



Andra-Cristina BOSTĂNARU DVM, PhD Assistant professor

Disciplines: "Clinical Mycology and Mycotoxicology", "Food Microbiology", "Microbiology"

"*Ion Ionescu de la Brad*" Iasi University of Life Sciences (IULS)

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Competences:

- Clinical Mycology
- Food Microbiology
- Mycobacteriology
- Diagnostic microbiology
- Molecular biology techniques
- Antibioresistance

Research fields:

- Fungal infections
- New antimicrobial compounds
- Evaluation of antimicrobial resistance
- Mycobacteria
- Biomedical applications of non-thermal plasma discharges

Education

- Doctor in Medical Sciences, major in Infectious diseases (2015), doctoral studies within *Ion Ionescu de la Brad* University of Agricultural Sciences and Veterinary Medicine of Iasi (2010-2014);
- Master's degree (2015) – specialization Inspection and control of products of animal origin, within *Ion Ionescu de la Brad* University of Agricultural Sciences and Veterinary Medicine of Iasi (2010-2012);
- Doctor of Veterinary Medicine (2010) – *Ion Ionescu de la Brad* University of Agricultural Sciences and Veterinary Medicine of Iasi (2004-2010);
- High School Diploma (2004) – "Valeriu D. Cotea" College of Focșani (2000-2004).

Member of scientific/professional associations

- European Society of Clinical Microbiology and Infectious Diseases (ESCMID)
- International Society for Human and Animal Mycology (ISHAM)
- Romanian Society of Medical Mycology and Mycotoxicology (SRM&MM)
- Romanian Society of Experimental Medicine (SRME)

Publications

Communicated or published scientific works: 40 (19 ISI articles)

1. Adriana Trifan, **Andra-Cristina Bostănaru**, Simon Vlad Luca, Veronika Temm, Muhammad Akram, Sonja Herdlinger, Łukasz Kulinowski, Krystyna Skalicka-Woźniak, Sebastian Granica, Monika E. Czerwińska, Aleksandra Kruk, Hélène Greige-Gerges, Mihai Mareş and Daniela Schuster [2021] - Honokiol and Magnolol: Insights into Their Antidermatophytic Effects, Plants, 10(11), 2522; <https://doi.org/10.3390/plants10112522>.
2. Olga Burduniuc, **Andra-Cristina Bostănaru**, Mihai Mares, Gabriela Biliuta, and Sergiu Coseri, Synthesis, [2021] - Characterization, and Antifungal Activity of Silver Nanoparticles Embedded in Pullulan Matrices, Materials, 14 (22), 7041; (<https://doi.org/10.3390/ma14227041>).
3. Adriana Trifan*, Simon Vlad Luca, **Andra-Cristina Bostănaru**, Mihai Brebu, Alexandra Jităreanu, Romeo-Teodor Cristina, Krystyna Skalicka-Woźniak, Sebastian Granica, Monika E. Czerwińska, Aleksandra Kruk, Hélène Greige-Gerges, Elwira Sieniawska, Mihai Mareş, [2021] - Apiaceae Essential Oils: Boosters of Terbinafine Activity against Dermatophytes and Potent Anti-Inflammatory Effectors, Plants, 10(11), 2378; (<https://doi.org/10.3390/plants10112378>).
4. Iosif Marincu, Felix Bratosin, Iulia Vidican, **Andra-Cristina Bostanaru**, Stefan Frent, Bianca Cerbu, Mirela Turaiche, Livius Tirnea, Madalina Timircan, [2021] - Predictive Value of Comorbid Conditions for COVID-19 Mortality, J. Clin. Med., 10(12), 2652; (<https://doi.org/10.3390/jcm10122652>).
5. Nastasa, V., Pasca, A.-S., Malancus, R.-N., Bostanaru, A.-C., Ailincai, L.-I., Ursu, E.-L., Vasiliu, A.-L., Minea, B., Hnatiuc, E., Mares, M., [2021] - Toxicity Assessment of Long-Term Exposure to Non-Thermal Plasma Activated Water in Mice. Int. J. Mol. Sci., 22, 11534. ISSN: 1422-0067 (<https://doi.org/10.3390/ijms222111534>).
6. J. Brandão, J.P. Gangneux, S. Arıkan-Akdagli, A. Barac, **A.C. Bostanaru**, S. Brito, M. Bull, N. Çerikçioğlu, B. Chapman, M.A. Efstratiou, Ç. Ergin, M. Frenkel, A. Gitto, C.I. Gonçalves, H. Guégan, N. Gunde-Cimerman, M. Güran, L. Irinyi, E. Jonikaitė, M. Kataržytė, L. Klingspor, M. Mares, W.G. Meijer, W.J.G. Melchers, J. Meletiadis, W. Meyer, V. Nastasa, M. Novak Babič, D. Ogunc, B. Ozhak, A. Prigitano, S. Ranque, R.O. Rusu, R. Sabino, A. Sampaio, S. Silva, J.H. Stephens, M. Tehupeioru Kooreman, A.M. Tortorano, A. Velegraki, C. Veríssimo, G.C. Wunderlich, E. Segal, [2021] - Mycosands: Fungal diversity and abundance in beach sand and recreational waters - Relevance to human health. Science of The Total Environment, Volume 781, 2021, 146598, ISSN 0048-9697, (<https://doi.org/10.1016/j.scitotenv>).

7. Adriana Trifan, **Andra-Cristina Bostanaru**, Simon Vlad Luca, Adina Catinca Grădinaru, Alexandra Jităreanu, Ana Clara Aprotosoaie, Anca Miron, Oana Cioancă, Monica Hăncianu, Lăcrămioara Ochiuz, Alexandra Bujor, Petruța Aelenei, Mihai Mareș, [2020] - Antifungal potential of *Pimpinella anisum*, *Carum carvi* and *Coriandrum sativum* extracts. A comparative study with focus on the phenolic composition, FARMACIA, Vol. 68, 1, pp.22-27, (<https://doi.org/10.31925/farmacia.2020.1.4>)
8. Andreea Turin-Moleavin, Adrian Fifere, Ana-Lacramioara Lungoci, Irina Rosca, Adina Coroaba, Dragos Peptanariu, Valentin Nastasa, Sorin-Aurelian Pasca, **Andra-Cristina Bostanaru**, Mihai Mares, Mariana Pinteala, [2019] - In Vitro and In Vivo Antioxidant Activity of the New Magnetic-Cerium Oxide Nanoconjugates. Nanomaterials, 9(11), 1565, (<https://doi.org/10.3390/nano9111565>).
9. **Andra-Cristina Bostanaru**, Irina Roșca, Bogdan Minea, Valentin Năstasă, Liliana Foia, Iosif Marincu, Mihai Mares, Ovidiu-Alexandru Mederle, [2019] - Genotype comparison of *Candida albicans* isolates from different clinical samples; Revista Română de Medicină de Laborator Vol. 27, Nr. 3, (<https://doi.org/10.2478/rrlm-2019-0027>).
10. Narcisa Marangoci, Andreia Corciova, Cornelia Mircea, Anca-Roxana Petrovici, Alina Nicolescu, Laura Ursu, Valentin Nastasa, **Andra-Cristina Bostanaru**, Mihai Mares, Mihaela Pertea, Mariana Pinteala [2019] - β -cyclodextrin as functional excipient used for enhancing the diminazene aceturate bioavailability, Pharmaceutics; 11(6), 295, (<https://doi.org/10.3390/pharmaceutics11060295>).
11. Gheorghe Roman, **Andra-Cristina Bostanaru**, Valentin Nastasa, Mihai Mares [2019] - Design, synthesis and evaluation of antimycobacterial activity of 3-mercaptop-1,2,4-triazole-pyrrole hybrids; Turkish Journal of Chemistry; 43: 531 – 546, (<http://journals.tubitak.gov.tr/chem/issues/kim-19-43-2/kim-43-2-14-1811-4.pdf>)
12. Bălan, G.G., Roșca, I., Ursu, E.L., Doroftei, F., **Bostanaru, A.C.**, Hnatiuc, E., Năstasă, V., Șandru, V., Ștefănescu, G., Trifan, A. and Mareș, M., [2018] - Plasma-activated water: a new and effective alternative for duodenoscope reprocessing. Infection and Drug Resistance, 17;11:727-733; (<https://www.ncbi.nlm.nih.gov/pubmed/29844690>).
13. Rosca, Irina, **Andra-Cristina Bostanaru**, Bogdan Minea, Valentin Nastasa, Iulian Gherghel, Carmen-Valentina Panzaru, Mihai Mares, and Valentina Ruxandra Moroti-Constantinescu, [2018] - Phenotypic and genotypic variations in *Candida albicans* isolates from Romanian patients. Revista Romana de Medicina de Laborator 26, no. 4: 405-413; (<http://www.rrml.ro/articole/articol.php?year=2018&vol=4&poz=2>).
14. Mares, Mihai, Bogdan Minea, Valentin Nastasa, Irina Roșca, **Andra-Cristina Bostanaru**, Iosif Marincu, Vasilica Toma, Violeta Corina Cristea, Carmen Murariu, and Mariana Pinteala, [2018] - In vitro activity of echinocandins against 562 clinical yeast isolates from

- a Romanian multicentre study. *Medical Mycology* 56, no. 4: 442-451; (<https://www.ncbi.nlm.nih.gov/pubmed/28992116>).
15. Rosca, Irina, Anca Roxana Petrovici, Dragos Peptanariu, Alina Nicolescu, Gianina Dodi, Mihaela Avadanei, Iuliu Cristian Ivanov, **Andra Cristina Bostanaru**, Mihai Mares, and Diana Ciolacu; [2018] - Biosynthesis of dextran by Weissella confuse and its In vitro functional characteristics. *International journal of biological macromolecules*, 107: 1765-1772., (<https://www.ncbi.nlm.nih.gov/pubmed/29030182>).
16. S. Pasca, V. Nastasa, **A-C. Bostanaru**, M. Grecu, M. Mares, E. Hnatiuc, [2017] - Toxic amyloid formation in mice: A possible link between bisphenol A exposure and PAW administration using polycarbonate bottles; International Conference on Optimization of Electrical and Electronic Equipment (OPTIM) & 2017 Intl Aegean Conference on Electrical Machines and Power Electronics (ACEMP)1075 - 1080, (<https://ieeexplore.ieee.org/document/7975114>).
17. Daniela Ailincăi, Luminița Marin, Simona Morariu, Mihai Mareș, **Andra-Cristina Bostanaru**, Mariana Pintea, Bogdan C. Simionescu, Mihai Bărboiu, [2016] – Dual crosslinked iminoboronate-chitosan hydrogels with strong antifungal activity against Candida planktonic yeasts and biofilms. *Carbohydrate Polymers* 152: 306-316., (<https://www.sciencedirect.com/science/article/pii/S0144861716307962>).
18. **Andra-Cristina Bostanaru**, Eugen Hnatiuc, Irina Roșca, Ana Lavinia Vasiliu, Mirela Doroftei, Laura Ursu, Luminița Iuliana Ailincăi, Valentin Năstasă, Mihai Mareș [2016] - Long thermal interactions of PAW with normal tooth structure and different dental biomaterials, Proc. SPIE 10010, Advanced Topics in Optoelectronics, Microelectronics, and Nanotechnologies VIII, 100103F, (<http://dx.doi.org/10.1117/12.2249109>).
19. Gh. Roman, V. Nastasa, **A-C. Bostanaru**, Mihai Mareș, [2016] - Antibacterial activity of Mannich bases derived from 2-naphthols, aromatic aldehydes and secondary aliphatic amines. *Bioorganic & Medicinal Chemistry Letters*, 26: 2498-2502, (<https://www.sciencedirect.com/science/article/pii/S0960894X16303328>).
20. **Andra-Cristina Bostanaru**, Daniela Diculencu, Mihai Mareș, Gheorghe Savuța, [2014] - MPT64 Antigen Simple and Rapid Test for Identification and Discrimination of *Mycobacterium tuberculosis* Complex from Nontuberculous Mycobacteria. *Bulletin UASVM Veterinary Medicine* 71 (2). pp. 362-366; DOI: 10.15835/buasvmcn-vm:10477.

Post-graduate education

- 2021: Internship in Clinical Mycology, Westerdijk Fungal Biodiversity Institute, Utrecht;
- 2021: International conference on infectious diseases and clinical microbiology - European Congress of Clinical Microbiology and Infectious Diseases, Online;
- 2019: International conference on infectious diseases and clinical microbiology - European Congress of Clinical Microbiology and Infectious Diseases, Amsterdam;
- 2019: refreshment course in nanomechanical measurement and characterization of bacteria using atomic force microscopy, "Advances in Atomic Force Microscopy: Nanomechanical Characterization by using PinPoint™ AFM", Iasi;
- 2018: International conference on medical mycology – First Balkan Conference of Medical Mycology and Mycotoxicology – “Balkan Fungus 2018”, Timisoara;
- 2018: International conference on infectious diseases and clinical microbiology - European Congress of Clinical Microbiology and Infectious Diseases, Madrid;
- 2017: International conference on infectious diseases and clinical microbiology - European Congress of Clinical Microbiology and Infectious Diseases, Viena;
- 2016: Postgraduate course (Continuing Medical Education) - "Initiation of etiotropic therapy in fungal infections", Iasi;
- 2016: Postgraduate course in scientific writing and publishing online, L'Agence universitaire de la Francophonie and University of Agricultural Sciences and Veterinary Medicine of Iasi;
- 2016: postgraduate course (Continuing Medical Education) - "Laboratory diagnosis of fungal infections caused by dermatophytes", Iasi;
- 2016: International conference on biomedical applications of non-thermal plasma discharges - “International Conference on Electrical Discharges with Liquids”, Kocaeli;
- 2016: Scientific conference – “National Conference of Medical Mycology, București;
- 2015: International conference on biomedical applications of non-thermal plasma discharges – “International Conference on Electrical Discharges with Liquids”, Bertinoro.
- 2012: Internship in mycobacteriology, molecular biology and *in vitro* experimental chemotherapy, Faculty of Medicine Pierre and Marie Curie, CHU Pitié-Salpêtrière, Paris;
- 2012: Internship in experimental chemotherapy *in vivo*, Functional Exploration Center, N.A.C. - Nouvelle Animalerie Commune, C.E.F. - Centre d'Expérimentation Fonctionnelle, Paris;
- 2011: Postgraduate course in molecular biology - Molecular biotechnologies - medical applications, Universitatea de Medicină și Farmacie "Iuliu Hațegianu", Cluj-Napoca;
- 2011: Internship in Bacteriology, Hospital of Pneumophysiology, Bacteriology Laboratory, Iasi.

Research

1. Member in research team “Improvement and Development of Human Resources for Research and Innovation” by Doctoral School - POSDRU CPP107/DMI 1.5/S/77222-2010-2013.
2. Member in research team “New porous coordinating polymers with variable size organic ligands for gas storage” – POCPOLIG; P_37_707/31.08.2015.
3. Member in research team “*In vitro/in vivo* synthesis and evaluation of new conjugates with antimicrobial activity”, “Petru Poni” Institute of Macromolecular Chemistry Iasi and Institute of Chemistry, Republic of Moldova, Romania-Moldova Competition 2016, 16.80013.5007.05/Ro.
4. Member in research team "Substitution of synthetic food additives bioactive components extracted from natural resources regenerated", within the project RO-MD PN3-220/35 BM/19.09.2016.
5. Member in research team “Plant-derived products with putative use in onychomycosis: combinatorial and nano-based strategies” PN-III-P1-1.1-TE-2019-1894.