



# Programme

**21<sup>ST</sup> INTERNATIONAL MEDICAL DOCTORAL CONFERENCE**  
Hradec Králové 20. 11. – 22. 11. 2024

(version 2.0)

**Wednesday November 20, 2024**

*Lecture Hall, Educational Center FM*

9:00 **Opening ceremony**

## Lectures

### Session 1

Chairs: **Jakub Radocha, Vladimír Koblížek**

9:15 **Stribrny, Martin (2nd Faculty of Medicine, Charles University, Czech Republic):** Assessing Trunk Muscle Function and Intra-Abdominal Pressure: Evaluations and Correlations in Clinical Practice

9:30 **Smolák, Petr (Faculty of Medicine in Hradec Králové, Charles University, Czech Republic):** Prediction of early postoperative morbidity and ability to rehabilitate in patient after cardiac surgery („CardioStep Study“)

9:45 **Šenkýřová, Tereza (Faculty of Medicine in Hradec Králové, Charles University, Czech Republic):** Profiling Methylation Changes of DNA in Lung Cancer

10:00 **Vigláš, Pavol (Faculty of Medicine in Hradec Králové, Charles University, Czech Republic):** Outcome of tailored antiplatelet therapy in carotid stenting: a retrospective comparative study

10:15 **Tůma, Tomáš (Military Faculty of Medicine, Hradec Králové, University of Defence, Czech Republic):** Balloon-occluded chemoembolization of hepatocellular carcinoma

10:30 **Coffee break**

### Session 2

Chairs: **Hana Langrová, Romana Koberová Ivančaková**

10:50 **Awad, Omar Masoud Morshedy Mohamed (Faculty of Medicine, Pavol Jozef Šafárik University in Košice, Slovakia):** Effect of Platelet Rich Plasma (PRP) in treatment of late stage osteoarthritis

11:05 **Broskevičová, Lucie (Faculty of Medicine, University of Ostrava, Czech Republic):** Optimization of cytokine profiling in multiple myeloma patients undergoing modern immunotherapy

- 11:20 **Kaľuska, Barbara (Faculty of Medical Sciences in Zabrze, Medical University of Silesia in Katowice, Poland):** Diagnostic and Therapeutic Challenges in Patients with Congenital Anomalies of the Kidney and Urinary Tract (CAKUT)
- 11:35 **Kukučka, Tomáš (Jessenius Faculty of Medicine in Martin, Comenius University in Bratislava, Slovakia):** Fluoxetine in adolescent depression: acute effects of monotherapy vs. quetiapine augmentation on body composition and autonomic stress response
- 11:50 **Short break**

### Session 3

Chairs: **Jakub Radocha, Ilja Tachecí**

- 11:55 **Bartoš, Michal (Faculty of Medicine, Masaryk University, Czech Republic):** Microbiome of the middle ear in children with chronic otitis media: a preliminary study
- 12:10 **Ibrahim, Rana (Faculty of Medicine in Hradec Králové, Charles University, Czech Republic):** The Effect of Gestational Diabetes Mellitus on Infant Development: Umbilical Cord Blood Level of C-peptide and Glycemia
- 12:25 **Košťálová, Kateřina (Military Faculty of Medicine, Hradec Králové, University of Defence, Czech Republic):** Interim Analysis: Endoscopic Treatment of Gastroesophageal Reflux Disease by Applying Radiofrequency Energy to the Lower Esophageal Sphincter
- 12:40 **Kolesár, Dushan Michael (3rd Faculty of Medicine, Charles University, Czech Republic):** Sex-Linked Differences in Cardiac Atrophy After Mechanical Unloading Induced by Heterotopic Heart Transplantation
- 12:55 **Lunch**

### Session 4

Chairs: **Martina Řezáčová, Emil Rudolf**

- 13:45 **Kápičková, Kateřina (Faculty of Medicine in Hradec Králové, Charles University, Czech Republic):** Testing the effect of temozolomide and flubendazole in glioma primary cell cultures and 3D cell cultures
- 14:00 **Chebernina, Inna (Medical, SE Lugansk State Medical University, Ukraine):** Effects Of Colon Cancer On Hippocampal Astrocytes In Dental Gyrus: Neuroinflammation And Astrogliosis
- 14:15 **Geryková, Lucie (Faculty of Medicine in Hradec Králové, Charles University, Czech Republic):**  $\alpha$ -internexin (INA) as a possible effective diagnostic marker of sparsely granulated somatotroph PitNETs: proposition of INA-based classification system
- 14:30 **Kuchyňka, Jiří (Faculty of Medicine in Hradec Králové, Charles University, Czech Republic):** A Novel Multi-Modal Approach to Polysomnographic Data Analysis Using Tailored Machine Learning Techniques
- 14:45 **Németh, Adél Ágnes (Medical Faculty, Dental School, University of Pécs, Hungary):** In vitro study of YD-38 epithelial and MRC-5 fibroblast cells attachment and proliferation on anodized surfaces compared with turned surfaces
- 15:00 **Coffee break**

## Posters

15:15 – 16:45 **Poster presentation 1 - 9**

Chairs: **Milan Kaška, Romana Koberová Ivančaková, Hana Langrová**

16:45 **Short break**

17:00 **Mgr. Martin Schwarzer, Ph.D.: Gnotobiology for a medical practice**

*Invited speaker* (Czech Academy of Sciences, Czech Republic)



Mgr. Martin Schwarzer, Ph.D., leads the Integrative Physiology of Gnotobionts research group at the Laboratory of Gnotobiology in the Institute of Microbiology of the Czech Academy of Sciences in Nový Hrádek. His three-year stay in Lyon, France, at the Institute of Functional Genomics in Dr. Leulier's group resulted in two first-authored articles in the prestigious journal *Science*. Among the primary scientific questions he and his colleagues address are the effects of the nutritional environment and intestinal microbial communities on mammalian host physiology, specifically in the context of mucosal immune system development and the juvenile growth. In 2023, he was awarded the Neuron Prize.

18:00 **Dinner, Social evening**

**Thursday November 21, 2024**

*Lecture Hall, Educational Center FM*

## Lectures

### Session 5

Chairs: **Emil Rudolf, Otto Kučera**

9:00 **Timbilla, Abdul Aziz (Faculty of Medicine in Hradec Králové, Charles University, Czech Republic):** Preparation and biological evaluation of novel harmine  $\beta$ -carboline alkaloid derivatives as potential antitumor candidate

9:15 **Adandedjan, David (Faculty of Medicine, Pavol Jozef Šafárik University in Košice, Slovakia):** The Impact of Nephrotoxic Antibiotics on Kidney Graft Viability During Hypothermic Machine Perfusion: A Preclinical Study

9:30 **Kapustová, Veronika (Faculty of Medicine, University of Ostrava, Czech Republic):** Composition and fitness of T and NK cells in extramedullary myeloma tumor microenvironment

9:45 **Cakmakci, Riza Can (Faculty of Medicine, Masaryk University, Czech Republic):** Endoplasmic Reticulum Stress and Unfolded Protein Response Investigation in Patients with Pancreatic Adenocarcinoma

10:00 **Short break**

## Session 6

Chairs: **Aleš Ryška, Jan Kremláček**

- 10:05 **Živná, Natálie (Military Faculty of Medicine, Hradec Králové, University of Defence, Czech Republic):** Synthesis and evaluation of novel compounds as potential active ingredients against CBRN threats
- 10:20 **Dobrovolskii, Mark (3rd Faculty of Medicine, Charles University, Czech Republic):** Functional properties and pharmacology of zebrafish NMDA receptors
- 10:35 **Portakal, Türkan (Medicine, Masaryk University, Czech Republic):** Role of LPS on EMT and ER Stress in Lung Epithelial Cells
- 10:50 **Navratil, Pavel (Faculty of Medicine in Hradec Králové, Charles University, Czech Republic):** Protection of the Endothelium and Endothelial Glycocalyx by Albumin and Sulodexide in Porcine Model of Kidney Transplantation
- 11:05 **Warwas, Szymon (Doctoral School, Medical University of Silesia in Katowice, Poland):** The safety and efficacy of orthotopic heart transplantation in patients aged 65 and older
- 11:20 **Coffee break**

## Session 7

Chairs: **Aleš Ryška, Martina Řezáčová**

- 11:45 **Špalková, Veronika (Faculty of Medicine in Hradec Králové, Charles University, Czech Republic):** Changes in lipid and glucose metabolism in cells exposed to hypoxia
- 12:00 **Melek, Jan (Faculty of Medicine in Hradec Králové, Charles University, Czech Republic):** Obeticholic Acid Induces Uncoupling of Oxidative Phosphorylation in Models of Metabolic Dysfunction-Associated Steatotic Liver Disease
- 12:15 **Dodzi Kodzitse Lelkes, Krisztina (Faculty of Medicine in Hradec Králové, Charles University, Czech Republic):** Investigating the Degradation Mechanisms of Polydioxanone (PPDX) in Low pH Conditions for Gastrointestinal Applications
- 12:30 **Kriváková, Eva (Faculty of Medicine, Pavol Jozef Šafárik University in Košice, Slovakia):** Role of Hyaluronic Acid Metabolism in Endometrial Receptivity
- 12:45 **Badurová, Klára (Faculty of Medicine, University of Ostrava, Czech Republic):** Activation of NK cells by different interleukin combinations
- 13:00 **Speakers award: The best lecture (start of voting)**
- 13:05 **Lunch**

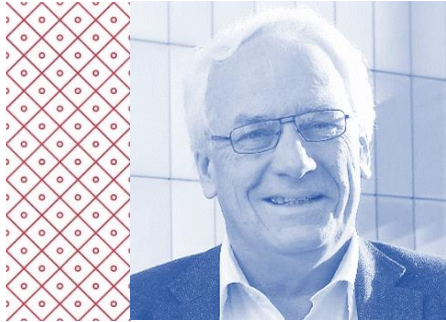
## Posters

- 13:50– 15:20 **Poster presentation [10 - 17](#)**  
Chairs: **Milan Kaška, Romana Koberová Ivančaková**
- 15:15 **Meeting of the organizing committee / Free time**
- 18:00 **Evaluation of the best presentations, music performance**
- 19:30 **Raut, social evening**

Lecture Hall, Educational Center FM

**Invited speakers and workshops:**

09:00 **Prof. Kurt Zatloukal M.D.:** **Changes in research paradigms and the impact on medicine**  
*Invited speaker* (Medizinische Universität Graz, Austria)



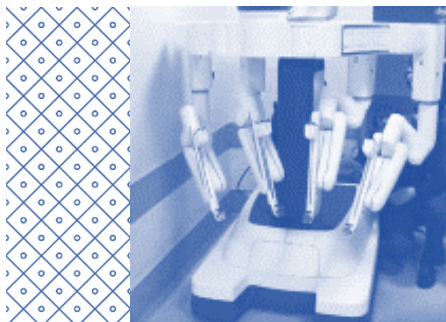
**Kurt Zatloukal, M.D.** is a pathologist at the Medical University of Graz. Research focuses on digital pathology and biobanking, the development of molecular diagnostics as well as the molecular pathology of diseases with a focus on infectious disease and biosafety, which includes the BSL-3 laboratory at MUG. He is member of ISIDORE which provides integrated services for infectious disease outbreak research, and he is involved in diagnostics standard development. Other projects: next generation sequencing in medical diagnostics, and building a central repository for digital pathology. He has published over 277 scientific papers and was co-inventor on 26 patent applications.

10:00 **Mgr. Kristina Nešporová, Ph.D.:**  
**Hyaluronic acid in a research, clinical practice and cosmetics**  
*Invited speaker* (Contipro a.s., Czech Republic)



Dr. Kristina Nešporová, molecular biologist and head of the Biological Sciences research group at Contipro a.s. While working at Contipro, Kristina pursued her Ph.D. in Animal Physiology at Masaryk University, defending it in 2016. Her role involves planning research projects, learning new concepts, and sharing knowledge, all without the pressure of securing grants. Working in a private company, she presents results to clients, participates in PR activities, and adapts to strategic management decisions that may shift research priorities. Although her current position limits her lab time, Kristina remains involved in managing scientific activities, seeking new research areas, and exploring collaborations.

11:00 **Workshops**



1. **Experimental and clinical gastrointestinal endoscopy**  
**Ilja Tachecí** (2nd Department of Internal Medicine – Gastroenterology)
2. **Robot-assisted surgery**  
**Michal Balík** (Department of Urology)
3. **Digital dentistry**  
**Ondřej Heneberk, Dafni Katopodi** (Department of Dentistry)

For workshops please register [here](#)

12:30 **Lunch, Farewell**

## Posters

- 1) **Afshari, Mohammadreza** (Faculty of Medicine in Hradec Králové, Charles University, Czech Republic): Evaluation of newly synthesized FLT-3 inhibitors on proliferation of cancer cells
- 2) **Alamaless, Yasmeen Mekhled** (Medical School, University of Pécs, Hungary): Comprehensive analysis of invasive and non-invasive methods used in preimplantation genetic testing
- 3) **Artimovič, Peter** (Faculty of Medicine, Pavol Jozef Šafárik University in Košice, Slovakia): Targeting PPAR $\gamma$  in Endometrial Receptivity: Friend or Foe?
- 4) **Dallmer-Zerbe, Isa Margarethe Irene** (2nd Faculty of Medicine, Charles University, Czech Republic): Data-driven computational modelling of epileptic activity
- 5) **Morávek, Alexander** (Faculty of Medicine in Hradec Králové, Charles University, Czech Republic): Bone mineral density as a sex determination feature
- 6) **Staniszewska, Agnieszka** (International Doctoral School, Medical Science, Medical University of Lodz, Poland): Optimization of Adherent Cell Cultures: Enhancing Growth Monitoring with Automated Cell Counting
- 7) **Striteska, Maja** (Faculty of Medicine in Hradec Králové, Charles University, Czech Republic): Binocular Video Head Impulse: Looking beyond the balance
- 8) **Vakhnovska, Khrystyna** (Medicine, State Establishment “Lugansk State Medical University”, Ukraine): Structural and Morphological Changes in the Blood Vessels of the Kidney of White Rats Under Simulating Different Degrees of Dehydration
- 9) **Vladyka, Ondřej** (2nd Faculty of Medicine, Charles University, Czech Republic): Profound T lymphocyte and DNA repair defects characterize Schimke Immuno-Osseous Dysplasia

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- 10) **Aleksandrenko, Hlib** (Faculty of Healthcare, Social Work and Psychology, School of Public Health of National University of Kyiv-Mohyla Academy, Ukraine): Beyond the Clinic: A Pilot Study of a Digital Health Intervention for Extending Mental Health Care in Ukraine
- 11) **Čermáková, Erika** (Faculty of Medicine, Masaryk University, Czech Republic): Is intermittent fasting a suitable method for the prevention and treatment of obesity?
- 12) **Écsiová, Dominika** (Faculty of Medicine in Hradec Králové, Charles University, Czech Republic): Unveiling the Spectrum of Genetic Alterations in Relapsed/Refractory CLL Patients on Targeted Inhibitors: A Prospective Unicentric Study
- 13) **Hemerková, Pavlína** (Faculty of Medicine in Hradec Králové, Charles University, Czech Republic): The Relationship Between Oxidative Stress Markers and the Severity of Amyotrophic Lateral Sclerosis (ALS)
- 14) **Husivargová Theofanidis, Alexandra** (Faculty of Medicine, PJ Safarik University in Košice, Slovakia/ University Medical Center Groningen, University of Groningen, The Netherlands): Challenges of rheumatoid arthritis and the impact of COVID-19
- 15) **Sabová, Jana** (Faculty of Medicine, Pavol Jozef Šafárik University in Košice, Slovakia): Assessment of Agrimonia eupatoria L. and lipophosphonoxin combination for wound repair: Bridging the gap between phytomedicine and organic chemistry
- 16) **Świątek, Agata** (Faculty of Medical Sciences in Zabrze, Medical University of Silesia in Katowice, Poland): Assessment of serum granulins levels in patients with neuroendocrine tumors of the lung and the gastrointestinal tract
- 17) **Holmannova, Drahomira** (Faculty of Medicine in Hradec Králové, Charles University, Czech Republic): Vitamin D deficiency is highly prevalent in the Czech Republic: a retrospective study of 119 925 participants



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Thank you for your support!

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Normovaná spotřeba (l/100 km): 1,8 + 23 kWh - 5,8, emisí CO<sub>2</sub> při kombinované jízdě (g/km): 33 - 131

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