



FINAL PROGRAM

(First version: August 2025)

Session Topics

1: Molecular evolution
2: Systems biology and bioinformatics
3: Regulation of gene expression
4: Biomarkers and therapeutics development
5: Molecular basis of disease
6: Design and structure of proteins
7: Genetics
8: Biotechnology
9: Bioactive compounds and metabolism
10: Cellular processes and signaling



DAY 1 Wednesday, 24 th September 2025		
13:00 - 15:15	Registration	
15:30 - 16:00	Opening Ceremony	
16:00 - 17:00	Plenary lecture: Balázs Papp, Hungary - Principles of metabolome evolution	
17:00 - 18:00	Topic 1: Molecular evolution	Topic 2: Systems biology and bioinformatics
17:00 - 17:30	Damir Baranašić, Croatia - Sequence determinants of transcription initiation and promoter architecture in vertebrates	Attila Csikász-Nagy, Hungary – From Yeast Cells to Digital Twins: Charting Cellular Networks for Disease and Drug Discovery
17:30 - 18:00	Bálint Csörgő, Hungary - Molecular tools for probing bacteriophage-host interactions in clinical pathogens	Naris Pojskić, BIH - Innovations in Bioinformatics Tools for the Analysis of Archeogenomics Data
18:30 - 20:00	Welcome reception	



DAY 2 Thursday, 25 th September 2025		
09:00 - 10:00	Plenary lecture: Jernej Ule, Slovenia - Protein-RNA feedback loops: roles in cellular homeostasis	
10:00 - 11:00	Topic 3: Regulation of gene expression	Topic 4: Biomarkers and therapeutics development
10:00 - 10:30	Erna Karalija, BIH - Heritage of Hardship: Transgenerational Stress Memory in Tomatoes	Olga Gornik, Croatia - N-glycosylation of complement component 3 (C3) as a potential target in type 1 diabetes
10:30 - 11:00	Rosa Karlič, Croatia - Decoding the interplay between the epigenome and mutational processes in cancer	Jelena Vekić, Serbia - Aspects of cardiometabolic risk in women: focus on pregnancy
11:00 - 11:30	Coffee break	
11:30 - 13:30	Short Talk Session 1	Short Talk Session 2
11:30 - 11:45	Srdana Đordjević, Serbia - The effect of spermidine on the transcriptome of honeybee workers (<i>Apis mellifera</i>): RNA-Seq differential gene expression analysis	TBA
11:45 - 12:00	Agnes Tantos, Hungary - Structural and Functional Effects Of Disease-Related Mutations of KMT2D	Zorana Lopandić, Serbia - Glycoengineered H1sD2 as a Novel Immunomodulatory Agent for Enhancing Allergen-Specific Immunotherapy
12:00 - 12:15	Dora Raos, Croatia - Crosstalk Between Androgen Receptor and Hedgehog-Gli Signaling Pathways Regulates PSA Expression in Prostate Cancer	Loretta Laszlo, Hungary - Stage-Dependent Remodeling of the RAS Network in Colon Adenocarcinoma
12:15 - 12:30	TBA	Matilda Šprung, Croatia - Quinuclidine-based quaternary ammonium compounds: a natural scaffold for antimicrobial innovation
12:30 - 13:30	Plenary lecture: Ana Cvejić, Denmark - Single-cell multi-omics map of human foetal blood in Down's syndrome	



DAY 2 Thursday, 25 th September 2025		
13:30 - 16:00	Lunch and Poster Presentations 1	
16:00 - 17:00	Topic 5: Molecular basis of disease	Topic 6: Design and structure of proteins
16:00 - 16:30	Naida Lojo-Kadrić, BIH - Genetic Basis of Coronavirus Associated Dysosmia and Dysgeusia	Marjetka Podobnik, Slovenia - Structural characterization of factors involved in DNA-protein crosslink repair
16:30 - 17:00	Iva Hafner Bratkovič, Slovenia - NLRP3 inflammasome and pyroptosis: from mechanisms to applications	Natalija Polović, Serbia - Amyloids - from pathological protein aggregates to promising nanomaterials
17:00 - 18:00	Short Talk Session 3	Short Talk Session 4
17:00 - 17:15	Alma Herić, BIH - Monitoring a patient with suspected myelodysplastic syndrome – case report	Eszter Nagy-Kanta, Hungary - Insights on the interaction between the postsynaptic GKAP and Shank scaffold proteins
17:15 - 17:30	Antonija Jurak Begonja, Croatia - Interleukin-1 Alpha Alters Megakaryocyte Maturation, Promotes Emperipoiesis, and Induces a Distinct Proteomic Profile	Pál Albert, Hungary - Engineering Non-CG Specific DNA Methyltransferases for Functional Studies of Epigenetic Regulation
17:30 - 17:45	Tamara Saksida, Serbia - Gut immune system in the murine model of Alzheimer's disease/Connecting brain and gut inflammation in the murine model of Alzheimer's disease	Natalija Andrejević, Serbia - Unraveling the human serum albumin aggregation pathway: Structural insights into the amyloid/amorphous aggregation shift and oligomerization potential modulated by physiological ligands and thiol content
17:45 - 18:00	Neven Meseldžić, BIH - Association of IL1 β rs1071676 Polymorphism with Disease Severity and Biomarkers in COVID-19 Patients	TBA
20:00 - 23:00	Congress Dinner	



DAY 3 Friday, 26 th September 2025		
09:00 - 10:00	Plenary lecture: Ivan Mijaković, Sweden - Molecular biology meets nanotechnology: promise of personalized medicine	
10:00 - 11:00	Topic 7: Genetics	Topic 8: Biotechnology
10:00 - 10:30	Lejla Kapur Pojskić, BIH - Novel research insights into biological effects of halogenated boroxine (HB) reconfirm its antitumor potential	Balázs Enyedi, Hungary - Illuminating Leukocyte Migration: Visualizing Chemoattractant Gradients with Novel Fluorescent Probes
10:30 - 11:00	Uroš Potočnik, Slovenia - Multi-omic biomarkers for personalized medicine and molecular mechanisms of non-response to biological drugs in chronic immune diseases	Marko Živanović, Serbia - Electrospun Scaffolds: Merging Technology and Biomedicine for Scientific Progress
11:00 - 11:30	Coffee break	
11:30 - 12:30	Short Talk Session 5	Short Talk Session 6
11:30 - 11:45	Anita Skakić, Serbia - CRISPR/Cas9 and iPSC-Based Platforms to Explore Pathophysiology and Therapeutic Approaches in Glycogen Storage Disease Type Ib	Marinela Šokarda Slavić, Serbia - Characterisation and recombinant expression of a thermostable endoglucanase from <i>Bacillus velezensis</i> for lignocellulosic biomass hydrolysis
11:45 - 12:00	Cecile Otten, Croatia - ACRC/GCNA is an essential protease which repairs DNA-protein crosslinks during embryonic development	Tina Vida Plavec, Slovenia - Engineering <i>Lactococcus cremoris</i> for recombinant protein packaging into extracellular vesicles
12:00 - 12:15	Anja Pišlar, Slovenia - Multifunctional Roles of γ -Enolase in the Central Nervous System: More Than a Neuronal Marker	Nejira Handžić, BIH - Optimized Sequencing Approach Combining Dual Chemistry and Lab-Developed Bioinformatics for Comprehensive mtDNA Analysis
12:30 - 15:00	Lunch and Poster presentations 2	



DAY 4 Saturday, 27 th September 2025		
09:00 - 10:00	Plenary lecture: Lada Lukić Bilela, BIH - Lightless, not lifeless: Extreme habitats as sources of novel bioactive molecules	
10:00 - 11:00	Topic 9: Bioactive compounds and metabolism	Topic 10: Cellular processes and signaling
10:00 - 10:30	Bognár Zita, Hungary - Comparison of Mitochondrial and Antineoplastic Effects of Amiodarone and Desethylamiodarone in Cancer Lines	Mirta Boban, Croatia - Degradation-mediated protein quality control in quiescent cells
10:30 - 11:00	Ivana Beara, Serbia - Wine polyphenols: occurrence and biological activity as a biochemical aspect of wine quality	Tea Lanišnik Rižner, Slovenia - From biomarker discovery to molecular mechanisms: omics approaches in endometriosis
11:00 - 11:30	Coffee break	
11:30 - 12:30	Short Talk Session 7	Short Talk Session 8
11:30 - 11:45	Arshi Arshi, Hungary - Effects of 2-Deoxyglucose and Diclofenac Sodium on MCF7 cell lines	Mario Stojanović, Croatia - Toll-like receptors as a missing link in Notch signaling cascade during neurodevelopment
11:45 - 12:00	Nina Tiršo, BIH – Melatonin Modulates Lipid Metabolism in a Rat Model of Testosterone-Induced Polycystic Ovary Syndrome: Comparison with Metformin and Combination Therapy	Snježana Jurić, Croatia - Cellular processes and signaling Nanobodies Uncouple Florigen Binding to Membranes and THF1
12:00 - 12:15	Cene Scubic, Slovenia - Sterol specific regulation of hepatic signaling distinct roles of lanosterol, desmosterol and lathosterol in liver cell fate and signaling	Mujo Hasanović, BIH - Seed Priming of Solanum lycopersicum with Paraburkholderia phytofirmans PsJN Enhances Nickel Stress Response and Induces Intergenerational Transcriptomic Modulation
12:15 - 12:30	Belmina Šerić Medić, BIH - <i>In silico</i> functional assessment and molecular interaction modeling of antimicrobial agents	Lana Vujica, Croatia - Understanding the ecotoxicological role of the Oatp1d1 transmembrane transporter using a zebrafish (Danio rerio) Oatp1d1 mutant line
12:30 - 13:30	Closing Ceremony	



POSTER PRESENTATIONS

Name	Surname	Title of Abstract
Nina	Tiršo	Melatonin Modulates Lipid Metabolism in a Rat Model of Testosterone-Induced Polycystic Ovary Syndrome: Comparison with Metformin and Combination Therapy
Azra	Kudumović	Genotypic Analysis and Characterization of Staphylococcus aureus (MRSA) Isolates from Skin and Mucosal Infections in Outpatient Patients in Canton Sarajevo (January – June 2024)
Mirel	Subašić	Primed to Protect: Intercropping with Bioprimered Silene sendtneri Enhances Tomato Resilience to Cadmium
Erna	Karalija	Priming the Future: Harnessing Plant Memory for Climate-Resilient Crops
Lejla	Kapur Pojskić	Novel research insights into biological effects of halogenated boroxine (HB) reconfirm its antitumor potential
Lada	Lukić Bilela	Lightless, not lifeless: Extreme habitats as sources of novel bioactive molecules
Maja	Kuzmanović	L-Carnitine and Vitamin B6 Modulate Catalase Gene Expression in Human Lymphocytes: An In Vitro Study
Naida	Lojo-Kadric	Genetic Basis of Coronavirus Associated Dysosmia and Dysgeusia
Naida	Mulahuseinović	Clinical exome sequencing in the Bosnian-Herzegovinian pediatric population: Experiences, results and personal diagnostic approach application from a three year period
Martin	Kutnjak	The role of p97 ATPase and sprtn protease in the repair of DNA-PROTEIN crosslinks in human cells and animal model
Emerik	Galić	Antioxidative activity of extracts from rocket and spinach biofortified using selenium nanoparticles
Ivan	Mijaković	Molecular biology meets nanotechnology: promise of personalized medicine
Mirta	Boban	Cellular processes and signaling
Marta	Popović	Identifying the molecular causes of neurodegenerative diseases using new animal models created with CRISPR-Cas gene editing
Damir	Baranašić	Sequence determinants of transcription initiation and promoter architecture in vertebrates
Olga	Gornik Kljajić	N-glycosylation of complement component 3 (C3) as a potential target in type 1 diabetes
Ivan	Mihaljević	CRISPR-Cas9 knockout of Oatp1d1 reveals its role in zebrafish pigmentation and development
Rosa	Karlić	Decoding the interplay between the epigenome and mutational processes in cancer



Name	Surname	Title of Abstract
Peter	Deak	MIF tautomerase inhibitor TE-91 inhibits inflammatory cytokine production and activation of ETS2 transcription factor in the chronic inflammatory macrophage model
Dávid	Lepár	The significance of the spermatoproteasome during Drosophila melanogaster spermatogenesis
Khlood	Abdeldaeam	Interaction between human stem cell-derived neural progenitor cells and microglia
Attila	Csikasz-Nagy	From Yeast Cells to Digital Twins: Charting Cellular Networks for Disease and Drug Discovery
Zita	Bognar	Comparison of Mitochondrial and Antineoplastic Effects of Amiodarone and Desethylamiodarone in Cancer Lines
Beata	Lontay	Magnesium-dependent-Protein Phosphatase 1B Regulates the Protein Arginine Methyltransferase 5 Through the Modulation of Myosin Phosphatase in Cervical Carcinoma
Minja	Derikonjić	Changes of sphingolipid profile in pregnant women with excessive gestational weight gain
Nina	Mitić	CD36 gene expression as a positive predictor of the development of metabolic syndrome in metabolic
Tamara	Babić	Investigating long non-coding RNA Inc-RNMT-2:5 indicates Stromal Origin and Putative Regulatory Function in Rectal Cancer
Vanja	Tatić	Molecular characterisation of Ostrinia nubilalis antimicrobial peptides
Marija	Stefanović	A functional screening approach for the identification of gluten-degrading microorganisms
Gorana	Ilić	Bioactivity of wine concentrates from European merlot grape varieties in human keratinocytes
Ljiljana	Milovanović	Cabernet Sauvignon wines as inhibitors of tyrosinase in vitro
Tatjana	Majkić	In Vitro Evaluation of Encapsulated Elderberry Extracts as Tyrosinase Inhibitors
Jovana	Stevanović	Expressions of IL10 and IL6 are upregulated and correlated with miR-21 expression in peripheral blood mononuclear cells of women with gestational diabetes
Isidora	Protic Rosić	Redirected killing of allergen-specific CD4 ⁺ T Cells by pMHC Class II CAR NK-92 cells
Dragica	Mićanović	The mechanism of action of HYCO-3, an Nrf2 activator/CO releaser hybrid, in inhibiting autoimmune disease development in mouse models
Višnja	Kosić	Selection of redesigned pullulanase variants for enhanced industrial biocatalyst
Vesna	Spasovski	Establishment of an insulin resistance model in HepG2 cells using combined high glucose and insulin treatment



Name	Surname	Title of Abstract
Marija	Pavlović	Recombinant Production and Application of Endo-Polygalacturonase II in Fruit Juice Processing
Vladimir	Mihailović	Redox and immunomodulatory effects of silver nanoparticles synthesized using <i>Salvia verticillata</i> L. extracts in human myeloid leukemia cells
Jasmina	Đuretić	Cathesin L inhibition enhances microglial CX3CR1 expression in
Milena	Zlatanova	Proteolytically active allergen ACT D 1 induces inflammation via TLR4 receptor cleavage
Ana	Popović Bijelić	Manganese accumulation in the microalga <i>haematococcus pluvialis</i>
Srđan	Kesić	Blood serum biochemical parameters related to cardiovascular health in peripubertal rats as markers for evaluating the effects of in-utero exposure to ELF-MF
Ivana	Beara	Wine polyphenols: occurrence and biological activity as a biochemical aspect of wine quality
Marijana	Kovačić	Salivary immune response to <i>Candida albicans</i> in children with early childhood caries
Suzana	Matijašević Joković	Caveolin-1 as Potential Biomarkers of Prostate Cancer—Evidence from Serbian Population
Suzana	Jovanović-Šanta	A database of interactions of modified steroids with human cytochromes P450
VesnaS	Spasovski	Establishment of an insulin resistance model in HepG2 cells using combined high glucose and insulin treatment
Nikolina	Sibinčić	Optimization of cell-based assays for identifying compounds with anti-inflammatory and anti-allergic activity
Danica	Lazić	Molecular basis of identification <i>Mycobacterium tuberculosis</i>
Marina	Ristović	Production of xylooligosaccharides from corn cob using a novel endoglucanase A from <i>Aspergillus tubingensis</i>
Zafar	Faiza	Evaluation of Barrier Dysfunction in Caco-2 and T84 Cells exposed to Peanut Allergens
Milan	Prodanović	Assessing Size and Aggregation of Paraproteins of Different Isotypes Using Photon Correlation Spectroscopy
Ivana	Drvenica	An analysis of the relationship between the deformability of erythrocytes and clinical biochemical indicators in patients diagnosed with diabetes mellitus
Maja	Milošević	Association between FADS rs174602 polymorphism and fatty acid profile in plasma of breast cancer patients on aromatase inhibitors
Radivoje	Prodanović	Heterologous Expression of Human Glucose-6-Phosphate Translocase (SLC37A4) in Prokaryotic and Yeast Systems



Name	Surname	Title of Abstract
Tamara	Popović	Mineral content and fatty acid composition in different kind of diet in Wistar rats liver-correlations
Selena	Milićević	Uptake of Ara h 1 from raw and thermally processed peanuts, cytokine response, and the modulatory role of peanut lipids in macrophages
Maša	Andoljšek	Studies on the coordinated binding between a hexameric ATPase p97 and its three adaptor proteins involved in DNA–protein crosslink repair
Gregor	Spruk	Engineering of highly stable bryoporin nanopores using genetic code expansion
Primož	Bebmič	Characterization of the molecular interactions between the DNA-protein cross-link repair proteins p97 and SPRTN
Boštjan	Petrič	Caveolin-1 as Potential Biomarkers of Prostate Cancer—Evidence from Serbian Population
Archismita	Kundu	Design of a modular miRNA-sensing based genetic circuit
Marijetka	Podobniik	Structural characterization of factors involved in DNA-protein crosslink repair
Igor	Križaj	From snake venom to therapy: A novel drug candidate for short-term thrombosis prevention
Matija	Ruparčić	Exploring the function of conoporins, actinoporin-like proteins from cone snails
Jernej	Ule	Collective homeostasis of condensation-prone proteins via their mRNAs
Tea	Lanižnik Rižner	From Biomarker Discovery To Molecular Mechanisms: Omics Approaches In Endometriosis
Natalia	Porębska	Engineering of the intrinsically fluorescent tetravalent cytotoxic conjugate TetraHER2-vcMMAE for efficient elimination of HER2+ breast cancer cells.
Alexander	Osmolovskiy	Extracellular protease of Aspergillus ochraceus VKM F-4104D: properties and medical application promises
Galina	Pavlova	Differentiation therapy as a new multidisciplinary approach to the treatment of human brain glioma
Emerik	Galić	Antioxidative activity of extracts from rocket and spinach biofertilized using selenium nanoparticles
Zehra	Kurtanović	Association of the molybdenum serum concentration with the disease severity in COVID-19 patients
Nermina	Klapuh-Bukvić	Possibilities of artificial intelligence in blast determination in relapsed acute myeloid leukemia after allogeneic transplatation-case report
Tijana	Marković	Antidiabetic potential of Gentiana dinarica root extracts and their active component norswertianin and its glycoside norswertianin-1-O-primeveroside
Ezster	Vámos	A gut microbiota metabolite: Trimethylamine induces M1-like activation in macrophages



FEBS 3+ MEETING

24th - 27th September, 2025
Hotel M / Belgrade, Serbia



Name	Surname	Title of Abstract
Neža	Koritnik	Structural adaptation of the potyviral coat protein to accommodate species-specific residues in virions and virus-like particles

