ISCTICO - HUPHAR-IUPHAR CONFERENCE

OCTOBER 27-30, 2021 PÉCS, HUNGARY



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OP. (IT dollows) to the symposia by Fictor Ferrary 11th INTERNATIONAL SYMPOSIUM ON CELL/TISSUE INJURY AND CYTOPROTECTION/ ORGANOPROTECTION (ISCTICO),

JOINT MEETING OF THE HUNGARIAN SOCIETY FOR EXPERIMENTAL AND CLINICAL PHARMACOLOGY (HUPHAR) AND THE INTERNATIONAL UNION OF BASIC AND CLINICAL PHARMACOLOGY (IUPHAR)

PROGRAM











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Welcome

The 11th International Symposium on Cell/Tissue Injury and Cytoprotection/ Organoprotection (ISCTICO), joint meeting with the IUPHAR GI Section and the Hungarian Society for Experimental and Clinical Pharmacology (HUP-HAR) will be hosted by the University of Pécs, Hungary, between October 27-30, 2021 in the Episcopal Granary Visitor Center in Pécs, Hungary. The Symposium follows a range of internationally acknowledged and highly successful series held in Heidelberg (1986), Boston (2000), Long Beach (2006, 2008), Yalta (2011), St. Petersburg (2011), Honolulu (2012), Budapest (2014), Krakow (2016), and recently in Kyoto (2018).

The history of ISCTICO originates from Andre Robert's concept of 'gastric cytoprotection', which led to extensive investigations in the area of tissue/cytoprotprotection. The Symposia provided an international forum for discussing the most recent findings on mechanisms, pathogenesis, manifestations and prevention of gastric mucosal lesions. We are happy to organize the meeting with on-site attendence with about the 20 international experts of different fields of cyto-organoprotection from 12 countries in spite of the difficulties for travel due to Covid-19 pandemia. Some international speakers will give their talk online.

For the first time in the history of ISCTICO it will be hosted together with the annual conference of the Experimental Section of the Hungarian Society for Experimental and Clinical Pharmacology (HUPHAR). Therefore, besides having an insight into the advancements in gastrointestinal mucosal injury and protection, further topics on the mechanisms of cardioprotection, ischaemia/reperfusion injury, neuroprotection, with special focus on mediators such as neuropeptides, gas and purine mediators as well, are also included in the scientific program.

It is our pleasure to welcome scientists in Pécs, the mediterranean capital of Hungary with a splendid historical city center that dates back over 2000 years. We hope that the conference will provide an excellent forum to present novel findings, exchange ideas in form of oral as well as poster presentations. We wish all participants a very pleasant stay, we hope that the exciting scientific as well as social program of the symposium will make your visit unforgettable in Pécs, Hungary.

Prof. Dr. Zsuzsanna Helyes Chair of the Symposium Prof. Dr. Klára Gyires Co-Chair of the Symposium

Local Organizing Committee

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Collect the 8 different exhibitor's stamp and participate in the raffle! Hand over the fully completed stamp collection at the registration desk to participate in the raffle on October 30, 2021 at 15:30. The prizes are offered by the exhibiting companies.

General information

Date:	27-30 October, 2021
Location:	Pécs, Hungary
Venue:	Episcopal Granary Visitor Centre,
GPS:	46.07908489419033, 18.222367668005273
Address:	H-7621 Pécs, Dóm square 2.

Registration Desk

The registration desk is located on the Entrance level of the Episcopal Granary Visitor Center.

Opening hours:

12:00 - 17:00
8:00 - 17:00
8:00 - 16:00
8:00 - 12:00

Conference Badge

Once collected, please ensure you wear your badge at all time during the conference. The Cathedral and its Lookout Tower can be visited for free during the conference, by showing your badge at the entrance.

WiFi

network: PEM-Conference

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Photography

During the event photos will be taken. If you do not wish to be included in the recordings, please request your cancellation indicate with your name and signature at the time of registration.

Registration fee includes the following services:

admission to all scientific program, digital program booklet, coffee breaks, wine- and cheese tasting during poster sessions, lunches on October 28, 29, 30, Welcome Dinner on October 27.

HSEV Section

Registration fee for HSEV section includes participation only at the HSEV section, on 29 October at 11:00-12:30.

Parking is available in the parking lot in front of the west and south gates of the Cathedral, but due to the limited number of spaces, we recommend arriving on foot or by taxi. Volán taxi: +72 333 333

Social programs

Welcome Reception

Wednesday, October 27, 2021, 18:00-21:00 Enjoy a visit and organ concert at the Cathedral of Pécs, followed by a buffet dinner at the restaurant of the Episcopal Granary Visitor Center (conference venue).*Welcome reception is included in the registration fee for individuals and students.*

Gala Dinner

Thursday, October 28, 2021, 19:00-24:00 Venue: Palatinus Grand Hotel (7621 Pécs, Király utca 5.) Program: buffet dinner with live party music Meeting point: reception of Palatinus Grand Hotel Optional program, pre-registration and ticket is needed. Participation fee: 17 000 HUF

Dinner at Fritz Wine Estate (Szekszárd)

Friday, October 29, 2021, 18:30-24:00 Program: bustransfer to the Historical Wine Region near Szekszárd (60 km from Pécs), wine-tasting with classic Hungarian dinner, music, bustransfer back to Pécs. Meeting point: entrance of the conference venue. Please arrive on time, because of the bus transfer. *Optional program, pre-registration and ticket is needed. Participation fee: 22 000 HUF*

Lunch

Thursday, October 28, 2021, 12:55 - 14:00 Friday, October 29, 2021, 12:35 - 13:35 Saturday, October 30 2021, 12:35 - 13:35 Venue: restaurant of the Episcopal Granary Visitor Center (conference venue) Lunches are included in the registration fee for the registered participants Coffee for lunch can be requested at the restaurant's counter and in the Café on the gound floor.

27 th October 2021	
13:00-13:15	Opening ceremony
13:15-13:45	Plenary lecture
	Michael Spedding (Secretary General, IUPHAR and President of Spedding Research Solutions, Paris, France) The underappreciated but essential role of glycosphingolipids in ageing, motorneurone disease, Parkinson's disease – and viral infections. New therapies
	Chair Péter Ferdinandy (Department of Pharmacology and Pharmacotherapy, Semmelweis University, Faculty of Medicine, Budapest, Hungary)
17./ 5 15.15	S1 - Gas mediators, antioxidants and growth factors in cyto / organoprotection Chairs
13:43-13:13	Erika Pintér (Department of Pharmacology and Pharmacotherapy, University of Pécs, Medical School, Pécs, Hungary) Michael Spedding (Secretary General, IUPHAR and President of Spedding Research Solutions, Paris, France)
13:45	Lóránd Kiss (Department of Pathophysiology, University of Szeged, Szeged, Hungary) Dimethyl trisulfide as a promising therapeutic organosulfure molecule in experimental acute pancreatitis
14:05	András Garami (Department of Thermophysiology, Institute for Translational Medicine, University of Pecs, Medical School, Pécs, Hungary) The transient receptor potential ankyrin-1 channel mediates the thermal effects of hydrogen-sulphide
14:25	Gábor Pozsgai (Department of Pharmacology and Pharmacotherapy, University of Pécs, Medical School, Pécs, Hungary) Dimethyl trisulfide reduces duration of immobility and increases activity frequency in the mouse forced swim test via TRPA1 ion channel

14:45	Balázs Zsidó (Department of Pharmacology and Pharmacotherapy, University of Pécs, Medical School, Pécs, Hungary) Computational binding studies of sulfide-containing irreversible agonists of ion channel TRPA1
15:00	Aleksandra Danielak (Department of Physiology, Jagiellonian University Medical College, Cracow, Poland) Hydrogen-sulfide (H2S)-releasing pharmacological tools in the prevention of drugs-Induced gastrointestinal mucosal injury
15:15-15:45	Coffee break
15:45-17:15	S2 - Drug discovery and development: novel drugs and therapeutic strategies for cytoprotection Chairs András Varró (Department of Pharmacology and Pharmacotherapy, Faculty of Medicine, University of Szeged, Hungary) Anikó Borbás (Department of Pharmaceutical Chemistry, University of Debrecen, Debrecen, Hungary)
15:45	Zsuzsanna Helyes (Department of Pharmacology and Pharmacotherapy, Medical School and Szentágothai Research Centre University of Pécs, Pécs, Hungary) Preclinical development of a novel, multi-target analgesic for neuropathic pain
16:15	Rita Börzsei (Department of Pharmacology and Pharmacotherapy, University of Pécs, Medical School, Pécs, Hungary) Calculation of complex structures of somatostatin receptor subtype 4
16:30	Valéria Tékus (Department of Pharmacology and Pharmacotherapy, University of Pécs, Medical School, Pécs, Hungary) Protective effects of the novel amine oxidase inhibitor multi-target drug SZV 1287 on pancreatic beta cell damage and neuropathic cold hypersensitivity in the streptozotocin-induced rat diabetes model
16:45	Iván Mandel (Department of Dentistry, Oral and Maxillofacial Surgery, University of Pécs, Medical School, Pécs, Hungary) Comparative evaluation of two hyaluronic acid gel products for the treatment of interdental papillary defects

17:00	Györgyi Horváth (Department of Pharmacognosy, Faculty of Pharmacy, University of Pécs, Pécs, Hungary) The pharmacological effect of thyme (Thymus vulgaris L.) essential oil in an endotoxin-induced acute airway inflammation mouse model
17:15-17:45	Issekutz Plenary Lecture
	Beáta Sperlágh (Institute of Experimental Medicine, Eötvös Loránd Research Network, Budapest, Hungary) 30 year journey around the ATP molecule: novel perspectives for the treatment of nervous system disorders
18:00-21:00	Visit to the Cathedral, Organ concert, Welcome dinner

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28 th October 2021	
8:30-9:00	Plenary lecture
	Thomas Brzozowski (Department of Physiology, Faculty of Medicine, Jagllonian University Medical College, Cracow, Poland) Emerging role of exercise and intestinal alkaline phosphatase in amelioration of inflammatory bowel disease (IBD) in experimental animals and humans. Importance of adipokines, myokines and intestinal microbiota. Chair Péter Ferdinandy (Department of Pharmacology and Pharmacotherapy, Semmelweis University, Faculty of Medicine, Budapest, Hungary))
9:00-10:35	S3 - Gut microbiota in health and disease Chairs Zoltán S. Zádori (Department of Pharmacology and Pharmacotherapy, Semmelweis University, Faculty of Medicine, Budapest, Hungary) Nathalie Vergnolle (Inserm, Digestive Health Research Institute, Toulouse, France)
9:00	Peter Holzer (Research Unit of Translational Neurogastroenterology, Division of Pharmacology, Otto Loewi Research Centre, Medical University of Graz, Graz, Austria) Microbial and pharmacological implications of high-fat diet-induced depression (online)
9:20	Nathalie Vergnolle (Inserm, Digestive Health Research Institute, Toulouse, France) The physiological and pharmacological role of microbial biofilms at the gut mucosa surface
9:40	Zoltán S. Zádori (Department of Pharmacology and Pharmacotherapy, Semmelweis University, Faculty of Medicine, Budapest, Hungary) The effect of nonsteroidal anti-inflammatory drugs on the small intestinal microbiota and bile acids in rats
10:00	Yanaka Akinori (Department of Gastroenterology, University of Tsukuba, Ibaraki, Japan) Sulforaphane normalizes human bowel habits by increasing Nrf2-dependent antioxidant system and butyrate-producing gut microbiota (online)
10:20	Dóra Zelena (Department of Physiology, University of Pécs, Medical School, Pécs, Hungary) The stressed gut: influence of microbiom on susceptibility for posttraumatic stress disorder in rats

10:35-11:05	Coffee break
11:05-11:25	Special talk
	Sándor Kerpel-Fronius (Department of Pharmacology and Pharmacotherapy, Semmelweis University, Budapest, Hungary) Clinical pharmacology of modern vaccine development Chair Péter Ferdinandy (Department of Pharmacology and Pharmacotherapy, Semmelweis University, Faculty of Medicine, Budapest, Hungary)
11:25-12:55	S4 - Novel mechanisms in neuroprotection Chairs Beáta Sperlágh (Institute of Experimental Medicine, Eötvös Loránd Research Netwo Budapest, Hungary) Ádám Dénes (Laboratory of Neuroimmunology, Institute of Experimental
	Medicine, Budapest, Hungary)
11:25	Péter Illés (Department of Pharmacology, University of Leipzig, Leipzig, Germany) P2X7 receptors amplify CNS damage in neurodegenerative diseases
11:55	Ádám Dénes (Laboratory of Neuroimmunology, Institute of Experimental Medicine, Budapest, Hungary) Modulation of microglial activity to shape neurovascular responses and brain injury
11:20	András Iring (Institute of Experimental Medicine, Eötvös Loránd Research Network, Budapest, Hungary) Central inhibition of P2Y12R differentially regulates survival and neuronal loss in MPTP induced Parkinsonism in mice
11:40	Andrea Tamás (Department of Anatomy, University of Pécs, Medical School, Pécs, Hungary) Pituitary adenylate cyclase-activating polypeptide, a potential new biomarker in Parkinson's disease
12:55-14:00	Lunch break

14:00-15:30	S5 - Mechanisms of drug-induced tissue injury: implications for safety testing Chairs Péter Ferdinandy (Department of Pharmacology and Pharmacotherapy, Semmelweis University, Faculty of Medicine, Budapest, Hungary) Sándor Szabó (American University of Health Sciences, School of Medicine, Signal Hill, California, United States)
14:00	Kim D. Rainsford (Biomedical Research Centre, Sheffield Hallam University, Sheffield, United Kingdom) GI-Safer Salicylates – the case for Salsalate (Diplosal) (online)
14:30	István Baczkó (Department of Pharmacology and Pharmacotherapy, Faculty of Medicine, University of Szeged, Szeged, Hungary) Novel transgenic rabbit models for drug-induced arrhythmia prediction
14:45	Péter Bencsik (Department of Pharmacology and Pharmacotherapy, University of Szeged, Szeged, Hungary) Is inhibition of matrix metalloproteinase-2 cardioprotective against acute myocardial infarction in normo- and also in hypercholesterolemia?
15:00	Gergely Tamás (Semmelweis University, Department of Pharmacology and Pharmacotherapy) Immune checkpoint inhibition with PD-1 inhibitor induces cardiac dysfunction without overt myocarditis in C57BL/6 mice
15:15	Bence Károly Ágg (Cardiometabolic and MTA-SE System Pharmacology Research Group, Department of Pharmacology and Pharmacotherapy, Semmelweis University, Budapest, Hungary) Improving the quality and the time complexity of network visualization by hierarchical relative entropy optimization
15:30-17:00	 S6 - Cyto and organoprotection regulated by endogenous mediators / modulators and their therapeutic significance Chairs Klára Gyires (Department of Pharmacology and Pharmacotherapy, Semmelweis University, Faculty of Medicine, Budapest, Hungary) Gaetano laquinto (Santa Rita Hospital Division of Gastroenterology, Atripalda, and Institute of Food Sciences-CNR, Avellino, Italy) Zoltán S. Zádori (Department of Pharmacology and Pharmacotherapy, Semmelweis University, Faculty of Medicine, Budapest, Hungary)
15:30	Ludmila Filaretova (Laboratory of Experimental Endocrinology, Pavlov Institute of Physiology, Russian Academy of Sciences, St. Petersburg, Russia) Running as a stressor: the effects on the gastrointestinal tract (online)

15:50	Yvette Taché (Digestive Diseases Research Center, Digestive Diseases Division, David Geffen School of Medicine at UCLA and VA Greater Los Angeles Healthcare System, Los Angeles, California, United States) Brain-gut interactions: implications to understand and treat postoperative ileus (online)
16:10	Kata Csekő (Department of Pharmacology and Pharmacotherapy, University of Pécs, Medical School) Somatostatin receptor subtype 4 alleviates indomethacin-induced gastrointestinal mucosal injury in mice
16:25	Gaetano laquinto (Santa Rita Hospital Division of Gastroenterology, Atripalda, and Institute of Food Sciences-CNR, Avellino, Italy) The Role of Adherent Invasive Escherichia Coli in Crohn Disease
16:45	Uray Karen L. (Department of Medical Chemistry, University of Debrecen, Faculty of Medicine, Debrecen, Hungary) The Role of Mechanotransduction in the Development of Ileus
17:00-18:00	Poster session I
19:00-22:00	Gala dinner in Grand Hotel Palatinus

29 th October 2021	
8:30-9:00	Plenary lecture
	Sándor Szabó (American University of Health Sciences, School of Medicine, Signal Hill, California, United States) Vascular endothelial injury: Common element in the cellular and molecular pathogenesis of GI ulceration and COVID-19 Chair Zsuzsanna Helyes (Department of Pharmacology and Pharmacotherapy, Medical
	School and Szentágothai Research Centre University of Pécs, Pécs, Hungary)
9:00-10:30	 S7 - Novel insights into the mechanisms of gastrointestinal and epithelial injury and protection Chair Viktória Venglovecz (Department of Pharmacology and Pharmacotherapy, University of Szeged, Faculty of Medicine, Szeged, Hungary)
9:00	Gábor Varga (Department of Oral Biology, Semmelweis University, Budapest, Hungary) Functional polarization and bicarbonate transport of HAT-7 ameloblasts
9:20	Olga Lyubashina (Pavlov Institute of Physiology of the Russian Academy of Sciences Laboratory of Cortico-Visceral Physiology, Saint Petersburg, Russia) The colitis-induced supraspinal neuronal alterations contributing to intestinal hyperalgesia (online)
9:30	Béla Nagy (Department of Laboratory Medicine, University of Debrecen, Debrecen, Hungary) Combined CFTR modulators reduce human epididymis protein 4 (HE4) expression in cystic fibrosis airway epithelial cells
9:40	Marietta Margaréta Korsós (Department of Pharmacology and Pharmacotherapy, University of Szeged, Szeged, Hungary) Investigation of esophageal ion transport mechanism using mice esophageal 3D organoid cultures
9:50	László Czumbel (Department of Oral Biology, Semmelweis University, Budapest, Hungary) Saliva Specimens for detecting SARS-CoV-2: A Meta-Analysis
10:00	Bence Pál Bartha (University of Szeged Department of Physiology, Anatomy and Neuroscience) Gut region-specific expression of tumor necrosis factor alpha and its receptor in the myenteric neurons of streptozotocin-induced diabetic rats

Markus M. Heimesaat (Institute for Microbiology, Infectious Diseases and Immunology, Charité - University Medicine, Berlin, Germany) - Pituitary Adenylate Cyclase-Activating Polypeptide alleviates intestinal, extra- intestinal and systemic inflammatory responses during acute Campylobacter jejuni induced enterocolitis in mice - Murine fecal microbiota transplantation alleviates intestinal and systemic immune responses in Campylobacter jejuni infected mice harboring a human gut microbiota
Coffee break
S8 - Novel therapies based on extracellular vesicles (HUPHAR section inaugural meeting)
Chairs Zoltán Giricz (Department of Pharmacology and Pharmacotherapy, Semmelweis University, Faculty of Medicine, Budapest, Hungary) Edit Buzás (Department of Genetics, Cell and Immunbiology, Semmelweis University, Faculty of Medicine, Budapest, Hungary)
Zoltán Giricz (Department of Pharmacology and Pharmacotherapy, Semmelweis University, Faculty of Medicine, Budapest, Hungary) Establishing HSEV, a platform for Hungarian EV-research community
Edit Buzás (Department of Genetics, Cell and Immunbiology, Semmelweis University, Faculty of Medicine, Budapest, Hungary) Formation of a biomolecular corona in the surface of extracellular vesicles in blood plasma
Erzsébet Ligeti (Department of Physiology, Semmelweis University, Budapest, Hungary) Neutrophilic granulocytes: model for highly selective EV production
Mihályi Judith (Biological Nanochemistry Research Group, Institute of Materials and Environmental Chemistry, Research Centre for Natural Sciences, Budapest, Hungary) Quantitative and qualitative characterization of extracellular vesicles by IR spectroscopy
Beáta Szebeni (Paediatrics and Nephrology research group, Eötvös Loránd Research Network and Ist Department of Paediatrics, Semmelweis University, Budapest, Hungary) Peritoneal dialysis effluent-derived extracellular vesicles reduce risk of development of peritoneal dialysis-associated peritoneal fibrosis

12:01	Krisztina Buzás (Department of Immunology, Albert Szent-Györgyi Medical School, Faculty of Science and Informatics, University of Szeged, Szeged, Hungary) Investigation of extracellular vesicles in central nervous system tumors using vibration spectroscopy
12:16	Szabolcs Hambalkó (Department of Pharmacology and Pharmacotherapy, Semmelweis University, Budapest, Hungary) Cardioprotection mediated by calcium-ionophore induced extracellular vesicles
12:24	Kitti Garai (Department of Pharmaceutical Biotechnology, Faculty of Pharmacy, and Wnt Signaling Research Group, Szentagothai Research Center, University of Pécs, Pécs, Hungary) Serum exosomal miRNA pattern of an active lifestyle, its correlation with anthropometric parameters and role in chronic disease prevention
12:35-13:35	Lunch break
13:35-15:05	 S9 - Novel mechanisms and therapeutic targets of malignant cell transformation and autoimmunity Chairs István Peták (Department of Pharmacology and Pharmacotherapy, Semmelweis University and Oncompass Medicine, Budapest, Hungary; Department of Biopharmaceutical Sciences, University of Illinois at Chicago, USA) Thomas Brzozowski (Department of Physiology, Faculty of Medicine, Jagllonian University Medical College, Cracow, Poland)
13:35	Istvan Peták (Department of Pharmacology and Pharmacotherapy, Semmelweis University and Oncompass Medicine, Budapest, Hungary; Department of Biopharmaceutical Sciences, University of Illinois at Chicago, USA) A computational method to select the right molecular target for each cancer patient
13:53	Anna Sebestyén (I st Institute of Pathology and Experimental Cancer Research, Semmelweis University, Budapest, Hungary) Metabolic ecosystem and plasticity in the progression of cancer tissues
14:11	József Tímár (2 nd Institute of Pathology, Semmelweis University, Budapest, Hungary) RAS: Targeting the untargetable

14:29	Zoltán Szekanecz (Division of Rheumatology, University of Debrecen, Faculty of Medicine, Debrecen, Hungary) Effects of tofacitinib therapy on arginine and methionine metabolites in association with vascular pathophysiology in rheumatoid arthritis: a metabolomic approach
14:47	Katalin Kiss (Department of Medical Biology and Central Electronmicroscopic Laboratory, University of Pécs, Medical School, Pécs, Hungary) Intracellular signaling upon withdrawal of trophic serum factors in a cell line model expressing constitutively active RhoA monomeric G-protein
15:05-16:35	 S10 - Novel mechanisms in tissue injury and protection Chairs Christoph Sensen (Director General of HCEMM, Institute of Computational Biotechnology, Graz University of Technology, Graz, Austria) Zoltán Varga (Department of Pharmacology and Pharmacotherapy, Semmelweis University, Faculty of Medicine, Budapest, Hungary)
15:05	Christoph Sensen (Director General of HCEMM, Institute of Computational Biotechnology, Graz University of Technology, Graz, Austria) Introduction of the Hungarian Center of Excellence in Molecular Medicine (HCEMM) program
15:09	Balázs Enyedi (HCEMM-SU Inflammatory Signaling Research Group, Semmelweis University, Budapest, Hungary) The role of the nucleus in mediating tissue damage detection
15:24	József Maléth (HCEMM-USZ Molecular Gastroenterology Research Group, and Hungarian Academy of Sciences-USZ Momentum Epithelial Cell Signaling and Secretion Research Group University of Szeged, Szeged, Hungary) The role of plasma membrane Ca2+ channels in the development of epithelial cell injury in exocrine pancreatic pathophysiology
15:39	Zoltán Varga (HCEMM-SU Cardiometabolic Immunology Research Group, Semmelweis University, Budapest, Hungary) New inflammatory mechanisms in chronic heart failure
15:54	Nazha Hamdani (HCEMM-SU Cardiovascular Comorbidities Research Group, Institut für Forschung und Lehre (IFL), Department of Molecular and Experimental Cardiology; Department of Cardiology, St. Josef-Hospital and Bergmannsheil, Ruhr University Bochum, Bochum, Germany) Novel therapeutic options for heart failure with preserved ejection fraction targeting inflammation and oxidative stress

16:09	Nabil V. Sayour (HCEMM-SU Cardiometabolic Immunology Research Group, Department of Pharmacology and Pharmacotherapy, Semmelweis University, Budapest, Hungary) Novel druggable targets of heart failure with reduced ejection fraction identified by droplet digital PCR and validated by Next Generation Sequencing
16:22	Eszter A Tóth (Department of Genetics, Cell and Immunobiology, Semmelweis University, Budapest, Hungary) Formation of a protein corona on the surface of extracellular vesicles in blood plasma
16:30-17:30	Poster session II
18:30	Bus transfer to Szekszárd
19:30-23:00	Dinner at Fritz Winery Szekszárd

	30 th October 2021
8:30-9:00	Plenary lecture
	István Gábor Greiner (Gedeon Richter Plc., Budapest Hungary) Is there a chance for next "cariprazine"?
	Chair Zsuzsanna Helyes (Department of Pharmacology and Pharmacotherapy, Medical School and Szentágothai Research Centre University of Pécs, Pécs, Hungary)
	S11 - Innovative drugs, targets and methods in pharmaceutical research
9:00-10:30	Chairs György Lévay (Gedeon Richter Plc., Budapest, Hungary) Zsolt Némethy (Gedeon Richter Plc., Budapest, Hungary)
9:00	András Kern (Gedeon Richter Plc., Budapest, Hungary) Disease modeling with iPSC-derived neurons: functional studies and alternative for drug development
9:20	Péter Pelsőczi (Gedeon Richter Plc., Budapest, Hungary) Behavioral group dynamics of autistic-like rats in the IntelliCage
9:40	Diana Kostyalik (Cognitive Pharmacology Laboratory, Department of Pharmacology and Drug Safety, Gedeon Richter Plc., Budapest, Hungary) Response-related sensorimotor EEG rhythms in the Touchscreen Visual Discrimination test in rats: functional connections to cognitive impairment
10:00	Eszter Bálint (Laboratory of In Vivo Pharmacodynamics, Richter Gedeon Plc, Budapest, Hungary) Of mice and men: modeling yoyo in obese C57BL/6J mouse
10:30-11:00	Coffee break
11:00-12:15	S12 - New trends in neuropsychiatry Chairs Viktor Román (Neurodevelopmental Biology at Gedeon Richter Plc., Budapest, Hungary) György Lévay (Gedeon Richter Plc., Budapest, Hungary)

11:00	Viktor Román (Neurodevelopmental Biology at Gedeon Richter Plc., Budapest, Hungary) Cariprazine alleviates core behavioral deficits in the prenatal valproic acid exposure model of autism spectrum disorder
11:25	Zsolt Némethy (Pharmacological and Drug Safety Research, Gedeon Richter Plc., Budapest, Hungary) Research of 7 nACh receptor positive allosteric modulators in Richter
11:50	István Hernádi (Center for Neuroscience, Szentágothai Research Center, Institute of Physiology, Medical School, Endre Grastyán Translational Research Center, Department of Experimental Zoology and Neurobiology, Faculty of Sciences, University of Pécs, Pécs, Hungary) Investigation of higher-order cognitive functions in pharmacological and natural models of cognitive decline in non-human primates
12:15-12:35	Special talk
	Ki Baik Hahm (CHA University, Bundang Medical Center, Seongnam, Korea) Diet and cancer prevention Chair Klára Cyires (Department of Pharmacology and Pharmacotherapy, Semmelweis University, Faculty of Medicine, Budapest, Hungary)
12:35-13:35	Lunch break
12:35-13:35	Lunch break
12:35-13:35 13:35-15:05	Lunch break S13 - Novel protective mechanisms in the brain and GI tract Chairs Zsuzsanna Helyes (Department of Pharmacology and Pharmacotherapy, Medical School and Szentágothai Research Centre University of Pécs, Pécs, Hungary) Csaba Hetényi (Department of Pharmacology and Pharmacotherapy, University of Pécs, Medical School, Pécs, Hungary)
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14:10	Sven Seiwerth (Department of Pharmacology, University of Zagreb, School of Medicine, Zagreb, Croatia) BPC 157: Lessons from the counteraction of the inferior caval vein syndrome, Pringle maneuver ischemia, reperfusion, Budd-Chiari syndrome, superior sagittal sinus occlusion, and superior mesenteric artery and/or vein occlusion in rats
14:30	Csaba Hetényi (Department of Pharmacology and Pharmacotherapy, University of Pécs, Medical School, Pécs, Hungary) Structural elucidation of ligand binding mechanisms to somatostatin receptors
14:50	Natalia Yarushkina (Laboratory of Experimental Endocrinology, Pavlov Institute of Physiology, Russian Academy of Sciences, St. Petersburg, Russia) Participation of corticotropin-releasing factor in gastroprotection against indomethacin-induced gastric injury and somatic pain regulation through glucocorticoid involvement (online)
15:05-15:30	Award ceremony, concluding remarks
15:30-16:15	HUPHAR Board Meeting

Poste	er session I - 2	28 th October 17:00-18:00
P1.1	Novel mechanisr malignant transf Poster jury István Krizbai (Insti Institute of Life Scie, Anikó Görbe (Depo University, Budapes	ns and therapeutic approaches in cytoprotection and formation tute of Biophysics, Biological Research Centre, Szeged, Hungary and nces, Vasile Goldiş Western University of Arad, Arad, Romania) urtment of Pharmacology and Pharmacotherapy, Semmelweis st, Hungary
P1.1.1	Ali Hazhmat	Investigation of the anticancer potentials of the newly synthesized $13\alpha\mbox{-estrone}$ derivatives
P1.1.2	Ashkan Tahaei	Investigation of antiproliferative properties of 16-triazolyl estranes and their 16-azidomethyl
P1.1.3	Krisztina Bánfai	Induction of T-cell development from hematopoietic stem cells by exosomes
P1.1.4	Sándor Bartha	In vitro evaluation of antiproliferative effect of D-ring modified estrane derivatives against human cancer cell lines with different HPV-status
P1.1.5	Anita Emőke Hegyi	Osteogenic and neurogenic differentiation capacity of dental progenitor cells
P1.1.6	Markus M. Heimesaat	Immunomodulatory properties of the octapeptide NAP in Campylobacter jejuni infected mice suffering from acute enterocolitis
P1.1.7	Markus M. Heimesaat	Pituitary Adenylate Cyclase-Activating Polypeptide – a neuropeptide as novel treatment option for subacute ileitis in mice harboring a human gut microbiota
P1.1.8	Markus M. Heimesaat	Carvacrol ameliorates acute campylobacteriosis in a clinical murine infection model
P1.1.9	Eleonóra Gál	Significance of bile acids in pancreatic cancer
P1.1.10	Njangiru I. Kinyua	In vitro anti-proliferative activity and pharmacokinetic attributes of 2- aminomethylated estrone analogues on cancer cell lines of gynecological origin
P1.1.11	Bálint Balogh	Urocortin stimulates ERK1/2 phosphorylation but reduces cell proliferation in MCF7 breast cancer cells
P1.1.12	Viktória Nagy	Pharmacological investigation of a newly synthesized monoterpene derivatives on human cancer cell lines in vitro
P1.1.13	Balázs Zsidó	Computational binding studies of a new bergamottin analog CYP3A4 inhibitor with antiproliferative activity

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P1.2	Cardiovascular of Poster jury Péter Bencsik (De, Szeged, Hungary) Zoltán Varga (Dep University, Faculty Ágnes Kemény (De of Medical Biology Medical School, Pér	diseases partment of Pharmacology and Pharmacotherapy, University of Szeged artment of Pharmacology and Pharmacotherapy, Semmelweis of Medicine, Budapest, Hungary) epartment of Pharmacology and Pharmacotherapy, and Department and Central Electron Microscopic Laboratory, University of Pécs, cs, Hungary)
P1.2.1	Tamás Árpádffy- Lovas	An evaluation of the translational prediction value of model species in cardiac electrophysiology
P1.2.2	Tamás Gergely	Immune checkpoint inhibition with PD-1 inhibitor induces cardiac dysfunction without overt myocarditis in C57BL/6 mice
P1.2.3	Bernadett Kiss	Responsiveness of the widely used cardiomyocyte cell platforms affected by simulated ischemia/reperfusion
P1.2.4	Csenger Kovacshazi	Helium conditioning increases cardiac fibroblast migration which effect is not transferable via soluble factors or extracellular vesicles
P1.2.5	Norbert Nagy	Does small-conductance Ca2+-activated potassium channel contribute to sinus-node action potential?
P1.2.6	Muhammad Naveed	The electrophysiological effects of cannabidiol on action potential and transmembrane potassium currents in dog and rabbit cardiac preparations: investigation of possible proarrhythmic risk
P1.2.7	Zsófia Onódi	Transcriptomic analysis and comparative characterization of rat H9C2, human AC16 and murine HL-1 cardiac cell lines
P1.2.8	Tamara Szabados	Cardiac ischemic postconditioning in pig: protective role of matrix metalloproteinase-9 and biglycan
P1.2.9	Kálmán F. Szűcs	Characterization of acute stress by gastrointestinal and cardiac electromyography in awake rats
P1.2.10	Noémi Tóth	The role of reverse Na+/Ca2+ exchanger in the sinus node spontaneous automaticity
P1.2.11	Imre Vörös	Investigation of cardiotoxicity by dipeptidyl-peptidase-4 inhibitors on a human cardiomyocyte cell line as well as on samples from chronic heart failure patients

P1.3	Endocrine and n Poster jury András Garami (De University of Pécs, I József Maléth (HCE Hungarian Academ Research Group Un	netabolic dysfunctions epartment of Thermophysiology, Institute for Translational Medicine, Medical School, Pécs, Hungary) EMM-USZ Molecular Gastroenterology Research Group, and by of Sciences-USZ Momentum Epithelial Cell Signaling and Secretion iversity of Szeged, Szeged, Hungary)
P1.3.1	Gábor B. Brenner	Rofecoxib alleviates hypercholesterolemia-induced myocardial dysfunction
P1.3.2	Attila Ébert	Diabetes increases secretory activity of pancreatic ductal epithelial cells
P1.3.3	Lina Hudhud	DNA damage induced by novel synthetic all-trans retinoic acid analogues in CHO cells
P1.3.4	Zoltán Husti	Cardiac electrophysiological effects of rofecoxib following simulated ischemia-reperfusion in hypercholesterolemic rats
P1.3.5	Reza Samavati	Investigation of the role and influence of sex hormones on hepatic metabolism of diclofenac in a rat liver perfusion model
P1.3.6	Annamária Schaffer	The influencing role of leptin and adiponectin systems in pregnant rat uterine contractility
P1.3.7	Tamara Barna	Potentiation of the uterus relaxing effects of sildenafil with terbutaline and nifedipine: in vitro and in vivo studies on pregnant rat myometrium
P1.3.8	Eszter Ducza	The effect of citral on uterine contraction in rat
P1.3.9	Judith Mihály	Label-free protein and lipid quantification of extracellular vesicles by infrared spectroscopy
P1.3.10	Seyedmohsen Mirdamadi	Non-genomic uterorelaxant actions of corticosteroids

	Poster	session II - 29 th October 16:35-17:35
P2.1	Cyto /organo /nd Poster jury Péter Illés (Departa Andrea Tamás (De Hungary)	europrotection ment of Pharmacology, University of Leipzig, Leipzig, Germany) partment of Anatomy, University of Pécs, Medical School, Pécs,
P2.1.1	Ágnes Dombi	The effect of dimethyl trisulfide in the forced swim test is independent of the NK1 receptor
P2.1.2	Szidónia Farkas	Neuroprotective effect of estrogen-like ANGELS compounds
P2.1.3	Barbara Fülöp	Interleukin-1 mediates chronic restraint stress-induced neuropathic hyperalgesia in a mouse model
P2.1.4	Ádám Horváth	Evidence for the effect of lipid raft disruption in mouse model of pain with different mechanism
P2.1.5	Zsolt Tamás Papp	Angiotensin IV's neuromodulation of the glutamate neurotransmission in the prefrontal cortex
P2.1.6	Evelin Viktória Patkó	Investigation of PACAP1-38 eye-drops treatment in glaucoma
P2.1.7	Csenge Sánta	Utilization of the Noldus EthoVision XT 15 for characterization of the effect of dimethyl trisulfide on locomotor activity, anxiety-like and depression-like behavior in mice
P2.1.8	Adrienn Szabó	Changes in motor activity and underlying molecular mechanism in the 3xTg-AD mice model of Alzheimer's disorder
P2.1.9	Judit Szepesy	Effect of a checkpoint inhibitor on hearing in mice
P2.1.10	Oktávia Tarjányi	In vitro treatment with the proteasome inhibitor MG-132 has a biphasic effect in rat pheochromocytoma cells
P2.1.11	Leila Topal	The "supernormal" heart: Effects of long-term endurance training on cardiac remodeling in newly developed large-and in small animal models of the human athlete's heart
P2.1.12	Oleh Revenko	Mesenteric adipocytes, vascular endothelium, and fibroblasts promote metaflammation and represent a potential treatment target for Hydrogen Sulfide

P2.2	Diseases of the Poster jury Gábor Varga (Dep Dóra Zelena (Depo Hungary)	gastrointestinal tract artment of Oral Biology, Semmelweis University, Budapest, Hungary) artment of Physiology, University of Pécs, Medical School, Pécs,
P2.2.1	Eszter Becskeházi	Cigarette smoking alters NHE function of guinea pig oesophageal epithelial cells and human oesophageal cell lines
P2.2.2	Róbert Gáspár	High-dose salicylic acid blocks CI passage inducing the activity of MMPs
P2.2.3	Markus M. Heimesaat	Anti-inflammatory effects of the octapeptide NAP in human microbiota associated mice suffering from subacute ileitis
P2.2.4	Markus M. Heimesaat	The octapetide NAP alleviates intestinal and extra-intestinal inflammatory sequelae of acute experimental colitis
P2.2.5	Markus M. Heimesaat	Vitamin D in acute campylobacteriosis – results from an intervention study applying a clinical Campylobacter jejuni induced enterocolitis model
P2.2.6	Markus M. Heimesaat	Vitamin C alleviates acute enterocolitis in Campylobacter jejuni infected mice
P2.2.7	Markus M. Heimesaat	Intestinal microbiota changes in mice lacking Pituitary adenylate cyclase activating polypeptide – Bifidobacteria make the difference
P2.2.8	Markus M. Heimesaat	Murine fecal microbiota transplantation lowers gastrointestinal pathogen loads and dampens pro-inflammatory immune responses in Campylobacter jejuni infected secondary abiotic mice
P2.2.9	Barbara Hutka	Chronic treatment with the selective cyclooxygenase-2 inhibitor celecoxib does not cause small intestinal dysbiosis in rats
P2.2.10	Dániel Kucsera	Investigating the efficacy of anti-IL-1ß monoclonal antibody treatment in an aged mouse-model of non-alcoholic steatohepatitis
P2.2.11	Krisztina Pohóczky	Functional expression and upregulation of Transient Receptor Potential Ankyrin 1 and Vanilloid 1 receptors in oral squamous cell carcinoma
P2.2.12	Dóra Vigh	Smooth muscle electromyography may detect the gastric acid overproduction in a rat model

P2.3	Endogenous pro protection Poster jury Éva Szőke (Depart Pécs, Hungary) Tibor Zelles (Depart University, Budape	otective mediators and modulators in organ injury and ment of Pharmacology and Pharmacotherapy, University of Pécs, rtment of Pharmacology and Pharmacotherapy, Semmelweis st, Hungary)
P2.3.1	Eszter Garaminé Pákai	The role of interleukin (IL)-1 in thermoregulatory changes associated with severe systemic inflammation
P2.3.2	Ágnes Kemény	Questionable translational significance of IL-17A in imiquimod- induced psoriasiform mice model
P2.3.3	János Konkoly	The role of TRPA1 receptor in the central processing of odours contributing to the behavioural responses of mice
P2.3.4	Lina Li	Development of the retinopathy in a diet-induced type 2 diabetic rat model
P2.3.5	Dorottya Molitor	The protective role of PAC-1 receptor in endotoxin-induced retinal inflammation
P2.3.6	Balázs Nemes	Characterization of transgenic mice expressing the human somatostatin receptor subtype 4
P2.3.7	Zoltán Rumbus	The thermoregulatory role of transient receptor potential vanilloid-1 channels in acute and chronic acidosis in mice
P2.3.8	Viktória Szeifert	Role of Mac-1 in the formation of neutrophil granulocyte derived extracellular vesicles
P2.3.9	Nikolett Szentes	Determining signaling pathways by transcriptomic analysis of the dorsal root ganglia in a translational mouse model of Complex Regional Pain Syndrome
P2.3.10	Éva Szőke	Resolvin D1 and D2 inhibit Transient Receptor Potential Vanilloid 1 and Ankyrin 1 ion channel activation on sensory neurons via lipid raft modification
P2.3.11	Norbert Tóth	Serum growth factor and cytokine levels show positive correlations with the intensity of certain pain parameters in endometriosis patients

	27th October		28th October		29th October		30th October
		8:30 - 9:00	Plenary 2 - Thomas Brzozowski	8:30 - 9:00	Plenary 4 - Sándor Szabó	8:30 - 9:00	Plenary 5 - István Gábor Greiner
		9:00 -	53 - Cut microbiota in health and disease - Zoltán Zádori , Nathalie Vergnolle, Peter Holzer	9:00 - 10:30	57 - Novel insights into the mechanisms of gastrointestinal and epithelial injury and protection - Viktoria Venglovecz	9:00 - 10:30	Sī) - Innovative drugs, targets and methods in pharmaceutical research - Gyögy Lévoy, Zsolt Némethy
		10:35 - 11:05	Coffee break	10:30 - 11:00	Coffee break	10:30 - 11:00	Coffee break
		11:05 - 11:25	Special talk 1 - Sándor Kerpel-Fronius	Ç,	S8 - Novel therapies based on extracellular	UC-LL	2007/01 - madel deservations of the second second CCS
		1125 - 12:55	S4 - Novel mechansms in neuroprotection - Bedra Spanicich, Acidim Dianes	12:30	vesicles (formation of a new HUPHAR section) - Zoltán Giricz, Edit Buzás	1215	arz- New verus III reu opychiaty - Viku Román, Gyägy Lévay
				12:35 -	-	1215- 1235	Special talk 2 - Li Baik Hahm
3:00 - 3:15	Opening ceremony	12.55 -	-	13:35	Lunch break	12.35 -	-
3:15 - 3:45	Plenary 1 - Michael Spedding	14:00	Lunch break		S9 - Novel mechanisms and therapeutic targets	13:35	Lunch break
3:45 - 3:15	 Gas mediators, antioxidants and growth factors in cytol organopretection Enide Initér, Michnel Speeding 	14:00 - 15:30	SS - Mechanism of drug-induced tissue injury: implications for starty testing - Péter Ferdingnody, Sándol Szabó	- cc.cl	of malignant cell transformation - István Peták , Thomas Brzozowski	13:35 - 15:05	513 - Neuropeptide-mediated protective mechanisms - Zsuzsanna Helyes, Csaba Hetényi
5:15 - 5:45	Coffee break		S6 - Cyto- and organo protection regulated by	15:05 - 16:35	S10 - Novel mechanisms in tissue injury and protection - Christoph Sensen. Zoltán Varad	15:05 - 15:30	Award ceremony, Concluding remarks
3:45 -	S2 - Drug discovery and drug development:	15:30 - 17:00	endogenous mediators/modulators and their therapeutic significance - Klára Gyires, Gaetano laquinto, Zoltán S. Zádori			15:30 - 16:15	HUPHAR Board Meeting
7:15	novel drugs and therapeutic strategies for cytoprotection - Anikó Borbás, András Varró	- 00-61		16:35 - 17:35	Poster session 2		
7:15 - 7:45	Issekutz plenary lecture - Beáta Sperlágh	18:00	Poster session 1				
		-					
- 00:6	Visit to the Cathedral, Organ concert,			18:30	bustransfer to Szekszárd		
000	Welcome dinner (included in registration fee)	19:00 - 22:00	Gala Dinner (optional program)	19:30 - 23:00	Dinner at Fritz Winery Szekszárd (opříonal program)		
					hustransfer to Dérs		

ISCTICO-HUPHAR-IUPHAR conference program, 27-30 October, 2021