



Serbian Biochemical Society
XIII Conference
“Amplifying Biochemistry Concepts”
Kragujevac, September 19-20, 2024

PROGRAMME

Day 1 – Thursday, September 19th, 2024

8:30 – 10:00	Participants registration and posters posting & Welcome cocktail	
10:00 – 10:15	Opening ceremony	
Section 1	Chairs: Milica Popović and Natalija Polović	
10:15 – 11:00	PL1	Bela Gyurcsik University of Szeged, Department of Molecular and Analytical Chemistry, Szeged, Hungary Environmental effects on enzyme efficiency involved in bacterial defence systems. Plenary /FE BS3+ Lecture
11:00 – 11:30	IL1	Jelica Milošević University of Belgrade - Faculty of Chemistry, Belgrade, Serbia Peptide inhibitors of amyloid aggregation Invited lecture
11:30 – 12:15	Coffee Break	
Section 2	Chairs: Marijana Stojanović and Miloš Matic	
12:15 – 12:45	IL2	Ana Obradović University of Kragujevac, Faculty of Science, Department of Biology and Ecology, Kragujevac, Serbia Hydantoin derivatives: Harnessing antitumor potential and immunomodulation Invited lecture
12:45 – 13:15	IL3	Suzana Stanisavljević Institute for Biological Research "Siniša Stanković", University of Belgrade, Belgrade, Serbia Transcription factor NRF2 as a key modulator of immune response Invited lecture
13:15 – 13:30	OP1	Maja Krstić Ristivojević University of Belgrade - Faculty of Chemistry, Department of Biochemistry, Centre of Excellence for Molecular Food Sciences, Belgrade, Serbia Interaction of beef meat extract proteins and microplastics in simulated gastrointestinal conditions Oral presentation
13:30 – 15:00	Poster Session 1 and 2 & Lunch break	
Section 3	Chairs: Milena Milutinović and Suzana Jovanović Šanta	
15:00 – 15:30	IL4	Nikola Stojanović University of Niš, Faculty of Medicine, Niš, Serbia Neuroinflammation in Schizophrenia and other psychotic disorders

Invited lecture

15:30 – 15:45 OP2 **Milica Markelić**
University of Belgrade – Faculty of Biology, Belgrade, Serbia
Protective effects of H₂S donors against injury of endocrine pancreas in diabetic mice include antiferroptotic action
Oral presentation

15:45 – 16:00 OP3 **Olgica Stefanović**
University of Kragujevac, Faculty of Science, Department of Biology and Ecology, Kragujevac, Serbia
Plant-derived metabolites affect different stages of biofilm formation of pathogenic bacteria
Oral presentation

16:00 – 16:15 OP4 **Nemanja Živanović**
University of Novi Sad, Faculty of Sciences, Department of Chemistry, Biochemistry and Environmental Protection, Novi Sad, Serbia
Rose oil distillation wastewater as a new source of pharmacologically active compounds
Oral presentation

16:45 – 18:00 **Guided tour**

20:00 – 24:00 **Conference dinner**

Day 2 – Friday, September 20th, 2024

8:30 – 10:00 **Participants registration and posters posting**

Section 4 **Chairs: Nevena Tomašević and Jelena Kotur Stevuljević**

10:00 – 10:45 PL2 **Manfred Jung**
University of Freiburg, Faculty of Chemistry and Pharmacy, Institute of Pharmaceutical Sciences, Freiburg, Germany
Chemical epigenetics – modulators of reversible lysine acetylation and methylation
Plenary Lecture

10:45 – 11:15 IL5 **Jelena Munjas**
University of Belgrade, Faculty of Pharmacy, Department of Medical Biochemistry, Belgrade, Serbia
Gene expression of lipid transporters in peripheral blood mononuclear cells in pregnant women: A longitudinal study
Invited lecture

11:15 – 12:00 **Coffee Break**

Section 5 **Chairs: Miloš Šunderić and Željko Popović**

12:00 – 12:30 IL6 **Dragana Robajac**
University of Belgrade - Institute for the Application of Nuclear Energy
Glycans in health and disease
Invited lecture

12:30 – 13:00 IL7 **Marija Lesjak**

University of Novi Sad, Faculty of Sciences, Department of Chemistry, Biochemistry and Environmental Protection, Novi Sad, Serbia

The influence of plant-based food on the bioavailability of iron

Invited lecture

13:00 – 13:15 OP5 **Edhem Hasković**

University of Sarajevo, Faculty of Science, Department of Biology, Sarajevo, Bosnia and Herzegovina

Effect of trioxohydroxytetrafluorotriborate on hematological parameters *in vivo*

Oral presentation

13:15 – 14:45 **Poster Session 3 and 4 & Lunch break**

Section 6 **Chairs: Jelica Milošević and Ana Obradović**

14:45 – 15:15 IL8 **Marko Stojanović**

University of Belgrade, Faculty of Medicine, Department of Pharmacology, Belgrade, Serbia

Unlocking the Potential: Harnessing Biomarkers Commonly Used in Clinical Practice to Predict Complications and Outcomes in Febrile Neutropenia

Invited lecture

15:15 – 15:30 OP6 **Darko Mihaljica**

University of Belgrade, Institute for Medical Research, National Institute of Republic of Serbia, Belgrade, Serbia

Preliminary characterization of putative tick cement protein PA107 – implications for possible applications in biomedicine

Oral presentation

15:30 – 15:45 OP7 **Nenad M. Zlatić**

University of Kragujevac, Faculty of Science, Department of Biology and Ecology, Kragujevac, Serbia

Secondary metabolites and biological activity of *Teucrium montanum* L. (Lamiaceae)

Oral presentation

16:00 – 16:15 **Poster and oral presentation awards and closing ceremony**

Poster Session 1

P101 Aleksandar Ivanov

The potential of R-phycoyanin as an albumin substitute for cell growth in meat cultivation

P102 Ana Budimirović

Optimization of spectrofluorimetric assay for screening of opine dehydrogenase mutant libraries

P103 Ana Stanojević

Isolation of Ara h 1 from raw and roasted peanuts, evaluation of immunoreactivity, and monitoring allergen binding to THP-1 macrophages

P104 Anđelo Beletić

The agreement between spectrophotometric and ELISA assay for haptoglobin concentration in cow milk

P105 Anja Stošić

Effect of crosslinking cations on the activity of *T. versicolor* laccase immobilized within alginate hydrogel beads

P106 Anka Todosijević

Antimicrobial activity of 2-(2-ferrocenyl-4-oxothiazolidin-3-yl)acetic acid and its ethyl derivative

P107 Azra Guzonjić

Evaluation of GSH/GSSG and CyS/CySS as oxidative stress markers in small cell lung cancer patients undergoing chemotherapy in Serbia

P108 Budimir S. Ilić

Crystallography-driven drug design: Unlocking potent VMAT2 inhibitors for Huntington's disease

P109 Daria Maria Monti

Assessment of caspase modulation in human epidermoid carcinoma cells (A431) treated with silver nanoparticles synthesized using plant extract

P110 David Fekete

High-affinity binding of concanavalin A to B-phycoerythrin

P111 David Pirić

Global research trends in diffuse large B-cell lymphoma

P112 Faiza Zafar

Peanut allergens affected intestinal barrier function in human intestinal epithelial cell lines Caco-2 and T84

P113 Gligoriije Gligorić

A novel approach to extracellular vesicles staining facilitates their tracking during cellular uptake

P114 Iva Uzelac

Effect of prolonged heat stress on the activity of four important metabolic enzymes during diapause of the European corn borer *Ostrinia nubilalis* (Hbn.)^{20 21}

P115 Ivana Beara

Bermet wine polyphenolics as modulators of lipase activity *in vitro*

P216 Ivana Ivelja

Hepatotoxic effects of perfluorooctanoic acid on female Swiss mice

Poster Session 2

P201 Jelena Purać

Molecular insights into aging in honey bees: RNA-Seq analysis of winter worker bees across different age groups

P202 Jelena Radović

Investigation of the effect of algal chromopeptides on the activity of the SARS-CoV-2 main protease Mpro

P203 Jelena Spremo

Evaluation of vitellogenin content in worker honey bees (*Apis mellifera* L.) during ageing

P204 Jovana Jagodić

Exploring trace elements in adrenal tissues: New insights into Cushing's syndrome

P205 Jovana Matic

Interactions of 2-thiohydantoin derivatives with DNA and human serum albumin as a part of their cytotoxic activity against human breast adenocarcinoma

P206 Jovana Stevanović

Diagnostic significance of miR-146a, miR-21 and miR-155 from PBMCs in gestational diabetes

P217 Ljiljana Milovanović

Bioactivity profiling of wine from Vojvodina: Antioxidant potential of Bermet wine

P208 Marija Marin

Potential biological activity of the aqueous extract of *Fumana bonapartei* Maire et Petitm. from the serpentine substrate of the Rogozna mountain

P209 Marija Novaković

Antioxidative potential of *Quercus pericarp*

P210 Marija Opačić

Long-term low-level exposure to perfluorooctanoic acid affects the survival of human endothelial cells *in vitro*

P211 Marija Paunović

Impact of aromatase inhibitor therapy on plasma phospholipid profiles in women with breast cancer

P212 Marija Stanišić

Immobilization of chemically modified glucose-oxidase by biomineralization in ZIF-8

P213 Marija Stojadinović

Assessing the FBS-substituting potential of algal and cyanobacterial extracts for cell-based meat cultivation

P214 Marija Tanović

Application of ³¹P NMR spectroscopy in the study of the interaction of Mn(II) with polyphosphate compounds in the green microalgae *Chlorella sorokiniana*

P215 Marijana Janić

Comparison of chemical composition and antioxidant activity of *Salvia officinalis* L. ethanolic leaves extracts

P301 Marijana Kovačić

The expression of terminal monosaccharides on immune complexes IgG glycans in rheumatoid arthritis

P302 Marijana Stojanović

PARP inhibitors increase NSCLC sensitivity to cisplatin via modulation of TET activity

P303 Marina Crnković

Changes in CAT and PPX activity induced by sodium deoxycholate in sunflower seedlings infected with *P. brasiliense* and *S. sclerotiorum*

P304 Maša Marković

Phenethyl ester of rosmarinic acid ameliorates acute respiratory distress syndrome

P305 Milena Milutinović

Potential of isorhamnetin to inhibit expression of membrane transporters associated with cancer cell resistance development

P306 Milica Crnoglavac Popović

***In situ* biomimetic mineralization of Laccase@ZIF**

P307 Milica Spasojević Savković

“Green” chemistry approach for preparation of hydrogels used for controlled drug delivery

P308 Miloš Filipović

Gaining insight into disordered and aggregated protein structure via ATR-FTIR spectroscopy

P309 Miloš Matić

Antitumor potential of ethanol *Lycium ruthenicum* extract on various human cancer cell lines

P310 Miloš Šunderić

Interaction of commonly used antioxidants with major circulating proteins: spectroscopic and *in silico* study

P311 Mina Janković

Our favorite spices: Is turmeric always only turmeric?

P312 Minja Derikonjić

Examination of biochemical indicators of cardiometabolic risk in patients with hypothyroidism

P313 Nevena Tomašević

Computational approaches to rational design isocoumarins as warheads for PROTACs against HDAC4 to treat SMA

P314 Nikola Radenković

Isorhamnetin activates apoptotic signaling pathways in colon cancer cells

P315 Olgica Stefanović

Macroalga *Cladophora glomerata* as a potential source of bioactive compounds

P316 Petar Jovanović

Effect of ferulic acid, hyperoside, and rutin on reactivity of human serum albumin Cys-34 thiol group

Poster Session 4

P401 Samo Kreft

Exploring the potential of *Calendula officinalis* L. extract to improve benzyl alcohol's effectiveness in cosmetic products

P402 Sanja Erceg

Adiponectin's potential as a predictor of non-alcoholic fatty liver diseases

P403 Sanja Krstić

Inhibitory effects of *Salvia verticillata* L. extracts on COX-1 and COX-2 enzymes: The influence of extraction methods

P404 Sara Milojević

Cytotoxic, proapoptotic, and antiferroptotic effects of *Amanita muscaria* on choriocarcinoma cells

P405 Sara Protić

Biom mineralization of two glucose oxidase mutants in ZIF-8

P406 Srđan Sokanović

Effects of long-term caloric restriction on lipid profile status and testosterone production in aged Wistar rats

P407 Stefan Blagojević

Dysregulation in expression of miRNA machinery genes *DICER1* and *AGO2* in endometrial adenocarcinoma

P408 Stefanela Kvrđić

Effect of calcium nanofertilizer on chemical composition and antioxidant activity of strawberry fruits

P409 Strahinja Pešić

Antioxidant activity of hexane and methanol acorn extracts of four *Quercus* species

P410 Tamara Lujić

Impact of chymotrypsin on physico-chemical properties of PET MNPs

P411 Tamara Todorović

Synthesis, characterization, and antitumor activity of alizarine derivatives

P412 Teodora Knežić

Insect larvae as alternative protein sources – expression of storage protein genes in non-diapausing larvae of the European corn borer *Ostrinia nubilalis* (Hbn.)

P413 Tijana Mićović

Antimicrobial activity of *Hyssopus officinalis* L. essential oils from Montenegro and Serbia

P414 Vanja Tatić

Tissue-specific expression of peptidoglycan recognition peptides in a non-model insect species

P415 Višnja Kosić

Characterization of free and immobilized pullulanase on modified bentonite: Sustainable enzyme immobilization

P416 Yaraslau Dzichenka

Identification of novel ligands of human cytochromes P450 among steroidal 1,2,4,5-tetraoxanes