

NAME AND FAMILY NAME

KATARINA NIKOLIC

Employment Information:

- **2017** – Associate Professor at Department of Pharmaceutical Chemistry, Faculty of Pharmacy, University of Belgrade, Serbia.
- **2015** - Principal Research Fellow – natural sciences, chemistry.
- **2012** - Assistant Professor at Department of Pharmaceutical Chemistry, Faculty of Pharmacy, University of Belgrade, Serbia.
- **2010** - Senior Research Associate at Department of Pharmaceutical Chemistry, Faculty of Pharmacy, University of Belgrade, Serbia.
- **2007-2010** - Research Associate at Department of Pharmaceutical Chemistry, Faculty of Pharmacy, University of Belgrade, Serbia. Assistant on Pharmaceutical Chemistry II and III courses of the integrated academic studies at the Faculty of Pharmacy, University of Belgrade.
- **2005-2007** – Lecturer of Chemical Sciences, American (Private) Academy, Limassol, Cyprus / KES College, Medical Representatives studies- Nicosia, Cyprus.
- **2004-2005** - Clinical Pharmacy Manager, Lemessos Medical Center, Limassol, Cyprus.
- **2001-2005** - Research Assistant, Faculty of Chemistry, University of Cyprus, Nicosia, Cyprus.
- **2001-2002** - Pharmacist, Chemist Regulatory Affairs, Manufacturer of Pharmaceuticals - "Biogena LTD" - Limassol, Cyprus.
- **1998-2000** - Analytical Quality Control, Manufacturer of Pharmaceuticals - "Medochemie LTD" - Limassol, Cyprus.

Education:

- **2007** – PhD Pharm - defended PhD thesis entitled: "*Molecular modeling and in vitro antioxidant properties of phenilselenosuccinyl- α -tocopheryl esters with potential antiproliferative activities*", mentor Professor Danica Agbaba, Department of Pharmaceutical Chemistry and Drug Analysis, Faculty of Pharmacy, University of Belgrade.
- **2001** – MSc PhysChem - defended Master thesis entitled: "*Application of near infrared spectroscopy for the quantitative analysis of hydrocortisone sodium succinate for injection*", mentor Professor Ubavka Mioč, Faculty of Physical Chemistry, University of Belgrade.
- **1998** – BSc Pharm - graduated at Faculty of Pharmacy University of Belgrade in with an average mark 9.23.
- **1993** –gymnasium in Ruma, Serbia.

Training:

- June **2012**. – Short Term Scientific Mission (FP7/COST-STSM-CM1103-10295) at University of St Andrews, UK (Dr John Mitchell, EaStCHEM School of Chemistry) named: *Theoretical prediction of the pharmaceutical targets of the examined multitarget compounds*.
- March **2012** – “*Perspectives in Clinical Proteomics*” - Training Workshop, Wellcome Trust Conference Centre, Wellcome Trust Genome Campus, Hinxton, Cambridge, UK.
- **2001–2005** - Research Assistant on international project "*Synthesis, anticancer and antioxidant activities of mixed selenium - tocopherol antioxidants*", principal investigator Professor Anastasios Keramidas, Faculty of Chemistry, University of Nicosia, Cyprus. Research work included molecular modeling and application of Nuclear Magnetic Resonance (NMR) Spectroscopy in structural and kinetic study of the synthesized tocopherol derivatives. This work has been supported in part by the Research Promotion Foundation of Cyprus, grand 13/1999.

Academic awards and distinctions:

- **1999** - Diploma for The Best Student of Generation at the Faculty of Pharmacy, University of Belgrade for the schooling year 1997/1998.

Teaching activities:

- **2013** – Lecturer of several courses of Computer-Aided Drug Design and Chemometry at PhD studies – Pharmaceutical Chemistry, Faculty of Pharmacy University of Belgrade
- **2012** – experimental and theoretical courses of Pharmaceutical Chemistry I, II and III, as well as Lecturer of Pharmaceutical Chemistry II (antibiotics), Pharmaceutical Chemistry III (adrenergic drugs), and Selected Chapters of Pharmaceutical Chemistry (drug abuse and addiction) at the Faculty of Pharmacy, University of Belgrade.
- **2007** – experimental and theoretical courses of Pharmaceutical Chemistry II and III at the Faculty of Pharmacy, University of Belgrade.

Textbooks:

- **2014** – Handbook for Pharmaceutical Chemistry III, Faculty of Pharmacy, University of Belgrade.
- **2013** – Chapter: Danica Agbaba and Katarina Nikolic: “TLC of Antihypertensive and Antihypertensive drugs” in Book: “*Thin layer chromatography in drug*

analysis“, Edited by Lukasz Komsta, Monika Waksmundzka-Hajnos, Joseph Sherma. CRC Press Inc. 2013.

Activities within the Faculty:

- **2013, 2014, 2017** - Member of Committee on the 6th, 7th, 10th Students Mini-Conference at the Faculty of Pharmacy, University of Belgrade.
- Mentor of 10 scientific projects for undergraduate students
- **2011** – Coordinator and Lecturer on first category Course of Continual Education named: “*Drug design and development by experimental and theoretical methods*” Faculty of Pharmacy, University of Belgrade.
- **2009** – Member of the Organizing Committee of Seminar named: “*Drug research – novel methodologies*“, Faculty of Pharmacy, University of Belgrade.

Activities within wider Academic Community:

- **2011-2015** - Leader of Working Group-1 for computational chemistry of the COST project named: Structure-based drug design for diagnosis and treatment of neurological diseases: dissecting and modulating complex function in the monoaminergic systems of the brain, Action CM1103. http://www.cost.eu/COST_Actions/cmst/Actions/CM1103
- **2008**- Member of the Cheminformatics & QSAR Society and Cancer Epigenetics Society
- **2008-2011** - Member of the Management Committee of the COST project (European Cooperation in the field of Scientific and Technical Research) named: Free Radicals in Chemical Biology (CHEMBIORADICAL), Action CM0603.
- Organizer and Member of Scientific Committee for:
 - COST CM1103 ESR Conference in Belgrade 6th-8th May, Belgrade, Serbia.
 - 11th Central European Symposium on Pharmaceutical Technology. September 22-24, 2016, Belgrade
 - COST CM1406. WG1 Scientific Workshop – EPIGENETIC CHEMICAL PROBES. Belgrade, 16. January 2017.
- Referee for international scientific journals: QSAR & Combinatorial Science, Medicinal Chemistry, European Journal of Medicinal Chemistry, Acta Chromatographica, Bioorganic & Medicinal Chemistry, Letters in Drug Design and Discovery, The Journal of AOAC International.
- Referee for national scientific journals Arhiv za Farmaciju and Farmaceutska Industrija.

Projects:

- **2010** – (from May 2012. as Full Research Professor) of the scientific project named: Synthesis, Quantitative Structure Activity Relationship studies, Physico-Chemical Characterization and Analysis of Pharmacologically Active Substances, of Ministry of Science of Republic of Serbia, with principal investigator Professor Danica Agbaba, Department of Pharmaceutical Chemistry, Faculty of Pharmacy, University of Belgrade (172033)
- **2010** – (from May 2012. as Full Research Professor) of the scientific project named: Application of EIIP/ISM bioinformatic platform in discovery of new therapeutic targets and potential therapeutic molecules, of Ministry of Science of Republic of Serbia, with principal investigator Professor Veljković, Institute of Nuclear Sciences - Vinča, University of Belgrade (173001).
- **2017-2021** - Research Associate of the COST research project HORISON 2020/COST Action CA16205: European Network on Understanding Gastrointestinal Absorption-related Processes:
http://www.cost.eu/COST_Actions/ca/CA16205
- **2016-2020** - Research Associate and Member of the Management Committee of the COST research project HORISON 2020/COST Action CA15135: Multi-target paradigm for innovative ligand identification in the drug discovery process (MuTaLig). http://www.cost.eu/COST_Actions/ca/CA15135
- **2015-2019** - Research Associate and Member of the Management Committee of the COST research project Horison 2020/COST CM1406 Action named: Epigenetic Chemical Biology (EPICHEM)
http://www.cost.eu/COST_Actions/cmst/Actions/CM1406
- **2013-2017** - Research Associate and Member of the Management Committee of the COST research project FP7/COST CM1207 Action named: GLISTEN: GPCR-Ligand Interactions, Structures, and Transmembrane Signaling: a European Research Network.
http://www.cost.eu/COST_Actions/cmst/Actions/CM1207
- **2011-2015** - Research Associate and Member of the Management Committee of the COST research project FP7/CM1103 Action named: Structure-based drug design for diagnosis and treatment of neurological diseases: dissecting and modulating complex function in the monoaminergic systems of the brain.
http://www.cost.eu/COST_Actions/cmst/Actions/CM1103
- **2008-2011** - Research Associate and Member of the Management Committee of the COST project – European Cooperation in the field of Scientific and Technical Research, named: “Free Radicals in Chemical Biology (CHEMBIORADICAL)“ Action CM0603.
- **2007-2010** - Research Associate on the science project named: “Synthesis, Quantitative Structure/Properties and Activity Relationship studies, Physico-Chemical Characterization and Analysis of Pharmacologically Active Substances“, of Ministry of Science of Republic of Serbia, principal investigator

Professor Danica Agbaba, Department of Pharmaceutical Chemistry and Drug Analysis, Faculty of Pharmacy, University of Belgrade (142071).

- **2008-2009** – Research Associate on Bilateral project: Slovenia and Republic of Serbia named: Determination of active ingredients in dietary supplements.
- **2001-2005** - Research Assistant on international project named: Synthesis, anticancer and antioxidant activities of mixed selenium - tocopherol antioxidants, principal investigator Professor Anastasios Keramidas, Faculty of Chemistry, University of Nicosia, Cyprus.

Selected publications:

- S. Filipic, K. Nikolic, I. Vovk, M. Krizman, D. Agbaba, Quantitative structure-mobility relationship analysis of imidazoline receptor ligands in CDs-mediated CE, *Electrophoresis*, 34, 471-482 (2013).
- B. M. Ivkovic, K. Nikolic, B. B. Ilic, Z. S. Zizak, R. B. Novakovic, O. A. Cudina, S. M. Vladimirov, Phenylpropiophenone derivatives as potential anticancer agents: Synthesis, biological evaluation and quantitative structure activity relationship study, *European Journal of Medicinal Chemistry*, 63, 239-255 (2013).
- O.M. Bautista-Aguilera, A. Samadi, M. Chioua, K. Nikolic, S. Filipic, D. Agbaba, E. Soriano, L. Andrés, M.I. Rodríguez-Franco, S. Alcaro, R.R. Ramsay, F. Ortuso, M. Yañez, J.M. Contelles. N-Methyl-N-((1-methyl-5-(3-(1-(2-methylbenzyl)piperidin-4-yl)propoxy)-1H-indol-2-yl)methyl)prop-2-yn-1-amine, a New Cholinesterase and Monoamine Oxidase Dual Inhibitor. *Journal of Medicinal Chemistry* 57, 10455-10463 (2014).
- K. Nikolic, L. Mavridis, O.M.B. Aguilera, J.M. Contelles, H. Stark, M. Carreiras, I. Rossi, P. Massarelli, D. Agbaba, R.R. Ramsay, J.B.O. Mitchell. Predicting targets of compounds against neurological diseases using cheminformatic methodology. *Journal of Computer Aided Molecular Design* 29, 183–198 (2015).
- J. Vucicevic, K. Nikolic, V. Dobricic, D. Agbaba. Prediction of Blood – Brain Barrier Permeation of α -Adrenergic and Imidazoline Receptor Ligands using PAMPA technique and Quantitative-Structure Permeability Relationship analysis. *European Journal of Pharmaceutical Sciences* 68, 94-105 (2015).
- S. Butini, K. Nikolic, S. Kassel, H. Brückmann, S. Filipic, D. Agbaba, S. Gemma, S. Brogi, M. Brindisi, G. Campiani, H. Stark. Polypharmacology of dopamine receptor ligands. *Progress in Neurobiology* 142, 68-103 (2016).
- Z. Gagic, B. Ivkovic, T. Srdic-Rajic, J. Vucicevic, K. Nikolic, D. Agbaba. Synthesis of the vitamin E amino acid esters with an enhanced anticancer activity and *in silico* screening for new antineoplastic drugs. *European Journal of Pharmaceutical Sciences* 88, 59-69 (2016).
- J. Vucicevic, T. Srdic-Rajic, M. Pieroni, J.M. Laurila, V. Perovic, S. Tassini, E. Azzali, G. Costantino, S. Glisic, D. Agbaba, M. Scheinin, K. Nikolic, M. Radi, N. Veljkovic. A combined ligand- and structure-based approach for the identification of rilmenidine-derived compounds which synergize the antitumor effects of doxorubicin. *Bioorganic and Medicinal Chemistry* 24, 3174-83 (2016).

- S. Filipic, D. Ruzic, J. Vucicevic, K. Nikolic, D. Agbaba. Quantitative structure-retention relationship of selected imidazoline derivatives on α 1-acid glycoprotein column. *Journal of Pharmaceutical and Biomedical Anal.* 127, 101-111, (2016).
- L. Ismaili, B. Refouvelet, M. Benchekroun, S. Brogi, M. Brindisi, S. Gemma, G. Campiani, S. Filipic, D. Agbaba, G. Esteban, M. Unzeta, K. Nikolic, S. Butini, J.M. Contelles. Multitarget compounds bearing tacrine- and donepezil-like structural and functional motifs for the potential treatment of Alzheimer's disease. *Progress in Neurobiology* 151, 4-34 (2017).