

DRAGANA D. BOŽIĆ

Employment Information:

2020	Associate Professor, Department of Microbiology and Immunology, University of Belgrade - Faculty of Pharmacy
2015	Assistant Professor, Department of Microbiology and Immunology, University of Belgrade - Faculty of Pharmacy
2004-14	Teaching Assistant, Department of Microbiology and Immunology, University of Belgrade - Faculty of Pharmacy
2002-04	Research assistant, Institute for Medical Research, Medical Military Academy, Belgrade
2001-02	MD internship, University of Belgrade - Faculty of Medicine; MD professional exam, Ministry of Health, Serbia

Education:

2021 -	Enrollment to Specialist Academic Studies - Biological medicines , University of Belgrade - Faculty of Pharmacy.
2017	Medical specialization in Microbiology and Parasitology , Specialist studies required by healthcare system, University of Belgrade - Faculty of Medicine
2014	PhD Pharmaceutical Microbiology , University of Belgrade - Faculty of Pharmacy. Dissertation: „Antimicrobial activity of chalcones and <i>in vitro</i> effect on physiological and biochemical characteristics and expression of virulence factors of methicillin-resistant <i>Staphylococcus aureus</i> “.
2007	MSc Immunology , University of Belgrade - Faculty of Medicine; Master thesis: “Differentiation of T lymphocytes with regulatory activity in coculture of rat thymocytes and thymic cortical epithelial cell line <i>in vitro</i> ”.
2001	MD , University of Belgrade - Faculty of Medicine. Average mark 9.77/10

Training:

- COST Action CA18217 – ENOVAT Training School: "Basic pharmacokinetics and pharmacodynamics - focus on antibiotics“, Padua, Italy, 24 – 25.08.2021.
- Training of teaching and research staff within the program of continuing education "TRAIN (Training and Research for Academic Newcomers)" organized by the University of Belgrade with the support of the King Baudouin Foundation (duration of course-80 classes). Realization of the project during the academic year 2016/17. and 2017/18. yr. with modules:
 1. Research methodology, writing scientific papers and presentation of results

2. Didactics in higher education
 3. Development of plans and programs of higher education
 4. Preparation of project applications and project management
 5. The skill of holding effective presentations
 6. Networking and teamwork
 7. Erasmus + KA1 and KA2.
- Course: "SRPS ISO 9001: 2008 introduction to the standard". University of Belgrade - Faculty of Pharmacy. Belgrade, February 23, 2016
 - Course: "GMP - good manufacturing practice". University of Belgrade - Faculty of Pharmacy. Belgrade, April 20, 2016
 - Seminar: "GMP - good manufacturing practice". Chamber of Commerce and Industry of Serbia. Belgrade, April 22, 2016
 - Seminar: "Application of the Rulebook on Technical Requirements for Pressure Equipment and the Rulebook on Pressure Equipment Inspections". Chamber of Commerce and Industry of Serbia. Belgrade, November 18, 2015
 - Course: Principles of working with experimental animals, University of Belgrade - Faculty of Medicine, 2014.
 - Institute for Medical Research, Military Medical Academy, Belgrade, Serbia. Experimental part of the master thesis (2002-04).

Academic awards and distinctions:

- Virtual mobility (VM) Grant COST Action CA18217 - "Compilation and analysis of data entries of the European strain database" 14 - 28.09.2021. Supervisors: Gudrun Overesch, DVM, Dipl. ECVM, senior scientist at the Institute of Veterinary Bacteriology, University of Bern, Bern, Switzerland, Annet Heuvelink, senior scientist at the R&D department of GD Animal Health, Deventer, the Netherlands.
- 2013 Year award for best postgraduate research, University of Belgrade - Faculty of Pharmacy.
- 2000/2001 The scholarship of the Royal Norwegian Embassy, Belgrade, Serbia
- The scholarship of the Ministry of Education of Republic of Serbia (MD studies)

Teaching activities:

- **Integrated academic studies** (study program Master of Pharmacy and Master of Pharmacy - Medical Biochemist): practical and theoretical classes in courses Microbiology, Selected Chapters in Microbiology and Laboratory Microbiology.
- **Specialist studies required by the healthcare system:** Specialization in Medical Biochemistry - theoretical classes in Microbiology; Specialization in Sanitary Chemistry - theoretical classes in Basics of microbiological testing of food and water.

- **Doctoral academic studies:** theoretical classes in courses Communication and presentation skills, Microbiology, Molecular mechanisms of antimicrobial drug resistance.
- **Short study program Pharmaceutical Microbiology:** theoretical and practical classes in courses Microbiology, Laboratory Methods in Microbiology, Microorganisms as contaminants of a pharmaceutical product and Resistance of microorganisms to antimicrobial agents.

Mentoring and membership in Committees for specialization and doctoral theses

Integrated academic studies:

- Mentor of over 30 graduate / final theses and member of the Committees for public defense of over 200 graduate / final theses.

Postgraduate studies:

- Mentor of the doctoral dissertation and member of the Committee for evaluation of fulfillment of conditions and scientific basis of the topic and the Committee for defense of the doctoral dissertation of candidate Marko S. Milojković entitled: "Genotyping, antibiotic resistance and virulence factors of clinical isolates of *Pseudomonas aeruginosa*" Faculty, 24.05.2021.
- Member of the Committee for Assessing the Fulfillment of Conditions and Scientific Basis of the Topic and the Committee for the Defense of the Doctoral Dissertation of Candidate Dušan Ušjak entitled: "Influence of newly synthesized hacons on growth, biofilm production and virulence factors of multidrug-resistant strains of *Acinetobacter baumannii*", University of Belgrade - Faculty of Pharmacy, 2021-2022.
- Member of the Committee for Assessing the Fulfillment of Conditions and Scientific Basis of the Topic and the Committee for Defending the Doctoral Dissertation of Candidate Snežana Brkić entitled: "Frequency and Molecular Characterization of Carbapenemase-Producing Outpatient Isolates of *Enterobacteriaceae* in Belgrade", University of Belgrade - Faculty of Medicine, 5.07.2021.
- Member of the Committee for assessment of fulfillment of conditions and scientific basis of the topic of the doctoral dissertation of candidate Tijana Ilić entitled: "Chemical composition and biological activity of fruits *Lycium barbarum* L. and *L. ruthenicum* Murr. (Solanaceae) grown in Serbia ", University of Belgrade - Faculty of Pharmacy, October 2021.
- Member of the Committee for review, evaluation and defense of the specialist work of Specialistic Academic Studies - Industrial Pharmacy candidate Danijela Kanazir-Ivović entitled: "Control and application of microbiological media", University of Belgrade - Faculty of Pharmacy, 16.07.2021.
- Member of the Committee for Review, Evaluation and Defense of the specialist work of Specialistic Academic Studies - Biological Medicines of the candidate Jovana Čičević entitled: "Potential application of mRNA vaccines in the

prevention of SARS-CoV-2", University of Belgrade - Faculty of Pharmacy, September 2020.

- Member of the Committee for Review, Evaluation and Defense of the specialist work of Specialistic Academic Studies - Microbiology Candidate Jelena Stajić entitled: "Frequency of infection of the population of the Pomoravlje district with *Borrelia burgdorferi* during 2017", University of Belgrade - Faculty of Biology, September 26, 2018.
- Member of the Committee for assessment of fulfillment of conditions and scientific basis of the topic of the doctoral dissertation; The Committee for the review and evaluation of the doctoral dissertation and the Committee for the public defense of the doctoral dissertation of the candidate Veselin D. Draganić entitled: "Identification and Genotyping of the Collection of *Bacillus* spp. isolate: characterization of bacteriocin licheniocin 50.2 ", University of Belgrade - Faculty of Biology, 23.09.2017.

Textbooks:

- M. Milenković, J. Antić Stanković, D. Božić, B. Filipić. Practicum of Microbiology for pharmacy students. University of Belgrade - Faculty of Pharmacy, 2017. ISBN number: 978-86-6273-036-7

Activities within the Faculty:

- 2019 - Member of the Committee for Monitoring and Improving the Quality of Postgraduate Studies
- 2019 - Member of the Program Council of the Centre for Continuing Education
- 2017 - Head of Investigation in the Laboratory for microbiological control of medicines (LMI)
- 2017-2021 Quality manager (QA) in the Laboratory for microbiological control of medicines (LMI)
- 2004-2017 Analyst in the Laboratory of Pharmaceutical Microbiology and Immunology
- 2017 Member of the Commission for the implementation of student enrollment in the first year of Integrated Academic Studies at the Faculty of Pharmacy (school year 2017/18).
- 2010 Responsible person for the safety and health at work

Activities within wider Academic Community:

Participation in continuing medical education / invited speaker:

- Lecture: "Vaccines in development against widespread infectious diseases TB, HIV and malaria". Continuing education course "Vaccines against infectious

diseases - where we are today", University of Belgrade - Faculty of Pharmacy, October 9, 2021.

- Lecture: "Microbiological testing of drugs and the consequences of microbiological contamination". National symposium with international participation "Pharmaceutical products and services: competencies based on evidence and knowledge innovation", University of Belgrade - Faculty of Pharmacy, October 19, 2019.
- Lecture: "New strategies in the fight against AMR - the development of antimicrobial compounds that act on virulence factors", lecturer and moderator of the KME seminar: "Novelties in testing the susceptibility of bacteria to antibiotics and antibiotic stewardship 2019". Organizer: Serbian Association of Antimicrobial Chemotherapy (SUAH) and Ministry of Health of the Republic of Serbia. Belgrade, March 28, 2019 years.
- Lecture: "EUCAST recommendations for phenotypic detection of resistance in Gram-positive bacteria", KME seminar: "EUCAST recommendations for testing the susceptibility of bacteria to antibiotics 2018". Organizer: Serbian Association for Antimicrobial Chemotherapy (SUAH) and Ministry of Health of the Republic of Serbia. Belgrade, February 22, 2018
- Invited speaker: "Importance of pre analytical process in modern microbiology", 8th SSEC Chemotherapy and Infection, Durres, Albania, October 12-15, 2017.
- Lectures: "Principles of reading and interpretation of antibiogram results in Gram-negative bacteria according to EUCAST recommendations" and "Interpretation of antibiogram results according to EUCAST standard", KME seminar: "EUCAST recommendations for testing the susceptibility of bacteria to antibiotics". University of Belgrade - Faculty of Medicine, Belgrade, March 2, 2017.

Professional contribution:

- Author of the Standard Operating Procedure "Standard Operating Procedure in the laboratory for detection of SARS-CoV-2", for work in the Covid-19 laboratory, Directorate for National Reference Laboratories, Ministry of Agriculture, Forestry and Water Management of the Republic of Serbia laboratories, April 2020.
- Member of the "Working Group for coordination of activities and determining the needs of publicly owned microbiological laboratories carrying out laboratory tests for the presence of SARS-CoV-2 Virus", established by the Government of the Republic of Serbia (No. 02-6126 / 2020). Participation in the work of two expert teams for the evaluation of the work of 10 microbiology laboratories in Serbia.

Memberships:

2018 Association of Microbiologists of Serbia

2004 Serbian Society of Immunology

Reviewer in journals:

- Journal of Antimicrobial Chemotherapy (M21a)
- International Journal of Antimicrobial Agents (M21)
- Bioorganic Chemistry (M21)
- Annals of Clinical Microbiology and Antimicrobials (M22)
- MedChemComm (M22)
- African Journal of Microbiology Research (M23)
- Acta chromatographica (M23)

Projects

National projects:

- 2020-2021. Republic of Serbia Innovation Fund – Proof of Concept Program: “Development of a novel antiseptic/disinfectant based on the antimicrobial effect of new synthesis chalcone”, project No 5617). [Innovation Fund \(inovacionifond.rs\)](http://inovacionifond.rs)
- 2010-2019. Project of Ministry of Education and Science, Republic of Serbia: „Antibiotic resistant bacterial pathogens in Serbia: phenotypic and genotypic characterization“, project No 175039.

International projects:

- COST Action CA20113 - “A sound proteome for a sound body: targeting proteolysis for proteome remodeling”, 2021-25. Function: MC substitute. [Action CA20113 - COST](#)
- COST Action CA20117 - “Converting molecular profiles of myeloid cells into biomarkers for inflammation and cancer”, 2021-25. Function: WG1 i WG2 member. [Action CA20117 - COST](#)
- COST Action CA18226 - „New approaches in detection of pathogens and aeroallergens“, 2019-23. Function: MC substitute. [Action CA18226 - COST](#)
- COST Action CA18217 - “European Network for Optimization of Veterinary Antimicrobial Treatment” 2019-23. Function: WG1 i WG2 member. [ENOVAT](#)

Publications:

1. Đoković JB, Savić SM, Mitrović JR, Nikolic I, Marković BD, Randjelović DV, Antic-Stankovic J, **Božić D**, Cekić ND, Stevanović V, Batinić B, Arandjelović J, Savić MM, Savić SD. Curcumin Loaded PEGylated Nanoemulsions Designed for Maintained Antioxidant Effects and Improved Bioavailability: A Pilot Study on Rats. International Journal of Molecular Sciences, 2021, 22(15), 7991
2. Ilic T, Dodevska M, Marcetic M, **Bozic DD**, Kodranov I, Vidovic B. Chemical Characterization, Antioxidant and Antimicrobial Properties of Goji Berries Cultivated in Serbia. Foods 2020; 9(11): 1614 doi.org/10.3390/foods9111614
3. Milojkovic M, Nenadovic Z, Stankovic S, **Bozic DD**, Stankovic-Nedeljkovic N, Cirkovic I, Petrovic M, Dimkic I. Phenotypic and genetic properties of susceptible and multidrug-

- resistant *Pseudomonas aeruginosa* isolates in Southern Serbia. Arhiv Za Higijenu Rada i Toksikologiju-Archives Of Industrial Hygiene And Toxicology 2020; 71(3): 231-250
4. Brkić S, **Božić DD**, Stojanović N, Vitorović T, Topalov D, Jovanović M, Stepanović M, Ćirković I. Antimicrobial Susceptibility and Molecular Characterization of Carbapenemase-Producing *Enterobacter* spp. Community Isolates in Belgrade, Serbia. Microbial Drug Resistance 2020; 26(4):378-84. doi.org/10.1089/mdr.2019.0224
 5. Usjak D, Ivkovic B, **Bozic DD**, Boskovic L, Milenkovic M. Antimicrobial activity of novel chalcones and modulation of virulence factors in hospital strains of *Acinetobacter baumannii* and *Pseudomonas aeruginosa*. Microbial Pathogenesis 2019; 131:186-196.
 6. **Bozic DD**, Pavlovic B, Milovanovic J, Jotic A, Colovic J, Cirkovic I. Antibiofilm effects of amoxicillin-clavulanic acid and levofloxacin in patients with chronic rhinosinusitis with nasal polyposis. Eur Arch Otorhinolaryngol 2018; 275(8):2051-2059.
 7. Samardžić S, Arsenijević J, **Božić D**, Milenković M, Tešević V, Maksimović Z. Antioxidant, anti-inflammatory and gastroprotective activity of *Filipendula ulmaria* (L.) Maxim. and *Filipendula vulgaris* Moench. Journal of Ethnopharmacology 2018;213:132-137. DOI 10.1016/j.jep.2017.11.013
 8. **Cirkovic I & Bozic DD**, Draganic V, Lozo J, Beric T, Kojic M, Arsic B, Garalejic E, Djukic S, Stankovic S. Licheniocin 50.2 and Bacteriocins from *Lactococcus lactis* subsp. *lactis* biovar. diacetylactis BGBU1-4 inhibit biofilms of coagulase negative staphylococci and *Listeria monocytogenes* clinical isolates. PLoS One. 2016; 11(12):e0167995. doi: 10.1371/journal.pone.0167995.
 9. **Božić DD**, Milenković M, Ivković B, Ćirković I. Newly-synthesized chalcones-inhibition of adherence and biofilm formation of methicillin-resistant *Staphylococcus aureus*. Brazilian Journal of Microbiology 2014; 45(1): 263-270.
 10. **Božić DD**, Milenković M, Ivković B, Ćirković I. Antibacterial activity of newly-synthesized chalcones and synergism with antibiotics against clinical isolates of methicillin-resistant *Staphylococcus aureus*. Indian Journal of Medical Research 2014; 140: 130-137.