

24th International Symposium and Summer School on Bioanalysis (24ISSSB)

July 5 – 14, 2026

SUNDAY, 5 JULY

16:00	GET TOGETHER
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MONDAY, 6 JULY

8:00-9:00	REGISTRATION AND BREAKFAST
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9:00-9:20	OPENING CEREMONY
	Margit CICHNA-MARKL Chair of the Organizing Committee Claudia SENK CEEPUS Programme Officer Lothar BRECKER Vice Dean of the Faculty of Chemistry, University of Vienna

9:20-10:50	SESSION 1	
	Chairperson: Margit CICHNA-MARKL	
9:20	Gabriella DONÁTH-NAGY George Emil Palade University of Medicine, Pharmacy, Science and Technology, RO	What are people doing in the frame of Teaching and Learning Bioanalysis CEEPUS Network? A brief review of the scientific activity
9:40	Ferenc KILÁR University of Pecs, HU	Lipopolysaccharidomics
10:00	Attila GÁSPÁR University of Debrecen, HU	The application of Taylor–Aris dispersion for the study of proteins
10:20	Ruben SZABÓ University of Debrecen, HU	Characterization of deamidation sites in intact insulin leveraging collision-induced dissociation-derived internal fragments

10:35	Renata PÍPLOVÁ Charles University, CZ	Optimization of CE–MS parameters for the analysis of amino acids and peptides
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10:50-11:30	COFFEE BREAK
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11:30-12:25	SESSION 2	
	Chairperson: Ferenc KILÁR	
11:30	Marián MASÁR Comenius University Bratislava, SK	Advances and innovations in microchip electrophoresis for bioanalysis
11:50	Květa KALÍKOVÁ Charles University, CZ	Separation of short phosphorothioate oligonucleotides' diastereomers in reversed phase liquid chromatography
12:10	Tímea DÉREROVÁ Charles University, CZ	Diastereomer resolution of phosphorothioate oligonucleotides in mixed-mode chromatography

12:25-14:00	LUNCH BREAK
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14:00-15:10	SESSION 3	
	Chairperson: Gabriella DONÁTH-NAGY	
14:00	Róbert TÓTŐS Babeş-Bolyai University, RO	NSAID drug consumption monitoring by LC-MS/MS using wastewater-based epidemiology
14:20	Ewa POBOZY University of Warsaw, PL	Biosorbents and their application for environmental samples
14:40	Edgar KMIOŁEK University of Warsaw, PL	Use of spent coffee grounds as a biosorbent for metal ion removal from water
14:55	Ivona SOFRONIEVSKA Ss Cyril and Methodius University, MK	Assessment of hydrophobic organic contaminants in Macedonian waters using silicone passive samplers

15:10-15:50	COFFEE BREAK
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15:50-17:15	SESSION 4	
	Chairperson: Tamara PAJPA NOVA	
15:50	Livia UNCU Nicolae Testemitanu State University of Medicine and Pharmacy, MD	The use and importance of advanced instrumental methods in therapeutic drug monitoring
16:10	Jolan HARSFALVI Semmelweis University, HU	Biophysical characterization of clot retraction in platelet rich plasma of patients with primary anti-phospholipid syndrome
16:30	Livia VIDA University of Pécs Medical School, HU	Ketogenic metabolic therapy as an adjuvant strategy in glioblastoma: exploiting tumor metabolic vulnerabilities
16:45	Fruzsina SÓTÉR Semmelweis University, HU	Investigating the catalytic and size-modulating effects of ethanol on cochleate drug delivery vehicles
17:00	Mădălina-Elena MOISĂ Babeş-Bolyai University, RO	Metal-ion-affinity-based immobilized phenylalanine ammonia-lyase for the enantioselective synthesis of optically pure phenylalanines

17:30-21:00	WELCOME RECEPTION
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TUESDAY, 7 JULY

8:00-9:00	BREAKFAST
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9:00-10:30	SESSION 5	
	Chairperson: Ede BODOKI	
9:00	Anikó TAKÁTSY Medical School University of Pécs, HU	Host–guest interaction-based drug delivery systems
9:20	Nives GALIĆ University of Zagreb, HR	Analytical techniques for characterization of cyclodextrin complexes

9:40	David KLARIĆ University of Zagreb, HR	Advancing cinnarizine solubility: physicochemical insights into β -cyclodextrin complexation
10:00	Csenge KIS George Emil Palade University of Medicine, Pharmacy, Science and Technology, RO	Effect of cyclodextrin complexation on the simultaneous separation of insulin analogues
10:15	Paulina Gwardys University of Warsaw, PL	System for controlled release of active substances based on smart microgels

10:30-11:10	COFFEE BREAK
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11:10-12:40	SESSION 6	
	Chairperson: Ewa POBOZY	
11:10	Violeta IVANOVA-PETROPULOS Goce Delcev University, MK	Selenium organic compounds and B-vitamins in red wine
11:30	Magdalena BIESAGA University of Warsaw, PL	Solid-phase extraction in food analysis - new solutions old problems
11:50	Jasmina PETRESKA STANOEVA Ss Cyril and Methodius University, MK	Chemical and metabolic adaptations of endemic metallophytes from the Allchar deposit under metal stress
12:10	Andrea BEVILACQUA University of Vienna, AT	Identification of <i>Apis mellifera carnica</i> mtDNA in honey for product authentication and subspecies conservation
12:25	Andrea AIGNER University of Vienna, AT	Development of a multi-barcode Next Generation Sequencing method for the analysis of plant species in food

12:40-14:00	LUNCH BREAK
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14:00-15:10	SESSION 7	
	Chairperson: Attila GÁSPÁR	
14:00	Maria-Bianca IRIMES Iuliu Hațieganu University of Medicine and Pharmacy, RO	Electrochemical aptasensors for healthcare applications

14:20	Ioana MANEA Iuliu Hațieganu University of Medicine and Pharmacy, RO	Toward early detection of HCC: selection of Golgi Protein-73 DNA aptamers
14:35	Magdolna CASIAN Iuliu Hațieganu University of Medicine and Pharmacy, RO	Strategies for improving aptamer screening efficiency for in vivo tumor targeting applications
14:50	Alexandra PUSTA Iuliu Hațieganu University of Medicine and Pharmacy, RO	Applications of aptamers in personalized diagnosis

15:10-15:45	COFFEE BREAK
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15:45-17:00	POSTER SESSION 1
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WEDNESDAY, 8 JULY

8:00-8:30	BREAKFAST
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8:45-18:00	EXCURSION
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THURSDAY, 9 JULY

8:00-9:00	BREAKFAST
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9:00-10:30	SESSION 8	
	Chairperson: Marián MASÁR	
9:00	Ede BODOKI Iuliu Hațieganu University of Medicine and Pharmacy, RO	Mechanistic insights into mechanochemical molecular imprinting
9:20	Bogdan-Cezar IACOB Iuliu Hațieganu University of Medicine and Pharmacy, RO	Mechanochemically engineered recognition sites: reducing solvent, enhancing performance
9:40	Paul-Cristian MARTIAN Iuliu Hațieganu University of Medicine and Pharmacy, RO	The versatility of porous organic polymers

9:55	Diana-Gabriela MACOVEI Iuliu Hațieganu University of Medicine and Pharmacy, RO	Sustainable platform for direct electrochemical detection of ampicillin: leveraging biochar-based materials
10:10	Emese-Éva BALINT Sapientia University of Transylvania, RO	Precision engineering of strigolactone pathways: a new bioanalytical perspective on designing soil symbiotic networks

10:30-11:10	COFFEE BREAK
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11:10-12:05	SESSION 9	
	Chairperson: Martin SCHMID	
11:10	Gabriel HANCU George Emil Palade University of Medicine, Pharmacy, Science and Technology, RO	Doping in sport: from analytical arms race to landmark case studies
11:30	Ibolya FULÖP George Emil Palade University of Medicine, Pharmacy, Science and Technology, RO	Evaluation of different analytical methods in forensic toxicology
11:50	Lisa GROSSHAUPT University of Vienna, AT	HPLC-based forensic age estimation using aspartic acid racemization in human dentin

12:05-13:45	LUNCH BREAK
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13:45-15:05	SESSION 10	
	Chairperson: Livia UNCU	
13:45	Tamara PAJPAANOVA Bulgarian Academy of Sciences, Institute of Molecular Biology, BG	Multiple strategies for optimizing antimicrobial peptides to enhance antimicrobial activity
14:05	Klementina-Imelda ILKEI Sapientia University of Transylvania, RO	Detecting the relationship between gut microbiome, metabolome and type 2 diabetes
14:20	Pál SALAMON Sapientia University of Transylvania, RO	Molecular epidemiology and clonal lineages of multidrug-resistant <i>Acinetobacter baumannii</i> isolates in a clinical setting
14:35	Ecaterina MAZUR	The evaluation of dissolution profile and in vitro bioavailability

	Nicolae Testemitanu State University of Medicine and Pharmacy, MD	of the combined pharmaceutical formulations for the hypopotassemia treatment
14:50	Paulina LUŚTYK University of Warsaw, PL	Investigation of metabolic biotransformation pathways of selected antioxidants using <i>in vitro</i> models

15:05-15:30	COFFEE BREAK
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15:30-17:00	POSTER SESSION 2
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18:00	COORDINATION MEETING
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FRIDAY, 10 JULY

8:00-9:00	BREAKFAST
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9:00-10:35	SESSION 11	
	Chairperson: Anikó TAKÁTSY	
9:00	Martin SCHMID University of Graz, AT	Examples for analysis of classic and new psychoactive substances
9:20	Tomáš KŘÍŽEK Charles University, CZ	Analysis of psychoactive stimulants in pre-workout boosters by capillary electrophoresis with contactless conductivity detection
9:40	Biljana BALABANOVA Goce Delcev University, MK	ICP-MS-based multi-elemental profiling of children's hair: a bioanalytical approach to assessing nutritional status and toxic metal exposure
10:00	Ali MHAMMAD Semmelweis University, HU	Green chiral HPLC method development for pharmaceutical analysis
10:15	Radu-Nicolaie OPREAN Iuliu Hațieganu University of Medicine and Pharmacy, RO	Student assessment and feedback as catalysts for bioanalysis program

		development: from data collection to curricular reform
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10:35-11:10	COFFEE BREAK
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11:10-12:25	SESSION 12	
	Chairperson: Jasmina PETRESKA STANOEVA	
11:10	Gyöngyvér MARA Sapientia University of Transylvania, RO	Role of the omics in probiotic, prebiotic and postbiotic studies
11:30	Galina RADEVA Bulgarian Academy of Sciences, Institute of Molecular Biology, BG	Soil microbiome as an indicator of disturbance in terrestrial ecosystems
11:50	György JUHÁSZ J. Selye University, SK	Formation of charge-transfer complexes between aminopyridine derivatives and π -electron acceptors
12:10	Gaja Anna WACHOWSKA University of Warsaw, PL	Metabolome analysis of maize and wheat

12:25-14:00	LUNCH BREAK
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14:00-15:15	SESSION 13	
	Chairperson: Tomáš KŘÍŽEK	
14:00	Judith-Hajnal BARTHA-VARI Babeş-Bolyai University, RO	Metal-affinity-based Immobilization of enzymes on single-walled carbon nanotubes
14:20	Silvia MELNIC Nicolae Testemitanu State University of Medicine and Pharmacy, MD	Metal–Organic Frameworks (MOFs) in bioanalysis: from structure to analytical function
14:40	Bogdan FEIER Iuliu Hațieganu University of Medicine and Pharmacy, RO	Electrochemical sensors for the characterization of pharmaceutical formulations
15:00	Ana-Maria TĂTARU Iuliu Hațieganu University of Medicine and Pharmacy, RO	Emerging strategies for bacteria detection – AI-enhanced electrochemical sensors

15:15	VOTING BEST POSTER and TALK
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15:30

POSTER PRIZE and BEST STUDENT TALK AWARD

SATURDAY, 11 JULY

9:00-16:00

WORKSHOPS AND SEMINARS IN SMALL GROUPS *

SUNDAY, 12 JULY

FREE TIME

MONDAY, 13 JULY

9:00-16:00

WORKSHOPS AND SEMINARS IN SMALL GROUPS *

TUESDAY, 14 JULY

9:00-12:00

WORKSHOPS AND SEMINARS IN SMALL GROUPS *

*** WORKSHOPS AND SEMINARS**

- Sustainability in bioanalytical chemistry
- Using AI in bioanalysis
- Bioanalysis at the interface of disciplines (medicine, food science, environmental science)

POSTER SESSION 1

1. Biljana BALABANOVA: Multi-analytical evaluation of soil-plant interactions in vineyards experimental fields under carbon farming practices
2. Laura-Edit BARABÁS: Decoding complexity: analytical Control of a one-pot bi-enzymatic cascade for producing four valuable products
3. Vivien BÁRDOS: Assessment of membrane integrity and membrane–ycceptor compatibility in PAMPA systems
4. Gala BEREŠ: Synthesis and characterisation of Copper(II) complexes with maltol as an oxygen-donor ligand
5. Ivan P. BOGDANOV: From small molecules investigated as Factor XIIIa inhibitors to biological target diversity
6. Elena BOGEVA: Aromatic profile of grape and fruit brandies determined by GC equipped with flame ionization detector
7. Ariana-Ioana BRÎNDUȘOIU: Development of aptasensor for detection of Salmonella enteritidis
8. Maša ČAČIĆ: Analytical detection of selective androgen receptor modulators in products purchased online
9. Radu CAZACU: Bioanalytical monitoring of recombinant human growth hormone production during fermentation using RP-HPLC
10. Tímea Éva CSETE: Sensitive analytical characterization of a multi-enzyme reaction cascade
11. Marinela CVETANOSKA: Polyphenol diversity and BVOC patterns in endemic metallophyte Viola from Allchar
12. Valéria CZÖPEK: Antioxidant capacity and polyphenol content of meads in Slovakia
13. Kira DAKOS: Non-muscle actinopathy-associated loss of function variants of actin modulate the reorganization properties of the actin cytoskeleton
14. Sonja FRÖSTL: Geographic authentication of Waldviertel honey using HRM and pyrosequencing
15. Georgi I. IVANOV: Investigation of antioxidative properties of new generation MAO-B inhibitors
16. Raluca GOG: Thermodynamic characterization of mechanochemically synthesized molecularly imprinted polymers using isothermal titration calorimetry
17. Stefanie HANDL: Characterization and quantification of performance-enhancing stimulants in pre-workout supplements via GC–MS and GC–FID
18. Alexandra HENGERICS SZABÓ: Visualization and ICT aided modeling in high school chemistry education
19. Jasna HRADSKI: Determination of active pharmaceutical ingredients and counterions in cardiovascular drugs by microchip isotachopheresis
20. András-Ernő ISZLAI: Multi-enzymatic cascade for the synthesis of D-phenylalanine derivatives
21. Brunislav MATASOVIĆ, Martina ŠRAJER GAJDOŠIK, Marija JOZANOVIĆ: Advanced polymer liquid membrane sensor for potentiometric detection of surfactants
22. Ali KARIMI: Authentication of acacia, lime, and chestnut honey by plant DNA barcoding and NMR analysis
23. Kolos KELEMEN: Analysis of von Willebrand factor multimer distribution

24. Lucian KEREŠKENJI: Mebendazole– β -cyclodextrin inclusion complexes: a phase-solubility study
25. Stefan KIROVSKI: Trace-level determination of OCPs and PCBs in breast milk by optimized GC-ECD analysis
26. Emese KOVÁCS: Phase inversion–driven approaches for Bijel formation using silica nanoparticles
27. Tea KOZIĆ: Preparation and characterisation of Zinc(II) complexes with oxygen-donor heterocyclic ligand
28. Klaudia Nikoletta PAP: Assessing the elemental composition and biobased carbon content of chewing gums

POSTER SESSION 2

29. Jakov BABIĆ: Investigating the influence of Pr concentration on the structural development of doped ceria-based high-entropy oxides
30. Stefanie KURATH: Development of analytical methods for the early detection of new psychoactive substances (NPS)
31. Ali MHAMMAD: Designing a green chiral high-performance liquid chromatography method: proof-of-concept with crizotinib
32. Lucia MIKULCOVÁ: Stir bar sorptive extraction based on natural deep eutectic solvent
33. Gábor Áron NAGY: The effect of iron on plants
34. Sára NAGY: Comparison of the lipid and fatty acid composition of infant formulae in Hungary
35. Szidónia NAGY: Investigating the physiological and biochemical effects of PEG, sorbitol, and glycine seed priming under salt stress conditions
36. Iryna NIKITINA: Geographic authentication of honey from Ukraine and Poland through DNA analysis
37. Andreea PARASCHIVOIU: Fabrication of 3D-printed molecularly imprinted polymers for electrochemical–SERS sensors
38. Aleksandar PETROV: Chemical characterization of white and red wines from Ovche Pole region
39. Octavia PUCHIU: Aptamer-based electrochemical biosensor for lipocalin-2 (LCN2) detection in breast cancer
40. Andreea-Diana SALE: Improving throughput in cocrystal screening of lutein by mechanochemical processing
41. Diana Maria SCROB: One enzyme with two catalytic functions. How human carbonic anhydrase II transforms α -haloketones into chiral halohydrins and epoxides?
42. Pece SHEROVSKI: PCR–HRM-based authentication of berry species: influence of analytical and processing parameters
43. Monika SMETANOVÁ: Determination of acetaminophen by linear voltammetry using a boron-doped diamond electrode in a flow-through cell
44. Marlies STEIN: Aphid DNA as a novel marker for honey authentication

45. Denisa Gabriela STROIA: Capillary electrophoresis approaches for the simultaneous analysis of dapagliflozin and metformin
46. Emília SÝKOROVÁ: RP-LC retention time prediction using Mordred descriptors: Benchmarking feature selection and descriptor domain variability across experimental conditions
47. Kornél SZABÓ: Determination of glycated haemoglobin (HbA1c) by CE-MS
48. Peter SZABÓ: Analysis of microcystin, a cyanobacterial toxin by capillary zone electrophoresis-mass spectrometry
49. Rita SZOLLÁTH: Influence of pharmaceutical polymers on the solubility–permeability interplay of curcumin
50. Sabina TANASĂ: Electrochemical sensor designed for nitroaromatic compounds detection assisted by artificial intelligence
51. Barnabás TÓTH: A low-cost magnetic separation platform for reproducible nanoparticle characterization
52. Alexandra-Ionuța UILĂCAN: Decoding the elemental fingerprint of Romanian wines: a preliminary ICP-MS investigation
53. Marek VAŠKO: Evaluation of the long-term analytical performance of sensors equipped with boron- doped diamond electrodes
54. Mislav VORKAPIĆ: Combined effects of medium composition and phenol oxidase induction in fungal nanoparticle biosynthesis