

Branka Divović Matović, MPharm

Employment Information:

- 2021– Member of the project team of the IDEAS program
Science Fund of the Republic of Serbia
- 2020– Senior Associate in the implementation of an international project
Neurotoxicity De-Risking in Preclinical Drug Discovery – HORIZON 2020 – IMI2
- 2020. Teaching Assistant (re-election)
Department of Pharmacology, Faculty of Pharmacy, University of Belgrade, Serbia
- 2016. Teaching Assistant
Department of Pharmacology, Faculty of Pharmacy, University of Belgrade, Serbia
- 2014– Intern Researcher on the project of the Ministry of Education, Science and Technological Development: Behavioral effects of repeated use of newly synthesized substances selective for certain subtypes of benzodiazepine GABAA receptor binding site: comparison with standard psychopharmacological drugs
- 2014/2015. Realization of practical teaching in the subject Pharmacology, Pharmacology 1, Pharmacotherapy within integrated academic studies and in the realization of practical teaching in the academic specialization Pharmacotherapy in pharmaceutical practice
University of Belgrade – Faculty of Pharmacy
- 2013/2014. Realization of practical classes in the subject Toxicology with an analyst
Department of Toxicology „Academician Danilo Soldatović”, Faculty of Pharmacy, University of Belgrade

Education:

- 2013– Doctoral academic studies (Module: Pharmacology); average grade 9.71
University of Belgrade – Faculty of Pharmacy
- 2017-2020. Specialist academic studies (Pharmacotherapy in pharmaceutical practice); average grade 10.00
University of Belgrade – Faculty of Pharmacy
- 2008-2013. Integrated academic studies; Master of Pharmacy; average grade 9.78
University of Belgrade – Faculty of Pharmacy
- The Gymnasium „Pivo Karamatijević” Nova Varoš (natural sciences and mathematics)

Training:

- April 4, 2021. Participation (as a moderator) in the implementation of the educational project – XIII Pharmacotherapeutic approach (Clinical Skills Event) on “Silent killers – Crohn’s disease and ulcerative colitis” as an official project of the International Federation of Pharmaceutical Students (IPSF) on the territory of the Republic of Serbia is realized by the local offices of the National Association of Pharmacy Students – Serbia (NAPSer)
- 7-10. September 2019. *32nd European College of Neuropsychopharmacology ECNP Congress*, Copenhagen, Denmark
- 12-16. August 2019. *Radboud Summer School, course: Clinical Skills in the Treatment of Anxiety and Depression: Hands-on Practice and Heads-on Theory*, Radboud University, Nijmegen, the Netherlands
- 2017. Training and Research for Academic Newcomers (TRAIN) training modules launched with the support of the Belgian King Boudouin Foundation (KBF)
- 7-10. October 2015. . *FENS Featured Regional Meeting*, Thessaloniki, Greece
- 2013. Seminars “Introduction to Entrepreneurship” and “Management” within the project Promotion of Science through Entrepreneurship realized by the Business and Technology Incubator of Technical Faculties Belgrade, with the support of the Center for the Promotion of Science
- 2013. Trainings within the program “staff to be staff” organized by the American Chamber of Commerce (AmCham) in Serbia and the Center for Career Development and Student Counseling at the University of Belgrade

Academic awards and distinctions:

- 2019. *ECNP CDE (country with a developing economy) grant*
- 2012/2013. Scholar of the Dragoljub Marinković Endowment
- 2012. Award of the Regional Chamber of Commerce of Užice for outstanding results during studies
- 2011-2013. Scholar of the Company for Foreign and Internal Trade NELT CO d.d.o.
- 2011/2012. And 2010/2011. Student scholarship of the Ministry of Education and Science of the Republic of Serbia
- 2008. Award of the Teachers Council of the Gymnasium “Pivo Karamatijević” as the best student of her generation

Teaching activities:

Integrated academic studies (undergraduate)

- Preparation and implementation of practical classes in the following subjects: Toxicology with Analyst, Pharmacology (2008 curriculum); Pharmacology 1, Pharmacology 2 and Pharmacology 3 (2013 curriculum); Pharmacotherapy in pediatrics; Pharmacology 1 and Pharmacology 2 (2019 curriculum)
- Final papers (member of the commissions for preparation and defense of final papers)

Specialistic academic studies

- Preparation and implementation of practical classes in the following subjects: Pharmacology 1, Pharmacology 2 and Pharmacology 3

Projects:

- 2021-2024. Program IDEAS: Neuroimmune aspects of mood, anxiety and cognitive effects of leads/drug candidates acting at GABAA and/or sigma-2 receptors: In vitro/in vivo delineation by nano- and hiPSC-based platform (NanoCellEmoCog)
- 2019-2022. H2020 IMI project H2020-JTI-IMI2-2017-13/821528 Neurotoxicity De-Risking in Preclinical Drug Discovery
- Bilateral project Serbia - Austria 451-03-01039 / 2015-09 / 12 - GABAA receptors containing Alpha 5 Subunit Containing GABAA Receptors in Development, Health and Disease
- Project of the Ministry of Education, Science and Technological Development entitled: Behavioral effects of repeated use of newly synthesized substances selective for certain subtypes of benzodiazepine binding site of GABAA receptors: comparison with standard psychopharmacological drugs

Publications:

Paper in excellent international journal, which is among the top 10% in its field (M21a):

1. Knutson DE, Kodali R, Divović B, Treven M, Stephen MR, Zahn NM, Dobričić V, Huber AT, Meirelles MA, Verma RS, Wimmer L, Witzigmann C, Arnold LA, Chiou LC, Ernst M, Mihovilovic MD, Savić MM, Sieghart W, Cook JM. Design and synthesis of

novel deuterated ligands functionally selective for the γ -aminobutyric acid type A receptor (GABA(A)R) $\alpha 6$ subtype with improved metabolic stability and enhanced bioavailability. *J Med Chem.* 2018 Mar 22;61(6):2422-2446. IF (2018): 6,054

Papers in a top international journal, which is among the top 30% in its field (M21):

2. Mitrović JR, Divović-Matović B, Knutson DE, Đoković JB, Kremenović A, Dobričić VD, Randjelović DV, Pantelić I, Cook JM, Savić MM, Savić SD. Overcoming the Low Oral Bioavailability of Deuterated Pyrazoloquinolinone Ligand DK-I-60-3 by Nanonization: A Knowledge-Based Approach. *Pharmaceutics.* 2021 Jul 31;13(8):1188. doi: 10.3390/pharmaceutics13081188. IF (2020): 6,321

3. Mitrović JR, Divović B, Knutson DE, et al. Nanocrystal dispersion of DK-I-56-1, a poorly soluble pyrazoloquinolinone positive modulator of $\alpha 6$ GABAA receptors: Formulation approach toward improved in vivo performance [published online ahead of print, 2020 Jun 18]. *Eur J Pharm Sci.* 2020;152:105432. IF (2019): 3,616

4. Đorđević SM, Santrač A, Cekić ND, Marković BD, Divović B, Ilić TM, Savić MM, Savić SD. Parenteral nanoemulsions of risperidone for enhanced brain delivery in acute psychosis: Physicochemical and in vivo performances. *Int J Pharm.* 2017 May 25. pii: S0378-5173(17)30463-5. IF (2017): 3,862

Papers in prominent international journal, which is between 30% and 60% in its field (M22):

5. Vasović D, Divović B, Treven M, Knutson DE, Steudle F, Scholze P, Obradović A, Fabjan J, Brković B, Sieghart W, Ernst M, Cook JM, Savić MM. Trigeminal neuropathic pain development and maintenance in rats are suppressed by a positive modulator of $\alpha 6$ GABA(A) receptors. *Eur J Pain.* 2019 Jan 11. IF (2019): 3,492

6. Stamenić TT, Poe MM, Rehman S, Santrač A, Divović B, Scholze P, Ernst M, Cook JM, Savić MM. Ester to amide substitution improves selectivity, efficacy and kinetic behavior of a benzodiazepine positive modulator of GABA(A) receptors containing the $\alpha 5$ subunit. *Eur J Pharmacol.* 2016 Nov 15;791:433-443. IF (2016): 2.896

7. Batinić B, Santrač A, Divović B, Timić T, Stanković T, Obradović AL, Joksimović S, Savić MM. Lipopolysaccharide exposure during late embryogenesis results in diminished locomotor activity and amphetamine response in females and spatial cognition impairment in males in adult, but not adolescent rat offspring. *Behav Brain Res.* 2015 Nov 24;299:72-80. IF (2015): 3,002

Papers in international journal (M23)

8. Divović Matović B, Mitrović J, Knutson DE, Batinić B, Savić SD, Savić MM. Nanosuspension formulation of DK-I-56-1, a deuterated ligand functionally selective for the $\alpha 6$ GABAA receptors, induces hyperlocomotion in mice. 32nd European College of Neuropsychopharmacology (ECNP) Congress, Copenhagen, Denmark, 7-10 September 2019

Press releases from international conferences, printed in excerpt (M34):

9. Divović Matović B, Mitrović J, Knutson DE, Batinić B, Savić SD, Savić MM. Nanosuspension formulation of DK-I-56-1, a deuterated ligand functionally selective for the $\alpha 6$ GABAA receptors, induces hyperlocomotion in mice. 32nd European College of Neuropsychopharmacology (ECNP) Congress, Copenhagen, Denmark, 7-10 September 2019

10. Knutson D, Vasovic D, Divovic B, Treven M, Steudle F, Scholze P, Brkovic B, Sieghart W, Ernst M, Cook J, Savić M. Prevention of trigeminal neuropathic pain development in rats using novel deuterated GABAAR-alpha 6 subtype selective ligands. 256th National Meeting and Exposition of the American-Chemical-Society (ACS) - Nanoscience, Nanotechnology and Beyond, Boston, MA, 19 – 23 August 2018

11. Divović B, Batinić B, Timić Stamenić T, Santrač A, Savić M. Locomotor changes during habituation and saline- and amphetamine challenge in adult rats in utero exposed to LPS appear in adolescence in females only. FENS Featured Regional Meeting, Thessaloniki, Greece, 7 – 10 October, 2015.