

## **Aleksandra Novaković, PhD**

### **Employment Information:**

- May 2018. Full Professor  
Department of Pharmacology, Faculty of Pharmacy, University of Belgrade
- July 2013. Associate Professor  
Department of Pharmacology, Faculty of Pharmacy, University of Belgrade
- May 2008. Assistant Professor  
Department of Pharmacology, Faculty of Pharmacy, University of Belgrade
- March 2006. Assistant (re-election)  
Department of Pharmacology, Faculty of Pharmacy, University of Belgrade
- 2001. Assistant  
Department of Pharmacology, Faculty of Pharmacy, University of Belgrade
- 1998-2001. Trainee Assistant  
Department of Pharmacology, Faculty of Pharmacy, University of Belgrade
- 1997-1998. Associate  
Department of Pharmacology, Faculty of Pharmacy, University of Belgrade

### **Education:**

- March 7, 2005. She defended her doctoral thesis entitled "Analysis of the effect of resveratrol on isolated blood vessels of humans and animals" at the Faculty of Medicine and thus acquired the academic title of doctor of medical sciences.
- 30.09.2003. She defended her specialist thesis, entitled "Organic nitrates in the treatment of ischemic heart disease with special reference to NO", at the Faculty of Pharmacy in Belgrade, and thus acquired the title of specialist in Pharmacoinformatics.
- 2.07.2001 She defended her master's thesis in the field of medical sciences, entitled "Comparative analysis of the anti-vasoconstrictor effect of potassium channel modulators on isolated saphenous vein and internal thoracic artery", at the Medical Faculty in Belgrade and thus obtained a master's degree in medical sciences.
- She graduated from the Faculty of Pharmacy in Belgrade.

**Training:**

- In June 2014 and 2019. She paid a working visit to the TEDA International Cardiovascular Hospital in China, within the program of bilateral scientific and technological cooperation between the Republic of Serbia and the People's Republic of China. During these two working visits, Dr Aleksandra Novaković also gave lectures entitled "Different Potassium Channels are Involved in Vasorelaxation Induced by Compounds Derived from Plants", and "Vasorelaxant effect of procyanidin B2 on human internal mammary artery".
- The course "Good Clinical Trial Practice and Inspection" of the University of Belgrade, Faculty of Pharmacy organized by Euro Health Group, was attended in 2003.

**Academic awards and distinctions:**

- Award of the University of Belgrade for the best scientific researchers and professional student work in 2018 (mentor A. Novaković).
- She received the award for the best young masters from the Ministry of Science, Technology and Development in 2002.
- 2010. European Atherosclerosis Society (EAS) Travel Grant for the 78th European Congress of Atherosclerosis in Hamburg.
- 2009. International Symposium on Atherosclerosis (ISA) Travel grant for the XV International Symposium on Atherosclerosis in Boston.
- 2008. European Atherosclerosis Society (EAS) Travel Grant for the European Atherosclerosis Congress in Istanbul.

**Teaching activities:**

- Participates in teaching three subjects, Pharmacology 1 and 2, Pharmacotherapy, and Pharmacotherapy in Pediatrics, for students of the Faculty of Pharmacy (Integrated Academic Studies).
- Within the Doctoral Academic Studies of Pharmaceutical Sciences - module Pharmacology, she was engaged as a teacher for the following subjects: Mechanisms of action of drugs, Pharmacology of the central nervous system,

Pharmacology of the cardiovascular system, Processing and analysis of data in pharmacology.

- She has been hired as a teacher for the subjects Pharmacology and Pharmacotherapy within the Specialization in Pharmacotherapy.
- She was hired as a teacher for the subject Pharmacotherapy within the Specialization in Pharmacotherapy in Pharmaceutical Practice and Pharmaceutical Technology.
- She was engaged in teaching for the 2014/15 academic year. year for the subject Pharmacology I at the Faculty of Pharmacy, University of Montenegro.
- She was the mentor of a defended doctoral dissertation at the Faculty of Pharmacy, University of Belgrade in the field of Pharmacology.
- She was a mentor of 8 specialist papers, and 5 times a member of the Commission of Health Specializations in Pharmacotherapy.
- She was a member of the Commission for the Defense of three specialist papers from the academic specialization Pharmaceutical Management and Marketing.
- So far, she has been a mentor of 14 graduate theses, and 4 times a member of the Commission for the Defense of Graduate Theses.
- So far, she has mentored 11 student experimental papers presented at mini-congresses held at the Faculty of Pharmacy in cooperation with the Center for Scientific Research of Students of the Faculty of Pharmacy, as well as at congresses of students of biomedical sciences in Serbia with international participation. Award of the University of Belgrade for the best scientific researchers and professional student work in 2018 (mentor A. Novaković).

#### **Textbooks:**

- Co-author of the translation of the textbook Pharmacology by the author Rank HP, Dale MM, Ritter JM, Moore PK, (edition V, 2003).
- Co-author of the practicum: Ilić K, Novaković A, Stepanović Petrović R, Tomić M. Practicum in pharmacology. Belgrade: Faculty of Pharmacy; 2009.

- Co-author of the textbook: Ugrešić N, Stepanović Petrović R, Savić M, Ilić K, Novaković A, Tomić M et al. Pharmacotherapy for pharmacists Belgrade: Faculty of Pharmacy; 2016

#### **Activities within the Faculty:**

- 2013– Member of the Program Council of the Center for Continuing Education
- 2011-2013. She was a member of the Commission for the allocation of additional EPSB.

#### **Activities within wider Academic Community:**

- 2015– She has been a member of the Committee for Cardiovascular Pathology of SANU.
- 2010– Member of the European Atherosclerosis Society (EAS)
- 2015– Member of the Japanese Society of Pharmacologists.
- 2005– She is a member of the Pharmacological Society of Serbia.
- Member of the Program Committee - 4th Congress of the Association for Atherosclerosis of Serbia with international participation, November 20-23, 2014. Belgrade, Serbia.
- Reviewer of papers in international journals M20: British Journal of Pharmacology (M21a), Pharmacological Research (M21), Experimental Gerontology (M21), The Journal of Cardiovascular Pharmacology (M22), Medicinal Chemistry (M23).
- Head (and lecturer) of the continuing education course "Anticoagulant and antiplatelet therapy of acute coronary syndrome" held on November 2, 2013. at the Faculty of Pharmacy, Belgrade, Serbia.
- Lecturer on the course of continuous education "Markers of cardiovascular disease development and their therapeutic modification" (March 12, 2011, Faculty of Pharmacy).

- Head (lecturer) of the continuing education course "Atherosclerosis: morphology, risk factors, prevention, clinic and therapy" held on 22.05.2010. at the Faculty of Pharmacy, Belgrade, Serbia.
- She participated as a lecturer at the XXXII symposium of continuous medical education "Aspirations and innovations in medicine", at the mini symposium "Basic and applied research of arterial and venous grafts" held at the Faculty of Medicine in 2003.
- Lectures by invitation:
- She gave a lecture entitled "Vasorelaxant effect of procyanidin B2 on human internal mammary artery" at the TEDA International Cardiovascular Hospital in China (June 28, 2019).
- She gave a lecture entitled "Different Potassium Channels are Involved in Vasorelaxation Induced by Compounds Derived from Plants" at the TEDA International Cardiovascular Hospital in China (June 24, 2014).
- She gave a lecture entitled "Modern therapy of inflammatory bowel disease" within the 67th symposium of the Association of Pharmaceutical Associations of Serbia; 25-27. May 2017. Kopaonik, Serbia.
- She gave a lecture entitled "Treatment of peptic ulcer and gastroesophageal reflux disease" within the 67th symposium of the Association of Pharmaceutical Associations of Serbia; 25-27. May 2017. Kopaonik, Serbia.
- Gave a lecture entitled "New drugs in the treatment of atherosclerotic dyslipidemia" within the 5th Congress of the Association for Atherosclerosis of Serbia with international participation, November 8-10, 2016, SANU, Belgrade, Serbia.
- Lecture entitled "Cardiovascular Therapy: Influence on New Biomarkers of Atherosclerosis" was held within the 4th Congress of the Association for Atherosclerosis of Serbia with International Participation, November 20-23, 2014. Belgrade.
- 18th meeting of nutritionists - Biologically active ingredients of food in health care, June 28, 2010, Belgrade, Serbia;

- "Within the symposium" Basic Science in Atherosclerosis "- III Congress of the Association for Atherosclerosis of Serbia with international participation, 13-16. May 2009, SANU, Belgrade, Serbia;
- X Symposium of Pharmacists and Biochemists of the Republic of Srpska "Urinary Infections", 16-19. October 2008, Teslić, Republika Srpska.
- She gave an oral presentation of the paper "Cardioprotective effect of resveratrol" - Workshops "The Role of Lifestyle Modification, Nutrition, and Exercise in CHD Prevention" at the 77th EAS Congress, April 26-29, 2008, Istanbul, Turkey.
- She had an oral presentation of her works at six national congresses (XIII, XIV, XV and XVII Congress of Cardiologists of Serbia in 2003, 2004, 2005 and 2009; Second Congress of the Association for Atherosclerosis of Serbia and Montenegro in 2004; XII Congress of Pharmacologists Serbia 2007).
- Participated as an organizer and lecturer in the Second Meetings of Students of the Faculty of Medicine and Pharmacy "Pharmacotherapeutic Approach: Pharmacotherapy of Cardiovascular Diseases", March 1 and 8, 2008, Faculty of Medicine, Belgrade.
- She participated as a lecturer in the symposium "EPSA Twin Educational Program" whose topic was obesity, November 8, 2008, Faculty of Pharmacy, Belgrade.

### **Projects:**

#### **She was the manager of 2 international projects:**

- "Pharmacological tests on human bypass grafts" which was approved for funding within the program of bilateral scientific and technological cooperation between the Republic of Serbia and the People's Republic of China in the period 2018-2020.
- "Examination of the effect and mechanism of action of various vasodilators on human bypass grafts" which was approved for funding under the program of bilateral scientific and technological cooperation between the Republic of Serbia and the People's Republic of China in the period from July 1, 2013 to July 1, 2015.

- **Aleksandra Novaković is the manager of a national project** (2014-) of the Ministry of Science and Technological Development (P175088) entitled "Investigation of the effect and mechanism of action of various vasodilators on human bypass grafts" by the Faculty of Pharmacy.
- Member (2008-) of the SANU project "Pathological morphology and morphological-clinical correlations in cardiovascular diseases" led by Academician Vladimir Kanjuh. She is involved in 2 national projects:

From 2004. to 2007. she was on two projects:

1. project entitled "Immunomorphological characterization of renal stems and / or progenitor cells" led by the Faculty of Medicine (Prof. Dr. Jasmina Markovic-Lipkovski);
2. project approved within the national program of biotechnology and agro-industry whose holder is the Faculty of Medicine (Prof. Dr. Ljiljana Gojkovic Bukarica).

From 2006. to 2010. she was involved in 2 projects:

1. project entitled "Prevention of kidney disease in children", which is carried out by the Faculty of Medicine (Prof. Dr. Amira Peco-Antic);
2. project entitled "Immunomorphological characterization of cells involved in the process of regeneration and fibrosis in kidney disease", whose holder is the Faculty of Medicine (Prof. Dr. Jasmina Markovic-Lipkovski).

- From 2002. to 2004, she participated in the project entitled "Assessment of the effect of drugs on the regulatory mechanisms of the cardiovascular system using computer methodology", which is carried out by the Faculty of Medicine.

### **Publications:**

1. Marinko M, Jankovic G, Milojevic P, Stojanovic I, Nenezic D, Novakovic A. (-)-Epicatechin-induced relaxation of isolated human saphenous vein: Roles of K<sup>+</sup> and Ca<sup>2+</sup> channels. *Phytother Res.* 2018;32:267-275.
2. Sun WT, Wang XC, Novakovic A, Wang J, He GW, Yang Q. Protection of dilator function of coronary arteries from homocysteine by tetramethylpyrazine: Role of ER stress in modulation of BKCa channels. *Vascular Pharmacology* 2019;113:27-37.

3. Novakovic A, Marinko M, Jankovic G, Stojanovic I, Milojevic P, Nenezic D, Kanjuh V, Yang Q, He G-W. Endothelium-dependent vasorelaxant effect of procyanidin B2 on human internal mammary artery. *European Journal of Pharmacology* 2017;807:75-81.
4. Novakovic A, Marinko M, Vranic A, Jankovic G, Milojevic P, Stojanovic I, Nenezic D, Ugresic N, Kanjuh V, Yang Q, He GW. Mechanisms underlying the vasorelaxation of human internal mammary artery induced by (-)-epicatechin. *European Journal of Pharmacology* 2015;762:306–312.
5. Novakovic A, Pavlovic M, Milojevic P, Stojanovic I, Nenezic D, Jovic M, Ugresic N, Kanjuh V, Yang Q, He GW. Different potassium channels are involved in relaxation of rat renal artery induced by P1075. *Basic & Clinical Pharmacology & Toxicology* 2012;111(1):24-30.
6. Novakovic A, Pavlovic M, Stojanovic I, Milojevic P, Babic M, Ristic S, Ugrešić N, Kanjuh V, Yang Q and He GW. Different K<sup>+</sup> channels are involved in relaxation of arterial and venous graft induced by nicorandil. *Journal of Cardiovascular Pharmacology* 2011;58(6):602-608.
7. Bukarica Gojkovic Lj, Novakovic A, Kanjuh V, Bumbasirevic M, Lesic A, and Heinle H. A Role of ion channels in the endothelium-independent relaxation of rat mesenteric artery induced by resveratrol. *Journal of Pharmacological Sciences* 2008;108(1):124-130.
8. Novakovic A, Bukarica Gojkovic Lj, Peric M, Nezic D, Djukanovic B, Lipkovski-Markovic J and Heinle H. The mechanism of endothelium-independent relaxation induced by the wine polyphenol resveratrol in human internal mammary artery. *Journal of Pharmacological Sciences* 2006;101(1):85-90.
9. Novakovic A, Bukarica Gojkovic Lj, Kanjuh V and Heinle H. Potassium channels mediated vasorelaxation of rat aorta induced by resveratrol. *Basic & Clinical Pharmacology & Toxicology* 2006;99(5):360-4.
10. Novakovic A, Bukarica Gojkovic Lj, Beleslin-Cokic B, Zigon Japundzic N, Sajic Z, Nezic D, Peric M, Djukanovic B and Kazic T. Differential Antivasoconstrictor effects of levcromakalim and rilmakalim on the isolated human mammary artery and saphenous vein. *Journal of Pharmacological Sciences (Formerly The Japanese Journal of Pharmacology)* 2003;92(2):108-114.