



JAGIELLONIAN UNIVERSITY  
MEDICAL COLLEGE  
IN KRAKOW

# 4<sup>th</sup> International Conference on Pharmaceutical and Medical Sciences 16-18.09.2022 Martin, Slovakia





16-18.09.2022 Martin (Slovakia)  
4<sup>th</sup> International Conference on  
Pharmaceutical and Medical Sciences

## HONORARY PATRONAGE



**Vice-Rector of the Jagiellonian University  
for the Medical College  
Prof. dr hab. n. med. Tomasz GRODZICKI**



## ORGANIZERS AND CO-ORGANIZERS



## SPONSORS



17.09.2022 *Martin*

Opening ceremony



JESSEŇOVIA LEKÁRSKA  
FAKULTA V MARTINE  
Univerzita Komenského  
v Bratislave

**Prof. dr. hab. Štefan SIVÁK** – delivers a welcome speech to the participants of the 4<sup>th</sup> ICPMS on behalf of the Dean of the Faculty of Medicine in Martin, prof. dr hab. med. Andrea ČALKOVSKÁ



Kraków

16.09.2022 *Martin*

Opening ceremony



JESSENOVA LEKÁRSKA  
FAKULTA V MARTINE  
Univerzita Komenského  
v Bratislave

**Prof. dr hab. Marek SANAK** – Rector’s proxy for science of the Jagiellonian University for the Medical College (Kraków, Poland) delivers a welcome speech to the participants of the 4<sup>th</sup> ICPMS on behalf of the **Vice-Rector of the Jagiellonian University for the Medical College prof. dr hab. n. med. Tomasz GRODZICKI (on-line)**



Kraków

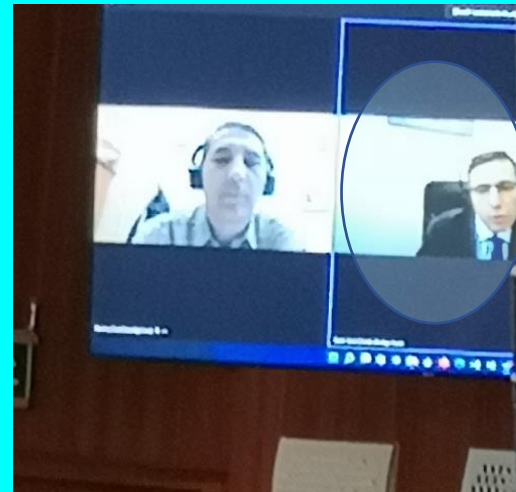
17.09.2022 *Martin*

Opening ceremony



JESSEŇOVÁ LEKÁRSKA  
FAKULTA V MARTINE  
Univerzita Komenského  
v Bratislave

**Prof. dr. hab. Istvan ZUPKO** – Dean of the Faculty of Pharmacy in Szeged (Hungary)  
gives a speech at the Opening Ceremony to the participants of the 4<sup>th</sup> ICPMS (**on-line**)



Kraków

17.09.2022 *Martin*

Opening ceremony



JESSENOVA LEKÁRSKA  
FAKULTA V MARTINE  
Univerzita Komenského  
v Bratislave

**Prof. dr. hab. Jacek SAPA** – Dean of the Faculty of Pharmacy in Kraków (Poland) gives a speech at the Opening Ceremony the participants of the 4<sup>th</sup> ICPMS (**on-line**)



Kraków

17.09.2022 *Martin*

Opening ceremony



JESSENOVA LEKÁRSKA  
FAKULTA V MARTINE  
Univerzita Komenského  
v Bratislave

**Prof. dr. hab. Med. Jolanta PYTKO-POLOŃCZYK** – Vice-Dean of the Faculty of Medicine, Jagiellonian University Medical College (Poland) gives a speech at the Opening Ceremony to the participants of the 4<sup>th</sup> ICPMS on behalf of the President of the Regional Medical Council in Kraków, Dr. Robert Stępień



Kraków



17.09.2022 *Martin*

Opening ceremony



JESSEŇOVIA LEKÁRSKA  
FAKULTA V MARTINE  
Univerzita Komenského  
v Bratislave



Kraków

17.09.2022 *Martin*

Opening ceremony



JESSENOVA LEKÁRSKA  
FAKULTA V MARTINE  
Univerzita Komenského  
v Bratislave



(Fot. Dr Katarzyna Kała)



Kraków

# Main topic of the 4<sup>th</sup> ICPMS

## NATURAL VERSUS ARTIFICIAL NETWORK: USEFULNESS OF THE CONCEPT IN HEALTH LIFE AND TECHNICAL SCIENCE

CONFERENCE SCHEDULE

4<sup>TH</sup> INTERNATIONAL CONFERENCE ON PHARMACEUTICAL AND MEDICAL SCIENCES

16-18.09.2022, MARTIN - SLOVAKIA

16<sup>th</sup> of September 2022

### 9.00 – 9.30                      **Opening ceremony**

- Prof. Štefan Sivák, Jessenius Faculty of Medicine in Martin, Comenius University in Bratislava, Slovakia
- Prof. Marek Sanak, Jagiellonian, University Medical College, Poland
- Prof. Jacek Sapa, Jagiellonian University Medical College, Poland
- Prof. István Zupkó, University of Szeged, Hungary
- Prof. Jolanta Pytko-Polończyk, Jagiellonian University Medical College, Poland
- 

### 9.30 – 11.00                      **Honorary Lectures**

**CHAIRMAN:** Prof. Erika Halašová, Prof. Dariusz Adamek

### 9.30 – 9.55                      Prof. Lukáš Plank

Comenius University Bratislava, Slovakia

- *FROM TRADITIONAL TO NEXT GENERATION PATHOLOGY: ACHIEVEMENTS IN CANCER BIOPSY DIAGNOSIS*
- 10.00 – 10.25                      Prof. Attila Hunyadi
- University of Szeged, Hungary

- *THE COMPLEX ROLE OF ECDYSTEROIDS IN NATURE AND THEIR DRUG DISCOVERY PERSPECTIVES*

### 10.30 – 10.55                      Prof. Paweł Idziak

- Jagiellonian University, Poland
- *NETWORKS – A PERSONAL PERSPECTIVE*

# Program of the 4<sup>th</sup> ICPMS

- **CONFERENCE SCHEDULE**

- **4<sup>TH</sup> INTERNATIONAL CONFERENCE ON PHARMACEUTICAL AND MEDICAL SCIENCES**

- **16-18.09 2022**

- **MARTIN - SLOVAKIA**

- 

- **16<sup>th</sup> of September 2022**

- 

- **9.00 – 9.30**

- **Opening ceremony**

- Prof. Štefan Sivák, Jessenius Faculty of Medicine in Martin, Comenius University in Bratislava, Slovakia
- Prof. Marek Sanak, Jagiellonian, University Medical College, Poland
- Prof. Istvan Zupko, University of Szeged, Hungary
- Prof . Jacek Sapa, Jagiellonian University Medical College, Poland
- Prof. Jolanta Pytko-Polończyk, Jagiellonian University Medical College, Poland

# Program of the 4th ICPMS

9.30 – 11.00                      **Honorary Lectures**

**CHAIRMAN:** Prof. Erika Halašová, Prof. Dariusz Adamek

9.30 – 9.55                      Prof. Lukáš Plank

Comenius University Bratislava, Slovakia

*FROM TRADITIONAL TO NEXT GENERATION PATHOLOGY: ACHIEVEMENTS IN CANCER BIOPSY  
DIAGNOSIS*

10.00 – 10.25                      Prof. Attila Hunyadi

University of Szeged, Hungary

*THE COMPLEX ROLE OF ECDYSTEROIDS IN NATURE AND THEIR DRUG DISCOVERY PERSPECTIVES*

10.30 – 10.55                      Prof. Paweł Idziak

Jagiellonian University, Poland

*NETWORKS – A PERSONAL PERSPECTIVE*



# Program of the 4<sup>th</sup> ICPMS

11.15 – 13.00 The first main session

CHAIRMAN: Doc. Štefan Sivák, Prof. Zsolt Szakonyi

## NEXT-GENERATION SEQUENCING AND OMICS IN THE ERA OF ADVANCED MEDICAL DIAGNOSTICS

11.15 – 11.30 PhD Peter Amersdorfer

Jessenius Faculty of Medicine in Martin, Comenius University in Bratislava, Slovakia

*BIOBANKS AS INNOVATION INFRASTRUCTURE FOR TRANSLATIONAL MEDICINE*

11.30 – 11.45 PhD Michal Cibulka

Jessenius Faculty of Medicine in Martin, Comenius University in Bratislava, Slovakia

*SINGLE NUCLEOTIDE VARIANT rs708727 OF SLC41A1 GENE IS ASSOCIATED WITH PARKINSON'S DISEASE*

11.45 – 12.00 PhD Michal Pokusa

Jessenius Faculty of Medicine in Martin, Comenius University in Bratislava, Slovakia

*ADVANCED ANALYSIS OF FLUORESCENCE MICROSCOPY OUTPUTS FROM BIOLOGICAL SAMPLES*

12.00 – 12.15 PhD Oliver Strbak

Jessenius Faculty of Medicine in Martin, Comenius University in Bratislava, Slovakia

*USABILITY OF MAGNETIC RESONANCE TECHNIQUES IN METABOLOMICS*

12.15 – 12.30 PhD, BEng Jan Strnadel

*DEVELOPMENT OF NOVEL IN VITRO MODELS FOR HUMAN CANCERS AND NEURODEGENERATIVE DISESES*

12.30 – 12.45 PhD Ilona Notar

*OPPORTUNITIES FOR THE HEALTH EDUCATION OF ROMA WOMEN WITHIN THE FAMILY*

12.45 – 13.00 PhD, DSc Alina Plenis

Medical University of Gdansk, Poland

*EFFECTS OF IONIC LIQUIDS ON THE SEPARATION PROPERTIES OF ALKYL AND PHENYL-BASED STATIONARY PHASES IN REVERSED-PHASE LIQUID CHROMATOGRAPHY*

# Program of the 4<sup>th</sup> ICPMS

14.30 – 16.30

The second main session

**CHAIRMAN:** PhD, DSc Bernardeta Szewczyk, Prof. Marek Lankosz

14.30 – 14.45

Prof. Jolanta Pytko-Polończyk

Jagiellonian University Medical College, Poland

*NETWORK IN DENTISTRY – COOPERATION BETWEEN DENTISTS AND OTHER MEDICAL DOCTORS*

14.50 – 15.05

PhD Igor Łoniewski

Pomeranian Medical University in Szczecin, Poland

*PROBIOTICS IN POST-COVID SYNDROME*

15.10 – 15.25

PhD Eszter Ducza

University of Szeged, Hungary

*REGULATORY ROLE OF AQUAPORIN 5 IN THE FUNCTION OF LATE PREGNANT RAT UTERUS*

15.30 – 15.45

Prof. Dariusz Adamek

Jagiellonian University Medical College, Poland

*PRELIMINARY OBSERVATIONS IN APPLICATION OF THE TRANSCRIPTION FACTORS IN HISTOPATHOLOGICAL DIAGNOSIS ACCORDING TO THE GUIDELINES OF THE NEW WHO CLASSIFICATION*

15.50 – 16.05

PhD Zsuzsanna Schelz

University of Szeged, Hungary

*IN VITRO ANTICANCER EFFECTS OF ISTAROXIME*

16.10 – 16.25

Prof. Tomasz Brzozowski

Jagiellonian University Medical College, Poland

*NON-PHARMACOLOGICAL TREATMENT OF INFLAMMATORY BOWEL DISEASE (IBD). ROLE OF EXERCISE, ADIPOSE TISSUE AND MYOKINES*

16.30 – 16.45

Prof. Keyhan Sayadpour Zanjani

Tehran University of Medical Sciences, Iran

*PULMONARY ANTIHYPERTENSIVE DRUGS AND REVERSAL OF PULMONARY VASCULAR OBSTRUCTIVE*

# Program of the 4<sup>th</sup> ICPMS

**17.15 – 17.35**                      **Young Scientists' Session PART I (7 min for presentation+3 min for discussion)**

**CHAIRMAN:** PhD Katarzyna Kała

17.15 – 17.25                      PhD Student Eszter Pázmándi

University of Szeged, Hungary

*WHY DO CHILDREN HAVE DIFFICULTIES IN ELEMENTARY SCHOOL? METHODS TO HELP STRUGGLING STUDENTS DEVELOP THEIR EXECUTIVE FUNCTIONS IN A SCHOOL ENVIRONMENT*

17.25 – 17.35                      MSc Jan Lazur

Jagiellonian University Medical College, Poland

*HYPsizYGUS MARMOREUS AND THEIR MYCELIUM FROM IN VITRO CULTURES AS A DIETARY AND MEDICINAL AGENT FOR HUMAN ORGANISM*



# Program of the 4<sup>th</sup> ICPMS

17th of September 2022

10.00 – 12.00

**The third main session**

CHAIRMAN: Prof. Jolanta Pytko-Polończyk, Prof. Dušan Dobrota

10.00 – 10.15

Prof. Andrzej Pilc

Polish Academy of Sciences, Poland

*ENHANCEMENT OF THE ANTIDEPRESSANT EFFECT OF HALLUCINOGENS BY MGLU 2/3 RECEPTOR ANTAGONISTS OR SELECTIVE MGLU2 RECEPTOR NEGATIVE ALLOSTERIC MODULATORS (NAMS)*

10.20 – 10.35

PhD Tímea Körmöczi

University of Szeged, Hungary

*ANALYSIS OF DESIGNER DRUGS AND THEIR METABOLITES IN THE FORENSIC PRACTICE*

10.40 – 10.55

Prof. Marek Lankosz

AGH University of Science and Technology, Poland

*AN APPLICATION OF ARTIFICIAL NEURAL NETWORKS TO DIFFERENTIATE SELECTED OVARIAN TUMORS*

11.00 – 11.15

PhD Anita Sztojkov-Ivanov

University of Szeged, Hungary

*EFFECTS OF GESTATION ON THE PHARMACOKINETICS OF DESLORATADINE*

11.20 – 11.35

PhD, DSc Bernardeta Szewczyk

Polish Academy of Sciences, Poland

*ZINC DEFICIENCY BLUNTS THE EFFECTIVENESS OF ANTIDEPRESSANTS IN RODENT MODELS OF DEPRESSION*

# Program of the 4<sup>th</sup> ICPMS

**12.00 – 14.20**                    **Young Scientists' Session PART II (7 min for presentation+3 min for discussion)**

**CHAIRMAN:** Prof. Andrzej Pilc, Prof. Paweł Idziak

12.00 – 12.10                    MD Monika Kujdowicz

Jagiellonian University Medical College, Poland

*THE SPECTROSCOPIC MARKERS OF BLADDER CANCER AND THEIR POTENTIAL USEFULNESS IN PATIENT TREATMENT*

12.10 – 12.20                    MD Krzysztof Szymoński

Jagiellonian University Medical College, Poland

*DEEP LEARNING EMPOWERS DETAILED MOLECULAR IMAGING OF PANCREATIC TUMORS*

12.20 – 12.30                    PhD Student Paweł Gumułka

Jagiellonian University Medical College, Poland

*PRELIMINARY STUDIES OF THE RELEASE RATE OF CELECOXIB AND ITS INCLUSION COMPLEX FROM THE NANOSTRUCTURED LAYER OF TITANIUM DIOXIDE*

12.30 – 12.40                    MSc Karol Jędrejko

Jagiellonian University Medical College, Poland

*SAFETY AND SIGNAL DETECTION OF UNAPPROVED PHARMACEUTICALS AVAILABLE FOR OVERALL SALE IN ELITE AND NON-ELITE ATHLETES*

12.40 – 12.50                    PhD Student Bibiána Baďurová

Jessenius Faculty of Medicine in Martin, Comenius University in Bratislava, Slovakia

*DENTAL PULP STEM CELLS AS AN ATTRACTIVE TOOL FOR BONE TISSUE REGENERATION*

12.50 – 13.00                    PhD Student Hiba Faroug Muddather

University of Szeged, Hungary

*IN VITRO ANTI-PROLIFERATIVE AND ANTI-METASTATIC PROPRIETIES OF PEGANUM HARMALA*

# Program of the 4<sup>th</sup> ICPMS

**12.00 – 14.20**                      **Young Scientists' Session PART II (7 min for presentation+3 min for discussion)**

**CHAIRMAN:** Prof. Andrzej Pilc, Prof. Paweł Idziak

13.00 – 13.10                      PhD Student Ali Hazhmat

University of Szeged, Hungary

*IN VITRO EVALUATION OF ANTIPROLIFERATIVE AND ANTIMETASTATIC ACTIVITY OF THE NEWLY SYNTHESIZED 2-(4-CHLOROPHENYL)-13 $\alpha$ -ESTRONE SULFAMATE*

13.10 – 13.20                      PhD Student Alaa Osman

University of Szeged, Hungary

*EFFECTS OF CALONYSTERONE AND 20-HYDROXYECDYSONE IN THE OBESE RAT MODEL*

13.20 – 13.30                      PhD Student Viktória Nagy

University of Szeged, Hungary

*PHARMACOLOGICAL INVESTIGATION OF A NEWLY SYNTHESIZED MONOTERPENE-BASED 2,4-DIAMINOPYRIMIDINE TYPE DERIVATIVES ON HUMAN CANCER CELL LINES IN VITRO*

13.30 – 13.40                      PhD Student Ikhwan Yuda Kusuma

University of Szeged, Hungary

Universitas Harapan Bangsa, Indonesia

*ANTIBIOTIC EXPOSURE OF A VULNERABLE POPULATION: CONSUMPTION OF THE ELDERLY*

13.40 – 13.50                      PhD Student Yamini Kanti

University of Szeged, Hungary

*URINARY CATHETER-ASSOCIATED COMPLICATIONS AND ITS PREVENTION USING ADVANCED MATERIAL MODIFICATIONS IN CLINICAL USE & IN RESEARCH*

13.50 – 14.00                      PhD Student Ádám Pannonhalmi

University of Szeged, Hungary

*PATIENT SAFETY ISSUES IN TELEMEDICINE APPLICATION DEVELOPMENT IN CASE OF PERIPHERAL ARTERIAL DISEASE*

14.00 – 14.10                      PhD Student András Érszegi

University of Szeged, Hungary

*THE IMPACT OF MEDICATION REVIEW ON FALL RISK PREVENTION IN THE ELDERLY*

14.10 – 14.20                      PhD Student Bálint Madársz

Semmelweis University, Hungary

*THE EFFECT OF THE PARACELSIAN MEDICAL CONCEPT ON THE 20<sup>TH</sup> CENTURY'S MEDICAL VISION*

# Program of the 4<sup>th</sup> ICPMS

**15.45 – 17.15**

**Poster Presentations (3 min for presentation)**

**CHAIRMAN:** Prof. Bożena Muszyńska, PhD DSc Katarzyna Sułkowska-Ziaja

PhD, DSc Alina Plenis – Medical University of Gdańsk, Poland

PhD, DSc Anna Sobańska – Medical University of Łódź, Poland

PhD Zuzana Hatoková – Jessenius Faculty of Medicine in Martin, Comenius University in Bratislava, Slovakia

PhD Veronika Holubekova – Jessenius Faculty of Medicine in Martin, Comenius University in Bratislava, Slovakia

MD Monika Fekete – Semmelweis University, Hungary

PhD Student Michał Rychlik – Jagiellonian University Medical College, Poland

PhD Student Agata Fijałkowska – Jagiellonian University Medical College, Poland

PhD Student Paweł Gumułka – Jagiellonian University Medical College, Poland

PhD Student Żaneta Binert-Kusztal – Jagiellonian University Medical College, Poland

PhD Student Martin Cseh University of Szeged, Hungary

Student Alicja Radzimska – Jagiellonian University Medical College, Poland

Student Piotr Dziura – Jagiellonian University Medical College, Poland

Student Bartosz Babik – Jagiellonian University Medical College, Poland

Student Dominika Zych – Jagiellonian University Medical College, Poland

Student Kamil Hnatyk – Jagiellonian University Medical College, Poland

PhD Kacper Packi – Calisia University, Poland

PhD Student Jakub Misek – Jessenius Faculty of Medicine in Martin, Comenius University in Bratislava, Slovakia

**18<sup>th</sup> of September 2022**

**10.00 – 11.30**

**Conclusion Remarks and Closing Ceremony**

# THE COMPETITION COMMITTEE

**During 4<sup>th</sup> International Conference on Pharmaceutical and Medical Sciences (16-18.09. 2022) MARTIN – SLOVAKIA**

- **Prof. Erika Halašová (Vice-Dean of Jessenius Faculty of Medicine in Martin, Comenius University in Bratislava, Slovakia)**
- **Prof. Jolanta Pytko-Polończyk (Jagiellonian University Collegium Medicum, Vice-Dean of the Faculty of Medicine; The Regional Medical Council in Kraków)**
- **Prof. Andrzej Pilc (Maj Institute of Pharmacology of the Polish Academy of Sciences; Jagiellonian University Medical College, Health Sciences Faculty, Kraków, Poland)**
- **Prof. Bernadeta Szewczyk (Maj Institute of Pharmacology of the Polish Academy of Sciences, Kraków, Poland)**
- **Prof. Marek Lankosz (AGH University of Science and Technology, Poland)**
- **MSc Elżbieta Rząsa-Duran (President of the District Chamber of Pharmacists in Kraków, Poland)**

## RESULTS OF THE COMPETITIONS HELD DURING THE 4<sup>th</sup> ICPMS

- **During 4<sup>th</sup> International Conference on Pharmaceutical and Medical Sciences (16-18.09. 2022) MARTIN – SLOVAKIA**

- **Young Scientists' Session**

**Short Presentation Competition Winner**

1. **PhD Student Alaa Osman, University of Szeged, Hungary**
2. **MSc Jan Lazur, Jagiellonian University Medical College, Poland**
3. **PhD Student Bibiána Bad'urová, Jessenius Faculty of Medicine in Martin, Slovakia**

- **Distinction**

**PhD Student Ali Hazhmat, University of Szeged, Hungary**

**PhD Student Eszter Pázmándi, University of Szeged, Hungary**

**PhD Student Bálint Madársz, Semmelweis University, Hungary**

**PhD Student Ikhwan Yuda Kusuma, University of Szeged, Hungary, Universitas Harapan Bangsa, Indonesia**

# RESULTS OF THE COMPETITIONS HELD DURING THE 4<sup>th</sup> ICPMS

- **During 4<sup>th</sup> International Conference on Pharmaceutical and Medical Sciences (16-18.09. 2022)**

## **MARTIN – SLOVAKIA**

- **Poster Presentation Competition Winner**

- **Category PhD/PhD Student**

1. PhD Veronika Holubekova – Jessenius Faculty of Medicine in Martin, Slovakia
2. PhD Student Michał Rychlik – Jagiellonian University Medical College, Poland
3. PhD Student Martin Cseh – University of Szeged, Hungary

- **Distinction**

- PhD Student Paweł Gumułka – Jagiellonian University Medical College, Poland

- **Category Student**

## **Distinction**

- Student Dominika Zych – Jagiellonian University Medical College, Poland
- Student Piotr Dziura – Jagiellonian University Medical College, Poland
- Student Alicja Radzimska – Jagiellonian University Medical College, Poland
- Bartosz Babik – Jagiellonian University Medical College, Poland