**NAME AND SURNAME: Selma Špirtović-Halilović**

**Work experience:**

* 2017 – present

**Associate professor**

University of Sarajevo, Faculty of Pharmacy

Department of Pharmaceutical chemistry

* 2013-2017.

**Assistant profesor**

University of Sarajevo, Faculty of Pharmacy

Department of Pharmaceutical Chemistry

* 2007-2013.

**Senior Teaching and Research Assistant**

University of Sarajevo, Faculty of Pharmacy

Department of Pharmaceutical Chemistry

* 2004-2007.

**Teaching and Research Assistant**

University of Sarajevo, Faculty of Pharmacy

Department of Pharmaceutical Chemistry

**Education:**

* *2013. Dr. sc*

Doctoral dissertation *:* "Synthesis, structure and biological assay of 3-cinnamoyl-4-hydroxycoumarin derivatives"

University of Sarajevo, Faculty of Pharmacy

* 2008. Spec.

*Specialist exam in Sanitary Chemistry*

* *2007. Mr sc*

*Masterʼs thesis:*"Determination of lipophilicity and QSPR / QSAR studies of synthesized 3-substituted 4-hydroxycoumarin derivatives"

University of Sarajevo, Faculty of Pharmacy

* *2001. Mr.ph.*

Master of Pharmacy*: Comparative testing of flavonoids in drugs Sambuci flos, Verbasci flos, Tiliae flos*

University of Sarajevo, Faculty of Pharmacy

* **Study visits abroad**

Faculty of Pharmacy and Biochemistry, University of Zagreb

**Academic/teaching work:**

* ***Integrated study of Ist and 2nd Cycle at Faculty of Pharmacy, University of Sarajevo***

**Subjects:** Pharmaceutical Chemistry I, Pharmaceutical Chemistry II, Selected Chapters in Pharmaceutical Chemistry: Drug Design, Selected Chapters in Pharmaceutical Chemistry: Drugs for the Treatment of Influenza and Cold, Selected Chapters in Pharmaceutical Chemistry: Metabolic Drug Stability and Strategies for Increasing Metabolic Stability.

* ***Doctoral Study*** ***at Faculty of Pharmacy, University of Sarajevo***

**Subjects**: Drugs in Space, Drug Research, Design and Development, Molecular Basics of Pharmaceutical Chemistry, Role of Bioinformatics in Drug Design, Application of QSAR and QSPR in Drug Design

**Other academic positions and involments:**

* 2021-present: Head of the Department of Pharmaceutical Chemistry
* 2019- present: Teacher responsible for the subject: Selected Chapters in Pharmaceutical Chemistry: Drugs for the Treatment of Influenza and Cold
* 2017-2019: Member of the Quality Assurance Committee of the Faculty of Pharmacy, University of Sarajevo
* 2013-2016: Member of the Staff Council of the Faculty of Pharmacy, University of Sarajevo

**Projects:**

* Stereoselective separation of the enantiomers of NSAID drugs by use biocatalysts, 2003,. Bosnia and Herzegovina, Cantonal Ministry of Education and Science. **(**participant in the project)
* Synthesis and QSPR/QSAR study of coumarin derivatives, 2003, Bosnia and Herzegovina, Federal ministry of education and science, 2003-2004. (participant in the project)
* Experimental and computer-based determination of lipophilicity (logP, logD) of biologically active 3-substituted 4-hydroxycoumarin derivatives. Bosnia and Herzegovina, Federal ministry of education and science, 2005-2006. **(**participant in the project)
* Development of novel C-5 fluoroalkyl N-acyclic pyrimidine nucleoside analogs as PET tracer for in situ monitoring of gene and cell-based therapies using HSV1-TK as a reporter gene. International project financed by Swiss National funds for the

promotion of scientific research: SCOPES 2009-2012. **(**participant in the project)

* Investigations of bioactivity newly synthesized 3-substituted-4-hydroxycoumarin derivatives. Bosnia and Herzegovina, Ministry of Education, Science, Culture and Sports FBiH, 2011-2012. **(**participant in the project)
* Application of green chemistry in development and synthesis of biologically active xanthenes and biscoumarins. 2013, Bosnia and Herzegovina, Federal ministry of education and science. **(**participant in the project)
* New analogues of acyclic nucleosides – synthesis, structure and biological activity. 2013, Bosnia and Herzegovina, Federal ministry of education and science.(project manager)
* Modelling and docking studies of new potent azomethine thymoquinone derivatives and their organometallic complexes. 2014, Bosnia and Herzegovina, Federal ministry of education and science. **(**participant in the project)
* Neural networks and QSAR in the design and synthesis of pharmacologically active xanthenes. 2016, Bosnia and Herzegovina, Federal ministry of education and science. **(**participant in the project)
* Investigation of antitumor, antioxidant and microbiological effects of synthesized tetraketone derivatives. 2016, Bosnia and Herzegovina, Cantonal Ministry of Education and Science. **(**participant in the project)
* Improvement of solubility and biological activity of 3-cinnamoyl-4-hydroxycoumarin derivatives by inclusion complexation with hydrophilic β-cyclodextrin derivatives. 2017, Bosnia and Herzegovina, Federal ministry of education and science. **(**participant in the project)
* Chemical composition and antioxidant potential of edible wild mushrooms of Bosnia and Herzegovina. 2017, Bosnia and Herzegovina, Federal ministry of education and science. **(**participant in the project)

| * The importance of determining the parameters of oxidative stress, inflammation and hemostasis in the early diagnosis of obesity in the pediatric population,2017, Bosnia and Herzegovina, Federal Ministry of Education and Science. (participant in the project)
* Health risk assessment based on the content of harmful substances of chemically analyzed wood biomass (pellets and briquettes) available on the Bosnian market. Bosnia and Herzegovina, Federal ministry of education and science 2019. **(**participant in the project)
* Investigation of antiproliferative activity and toxicity of synthesized xanthene derivatives. 2021, Bosnia and Herzegovina, Ministry of High Education Science and Youth of Canton Sarajevo. (participant in the project)
* Compounds from marine organisms: in silico screening for potential drug against SARSCoV-2. 2021, Bosnia and Herzegovina, Ministry of High Education Science and Youth of Canton Sarajevo. (project manager)
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**Selected publications:**

* **Špirtović-Halilović S.**, Završnik D. Computer programs for calculating p*K*a: a comparative study for 3-(3-(2-nitrophenyl)prop-2-enoyl)-2*H*-1-benzopyran-2-one. Journal of the Serbian Chemical Society, 2010; 75(2): 243–248.
* **Špirtović-Halilović S**., Završnik D., Imamović B., Bečić E. Distribution Coefficient of Coumarin-Based Compounds Containing a Chalcone Moiety. International Journal of Pharmacy Teaching and Practices, 2013; 4 (1): 489-491.
* **Špirtović-Halilović S.,** Salihović M., Džudžević-Čančar H., Trifunović S., Roca S., Softić Dž., Završnik D. DFT study and microbiology of some coumarin-based compounds containing a chalcone moiety. Journal of the Serbian Chemical Society, 2014; 79 (4): 435–443.
* **Špirtović-Halilović S.,** Salihović M., Trifunović S., Roca S., Veljović E., Osmanović A., Vinković M., Završnik D. Density functional theory: 1H and 13C NMR spectra of some coumarin derivatives. Journal of the Serbian Chemical Society, 2014; 79 (11):1405–1411.
* Salihović M., Osmanović A., **Špirtović-Halilović S.**, Roca S., Meščić A., Vujisić, L., Trifunović S., Završnik D., Sofić. Synthesis, structural, conformational and DFT studies of N-3 and O-4 alkylated regioisomers of 5-(hydroxypropyl) pyrimidine. Journal of Molecular Structure, 2015; 1091: 170-176.
* **Špirtović-Halilović S.**,Salihović M., Osmanović A., Veljović E., Huremović M., Nuhanović M., Završnik D. Antioxidant activity of 2,6,7-trihidroxy-9-(4-hydroxyphenyl)xanthen-3-ones: Theoretical Investigation of Substituents Effects. Journal of Chemical, Biological and Physical Sciences, 2016; 7(1): 001-008.
* E. Veljović, **S. Špirtović-Halilović**, S. Muratović, A. Osmanović, S. Haverić, A. Haverić, M. Hadžić, M. Salihović, M. Malenica, D. Završnik. Antiproliferative and genotoxic potential of synthesized xanthene-3-on derivatives. Acta Pharmaceutica, 2019; 69(4):683-694.
* Salihović M., Pazalja M., Mahmutović-Dizdarević I., Jerković-Mujkić A., Suljagić J., **Špirtović-Halilović S.,** Šapčanin A. Synthesis, DFT study and antimicrobial activity of schiff bases derived from benzaldehydes and amino acids. Rasayan Journal of Chemistry, 2018; 11(3): 1074-1083.
* Glamočlija U., Subhash Padhye, **Špirtović-Halilović S.**, Osmanović A.,Veljović E., Roca S., Novaković I., Mandić B., Iztok Turel , Jakob Kljun ,Trifunović S., Kahrović E., Sandra Kraljević Pavelić , Harej A., Klobučar M., Završnik D. Synthesis, biological evaluation and docking studies of benzoxazoles derived from thymoquinone. Molecules,  2018, 23(12), 3297.
* **Špirtović-Halilović S**.,Veljović E., Salihović M., Osmanović A., Šapčanin A., Softić Dž., Roca S., Trifunović S., Škrijelj N., Škrbo S., Selmanagić A., Završnik D.[Synthesis, Microbiological Activity and In Silico Investigation for Some Synthesized Coumarin Derivatives](https://hrcak.srce.hr/index.php?show=clanak&id_clanak_jezik=350175). [Croatica Chemica Acta](https://hrcak.srce.hr/cca), 93 (1), 2020:23-31.