, Mihaela Temelie, Roxana Truşcă, Bogdan Ştefan Vasile, Adina Boldeiu, Dragoş Mirea, Radu Florin Andrei, Constantin Cenuşă, Laurenţiu Mogoantă, George Dan Mogoşanu, Ecaterina Andronescu, **Mihai Radu**, Marlon R. Veldwijk, and Diana Iulia Savu, Enhanced Internalization of Nanoparticles Following Ionizing Radiation Leads to Mitotic Catastrophe in MG-63 Human Osteosarcoma Cells, *International Journal of Molecular Science*, 2020, 21(19), pp. 1–17, 7220
 - Mihai Straticiuc, Mihaela Bacalum, Calin Mircea Rusu, Radu Andrei, Ion Burducea, Ioan Cenuşa, Constantin Cenuşa, Irina Dinescu, Simona Dirleci, Alexandru Enciu, Decebal Iancu, Radu Vasilache, Mina Raileanu, **Mihai Radu**, New setup for basic radiobiology studies using a 3 MV Tandemron™: design and developments, *Nuclear Instruments and Methods in Physics Research Section B: Beam Interactions with Materials and Atoms*, Volume 528, 1 October 2022, Pages 45-53
 - Răileanu, M., Straticiuc, M., Iancu, D-A., Andrei, R-F., **Radu, M.**, Bacalum, M., Proton irradiation induced reactive oxygen species promote morphological and functional changes in HepG2 cells, *Journal of Structural Biology* (2022), doi: <https://doi.org/10.1016/j.jsb.2022.107919>
 - Alexandra-Gabriela Ciocan, Elena-Monica Mitoi, Florenţa-Elena Helepciuc, Daniel Neguţ, Radu-Cristian Moldovan, Alina-Maria Petrache, Cristina-Adela Iuga, Irina-Mihaela Holobiuc, Carmen-Rodica Maximilian, **Mihai Radu**, Gina-Carmen Cogălniceanu, Is acute low-dose gamma irradiation an effective elicitor for secondary metabolism in Leontopodium alpinum (Cass.) callus culture? *Industrial Crops and Products* 197 (2023) 116547
 - Bacalum, Mihaela ; **Radu, Mihai** ; Silvio Osella, Stefan Knippenberg; Ameloot, Marcel, Generalized polarization and time-resolved fluorescence provide evidence for different populations of Laurdan in lipid vesicles, *Journal of photochemistry and photobiology B-Biology* 250 (2024) 112833
 - Tudor, M.; Popescu, R.C.; Irimescu, I.N.; Rzyanina, A.; Tarba, N.; Dinischiotu, A.; Craciun, L.; Esanu, T.R.; Vasile, E.; Hotnog, A.T.; **Radu M.**, Mytsin G., Mihailescu M. and Savu D. Enhancing Proton Radiosensitivity of Chondrosarcoma Using Nanoparticle-Based Drug Delivery Approaches: A Comparative Study of High- and Low-Energy Protons. *Int. J. Mol. Sci.* 2024, 25, 11481.

Projects *List of grants as project coordinator:*

- CERES 4-220, "Effects of oxidative stress induced by ionized radiations on model membranes", PI, 2004-2007
- CEEX 6, "Multi-parametric characterization of food safety – analytical and toxicological methods". 2005-2008
- CEEX 168, "Study of mechanisms involved in antibiotic resistance in Gram-negative bacteria impermeability on natural and reconstituted membranes", 2006-2008
- PNII 61-016, "Molecular characterization of mechanisms of action of antimicrobial peptides and de novo prediction of molecular structures with high antimicrobial potential", 2007-2010
- 5 PCCDI: "Use of gamma irradiation in biotechnological processes with applications in bioeconomy", 2018- 2021
- 36 PFE – Proiect de dezvoltare institutionala a IFIN-HH, 2018-2020; 2022-2024

List of grants - IFIN-HH team leader:

- CEEX 2-Cex-06-11-49, "Nanoscopic investigations of interactions between biomembrane, bacterial toxins and proteins involved in the transfer of antibacterial agents in biomembrane", 2006-2008
- PNII 61-011, "Supporting growth of neuronal extensions and formation of synapses with a multipoint optical tweezer", 2007-2010
- PNII 41-074, "Neuropathic pain mechanisms in transgenic mice with type I diabetes", 2007-2010
- PNII 62-061, "Elucidation of mechanisms of interaction between selected cytotoxic peptides with tumor cells, and optimize their anti-tumor properties", 2008-2011
- Capacities I-158, "Multifunctional platform for fluorescence microscopy and spectroscopy with electrophysiological and pharmacological applications in neuro-and cardiopathologies", 2008-2010

International grants:

- "Effects of combined exposure to the environment factors (ionizing and non-ionizing radiation, toxic chemical factors)", grant for a bilateral cooperation between IFIN-HH, Magurele, Romania and Frederic Joliot-Curie National Research Institute for Radiobiology and Radiohygiene, Budapest, Hungary, financed in the frame of Collaborative Agreement between Romanian Government and Hungarian Government, 2006-2007 (head of the Romanian team)
- COST Action No. TD1104: European network for development of electroporation-based technologies and treatments (EP4Bio2Med), 2011-2016 (national coordinator).

Invited seminars/lectures

- November 2009: M. Moisescu, **M. Radu**, *Cell membrane electrical parameters evaluation by dielectrophoresis – influence of electroporating pulses*, at Institute of Pharmacology and Structural Biology, Toulouse, France (invited seminar)
- September 2018: **M Radu**, M Bacalum, M Straticiuc, R Vasilache, M Temelie, D Savu, *Biomedical Applications of Ionising Radiation: Romanian experience in perspective of ELI-NP*, 34th Congress of Turkish Physics Society, Bodrum, Turcia, September 5-9, 2018
- July 2019: **Mihai RADU**, Mihaela TEMELIE, Mihaela BACALUM, Roxana POPESCU, Diana SAVU, Liviu CRACIUN, Dana NICULAE, Mihai STRATICIUC, Ion BURDUCEA, Paul VASOS, Dan STUTMAN, *Advances in bio-medical application of ionizing radiation at IFIN-HH & ELI-NP*, 19th Balkan Workshop on Applied Physics and Materials Science, Constanta, Romania, 2019
- July 2025: Mihaela Bacalum, Roberta Moisa, Decebal Iancu, Radu Andrei, Mihai Straticiuc, Diana Savu, Liviu Craciun, Irina Dinescu and **Mihai Radu**, *In vitro radiobiological effects of low energy accelerated protons*, 12th Congress of the Balkan Physical Union, Bucharest, 2025

Date

02.10.2025

