

## INFORMAȚII PERSONALE

Dan Florin Mihăilescu



📍 Departamentul de Anatomie, Fiziologie Animală și Biofizică,  
Facultatea de Biologie, Universitatea din București  
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Sexul Masculin | Data nașteri 27/04/1956 | Naționalitatea Română

EXPERIENȚĂ  
PROFESIONALĂ

- 2010 - prezent Directorul Departamentului de Anatomie, Fiziologie Animală și Biofizică  
Facultatea de Biologie, Universitatea din București, București ([www.bio.unibuc.ro](http://www.bio.unibuc.ro))
- 2000 - prezent Profesor  
Facultatea de Biologie, Universitatea din București, București ([www.bio.unibuc.ro](http://www.bio.unibuc.ro))  
• Activități didactice și de cercetare
- 2000 - 2003 Cercetător științific  
National Cancer Institute, Heidelberg, Germania  
• Activități de cercetare
- 2000 - 2004 Profesor invitat  
University of Heidelberg, Heidelberg, Germania  
• Activități didactice și de cercetare
- 1992 - 2000 Conferențiar  
Facultatea de Biologie, Universitatea din București, București ([www.bio.unibuc.ro](http://www.bio.unibuc.ro))  
• Activități didactice și de cercetare
- 1984 - 1993 Cercetător științific  
Institutul de Biologie, București  
• Activități de cercetare
- 1982 - 1984 Profesor  
Liceul din Cernavodă  
• Activități didactice

EDUCAȚIE ȘI  
FORMARE

- 1990 - 1994 Doctorat în Fizică  
Facultatea de Fizică, Universitatea din București, București  
• Teza de doctorat: „Efectul anumitor anestezice locale asupra biomembranelor. Studii RES.”
- 1981 - 1982 Master în Biofizică  
Facultatea de Fizică, Universitatea din București, București
- 1977 - 1981 Studii de licență  
Facultatea de Fizică, Universitatea din București, București

## COMPETENȚE

## PERSONALE

Limba(i) maternă(e) Română

Alte limbi străine cunoscute	INTELEGERE		VORBIRE		SCRIERE
	Ascultare	Citire	Participare la conversație	Discurs oral	
Engleză	C2	C2	C2	C2	C2
Franceză	C2	C2	C2	C2	C2

Niveluri: A1/A2: Utilizator elementar - B1/B2: Utilizator independent - C1/C2: Utilizator experimental  
Cadrul european comun de referință pentru limbi străine

Competențe de comunicare bune competențe de comunicare dobândite prin propria experiență în lucru cu studenți, ca profesor și în lucru cu angajații Facultății de Biologie, ca director de proiecte de cercetare și ca Director al Departamentului de Anatomie, Fiziologie Animală și Biofizică

Competențe organizaționale/manageriale
 

- leadership - ca director de proiecte de cercetare, în prezent, sunt responsabil de o echipă de 11 persoane.
- bune calități organizaționale – ca Director al Departamentului de Anatomie, Fiziologie Animală și Biofizică, sunt implicat în și coordonez activitatea membrilor departamentului

Competențe dobândite la locul de muncă De-a lungul timpului, am achiziționat noi competențe de lucru prin intermediul unor stagii de lucru în instituții străine, după cum urmează:
 

- 1988, 1992, 1998 (două săptămâni în fiecare an): Centrul de cercetări biologice, Szeged, Ungaria
- 1996, 1997 (o lună în fiecare an): University of Nottingham, UK
- 1997, 1998 (șase și cinci luni în cei doi ani): Centrul de studii atomice („Centre D'Etude Atomique”, CEA), Franța
- 2000 -2004 (patru ani): University of Heidelberg, Germania
- 2006-2007 (șase luni): University of Tennessee, USA
- 2006-2007 (șase luni): Oak Ridge National Laboratory, USA

## Competență digitală

## AUTOEVALUARE

Procesarea informației	Comunicare	Creare de conținut	Securitate	Rezolvarea de probleme
Utilizator experimentat				

Niveluri: Utilizator elementar - Utilizator independent - Utilizator experimental

Competențele digitale - Grilă de auto-evaluare

- Cunoștințe informaticce bune dobândite prin datorită administrării serverului de calcul și a rețelei de internet din Facultatea de Biologie

Permis de conducere B

## INFORMATII SUPLIMENTARE

## Publicații Articole:

- Avram, S., Mernea, M., Borcan, F., Mihailescu, D. Evaluation of the therapeutic properties of mastoparan-and-sifuvirtide-derivative antimicrobial peptides using chemical structure-function relationship-in vivo and in silico approaches (2016) *Current Drug Delivery*, 13 (2), pp. 202-210.
- Avram, S., Borcan, F., Borcan, L.-C., Milac, A.L., Mihailescu, D. QSAR approaches applied to antidepressants induced neurogenesis -in vivo and in silico applications (2016) *Mini-Reviews in Medicinal Chemistry*, 16 (3), pp. 230-240.
- Mernea, M., Ionescu, A., Vasile, I., Nica, C., Stoian, G., Dascalu, T., Mihailescu, D.F. In vitro human serum albumin glycation monitored by Terahertz spectroscopy (2015) *Optical and Quantum Electronics*, 47 (4), pp. 961-973.
- Avram, S., Milac, A., Memea, M., Mihailescu, D., Putz, M.V., Buiu, C. Structure–biological function relationship extended to mitotic arrest-deficient 2-like protein Mad2 native and mutants-new opportunity for genetic disorder control (2014) *International Journal of Molecular Sciences*, 15 (11), pp. 21381-21400. Cited 1 time.
- Bilcu, M., Grumezescu, A.M., Oprea, A.E., Popescu, R.C., Mogoanu, G.D., Hristu, R., Stanciu, G.A., Mihailescu, D.F., Lazar, V., Bezirtzoglou, E., Chifiriuc, M.C. Efficiency of vanilla, patchouli and ylang ylang essential oils stabilized by iron oxide@C14 nanostructures against bacterial adherence and biofilms formed by staphylococcus aureus and klebsiella pneumoniae clinical strains (2014) *Molecules*, 19 (11), pp. 17943-17956. Cited 1 time.
- Gheorghe, I., Czobor, I., Chifiriuc, M.C., Borcan, E., Ghiță, C., Banu, O., Lazăr, V., Mihailescu, G., Mihailescu, D.F., Zhiyong, Z. Molecular screening of carbapenemase-producing Gram-negative strains in Romanian intensive care units during a one year survey (2014) *Journal of Medical Microbiology*, 63, pp. 1303-1310. Cited 2 times.
- Avram, S., Memea, M., Mihailescu, D.F., Seiman, C.D., Seiman, D.D., Putz, M.V. Mitotic checkpoint proteins Mad1 and Mad2 - Structural and functional relationship with implication in genetic diseases (2014) *Current Computer-Aided Drug Design*, 10 (2), pp. 168-181.
- Mernea, M., Calborean, O., Grigore, O., Dascalu, T., Mihailescu, D.F., Validation of protein structural models using THz spectroscopy: A promising approach to solve three-dimensional structures (2014) *Optical and Quantum Electronics*, 46 (4), pp. 505-514. Cited 3 times.
- Bilcu, M., Grumezescu, A.M., Oprea, A.E., Popescu, R.C., Mogoanu, G.D., Hristu, R., Stanciu, G.A., Mihailescu, D.F., Lazar, V., Bezirtzoglou, E., Chifiriuc, M.C. Efficiency of vanilla, patchouli and ylang ylang essential oils stabilized by iron oxide@C14 nanostructures against bacterial adherence and biofilms formed by Staphylococcus aureus and Klebsiella pneumoniae clinical strains (2014) *Molecules* (Basel, Switzerland), 19 (11), pp. 17943-17956. Cited 2 times.
- Avram, S., Mernea, M., Mihailescu, D., Duda-Seiman, D., Duda-Seiman, C. Advanced QSAR methods evaluated polycyclic aromatic compounds duality as drugs and inductors in psychiatric disorders (2013) *Current Organic Chemistry*, 17 (23), pp. 2880-2890. Cited 1 time.
- Calborean, O., Mernea, M., Avram, S., Mihailescu, D.F. Pharmacological descriptors related to the binding of Gp120 to CD4 corresponding to 60 representative HIV-1 strains (2013) *Journal of Enzyme Inhibition and Medicinal Chemistry*, 28 (5), pp. 1015-1025. Cited 2 times.
- Avram, S., Buiu, C., Duda-Seiman, C., Borcan, F., Duda-Seiman, D., Mihailescu, D. Evaluation of the pharmacological descriptors related to the induction of antimicrobial activity by using QSAR and computational mutagenesis (2012) *Recent Trends on QSAR in the Pharmaceutical Perceptions*, pp. 63-98. Cited 1 time.
- Ionescu, A., Mernea, M., Vasile, I., Brandus, C.A., Barbinta-Patrascu, M.E., Tugulea, L., Mihailescu, D., Dascalu, T. Study of supported phospholipid bilayers by THz-TDS (2012) *Proceedings of SPIE - The International Society for Optical Engineering*, 8496, art. no. 849614, ..
- Avram, S., Buiu, C., Duda-Seiman, D., Duda-Seiman, C., Borcan, F., Mihailescu, D. Evaluation of the pharmacological descriptors related to the induction of antidepressant activity and its prediction by QSAR/QRAR methods (2012) *Mini-Reviews in Medicinal Chemistry*, 12 (6), pp. 467-476. Cited 4 times.
- Avram, S., Milac, A.-L., Mihailescu, D. 3D-QSAR study indicates an enhancing effect of membrane ions on psychiatric drugs targeting serotonin receptor 5-HT1A (2012) *Molecular BioSystems*, 8 (5), pp. 1418-1425. Cited 5 times.
- Avram, S., Mihailescu, D., Borcan, F., Milac, A.-L. Prediction of improved antimicrobial mastoparan derivatives by 3D-QSAR-CoMSIA/CoMFA and computational mutagenesis (2012) *Monatshefte für Chemie*, 143 (4), pp. 535-543. Cited 5 times.

- Publicații
- Mernea, M., Calborean, O., Petrescu, L., Zatreanu, D., Sandu, O., Dascalu, T., Mihăilescu, D.F. THz spectroscopy and molecular modeling of bovine serum albumin under various hydration conditions (2011) Proceedings of SPIE - The International Society for Optical Engineering, 8306, art. no. 83060N, .
  - Necula, G., Mihai, M.E., Sbarcea, C.E., Dinu, S., Lupulescu, E., Ceausu, E., Streinu-Cercel, A., Mihăilescu, D.F., Alexandrescu, V.I. Overview of influenza virus antiviral resistance in Romania in the last four epidemic seasons-phenotyping, genotyping and molecular analysis study [Rezistență la antivirale a virusului influență în ultimele patru sezoane epidemice în România-studiu fenotipic, genotipic și de analiză moleculară] (2011) Revista Romana de Medicina de Laborator, 19 (3), pp. 227-240. Cited 1 time.
  - Mernea, M., Călborean, O., Tita, A., Mihăilescu, D.F. PRO206SER and ARG441HIS mutations influence on human tryptophan hydroxylase 2 activity - A molecular modeling study (2011) Revue Roumaine de Chimie, 56 (8), pp. 833-841.
  - Tarko, L., Avram, S., Mihăilescu, D. Prediction for antidepressants activity using QSAR study (2011) Revista de Chimie, 62 (4), pp. 371-375. Cited 5 times.
  - Mernea, M., Leca, A., Dascalu, T., Mihăilescu, D. Bovine serum albumin 3D structure determination by THz spectroscopy and molecular modeling (2011) NATO Science for Peace and Security Series B: Physics and Biophysics, pp. 101-105.
  - Avram, S., Duda-Seiman, D., Borcan, F., Radu, B., Duda-Seiman, C., Mihăilescu, D. Evaluation of antimicrobial activity of new mastoparan derivatives using QSAR and computational mutagenesis (2011) International Journal of Peptide Research and Therapeutics, 17 (1), pp. 7-17. Cited 11 times.
  - Mernea, M., Calborean, O., Petrescu, L., Dinca, M.P., Leca, A., Apostol, D., Dascalu, T., Mihăilescu, D. Proteins vibrations in THz frequency domain (2010) Proceedings - 10th International Conference on Laser and Fiber-Optical Networks Modeling, LFN'2010, 2nd IEEE International Workshop on THz Radiation: Basic Research and Applications, TERA'2010, art. no. 5619937, pp. 261-264.
  - Mernea, M., Calborean, O., Petrescu, L., Tita, A., Leca, A., Dascalu, T., Mihăilescu, D.F. Protein association investigated by THz spectroscopy and molecular modeling (2010) Proceedings of SPIE - The International Society for Optical Engineering, 7376, art. no. 73760O, . Cited 3 times.
  - Avram, S., Buiu, C., Duda-Seiman, D.M., Duda-Seiman, C., Mihăilescu, D. 3D-QSAR design of new escitalopram derivatives for the treatment of major depressive disorders (2010) Scientia Pharmaceutica, 78 (2), pp. 233-248. Cited 6 times.
  - Mernea, M., Calborean, O., Petrescu, L., Dinca, M.P., Leca, A., Apostol, D., Dascalu, T., Mihăilescu, D. The flexibility of hydrated bovine serum albumin investigated by THz spectroscopy and molecular modeling (2010) Proceedings of SPIE - The International Society for Optical Engineering, 7469, art. no. 74690N, .
  - Avram, S., Duda-Seiman, D.M., Duda-Seiman, C., Borcan, F., Mihăilescu, D. Predicted binding rate of new cephalosporin antibiotics by a 3D-QSAR method: A new approach (2010) Monatshefte fur Chemie, 141 (5), pp. 589-597. Cited 2 times.
  - Dinca, M.P., Leca, A., Apostol, D., Mernea, M., Calborean, O., Mihăilescu, D., Dascalu, T. Transmission THz time domain system for biomolecules spectroscopy (2010) Journal of Optoelectronics and Advanced Materials, 12 (1), pp. 110-114. Cited 8 times.
  - Mernea, M., Calborean, O., Dinca, M.P., Leca, A., Apostol, D., Dascalu, T., Mihăilescu, D. The simulation of bovine serum albumin vibration spectrum in THz domain (2010) Journal of Optoelectronics and Advanced Materials, 12 (1), pp. 135-140. Cited 7 times.
  - Mernea, M., Leca, A., Calborean, O., Dinca, M.P., Dascalu, T., Mihăilescu, D. 3D protein structure determination by THz spectroscopy and molecular modelling: Case study on bovine serum albumin (2009) Proceedings - TERA-MIR 2009, NATO Advanced Research Workshop Terahertz and Mid Infrared Radiation: Basic Research and Practical Applications, art. no. 5379635, pp. 49-50. Cited 1 time.
  - Moraru, A., Svab, I., Mihăilescu, D.F. Chamm force field parameterization of bacterial lipopolysaccharides (2009) Revue Roumaine de Chimie, 54 (10), pp. 799-805. Cited 1 time.
  - Avram, S., Duda-Seiman, D.M., Svab, I., Mancas, S., Duda-Seiman, C., Mihăilescu, D.F. Aspirin and other non-steroidal anti-inflammatory drugs as cyclooxygenase inhibitors: State of the art, barriers and perspectives (2009) Current Computer-Aided Drug Design, 5 (1), pp. 1-12. Cited 2 times.
  - Avram, S., Milac, A.L., Mihăilescu, D.F., Dabu, A., Flonta, M.L. Computer-aided drug design applied to beta and gamma secretase inhibitors-perspectives for new Alzheimer disease therapy (2006) Current Enzyme Inhibition, 2 (4), pp. 311-328. Cited 4 times.
  - Pisterer, C., Mihăilescu, D., Smith, J.C., Reed, J. A common pharmacophoric footprint for AIDS vaccine design (2004) Journal of Medicinal Chemistry, 47 (15), pp. 3723-3729. Cited 3 times.

## Publicații

- Mihailescu, D., Reed, J., Smith, J.C. Convergence in peptide folding simulation: Multiple trajectories of a potential AIDS pharmacophore (2003) *Biopolymers*, 70 (2), pp. 121-133. Cited 3 times.
- Avram, S., Movileanu, L., Mihailescu, D., Flonta, M.-L. Comparative study of some energetic and steric parameters of the wild type and mutants HIV-1 protease: A way to explain the viral resistance (2002) *Journal of Cellular and Molecular Medicine*, 6 (2), pp. 251-260. Cited 5 times.
- Mihailescu, D., Smith, J.C., Reed, J. Solution structure of a putative HIV1 immunogenic peptide: Computer simulation of the principal CD4 binding domain of gp120 (2002) *Journal of Medicinal Chemistry*, 45 (5), pp. 1019-1025. Cited 5 times.
- Mihailescu, D., Smith, J.C. Atomic detail peptide-membrane interactions: Molecular dynamics simulation of gramicidin S in a DMPC bilayer (2000) *Biophysical Journal*, 79 (4), pp. 1718-1730. Cited 26 times.
- Cucu, D., Mihailescu, D. Spontaneous electrical potential oscillation on a filter impregnated with soybean lecithin placed between identical solutions of alanine (2000) *Biophysical Chemistry*, 85 (1), pp. 41-47.
- Mihailescu, D., Smith, J.C. Molecular dynamics simulation of the cyclic decapeptide antibiotic, gramicidin S, in dimethyl sulfoxide solution (1999) *Journal of Physical Chemistry B*, 103 (9), pp. 1586-1594. Cited 11 times.
- Mihailescu, D., Horváth, L.I. Molecular dynamics of lipid association at the hydrophobic interface of gramicidin S (1999) *European Biophysics Journal*, 28 (3), pp. 216-221. Cited 10 times.
- Movileanu, L., Flonta, M.L., Mihailescu, D., Frangopol, P.T. Characteristics of ionic transport processes in fish intestinal epithelial cells (1998) *BioSystems*, 45 (2), pp. 123-140. Cited 8 times.
- Cucu, D., Mihailescu, D., Mihailescu, G., Nikolelis, D.P., Flonta, M.-L., Frangopol, P.T. Fourier analysis of potential oscillations of a liquid membrane for the discrimination of taste substances (1996) *Biophysical Chemistry*, 63 (1), pp. 47-54. Cited 6 times.
- Mihailescu, D., Constantinescu, A., Dragutan, I., Cuculescu, M., Frangopol, P.T. Procaine incorporation into human erythrocyte membrane - a spin label study (1993) *Archives of Physiology and Biochemistry*, 101 (2), pp. 155-159. Cited 4 times.
- Constantinescu, A., Mihailescu, D., Ionescu, M.S., Frangopol, P.T. The effects of tertiary amines on the liposome permeability to ascorbate. An ESR study (1989) *Revue Roumaine de Biochimie*, 26 (4), pp. 325-330. Cited 1 time.

## Capitole de carte:

1. Avram, S., Buiu, C., Duda-Seiman, D., Duda-Seiman, C., Mihailescu, D. F. 2010. Neuropsihofarmacologia, Ed.Universitara, 200 p.
2. Avram, S., Buiu, C., Duda-Seiman, C., Borcan, F., Duda-Seiman D., Mihailescu D. F. 2012. Evaluation of the pharmacological descriptors related to the induction of antimicrobial activity by using QSAR and computational mutagenesis, in E-book Recent Trends on QSAR in the Pharmaceutical Perceptions, Ed. Bentham Science Publishers, Pp.63-98, ISBN: 978-1-60805-4336.
3. Memea, M., Leca, A., Dascalu, T., Mihailescu, D. 2011. Bovine Serum Albumin 3D Structure Determination by THz Spectroscopy and Molecular Modeling, in Terahertz and mid infrared radiation: generation, detection and applications (series: NATO science for peace and security series, B. Physics and biophysics), Eds. Mauro F Pereira; Oleksiy Shulika, Springer, chapter, 101-104.
4. Memea M., Mihailescu D. 2014. A theoretical study on monitoring explosives degradation by pentaerythritol tetranitrate reductase using THz spectroscopy in Terahertz and Mid Infrared Radiation - Generation, Detection and Applications (series: NATO Science for Peace and Security Series B: Physics and Biophysics), Eds. Mauro F Pereira; Oleksiy Shulika, Springer, chapter, 81-86.
5. Petrescu L., Avram S., Memea M., Mihailescu D.F., 2016. Chapter 12: Up-converting Nanoparticles, Promising Markers for Biomedical Applications in Sustainable Nanosystems Development, Properties, and Applications, Eds. Mihai V. Putz, Marius Constantin Mirica, IGI Global, chapter.

- Proiecte:
- Tempus Project 9695/95 (1995-1998);
  - CEEX\* 60/2005-2007: The effect of Cadmium on biomembranes. Implication in apoptosis;
  - CNCSIS\*\*: 1072/2006-2008. Study of interactions between typical and atypical antipsychotic drugs and their membrane receptors using in silico methods -implications in drug design;
  - CEEX 141/2006-2008: Molecular mechanism of depression: electrophysiological and molecular modeling with clinical implications, 1.200.000 RON;
  - CEEX:168/2006-2008: Study of impermeability-mediated antimicrobial resistance mechanisms of Gram-negative bacteria in natural and reconstituted membranes;
  - CEEX 2-Cex06-11-49/2006-2008 Nano-scale approach towards studying couplings between biomembranes, bacterial toxins and proteins with roles in drugs penetration;
  - PNCI2\*\*\* – 42151/2008: Genotype-phenotype correlation for some candidate genes in bipolar I disorder;
  - PNCI2 – 62055/2008: Biomedical applications of the THz spectroscopy. Early diagnostics of cancer;
  - PNCI2 – 62060/2008: Biospecific nanoparticles used in research and biomedical analyses laboratories;
  - PNCI2 – 12135/2008: Infrared-pumped upconversion nanophosphors for biomedical applications;
  - PCE \*\*\*\* – 137/2011: Protein three-dimensional structure and conformational transitions determination by high-power narrow-band THz radiation and by molecular modeling.
  - Cooperare bilaterală Romania – China, Contract 617/2013: Carbapenems enzymatic resistance in enterobacteria by phenotypic, genotypic and molecular modeling tools
  - Cooperare bilaterală Romania - Slovenia, Contract 538/2012: Predicting protein structure and dynamics using THz spectroscopy and molecular modelling
  - Cooperare bilaterală Romania – Ungaria, Contract 675/2013: Determinarea structurii 3D și a flexibilității proteinelor inserate în membrane și legate de liganzi prin spectroscopie de THz și modelare moleculară
  - PNCI2 - 89/2012: Genomewide study of bipolar disorder and guide for assessing the genetic risk for bipolar disorder in the romanian population
  - PNCI2- 16/2012: Intelligent Tutoring System – Evolutionary Approach in e-Learning
  - PN II 198/2014: Integrated system for biomolecular modeling that can be applied to Gram – negative bacteria
  - HIVERA 4-004/2013 : An innovative approach to deliver dual - targeting HIV entry inhibitors using cationic liposomes
  - COST Action MP1204 (2012 – 2015): TERA-MIR Radiation: Materials, Generation, Detection and Applications – reprezentant în Management Comitee din partea României

Membru al asociațiilor profesionale:

- Vice-președintele Societății Române de Biofizică Pură și Aplicată

Citări:

- 160 citări, potrivit Scopus;
- H-index = 7