



22nd International Summer School on Bioanalysis

Prague, July 8-12, 2024

Monday 8th July

8:30 REGISTRATION + BREAKFAST FOR STUDENTS

9:30 OPENING CEREMONY

TIME	PRESENTER	TITLE
Chairperson: Tomáš Křížek		
9:50	Gabriella Donáth-Nagy <i>"George Emil Palade" University of Medicine, Pharmacy, Science and Technology of Târgu Mureș, RO</i>	Teaching and Learning Bioanalysis CEEPUS Network: Past, Present and Future
10:10	Alexandra Canciu <i>Iuliu Hatieganu University of Medicine and Pharmacy, RO</i>	Development and Application of Aptamer-Functionalized Electrochemical Sensors for the detection of Gram-positive and Gram-negative Bacteria
10:30	Ana Maria Tataru <i>Iuliu Hatieganu University of Medicine and Pharmacy, RO</i>	Aptasensing approaches for the electrochemical detection of <i>Staphylococcus aureus</i>
10:50	Denisa-Elena Capatina <i>Iuliu Hatieganu University of Medicine and Pharmacy, RO</i>	Electrochemical detection of bacteria and biofilm
11:10 COFFEE BREAK		
Chairperson: David Klarić		
11:30	Marek Minárik <i>Watrex Praha, s.r.o, CZ</i>	Introduction by the session sponsor
11:35	Ede Bodoki <i>Iuliu Hatieganu University of Medicine and Pharmacy, RO</i>	Unlocking New Avenues: Solid-State Synthesis of Molecularly Imprinted Polymers
11:55	Bogdan-Cezar Iacob <i>Iuliu Hatieganu University of Medicine and Pharmacy, RO</i>	Mechanochemical synthesis of MIPs: the case study of atenolol



Alexandra Iulia Baraian
12:15 *Iuliu Hatieganu University of
Medicine and Pharmacy, RO* Alginate-based molecularly imprinted hydrogels for
glioblastoma postoperative therapy

Maria-Bianca Irimes
12:35 *Iuliu Hatieganu University of
Medicine and Pharmacy, RO* Exploring cortisol detection in biological fluids: a
customized electrochemical aptasensor

13:00 LUNCH

Seminar

14:00 **Martin Schmid**
University of Graz, AT How to develop a HPLC separation method to compare
drug content of original Viagra samples with
counterfeits

15:00 COFFEE BREAK

Chairperson: Alexandra Iulia Baraian

Alexandra Pusta
15:30 *Iuliu Hatieganu University of
Medicine and Pharmacy, RO* Applications of electrochemical techniques in
pharmaceutical formulation development

Livia Uncu
15:50 *Nicolae Testemițanu State
University of Medicine and
Pharmacy, MD* Influence of volatile oils on the bioavailability and
efficacy of the topical fixed-dose combinations

Jasmina Petreska Stanoeva
16:10 *Ss. Cyril and Methodius University
in Skopje, MK* Establishing the origin of volatile organic compounds in
urban air: Regional cross-border study between North
Macedonia and Kosovo

Ivona Sofronievska
16:30 *Ss. Cyril and Methodius University
in Skopje, MK* Volatile and Semi-volatile Organic Compounds in the
urban atmosphere of Skopje

Emese Balint
16:50 *Sapientia Hungarian University of
Transylvania, RO* The process of designing a biosimilar antibody

18:00 WELCOME PARTY



Tuesday, 9th July

9:00

BREAKFAST FOR STUDENTS

TIME

PRESENTER

TITLE

Chairperson: Ecaterina Mazur

9:30 **Gyöngyvér Mara**
Sapientia Hungarian University of Transylvania, RO Strengths and limitations of MALDI-TOF-MS in microbial identification

9:50 **Violeta Ivanova-Petropulos**
Goce Delcev University, MK HPLC-ESI-Q TRAP-MS/MS analysis of flavonoids and nonflavonoids in red wine

10:10 **Attila Gáspár**
University of Debrecen, HU Direct Injection ESI-MS Analysis of Proteins with High Matrix Content: Utilizing Taylor-Aris Dispersion

10:30 **Ruben Szabo**
University of Debrecen, HU Study of Flow Conditions for Taylor-Aris Dispersion Assisted Mass Spectrometry

10:50

COFFEE BREAK

Chairperson: Ruben Szabo

11:20 **Ewa Pobozy**
University of Warsaw, PL Application of different sorbents for preconcentration of selected phthalates

11:40 **Paulina Luśtyk**
University of Warsaw, PL Comparison of extraction methods for natural yellow dyes from historical fabrics

12:00 **Gabriel Hancu**
"George Emil Palade" University of Medicine, Pharmacy, Science and Technology of Târgu Mureş, RO Unveiling Deception: Exploring Cutting-Edge Approaches for Uncovering Adulteration in Dietary Supplements

12:20 **Stefanie Handl**
University of Graz, AT Isolation of pure NPS enantiomers by semipreparative HPLC-UV using a cellulose tris (3,5-dichlorophenyl-carbamate) column

13:00

LUNCH



Seminar

- 14:00 **Dashnor Nebija**
University of Prishtina Hasan Prishtina, XK Workshop: Quality study of biopharmaceuticals using gel electrophoresis and MS analysis
- 14:50 **Radim Geryk**
Quinta Analytica, CZ Tasks and Challenges in Bioanalytics

15:10 POSTER SESSION

16:30 FREE EVENING – ENJOY PRAGUE AS YOU WISH

Wednesday 10th July

9:00 BREAKFAST FOR STUDENTS

TIME	PRESENTER	TITLE
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Chairperson: Stefanie Handl

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| 9:30 | Tamara Pajpanova
<i>Bulgarian Academy of Sciences, BG</i> | The Long Journey of Peptides as a Drugs |
| 9:50 | Nives Galic
<i>University of Zagreb, HR</i> | Drug/cyclodextrin supramolecular complexes with enhanced functionality |
| 10:10 | Magdolna Casian
<i>Iuliu Hatieganu University of Medicine and Pharmacy, RO</i> | Aptamer selection for assisted treatment of hepatocellular carcinoma |
| 10:30 | Alexander Dushkov
<i>Bulgarian Academy of Sciences, BG</i> | Anticancerous properties of the fungus Amanita muscaria: preliminary results |

10:50 COFFEE BREAK



Chairperson: Alexander Dushkov

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| 11:20 | Margit Cichna-Markl
<i>University of Vienna, AT</i> | Species and Cultivar Differentiation by High Resolution Melting Analysis to Detect Food Adulteration |
| 11:40 | Katharina Pühringer
<i>University of Vienna, AT</i> | Association of <i>MGMT</i> enhancer methylation with <i>MGMT</i> promoter methylation, <i>MGMT</i> protein expression and clinical parameters in glioblastoma |
| 12:00 | Karen Odalys Torres
<i>Semmelweis University, HU</i> | CFTR Drug Interactions and Their Impact on Ion Conduction |
| 12:20 | Titus Chukwuemeka Obasi
<i>Iuliu Hatieganu University of Medicine and Pharmacy, RO</i> | Nature-inspired nano-system for synergetic anticancer therapy, sensing and modulation of tumor microenvironment |

13:00 LUNCH

Chairperson: Karel Odalys Torres

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| 14:00 | Marián Masár
<i>Comenius University Bratislava, SK</i> | Recent advances in microchip electrophoresis for bioanalysis |
| 14:20 | Robert Tötös
<i>Babes-Bolyai University, RO</i> | Artificial metabolic systems for synthetic or analytical purposes using microfluidic enzymatic devices |
| 14:40 | Gayatri Vishwakarma
<i>University of Debrecen, HU</i> | Intact protein Analysis of Snake Venoms with CZE-MS |

18:00 COORDINATION MEETING

Thursday 11th July

9:00 EXCURSION TO PILSNER URQUELL

18:00 OPEN-AIR PARTY



Friday 12th July

9:00

BREAKFAST FOR STUDENTS

TIME

PRESENTER

TITLE

Chairperson: Sarolta Halmóczy

9:30	Tatyana Dzimbova <i>South-West University "Neofit Rilski", BG</i>	Steroid hormone responses to exercise - determination and analysis
9:50	Veronika Pálos <i>Semmelweis University, HU</i>	Polysuccinimide-salt electrospun composite scaffold as a potential wound dressing material
10:10	Paulina Gwardys <i>University of Warsaw, PL</i>	Mechanisms of Controlled Release of the Active Substance from a Hydrogel Material Anchored on a Conductive Surface

10:30

COFFEE BREAK

Chairperson: Paulina Gwardys

11:00	Sarolta Halmóczy <i>Semmelweis University, HU</i>	Application of metal nanoparticles in order to develop electrospun wound healing matrices
11:20	Marinela Cvetanoska <i>Ss. Cyril and Methodius University in Skopje, MK</i>	Optimizing Extraction and Purification Efficiency for GC-ECD Monitoring of Pesticides in Hair
11:40	Jolán Harsfalvi <i>Semmelweis University, HU</i>	Intensive Course 2024 CEEPUS

12:00

CLOSING CEREMONY

12:30

LUNCH