

Radica Stepanović-Petrović, PhD

Employment Information:

- 2007 – Full Professor
- 2002 – Associate Professor
- 1996 – Assistant Professor
- 1990 – Teaching Assistant
- 1985 – Assistant–trainee

Department of Pharmacology, Faculty of Pharmacy – University of Belgrade

Education:

- 2019 – Pharmacy Specialist, academic specialization Pharmacotherapy in pharmaceutical practice, University of Belgrade – Faculty of Pharmacy
- 2009 – Pharmacotherapy Specialist, defended specialist thesis: *Therapeutic use of mitoxantrone*, Department of Pharmacology, University of Belgrade – Faculty of Pharmacy; advisor: Professor Nenad Ugrešić, PhD
- 1995 – Doctor of Medical Sciences, defended doctoral dissertation: *Influence of potential antidotes on subsequent neurotoxic effects of organophosphorus compounds*, Institute of Pharmacology, Clinical Pharmacology and Toxicology, Faculty of Medicine – University of Belgrade; advisor: Professor Bogdan Bošković, PhD, co-advisor: Professor Draginja Anđelković, PhD
- 1990 – Master of Medical Sciences, defended master's thesis: *Effect of histamine on endothelium and smooth muscle of peripheral blood vessels of rats, guinea pigs and rabbits*, Institute of Pharmacology, Clinical Pharmacology and Toxicology, Faculty of Medicine – University of Belgrade; advisor: Professor Milovan Krstić, PhD
- 1985 – Graduate Pharmacist, University of Belgrade – Faculty of Pharmacy
- 1977 – Finished elementary school (“Jelena Četković”) and high school (Sixth Belgrade High School) in Belgrade

Awards:

- October Award of the City of Belgrade for a work in Biology entitled *The Living World in the Water Environment* (Elementary School, 1972)
- October Award of the City of Belgrade for a work in Chemistry entitled *Molecules and Types of Chemical Bonds* (High School 1976)
- For success in studies at the Faculty of Economics, 1978
- Award for the Best Student in the Generation, University of Belgrade. 1985
- Annual “Galenika Award” for the best doctoral dissertation. 1996
- Award for the best poster at the 18th Congress of the European College of Neuropsychopharmacology, 2005

- 2008 – Second Prize of the Ministry of Science and Technological Development of Serbia at the Competition for the Best Technological Innovation, Medicine and Genetics
- Annual award of the Faculty of Pharmacy for scientific research, 2022
- Award of the City of Belgrade Despot Stefan Lazarević for the book Pharmacology (as one of the editors and authors), 2024.

Teaching activities:

Integrated academic studies

- Implementation of classes in the following subjects: Pharmacology 1, Pharmacology 2, Pharmacotherapy, Pharmacotherapy in Pediatrics
- Final papers (mentor and member of the committee for several final papers)

Specialist studies required by the healthcare system in pharmacotherapy

- Implementation of classes in the following subjects: Pharmacology, Pharmacotherapy
- Final papers (mentor and member of the committee for dozens of final papers)

Specialist studies required by the healthcare system in pharmaceutical technology

- Implementation of classes in the following subject: Selected Chapters of Pharmacotherapy

Specialist academic studies – Pharmacotherapy in Pharmaceutical Practice

- Implementation of classes in the following subjects: Pharmacotherapy 1, Pharmacotherapy 2, Pharmacotherapy 3

Doctoral academic studies

- Implementation of classes in the following subjects: Pharmacology of Pain, Cardiovascular Pharmacology
- Doctoral dissertations: Mentor on two doctoral dissertations defended at the Faculty of Pharmacy – University of Belgrade (Ana Micov, PhD, Sonja Joksimović, PhD), and mentor of an accepted doctoral dissertation at University of Belgrade (candidate Katarina Nastić).

Member of the committee for the defense of seven doctoral dissertations at the Faculty of Pharmacy – University of Belgrade: three in the field of pharmacology (Maja Tomić, PhD, Uroš Pecikoza, PhD, Marija Marinko, PhD), one in the field of immunochemistry (Vesna Vujić, PhD), one in the field of pharmaceutical microbiology (Miroslav Dinić,

PhD), one in the field of pharmacognosy (Višnja Popović, PhD) and one in the field of pharmaceutical technology (Jelena Jančićević, PhD).

Other activities

- Student research papers (mentor or co-mentor on several student research papers)
- Master's thesis: member of the committee for the defense of one master's thesis in pharmacology at the Faculty of Medicine – University Belgrade

Textbooks:

- Co-editor and author of the textbook Pharmacology (Faculty of Pharmacy, University of Belgrade, editions 2023, 2024)
- Co-editor and author of the textbook Pharmacotherapy for pharmacists (Faculty of Pharmacy, University of Belgrade, 1st edition: 2011, 2014; 2nd edition: 2016, 2017, 2018, 2021, 2023)
- Co-author of a professional publication of national importance Pharmacotherapeutic Guide (1st–4th editions I-IV; 6th edition: 2004, 2005, 2006, 2008, 2016; Medicines and Medical Devices Agency of Serbia)
- Co-author of the translation of the textbook Pharmacology, author Rank HP, Dale MM, Ritter JM, Moore PK (5th edition: 2003)
- Co-author of the book Antibiotics 2001 (Zavod za udžbenike i nastavna sredstva, Belgrade, 2001)
- Co-author of the chapter in the monograph Pyridinium Oximes as Cholinesterase Reactivators. An Update of the Structure-Activity Relationship and Efficacy in the Treatment of Poisoning with Organophosphorus Compounds, Frontiers in Medicinal Chemistry, Bentham Science Publishers, 2016, 8, pp. 171–205
- Co-author of the chapter in the monograph Microsized and Nanosized Carriers for Nonsteroidal Anti-Inflammatory Drugs: Formulation Challenges and Potential Benefits, Elsevier, 2017, pp. 1–29

Activities within the Faculty:

- 2016–2024 Head of the Department of Pharmacology

- 2012–2024 Member of the Council of Scientific Areas of Medical Sciences of the University of Belgrade
- 2012–2019 – Member of the Council of the Faculty of Pharmacy
- 2008–2021 – Member of the Ethics Committee for Work with Experimental Animals
- 2007–2019 – Member of the Committee for Specialist Studies
- 2007–2019 – Member of the Program Council of the Faculty of Pharmacy
- 2004 – Member of the Working Group for Drafting the Syllabus of the Faculty of Pharmacy in Belgrade, as well as member of the Working Group for Drafting the Document on Continuing Education of Pharmacists
- 2010-2024 Head of specialist studies required by the healthcare system in Pharmacotherapy

Activities within the Academic Community:

Membership in professional organizations:

- 2006-2010; 2015-2020 Member of the Expert Board of the Association of Pharmaceutical Societies of Serbia (SFUS)
- Expert of the Medicines and Medical Devices Agency of the Republic of Serbia (ALIMS), as well as the Medicines and Medical Devices Agency of the Republic of Montenegro (CALIMS)
- In 2006, 2010, 2014, 2018 member of the Scientific Committee of the IV, V, VI, VII Congress of Pharmacists of Serbia with international participants
- Member of the Committee for Rational Drug Therapy of the Ministry of Health of the Republic of Serbia

Invited lectures at national continuing education courses/professional conferences:

- Antibiotics – mechanisms of action and clinical significance of resistance
- Obesity – a challenge for modern pharmacy
- Rational hypertension therapy – hypertension in pregnant women
- Dyslipidemia – what pharmacists can do
- Fixed combinations of analgesics - pro and contra (more than 10 lectures)
- What should pharmacists know about omega-3 fatty acids and cardiovascular risk? (3 lectures)
- Ibuprofen - effectiveness and safety (5 lectures)
- Truths and misconceptions about emergency contraception (2 lectures)

Invited lectures at the Symposiums of the Association of Pharmaceutical Societies of Serbia (SFUS):

- Therapy of thyroid gland diseases, 73rd Symposium, Kopaonik, 2022.
- Benefits and risks of hormone replacement therapy, 71st Symposium, Zlatibor, 2019.
- Opioid and adjuvant analgesics in modern pain management, 69th Symposium; Kopaonik, 2018
- Old and new oral anticoagulants: pro and contra, 68th Symposium, Zlatibor, 2017.
- Treatment of peptic ulcer and gastroesophageal reflux disease, 67th Symposium; Kopaonik, 2017
- Pharmacology of antihypertensive drugs, 66th Symposium, Zlatibor, 2016.
- Treatment of hypertension in pregnancy, 65th Symposium, Kopaonik, 2016.
- Novelties in the treatment of osteoarthritis, 65th Symposium, Kopaonik, 2016.
- Novelties in the treatment of multiple sclerosis, 64th Symposium, Zlatibor, 2015.
- What a pharmacist should know about non-steroidal anti-inflammatory drugs? 62nd Symposium, Kopaonik, 2014.
- Drugs in the prevention and treatment of venous thromboembolism, 60th Symposium, Kopaonik, 2013.
- Use sedatives and analgesics in pediatrics, 59th Symposium, Zlatibor, 2012.
- The influence of drugs on appetite and body weight, 57th Symposium, Vrnjačka Banja, 2011.
- Pharmacotherapy of bronchial asthma and chronic obstructive pulmonary disease, 56th Symposium, Kopaonik, 2011.
- Oral contraception and hormone replacement therapy, 55th Symposium, Kopaonik, 2010.
- Therapy of cardiovascular diseases in elderly patients, 54th Symposium, Belgrade, 2009.
- Coronary vasodilators, 52nd Symposium, Novi Sad, 2008.
- Pharmacology of antidepressants, 49th Symposium, Kopaonik, 2007.
- Drugs in the treatment of peptic ulcer, gastroesophageal reflux and inflammatory bowel disease, 44th Symposium, Kopaonik, 2004.

Invited lectures at the Congresses of the Pharmaceutical Society of Serbia:

- Novelties in the therapy of heart failure, VIII Congress of Serbian Pharmacists with international participation, Belgrade, 2022.
- Antiepileptics in the light of new indications, VII Congress of Pharmacists of Serbia with international participation, Belgrade, 2018.
- Depression and pain, VI Congress of Pharmacists of Serbia with international participation, Belgrade, 2014.
- Resistance to clopidogrel, V Congress of Pharmacists of Serbia with international participation; Belgrade, 2010.

- Opioid and adjuvant analgesics, IV Congress of Pharmacists of Serbia with international participation; Belgrade, 2006.

Invited lectures at other association of health professionals:

- Pharmacology of levothyroxine and antithyroid drugs. Third International Congress of Healthcare Workers in the Private Sector, Belgrade, 2023.
- The use of opioid analgesics in the modern treatment of pain. Second International Congress of Healthcare Workers in the Private Sector, Belgrade, 2020.
- New oral anticoagulants - pros and cons. The First International Congress of Health Workers in the Private Sector, Belgrade, 2019.
- Direct oral anticoagulants: safety and efficacy. Symposium of the Association of Cardiologists of Serbia; Course of the Academy of Medical Sciences of the Serbian Medical Association: "New anticoagulant drugs: questions and answers from practice", 2016.
- Side effects and interactions of antihypertensives. III Sombor Pharmaceutical Days: "Through better regulation of hypertension", ZU Apoteka Sombor, 2015.
- Use of analgesics in pediatrics and geriatrics. II Sombor Pharmaceutical Days: "Pain - the fifth vital sign", ZU Pharmacy Sombor, 2013.
- Hypertension in pregnancy. I Sombor Pharmaceutical Days: "Chronical illness treatment in pregnancy", ZU Pharmacy Sombor, 2011.
- Oral hypoglycaemic drugs. 9th Symposium of Masters of Pharmacy and Biochemistry of the Republic of Srpska; Vrućica Spa, 2012.
- Pharmacology of antiepileptics. IX Symposium of Pharmacists and Biochemists of the Republic of Srpska; Teslić, 2007.

Membership in domestic/foreign professional organizations:

- Member of the Pharmaceutical Society of Serbia, Pharmacological Society of Serbia, Society for Neuroscience of Serbia and International Association for the Study of Pain (IASP)

Membership in the Editorial Boards of domestic/foreign scientific journals

- 2018– 2024 Editor-in-Chief of the national pharmaceutical journal Archives of Pharmacy.
- 2012–2018 Deputy Editor-in-Chief of the national pharmaceutical journal Archives of Pharmacy
- 2002–2012 – Member of the Editorial Board of the national pharmaceutical journal Archives of Pharmacy

- 2016 Visiting editor in the thematic issue of the Archives of Pharmacy: Modern treatment of osteoarthritis.

Reviewer in national journals: Archives of Pharmacy and Vojnosanitetski preglod

Reviewer in international journals: European Journal of Pain, Neuroscience Letters, Fundamental and Clinical Pharmacology, Canadian Journal of Physiology and Pharmacology, Life Sciences, Archives of biological sciences, Evidence-Based Complementary and Alternative Medicine, Current Medicinal Chemistry, Future Medicinal Chemistry, Neuropsychiatry, Frontiers in Neurology, Frontiers in Physiology, British Journal of Clinical Pharmacology, Neuropharmacology, etc.

Projects:

- 2022–2024 – Head of the project funded by the Science Fund of the Republic of Serbia – The IDEAS Program: *Multimodal control of chronic pain and comorbidities with atypical analgesics - “two birds with one stone”*, Acronym: Fight_PainAndComorb.
- 2020–2024 Head of the research group within the institutional financing of scientific research work at the Faculty of Pharmacy in Belgrade by the Ministry of Education, Science and Technological Development of the Republic of Serbia
- 2011–2020 – Head of the basic research project funded by the Ministry of Education, Science and Technological Development of the Republic of Serbia: *Examination of the mechanism of action, interactions and toxic effects of adjuvant analgesics*, basic research project in the field of Medicine, No. 175045.
- 2006–2010 – Head of the basic research project funded by the Ministry of Education, Science and Technological Development of the Republic of Serbia: *Examination of the mechanism of action, interactions and toxic effects of analgesics and vasoactive substances*, basic research project in the field of medicine, No. 145030.
- 1991–2012 – Associate on the national research project Mechanism of action of biologically active substances that modify the tone of blood vessels.
- 1986–1990 – Associate on the national research project Chemical and pharmacokinetic testing of drugs

Selected publications:

1. Tomić M, Nastić K, Dinić M, Brdarić E, Kotur-Stevuljević J, Pecikoza U, Pavićević D, Micov A, Milenković D, Jovanović A, Stepanović-Petrović R. Vortioxetine reduces the development of

pain-related behaviour in a knee osteoarthritis model in rats: Involvement of nerve growth factor (NGF) down-regulation. *Br J Pharmacol*. 2024 Dec;181(24):5079-5093. doi: 10.1111/bph.17342.

2. Pecikoza U, Tomić M, Nastić K, Micov A, Stepanović-Petrović R. Synergism between metformin and analgesics/vitamin B12 in a model of painful diabetic neuropathy. *Biomed Pharmacother*. 2022 Sep;153:113441. doi: 10.1016/j.biopha.2022.113441.

3. Tomić M, Pecikoza U, Micov A, Vučković S, Stepanović-Petrović R. Antiepileptic drugs as analgesics/adjuvants in inflammatory pain: current preclinical evidence. *Pharmacol Ther*. 2018 Dec;192:42-64. doi: 10.1016/j.pharmthera.2018.06.002.

4. Dinić M, Pecikoza U, Djokić J, Stepanović-Petrović R, Milenković M, Stevanović M, Filipović N, Begović J, Golić N, Lukić J. Exopolysaccharide Produced by Probiotic Strain *Lactobacillus paraplantarum* BGCG11 Reduces Inflammatory Hyperalgesia in Rats. *Front Pharmacol*. 2018 Jan 17;9:1. doi: 10.3389/fphar.2018.00001.

5. Stepanovic-Petrovic RM, Micov AM, Tomic MA, Kovacevic JM, Boškovic BD. Antihyperalgesic/antinociceptive effects of ceftriaxone and its synergistic interactions with different analgesics in inflammatory pain in rodents. *Anesthesiology*. 2014 Mar;120(3):737-50. doi: 10.1097/ALN.0000435833.33515.ba.

6. Stepanović-Petrović RM, Micov AM, Tomić MA, Ugrešić ND. The local peripheral antihyperalgesic effect of levetiracetam and its mechanism of action in an inflammatory pain model. *Anesth Analg*. 2012 Dec;115(6):1457-66. doi: 10.1213/ANE.0b013e31826c7fc2.

7. Micov A, Tomić M, Popović B, Stepanović-Petrović R. The antihyperalgesic effect of levetiracetam in an inflammatory model of pain in rats: mechanism of action. *Br J Pharmacol*. 2010 Sep;161(2):384-92. doi: 10.1111/j.1476-

5381.2010.00877.x.

8. Stepanovic-Petrovic RM, Tomic MA, Vuckovic SM, Paranos S, Ugresic ND, Prostran MS, Milovanovic S, Boskovic B. The antinociceptive effects of anticonvulsants in a mouse visceral pain model. *Anesth Analg.* 2008 Jun;106(6):1897-903. doi: 10.1213/ane.0b013e318172b993.

9. Vučković SM, Tomić MA, Stepanović-Petrović RM, Ugresić N, Prostran MS, Bosković B. The effects of alpha2-adrenoceptor agents on anti-hyperalgesic effects of carbamazepine and oxcarbazepine in a rat model of inflammatory pain. *Pain.* 2006 Nov;125(1-2):10-9. doi: 10.1016/j.pain.2006.04.023.

10. Jokanović M, Maksimović M, Stepanović RM. Interaction of phosphamidon with neuropathy target esterase and acetylcholinesterase of hen brain. *Arch Toxicol.* 1995;69(6):425-8. doi: 10.1007/s002040050195.