**NAME AND SURNAME: Associate Professor Maja Malenica, PhD, specialist in Medical biochemistry**

**Working expirience**

* 2020 Associate Professor in Clinical Chemistry

Department of Pharmaceutical Biochemistry and Laboratory Diagnostics,Faculty of Pharmacy, University of Sarajevo (<http://www.ffsa.unsa.ba/>)

* 2015. Assistant Professor in Clinical Chemistry

Department of Pharmaceutical Biochemistry and Laboratory Diagnostics, Faculty of Pharmacy, University of Sarajevo

* 2011. Senior research and teaching assistant

Department of Biochemistry and Clinical Analysis, Faculty of Pharmacy, University of Sarajevo

* 2003. Research and teaching assistant

Department of Biochemistry and Clinical Analysis, Faculty of Pharmacy, University of Sarajevo

**Education**

* *2014. Dr. sc- PhD (Pharmaceutical Sciences)*

*PhD thesis title : „Importance of determination of uric acid concentration, C-reactive protein, fibrinogen and interleukin-6 serum as potential biomarkers in predicting and progression of Type 2 diabetes mellitus and prediabetes”*

*University of Sarajevo, Faculty of Pharmacy*

* 2008. Specialization

*Specialistion in Medical biochemistry*

* *2010. M.Sc.- Master of Pharmaceutical Sciences*

*Thesis title: „Aspartate aminotransferase, alanine aminotransferase, gamma glutamiltranspeptidase and alkaline phosphatase: Potential markers in development of precision type 2 diabetes“.*

University of Sarajevo*, Faculty of Pharmcy*

* *2002. M Pharm*

*Diploma paper: „Optimization of the concentration of individual components of lysis buffer in the process of DNA isolation by salting process“.*

University of Sarajevo*, Faculty of Pharmcy*

* **Education and training**
* (2016)- CEEPUS III- Central European Excange Program University Study,

Chair of Clinical Chemistry, Faculty of Pharmacy, University of Belgrade, Belgrade, Serbia

Analysis of parameters oxidative stress associated with type 2 diabetes , obesity and metabolic syndrome

* (2015)- CEEPUS III- Central European Excange Program University Study,

Chair of Clinical Chemistry, Faculty of Pharmacy, University of Ljubljana, Ljubljana, Slovenia

International CEEPUS Summer Schol on Complex disease, Slovenia, Portoroz

* (2015)- FEBS Workshop on Molecular Life Science Education, Association of Biochemists and Molecular Biologists In BiH- Faculty of Medicine, University of Sarajevo
* (2014)- CEEPUS III- Central European Excange Program University Study,

Merkur University Hospital, Vuk Vrhovac University Clinical for Diabetes, Endocrinology and metabolic disease, Zagreb, Croatia

Endocrinology Type 2 diabetes mellitus, gestation diabetes mellitus, obesity and metabolic syndrome, metabolic disease

* (2012)- CEEPUS III- Central European Excange Program University Study,

Chair of Biochemistry and Molecular Biology Faculty of Pharmacy and Biochemistry, University of Zagreb, Zagreb, Croatia

Analysis of genetic variants associated with type 2 diabetes, obesity and metabolic syndrome

* (2005)- Faculty of Natural Sciences University of Sarajevo, Sarajevo B&H

Importance of Gas Analyzes in Clinical Diagnostics and Modern Approach to QC Diagnostics and WDC (World wide data check)

* (2004)- Faculty of Chemistry and Chemical Technology - Maribor, Slovenia,

Obtaining extracts of natural ingredients and determining pharmacological and toxicological properties

**Teaching work**

* *Integrated study of 1st and 2nd cycle of Faculty of Pharmacy, University of Sarajevo*

*Teaching Subjects:*

Clinical Biochemistry I

Clinical Biochemistry II

Medical biochemistry

Selected Topics in Clinical Biochemistry II-Biomarkers

University of Sarajevo „Professor Zdravko Grebo“ Center for Interdisciplinary Studies (CIS)-

Nutritionism

Teaching Subjects:

food chemistry and biochemistry

* III cycle of studies at the Faculty of Pharmacy, University of Sarajevo

*Teaching Subjects:*

* A modern approach in the diagnosis and monitoring of diabetes mellitus
* Fundamentals of molecular diagnostics in clinical biochemistry
* Molecular basis of disease
* Oxidative stress in the pathogenesis of disease with reference to biomarkers

**Specializations**

* Mentor and examiner for specialization in Medical Biochemistry and laboratory diagnostics

**Activities at the Faculty:**

* 2021-Head of the Department of Department of Pharmaceutical Biochemistry and Laboratory Diagnostics
* 2018-on going

Member of the Quality Assurance Committee of the Faculty of Pharmacy, University of Sarajevo

**Projects:**

**International projects:**

2021-2025 Erasmus+ project for Capacity Building in the field of Hgiher Education - CBHE

,,Innovating quality assessment tools for pharmacy studies in Bosnia and Herzegovina“ (IQPharm).

Project leader: Prof.dr Tamer Bego

2018-2020 Wellcome Trust. Seed Award in Science

Project title: "Interaction between omeprazole and gliclazide in CYP2C19 normal/ ultrarapid metabolisers" (209943/Z/17/Z).

Project leader: Doc.dr. Tanja Dujić

**Projects funded by the Federal Ministry of Science and Education:**

2017-2019

Project title:“ Importance of determination of parameters of oxidative stress, inflammation and hemostasis in early diagnosis of obesity in the pediatric population“.

Project leader: Doc.dr. Maja Malenica

2017- 2019

Project title: „"Improving Solubility and Biological Activity of 3-Cinnamyl-4-Hydroxycumarin Derivatives by Inclusion by Complexing with Hydrophilic Biciklodextrin Derivatives“

Project leader: Doc.dr. Jasmina Hadžiabdić

Project title: „Neuronal Networks and QSAR in designing and synthesizing pharmacologically active xanthenes“.

Project leader: Doc.dr Elma Veljović

2012-2014

Project title: “Pharmacogenetic factors associated with optimal therapy of Type 2 diabetes“

Project leader: Prof.dr. Sabina Semiz

• **Projects funded by the Ministry of Education, Science and Youth-Sarajevo Canton:**

2023-2024, Ministry of Education, Science and Youth of Sarajevo Canton, „Pharmacogenetic markers of empagliflozin treatment effects“, leader of the project: Prof. dr Tanja Dujić

2021-2022

Project title: "Analysis of potential biomarkers in early diagnosis, monitoring the status and outcome of patients with COVID-19 "

Project leader: Prof.dr Tamer Bego

2021-2022

Project title: "Examination of antitumor activity and toxicity of synthesized xanthenes". Project leader: Prof.dr Elma Veljović

Project title: „Investigation of antitumor, antioxidant and microbial effects of synthesized tetraketone derivatives“ .

Project leader: Doc.dr. Elma Veljović

Project title: „Aspartate aminotransferase, alanine aminotransferase, alkaline phosphatase as potential markers in the prediction of progressive changes in type II diabetes mellitus“.

Project leader: Prof.dr. Adlija Čaušević

**Projects funded by the Council of Ministers of Bosnia and Herzegovina:**

2013-2014 Programs for the preparation of projects and potential applicants for EU-FP7 funding for 2013.

Project title: „Personalized Therapy of Type 2 Diabetes Through European Research Network“

Projekct leader: Prof.dr. Sabina Semiz

* 1. Programs for the preparation of projects and potential applicants for EU-FP7 funding for 2010.

Project title: „, “Genetic Variations of Drug-metabolizing enzymes in Type 2 Diabetes“. Project leader: Doc.dr. Sabina Semiz

* 1. Programs for the preparation of projects and potential applicants for EU-FP7 funding for 2010.

Project title: „Characterization of genetic variation in the European population for the safe and efficient use of statins for the prevention of cardiovascular diseases“.

Project leader: Doc.dr. Sabina Semiz

* **Projects funded by the Ministry of Civil Affairs of Bosnia and Herzegovina:**

Scientific-research cooperation between the Republic of Slovenia and BiH.

Project title: „Genetic polymorphisms associated with metabolic syndrome“.

Project leader: Prof.dr. Adlija Čaušević

* **Selected publications**

1. Osmanović A, Salihović M, Veljović E, Hindija L, Pazalja M, Malenica M, Selmanagić A, Špirtović-Halilović S. Marine origin vs. synthesized compounds: in silico screening for a potential drug against SARS-CoV-2. Sci. Pharm.2025:93 (1),2. <https://doi.org/10.3390/scipharm93010002>
2. Meseldžić N, Prnjavorac B, Tanja, Dujić1 T, Malenica M, Glamočlija U, Prnjavorac L, Bedak O, Imamović Kadrić S, Marjanović D, Bego T. Association of ACE2 and TMPRSS2 genes variants with disease severity and most important biomarkers in COVID-19 patients in Bosnia and Herzegovina. Croat Med J. 2024;65:230-241. <https://doi.org/10.3325/cmj.2024.65>.
3. Malenica M, Klisic A, Meseldzic N, Dujic T, Bego T, Kotur-Stevuljevic J. Principal component analysis of the oxidative stress, inflammation, and dyslipidemia influence in patients with different levels of glucoregulation. J Med Biochem. 2023. 42: 1–10.
4. Klisic A, Malenica M, Kostadinovic J, Kocic G, Ninic A. Malondialdehyde as an independent predictor of body mass index in adolescent girls. J Med Biochem. 2023; 42: 1–8
5. Dujic T, Cvijic S, Elezovic A, Bego T, Imamovic Kadric S, Malenica M, Elezovic A, Pearson ER, Kulo A. Interaction between Omeprazole and Gliclazide in Relation to CYP2C19 Phenotype. J.Pers. Med. 2021, 11, 367. <https://doi.org/10.3390/jpm11050367>
6. Tihić Kapidzić, Čauševic A, Fočo Solak J, Malenica M, Dujić T, Hasanbegović S, Babić N, Begović E. Assessment of hematologic indices and their correlation to hemoglobin a1c among Bosnian children with type 1 diabetes mellitus and their healthy peers. J Med Biochem. 2021, 40: 181–192.
7. Prnjavorac B, Mujaković A, Prnjavorac L, Bego T, Jusufović E, Begić E, Torlak-Arnaut V, Mutapčić M, Škiljo H, Hodžić E, Karahmet E, Malenica M, Dujić T, Mehić J, Irejiz N, Sejdinović R, Mahmutović A, Ibrahimović A. Chest x-ray resolution after SARS-CoV-2 infection. Med. Glas. 2021. 18(2):370-377.
8. Veljović E, Špirtović-Halilović S, Muratović S, Osmanović A, Haverić S, Haverić A, Hadžić M, Salihović M, Malenica M, Šapčanin A, Završnik D. Antiproliferative and genotoxic potential of xanthen-3-one derivatives. Acta Pharm. 69(2019); 683–694 http://doi.org/10.2478/acph-2019-0044.
9. Dujic T, Bego T, Malenica M, Velija-Asimi Z, Ahlqvist E, Groop L, Pearson ER, Causevic A, Semiz S. Effects of TCF7L2 rs7903146 variant on metformin response in patients with type 2 diabetes. Bosn Journal of Basic Medical sciences. 2019.May 9 2019 (Epub ahead of print).
10. Bego T, Čaušević A, Dujić T, Malenica M, Velija-Asimi Z, Prnjavorac B, Marc J, Nekvindová J, Palička V, Semiz S. Association of FTO Gene Variant (RS8050136) with Type 2 Diabetes and Markers of Obesity, Glycaemic Control and Inflammation. J Med Biochem. 2019; 38(2):153-163.
11. Malenica M, Šilar M, Dujić T, Bego T, Semiz S, Škrbo S, Prnjavorac B, Čaušević A. Importance of inflammatory markers and IL-6 for diagnosis and follow up of patients with type 2 diabetes mellitus. Med Glas. 2017; 14(2): 169-175.
12. Suljić U, Prnjavorac B, Bego T, Malenica M, Dujić T, Prnjavorac I. The role of metabolic therapy with trimetazidine in effort tolerance in patients with ischemic heart diseas. Med Glas. 2018; 15(2): 109-114.
13. Dujic T, Causevic A, Bego T, Malenica M, Velija-Asimi Z, Pearson ER, Semiz S. The OCT1 reduced-function polymorphisms are associated with common metformin-induced gastrointestinal side-effects, Diabetic Med., 2015; 33(4):511-514.
14. Malenica M, Prnjavorac B, Bego T, Dujic T, Semiz S, Skrbo S, Gusic A, Hadzic A, Causevic A. Effect of Cigarette Smoking on Hematological Parameters in Healthy Population. Medical Archives. 2017: 71(2):132-136.
15. Semiz S, Dujic T, Ostanek B, Prnjavorac B, Bego T, Malenica M, Marc J, Causevic A. Analysis of CYP2C9\*2, CYP2C19\*2, and CYP2D6\*4 polymorphisms in patients with type 2 diabetes mellitus, Bosnian Journal of Basic Medical Sciences, 2010;10:287-91.
16. Čaušević J.A, Semiz S, Macić-Džanković A, Cico B, Dujić T, Malenica M, Bego T. Relevance of uric acid in progression of type 2 diabetes mellitus. Bosnian Journal of Basic Medical Sciences, 2010; 10: 54-59
17. Dujić T, Čaušević A, Malenica M. The effects of different concentrations of acetylsalicylic acid on proliferation and viability of lymphocytes in cell culture. Bosnian Journal of Basic Medical Sciences, 2008; 3: 210-213

Books:

2020.

Maja Malenica, Adlija Causevic, Tanja Dujic, Tamer Bego, Besim Prnjavorac, Amela Dizdarevic-Bostandzic. "Type 2 Diabetes New Perspectives in Prevention, Diagnosis and Treatment" ISBN 978-9958-17-162-8