

Universitatea de Medicină și Farmacie „Carol Davila” București  
Concurs ocupare a postului de cercetător științific I  
Disciplina: Oncologie – Institutul Oncologic „Prof. Dr. Alexandru Trestioreanu” București  
Domeniul Medicină  
Candidat: BÎLTEANU N. LIVIU

## Listă de lucrări

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### Teza de doctorat

Simulations à l'échelle atomique des défauts de l'implantation de l'hydrogène en silicium – technologie Smart Cut™ / Atomic Scale Simulations of Hydrogen Implantation Defects in Hydrogen Implanted Silicon – Smart Cut™ Technology  
2010– Commissariat à l'Énergie Atomique – France  
[https://inis.iaea.org/collection/NCLCollectionStore/\\_Public/42/091/42091181.pdf](https://inis.iaea.org/collection/NCLCollectionStore/_Public/42/091/42091181.pdf)

### Manuale universitare

1. Cécile Aubry, Laurent Mesguich, Christophe Chevallier, **Liviu Bîlteanu**, *Concours Kiné Physique avec corrigés vidéo détaillés*, Editions Ellipses, 2014, p. 304, ISBN 978-2729883614
2. I. Opris și **L. Bîlteanu**, *Biofizica Lucrări practice de laborator pentru studenții de anul I*, Editura Granada (2016), pp. 120, ISBN 978-606-8254-83-8
3. I. Opris și **L. Bîlteanu**, *Matematici și biostatistică*, Editura BREN (2015), pp. 205, ISBN 978-606-610-160-8

### Articole/Studii publicate în jurnale ISI

#### Autor principal (11)

1. Anghel, Rodica, **Liviu Bîlteanu**, Antonia-Ruxandra Folea, Șerban-Andrei Marinescu, Aurelia-Magdalena Pisoschi, Mihai-Florin Alexandrescu, Andreea-Ionela Dumachi, Laurentia-Nicoleta Galeș, Oana Gabriela Trifănescu, and Anca-Florina Zgură. “Assessing the Impact of Nutritional Status on the Quality of Life in Head and Neck Cancer Patients—The Need for Comprehensive Digital Tools.” *Cancers* 17, no. 7 (2025): 1128. <https://doi.org/10.3390/cancers17071128> (IF 4.5)
2. Marinescu, Șerban Andrei, Radu-Valeriu Toma, Oana Gabriela Trifănescu, Laurenția Nicoleta Galeș, Antonia Ruxandra Folea, Adrian Sima, Liviu **Bîlteanu**, and Rodica Anghel. “Predictors of Clinical Hematological Toxicities under Radiotherapy in Patients with Cervical Cancer—A Risk Analysis.” *Cancers* 16, no. 17 (August 30, 2024): 3032. <https://doi.org/10.3390/cancers16173032> (IF 4.5).
3. Stanca, Loredana, **Liviu Bîlteanu**, Oana Crina Bujor, Violeta Alexandra Ion, Andrei Cătălin Petre, Liliana Bădulescu, Ovidiu Ionut Geicu, Aurelia Magdalena Pisoschi, Andreea Iren Serban, and Oana-Mărgărita Ghimpeteanu. “Development of Functional Foods: A Comparative Study on the Polyphenols and Anthocyanins Content in Chokeberry and Blueberry Pomace Extracts and Their Antitumor Properties.” *Foods* 13, no. 16 (August 16, 2024): 2552. <https://doi.org/10.3390/foods13162552> (IF 4.7)

4. Iliesiu, Andreea, Radu-Valeriu Toma, Ana Maria Ciongariu, Radu Costea, Narcis Zarnescu, and **Liviu Bîlteanu**. “A Pancreatic Adenocarcinoma Mimicking Hepatoid Carcinoma of Uncertain Histogenesis: A Case Report and Literature Review.” *Oncology Letters* 26, no. 4 (October 1, 2023): 1–15. <https://doi.org/10.3892/ol.2023.14029> (IF 2.9).
5. Toma, Radu Valeriu, Zgura Anca, Oana Gabriela Trifănescu, Laurenția Nicoleta Galeş, Antonia Ruxandra Folea, Loredana Stanca, **Liviu Bîlteanu**, and Rodica M. Anghel. “Early Echocardiography and ECG Changes Following Radiotherapy in Patients with Stage II–III HER2-Positive Breast Cancer Treated with Anthracycline-Based Chemotherapy with or without Trastuzumab-Based Therapy.” *Medical Science Monitor: International Medical Journal of Experimental and Clinical Research* 29 (September 20, 2023): e941754-1-e941754-32. <https://doi.org/10.12659/MSM.941754> (IF 3.1).
6. Geicu, Ovidiu Ionut, **Liviu Bîlteanu**, Loredana Stanca, Adriana Ionescu Petcu, Florin Iordache, Aurelia Magdalena Pisoschi, and Andreea Iren Serban. “Composition-Based Risk Estimation of Mycotoxins in Dry Dog Foods.” *Foods* 12, no. 1 (January 2023): 110. <https://doi.org/10.3390/foods12010110> (IF 5.2).
7. Constantin, Nicolae Tiberiu, Cezar Mihai Bercea-Strugariu, Dragoş Bîrţoiu, Florin Petrişor Posastiuc, Florin Iordache, **Liviu Bîlteanu**, and Andreea Iren Serban. “Predicting Pregnancy Outcome in Dairy Cows: The Role of IGF-1 and Progesterone.” *Animals* 13, no. 10 (2023): 1579 <https://doi.org/10.3390/ani13101579> (IF 3.0).
8. Ionescu, Adriana, **Liviu Bîlteanu**, Ovidiu Ionut Geicu, Florin Iordache, Loredana Stanca, Aurelia Magdalena Pisoschi, Adrian Miron, Andreea Iren Serban, and Valentin Calu. “Multivariate Risk Analysis of RAS, BRAF and EGFR Mutations Allelic Frequency and Coexistence as Colorectal Cancer Predictive Biomarkers.” *Cancers* 14, no. 11 (January 2022): 2792. <https://doi.org/10.3390/cancers14112792> (IF 6.575)
9. Calu, Valentin, Adriana Ionescu, Loredana Stanca, Ovidiu Ionut Geicu, Florin Iordache, Aurelia Magdalena Pisoschi, Andreea Iren Serban, and **Liviu Bîlteanu**. “Key Biomarkers within the Colorectal Cancer Related Inflammatory Microenvironment.” *Scientific Reports* 11, no. 1 (April 12, 2021): 7940. <https://doi.org/10.1038/s41598-021-86941-5> (IF 4.997).
10. **Bîlteanu**, Liviu, Ovidiu I. Geicu, Loredana Stanca, Aurelia M. Pisoschi, Florea Serban, Andreea I. Serban, and Valentin Calu. “Human Eye Optics within a Non-Euclidian Geometrical Approach and Some Implications in Vision Prosthetics Design.” *Biomolecules* 11, no. 2 (February 2021): 215. <https://doi.org/10.3390/biom11020215> (IF 4.879).
11. **Bîlteanu**, Liviu, Clement Dutreix, Anu Jagannathan, and Cristina Bena. “Interplay between Edge States and Simple Bulk Defects in Graphene Nanoribbons.” *The European Physical Journal B* 86, no. 5 (May 29, 2013): 240. <https://doi.org/10.1140/epjb/e2013-30488-6> (IF 1.282).

FCIAP: 45.633

### Co-autor (17)

1. Laura-Florentina Rebegea, Dorel Firescu, Oana-Gabriela Trifanescu, Roxana-Andreea Rahnea-Nita, **Liviu Bîlteanu**, Mihaela Dumitru, Florentina, Lacatus, Gabriela Rahnea – Nita. „Our Experience and Literature Update Regarding Concomitant Radiotherapy with CDK4/6 Inhibitors and Hormonal Therapy in

- Metastatic Breast Cancer” *J. Mind Med. Sci.* **2025**, 12(1), (May 4, 2025) 30; <https://doi.org/10.3390/jmms3540901> (IF 1.6).
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  - Magdalena Pisoschi, Aurelia, Florin Iordache, Loredana Stanca, Adriana Ionescu Petcu, Letitia Purdoiu, Ovidiu Ionut Geicu, **Liviu Bilteanu**, and Andreea Iren Serban. “Comprehensive Overview and Critical Perspective on the Analytical Techniques Applied to Aflatoxin Determination – A Review Paper.” *Microchemical Journal* 191 (August 1, 2023): 108770. <https://doi.org/10.1016/j.microc.2023.108770> (IF 4.8)
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  - Trifanescu, Oana Gabriela, Dan Mitrea, Laurenția Nicoleta Gales, Ana Ciornei, Mihai-Andrei Păun, Ioana Butnariu, Raluca Alexandra Trifanescu, Natalia Motaș, Radu Valeriu Toma, **Liviu Bilteanu**, Mirela Gherghe and Rodica Maricela Anghel “Therapies beyond Physiological Barriers and Drug Resistance: A Pilot Study and Review of the Literature Investigating If Intrathecal Trastuzumab and New Treatment Options Can Improve Oncologic Outcomes in Leptomeningeal Metastases from HER2-Positive Breast Cancer.” *Cancers* 15, no. 9 (January 2023): 2508. <https://doi.org/10.3390/cancers15092508> (IF 5.2).
  - Lucaciu, Constantin Mihai, Stefan Nitica, Ionel Fizesan, Lorena Filip, **Liviu Bilteanu**, and Cristian Iacovita. “Enhanced Magnetic Hyperthermia Performance of Zinc Ferrite Nanoparticles under a Parallel and a Transverse Bias DC Magnetic Field.” *Nanomaterials* 12, no. 20 (2022): 3578 (IF 5.3).
  - Pisoschi, Aurelia Magdalena, Florin Iordache, Loredana Stanca, Iuliana Gajaila, Oana Margarita Ghimpeteanu, Ovidiu Ionut Geicu, **Liviu Bilteanu**, and Andreea Iren Serban. “Antioxidant, Anti-Inflammatory, and Immunomodulatory Roles of Nonvitamin Antioxidants in Anti-SARS-CoV-2 Therapy.” *Journal of Medicinal Chemistry* 65, no. 19 (October 13, 2022): 12562–93. <https://doi.org/10.1021/acs.jmedchem.2c01134> (IF 8.039).
  - Popescu, Simona Daniela, Andreea Gratiana Boiangiu, Romina-Marina Sima, **Liviu Bilteanu**, Simona Vladareanu, and Radu Vladareanu. “Maternal HPV Infection and the Estimated Risks for Adverse Pregnancy Outcomes—A Systematic Review.” *Diagnostics* 12, no. 6 (June 2022): 1471. <https://doi.org/10.3390/diagnostics12061471> (IF 3.6).
  - Pisoschi, Aurelia Magdalena, Aneta Pop, Florin Iordache, Loredana Stanca, Ovidiu Ionut Geicu, **Liviu Bilteanu**, and Andreea Iren Serban. “Antioxidant, Anti-Inflammatory and Immunomodulatory Roles of Vitamins in COVID-19 Therapy.” *European Journal of Medicinal Chemistry* 232 (March 15, 2022): 114175. <https://doi.org/10.1016/j.ejmech.2022.114175> (IF 7.088)
  - Pisoschi, Aurelia Magdalena, Aneta Pop, Florin Iordache, Loredana Stanca, **Liviu Bilteanu**, and Andreea Iren Serban. “Antioxidant Determination with the Use of

- Carbon-Based Electrodes.” Chemosensors 9, no. 4 (April 2021): 72. <https://doi.org/10.3390/chemosensors9040072> (IF **3.398**).
11. Geicu, Ovidiu I., Loredana Stanca, Sorina N. Voicu, Anca Dinischiotu, **Liviu Bilteanu**, Andreea I. Serban, and Valentin Calu. “Dietary AGEs Involvement in Colonic Inflammation and Cancer: Insights from an in Vitro Enterocyte Model.” Scientific Reports 10, no. 1 (February 17, 2020): 2754. <https://doi.org/10.1038/s41598-020-59623-x> (IF **4.380**).
  12. Opris, Ioan, Valeriu S. Nestianu, Adrian Nestianu, **Liviu Bilteanu**, and Jean Ciurea. “George Marinesco in the Constellation of Modern Neuroscience.” Frontiers in Neuroscience 11 (2017). <https://www.frontiersin.org/articles/10.3389/fnins.2017.00726> (IF **3.566**).
  13. Dutreix, Clément, **Liviu Bilteanu**, Anu Jagannathan, and Cristina Bena. “Friedel Oscillations at the Dirac Cone Merging Point in Anisotropic Graphene and Graphenelike Materials.” Physical Review B 87, no. 24 (June 10, 2013): 245413. <https://doi.org/10.1103/PhysRevB.87.245413> (IF **3.7**).
  14. Rieutord, F., F. Mazen, S. Reboh, J. D. Penot, **L. Bilteanu**, J. P. Crocombette, V. Vales, V. Holy, and L. Capello. “Lattice Strain of Hydrogen-Implanted Silicon: Correlation between X-Ray Scattering Analysis and Ab-Initio Simulations.” Journal of Applied Physics 113, no. 15 (April 21, 2013): 153511. <https://doi.org/10.1063/1.4800538> (IF **2.21**).

#### Articole in extenso conference proceedings publicate în reviste cotate ISI (3)

15. **Bilteanu**, Liviu, and Jean-Paul Crocombette. “Density-Functional Theory Study of Hydrogen Induced Platelets in Silicon.” MRS Online Proceedings Library 1370, no. 1 (December 1, 2011): 113–18. <https://doi.org/10.1557/opl.2011.1102>.
16. Craus, ML, C. Neculiță, **L. Bilteanu**, and M. Lozovan. “Influence of the Microstructure on Extrinsic Magnetoresistance in Sr<sub>2</sub>Fe<sub>0.9</sub>Gd<sub>0.1</sub>Mo<sub>1-x</sub>W<sub>x</sub>O<sub>6</sub> Double Perovskites.” Journal of Optoelectronics and Advanced Materials 8, no. 5 (2006): 1723–26 (IF **1.138**).
17. Craus, M. L., **L. Bilteanu**, C. Neculiță, and M. Lozovan. “Crystalline Structure, Transport and Magnetic Properties of Sr<sub>2</sub>FexNi<sub>1-x</sub>MoO<sub>6</sub> Compounds.” Journal of Optoelectronics and Advanced Materials 8, no. 5 (2006): 1720–22 (IF **1.138**).

**co-autor la 17 articole ISI**

#### Alte lucrări

##### Capitole de cărți

1. **L Bilteanu**, MF Casanova, I Opris, Cap. 6 Symmetry and Noether Theorem for Brain Microcircuits, Springer, 2017, p. 26, în *The Physics of the Mind and Brain Disorders* eds. I Opris și MF Casanova, 978-3-319-29672-2
2. I Opris, BR Noga, **L Bilteanu**, MF Casanova, Cap. 8 Symmetry Breaking in Cognitive Disorders, Springer, 2017, p. 18, în *The Physics of the Mind and Brain Disorders*, eds. I Opris și MF Casanova, 978-3-319-29672-2

##### Abstracte în Proceedings

1. Bilteanu, Liviu Luca, Andreea Dumachi, Radu Popa, Mihai-Florin Alexandrescu-**Olteanu**, Andreea Iren Serban, and Corneliu Octavian Dumitru. “Approaching Complexity in OneHealth by Mathematical Modeling and Machine Learning,” 2023. <https://elib.dlr.de/199743/>.

2. Toma, R. V., L. **Bilteanu**, O. G. Trifanescu, A. M. Sandu, D. Dragomir, and R. Anghel. "ECG and Echocardiographic Signs of Early Onset of Cardiotoxic Effects in Patients with Breast Cancer after Chemoradiotherapy." *International Journal of Radiation Oncology, Biology, Physics* 114, no. 3 (2022): e36.
3. Trifanescu, Oana Gabriela, Liviu **Bilteanu**, Silvia Ilie, Diana Maria Bran, Inga Safta, Laurentia Minea Gales, and Rodica Maricela Anghel. "Are We Using the Right Cut-Offs to Obtain Maximum Information from Ki-67 in Patients with Early Breast Cancer?" *Journal of Clinical Oncology* 41, no. 16\_suppl (June 1, 2023): e12567–e12567. [https://doi.org/10.1200/JCO.2023.41.16\\_suppl.e12567](https://doi.org/10.1200/JCO.2023.41.16_suppl.e12567).

## Brevete de invenție

Cerere de brevet de invenție **A/00567/2022**, High-sensitivity technology procedure for diagnosing CRC patients at risk of post-resection peritoneal recurrence

## Proiecte de cercetare-dezvoltare-inovare

### Director proiect

- 2024 – 2026 **PRNV/2023/112/1/304140** Produse de îngrijire personală și curățenie îmbunătățite cu extracte din plante (Proiect POR-CDI, întreprinderi nou înființate)
- 2021 – 2022 Contract **234/2021 USAMV B** Nanosisteme biocompatibile pentru aplicații inovative implementabile în societăți mici și mijlocii (Proiect cercetare finanțată de agenți economici)
- 2023 - 2026 **Responsabil tematică**, *Fluxuri de metode de procesare numerică a datelor medicale - aplicații ale inteligenței artificiale în domeniul prelucrării datelor și imagisticii medicale în scop prognostic* din cadrul Proiectului Nucleu **Metode analitice și numerice avansate, aplicate în domenii de specializare inteligentă** (IMT București)

### Membru al echipei de implementare

- 2011 - 2012 **Membru în echipa de implementare, ERC-SG - ERC Starting Grant FP7-IDEAS-ERC. Project ID: 256965** – „Understanding the Electronic Properties of Carbon Nanotubes and Graphene as Quantum Conductors (01/05/2011 – 30/04/2016 - coordinator Prof. C. Bena Univ. Paris 11 Sud Orsay)
- 2019 - 2022 **Membru în echipa de implementare, PN-III-P2-2.1-PTE-2019-0544** *High-sensitivity technology for the diagnosis of colorectal cancer patients at risk of post-resection peritoneal recurrence; guiding personalized therapy* (USAMV B)
- 2020 – 2021 **Membru în echipa de implementare, PN-III-P1-1.2-PCCDI2017-0619** – Nanocarbon and nano-structured carbon-based materials for advanced industrial applications Contract No. 42PCCDI/ 2018 (IMT București)
- 2023 - 2026 **Membru în echipa de implementare, Proiect 101101187 - SOLACE - EU4H-2022-PJ 2023-2026** *Strengthening the screening of Lung Cancer in Europe* (UMFCD – coordonator Prof. R. Anghel)
- 2023 - 2025 **Membru în echipa de implementare, 101101261 - TRANSITION - EU4H-2022-PJ 2023-2025** *Digital TRANSition and dlgiTal resilience in Oncology* (UMFCD – coordonator Prof. R. Anghel)
- 2020 - 2024 **Membru în echipa de implementare, PN-III-P1-1.1-TE-2021-0864** *Genetic and epigenetic mechanisms involved in stem cell senescence* – SENSTEM (USAMV B)

- 2024 - 2027 **Membru în echipa de implementare**, Proiect UMFCO contract no. 81/2024 – EpiNanSarc - *Subtipizarea și stratificarea sarcomului folosind profilarea epigenetică la nivelul întregului genom*
- 2025 - 2030 **Membru în echipa de implementare**, Proiect **PS/272/PS\_P5/OP1/RSO1.1/PS\_P5\_RSO1.1\_A9/ 326475** *Aplicatii medicale ale laserilor de mare putere – Dr. LASER* (UMFCO – coordonator Prof. R. Anghel)