



**European Section of the International Academy of
Cardiovascular Sciences**
President: Professor András Varró
Department of Pharmacology and Pharmacotherapy
University of Szeged
Albert Szent-Györgyi School of Medicine
12 Dóm tér, Szeged, 6720, Hungary,
Ph: +36 62 545-683 Fax: +36 62 545-680
E-mail: varro.andras@med.u-szeged.hu



**8th European Section Meeting of the International Academy of
Cardiovascular Sciences**
September 28 – October 1, 2022
Szeged, Hungary



SECOND ANNOUNCEMENT

Contact information

Department of Pharmacology and Pharmacotherapy, Albert Szent-Györgyi School of Medicine, University of Szeged, Dóm tér 12, 6720 Szeged, Hungary
baczko.istvan@med.u-szeged.hu
bencsik.peter@med.u-szeged.hu

Dear Colleagues,

It is our pleasure to announce that in 2022, the **8th European Section Meeting of the International Academy of Cardiovascular Sciences (IACS-ES)** will be held in Szeged, Hungary, on September 28 – October 1, 2022. We are pleased to invite you to participate in this fascinating scientific meeting focusing on the following scientific topics:

- **Clinical and theoretical aspects of ventricular arrhythmias and sudden cardiac death**
- **Atrial fibrillation: clinical therapy, novel and future strategies of AF management**
- **Clinical and theoretical aspects of heart failure**
- **Cardioprotection, clinical application of cardioprotection**
- **Genetics of cardiovascular disease**
- **Cardiac metabolism**
- **Novel therapeutic approaches in cardiovascular disease**
- **Coronary angiogenesis from bench to bedside**

The meeting will feature both basic scientific and clinical sessions, including lectures of invited speakers and free oral communications selected from submitted abstracts. We would like to provide opportunities for a number of young investigators to discuss their latest results and to compete in both oral and poster sessions.

We believe that your participation will greatly contribute to the success of the meeting and provide an opportunity to discuss the latest advances in experimental and clinical cardiovascular research. In addition to high quality science, the organisers wish to provide a friendly atmosphere in the university town of Szeged. We invite you to join us at this meeting, to renew old friendships, and to make new ones!

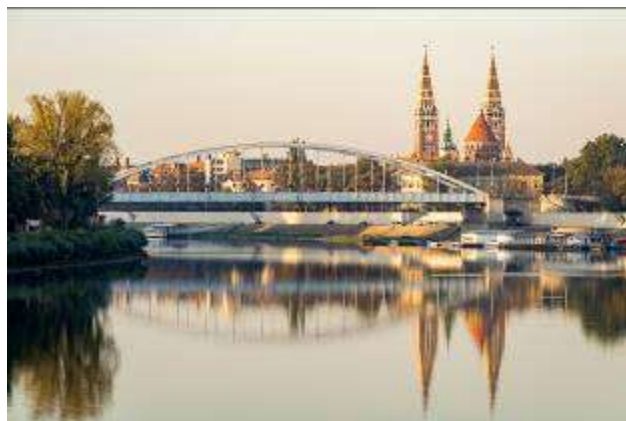
Looking forward to meeting you in person in Szeged,
With best regards,

Prof. István Baczkó, MD, PhD
Chair of the Meeting

Honorary Chair of the Meeting: Prof. Naranjan S. Dhalla, PhD, MD (Hon), DSc (Hon)

President of the Meeting: Prof. András Varró, MD, DSc

Main organizers: Dr. Péter Bencsik, MD, PhD (Vice Chair) and Dr. Norbert Nagy, PhD (Meeting Secretary)



Organizing secretariat:

Dr. István Baczkó, Dr. Péter Bencsik and Dr. Norbert Nagy

Department of Pharmacology & Pharmacotherapy

Albert Szent-Györgyi School of Medicine, University of Szeged

Dóm tér 12, H-6720 Szeged, Hungary

Tel.: +36-62-545-682, Fax: +36 -62-545-680

E-mail: baczko.istvan@med.u-szeged.hu

bencsik.peter@med.u-szeged.hu

nagy.norbert@med.u-szeged.hu

Meeting venue

Art Hotel Szeged, Somogyi u. 16, 6720 Szeged, Hungary
<https://artszeged.accenthotels.com/en>

and

Szeged Hungarian Academy of Sciences building, Somogyi u. 7, 6720 Szeged, Hungary



The two buildings are located 50 m from each other.

Registration

Please send your completed registration form (downloadable from this website) to the following e-mails: baczko.istvan@med.u-szeged.hu and bencsik.peter@med.u-szeged.hu.

The registration fee will be **100 EUR/person for participants, 50 EUR/person for juniors and 10 EUR/person for undergraduate students**. To qualify for Junior registration fee, the registrant must be a PhD student OR have a PhD degree obtained in 2019 or later (documentation required) AND must not be older than 35. The registration fee covers attendance of the scientific program, welcome reception, gala dinner, sandwich lunches for 2 days and coffee breaks. The registration fee of the invited speakers is covered by the organizers.

Please indicate your name and city of origin on the payment for easier processing.

Registration deadline

Registration deadline: July 31, 2022.
Payment deadline: July 31, 2022.

Late registration, following July 31, 2022 is possible, at 200 EUR/person for participants and 100 EUR/person for Junior registrants, respectively. All participants will receive an official Certificate of Attendance and an official Conference Registration Fee Invoice.

Conference abstract submission deadline: July 31, 2022 for oral presentations and poster presentations. Please indicate your preference for oral or poster presentation on the registration form.

Abstract preparation information:

General requirements: please use Word document format or a compatible format. Please use Times New Roman font, font size 12.

File name: please use the following format: **YOURNAME_IACSES2022.docx or doc**

Title: Please use bold and capital letters.

Author names: please list author names and underline the presenting author.

Affiliations: please include affiliations, designated by superscript numbers in case of several affiliations

Abstract body: Maximum 250 words, followed by a maximum of 5 key words. In case you want to indicate funding, please do so in a separate line in *italics font format* at the end of the Abstract.

Please send your abstract to both of the following e-mail addresses:
baczko.istvan@med.u-szeged.hu and nagy.norbert@med.u-szeged.hu

Publication opportunity for presenters

The abstracts of all oral and poster presentations will be printed in an abstract book. Presenters will be encouraged to submit a full manuscript based on the material presented at the conference for consideration to be published in a special issue of the *Canadian Journal of Physiology and Pharmacology*. Manuscript submissions will be subjected to the usual peer-review process.

Young Investigator Award Competition

Young investigators (under the age of 35) are encouraged to submit their CV, oral abstract, and a maximum 2-page summary of the research constituting the basis of their talk to baczko.istvan@med.u-szeged.hu and bencsik.peter@med.u-szeged.hu. A Committee will choose 6 finalists who will present their work at the Young Investigator Award Session at the meeting. **Submission deadline: July 31, 2022.** Please also indicate on your **Registration Form** your intention to participate in this competition.

Poster Awards for Young Investigators

Several poster awards will be available for young investigators (under the age of 35). Please indicate on your **Registration Form** your intention to participate in this competition.

Travel grants

Due to the increased costs of conference organization (e.g. extremely high inflation), travel grants are not available this time.

Accommodation information

All invited speakers will be lodged at the Art Hotel Szeged, their accommodation for 3 nights is covered by the organizers.

For registering conference participants, it is also possible to book rooms at the conference venue Art Hotel Szeged (<https://artszeged.accenthotels.com/en>).

When booking the room at the Art Hotel, please refer to the password “**IACS-ES Szeged 2022**”.

In addition, we recommend the following hotels in Szeged in the vicinity of the conference venue (we have no agreement with these hotels, therefore please do not refer to the password):

Dóm Hotel (****): <https://domhotelszeged.info/en/>

Science Hotel (****): <https://sciencehotel.hu/en/>

Mozart Hotel (****): <https://www.mozarthotel.hu/en>

Szent János Hotel Szeged (****): <https://szentjanoshotel.hu/?eng>

Hotel Novotel Szeged (****): <http://novotel.hotelszeged.com/en/>

Hotel Tisza (***) : <http://www.tiszahotel.hu/?lang=en>

Hotel Partium (***) : <https://partiumhotel.hu/en/>

Overview of Tentative Conference Program

Day 1 (September 28, 2022) ART HOTEL SZEGED, Lecture Hall

13:00-	REGISTRATION
15:15-15:30	Opening ceremony
<u>15:30-19:00</u>	<u>PLENARY LECTURES</u>
15:30-16:00	Roberto Bolli (Louisville, KY, USA) <i>Cell therapy for heart disease: Quo vadis?</i>
16:00-16:30	Béla Merkely (Budapest, Hungary) <i>To be announced</i>
16:30-17:00	Coffee break
17:30-18:00	Grant Pierce (Winnipeg, MB, Canada) <i>Bacteria and cardiovascular disease</i>
18:00-19:00	Naranjan Dhalla Honorary Lecture Igor Efimov (Chicago, IL, USA) <i>Transient implantable devices to treat arrhythmia: bioresorbable bioelectronics platform</i>
20:00-	Welcome Reception

Day 2 (September 29, 2022) SZEGED HUNGARIAN ACADEMY OF SCIENCES BUILDING

Parallel sessions in Halls A-B-C

9:00-10:30 SESSION 1. Novel targets for HFrEF therapy (Hall A)

9:00-9:25	Michael Czubryt (Winnipeg, MB, Canada) <i>Fibroblast activation as a target for cardiac fibrosis therapy</i>
9:25-9:50	Naranjan Dhalla (Winnipeg, MB, Canada) <i>Diverse mechanisms of heart failure due to myocardial infarction</i>
9:50-10:15	Noémi Nyolczas (Budapest, Hungary) <i>Novelties in the treatment of heart failure with reduced ejection fraction</i>
10:15-10:30	<Oral abstract talk>

9:00-10:30 SESSION 2. Basic cardiac electrophysiology (Hall B)

9:00-9:25	Thomas Jespersen (Copenhagen, Denmark) <i>Compromised cardiac electrophysiology caused by simulated obstructive sleep apnea in a porcine model</i>
9:25-9:50	Balázs Horváth (Debrecen, Hungary) <i>Dynamics of the late sodium current under the action potential in canine, guinea pig and human left ventricular cardiomyocytes</i>
9:50-10:15	Norbert Nagy (Szeged, Hungary) <i>The role of the reverse Na^+/Ca^{2+} exchanger and the Ca^{2+}-dependent K^+-current in sinus-node pacemaking</i>
10:15-10:30	<Oral abstract talk>

9:00-10:30 SESSION 3. Natural compounds in cardioprotection (Hall C)

9:00-9:25	Dragan Djuric (Belgrade, Serbia) <i>Possible cardioprotective effects of vitamins B6 and B9: lessons from cardiometabolic models</i>
9:25-9:50	Monika Barteková (Bratislava, Slovakia)

Potential implications of quercetin in cardioprotection

9:50-10:15

Ranko Skrbic (Banja Luka, Serb Republic of Bosnia Herzegovina)

Beneficial cardio-metabolic properties of Pomegranate peel extract: results of clinical and experimental studies

10:15-10:30

<Oral abstract talk>

10:30-11:00

Coffe break

11:00-12:30

SESSION 4. Metabolic diseases (Hall A)

11:00-11:25

Gary Lopaschuk (Edmonton, AB, Canada)

Preventing cardiac insulin resistance in the failing heart

11:25-11:50

Danina Muntean (Timisoara, Romania)

Alleviation of MAO-related oxidative stress by antidiabetic drugs: of mice and men

11:50-12:15

Tamás Csont (Szeged, Hungary)

Cardiac effects of diet-induced hypercholesterolemia

12:15-12:30

<Oral abstract talk>

11:00-12:30

SESSION 5. Pathophysiology of atrial fibrillation (Hall B)

11:00-11:25

Ursula Ravens (Freiburg, Germany)

Mechanosensitive channels, stretch and fibrosis - a pathophysiological role in atrial fibrillation

11:25-11:50

José Jalife (Madrid, Spain)

Molecular mechanisms underlying the progression of paroxysmal to persistent atrial fibrillation

11:50-12:15

Katharine Dibb (Manchester, UK)

Atrial remodelling in heart failure: consequences and recovery

12:15-12:30

<Oral abstract talk>

11:00-12:30

SESSION 6. Molecular hydrogen and gasotransmitters (Hall C)

11:00-11:25

Ján Slezák (Bratislava, Slovakia)

Saturation of donor and recipient with molecular hydrogen alleviates graft dysfunction and overall condition after transplantation of the heart

11:25-11:50

Barbora Kaločayová (Bratislava, Slovakia)

Molecular hydrogen: new protective tool against acute kidney injury associated with cardiac surgery

11:50-12:15

Jerzy Beltowski (Lublin, Poland)

Role of hydrogen sulfide in statin-induced inhibition of insulin secretion

12:15-12:30

<Oral abstract talk>

12:30-14:00

Lunch

14:00-16:00

Young Investigator Award Competition (Hall A)

6 selected young competitors, each with a 15 min talk + 5 min for discussion

14:00-16:00

SESSION 7. Vascular pathology (Hall B)

14:00-14:25

Chandrasekharan Kartha (Kochi, Kerala, India)

Molecular mechanisms in the pathogenesis of cerebral arteriovenous malformation

14:25-14:50

Devendra Agrawal (Pomona, CA, USA)

Novel therapeutic approach to prevent maturation failure of arteriovenous fistula

14:50-15:15

Ramesh Goyal (New Delhi, India)

ACE-2 modulators for the treatment of post-COVID-19 complications including cardiovascular disorders

15:15-15:40 **Ghassan Bkaily** (Sherbrooke, QC, Canada)
Taurine and high salt-induced vascular smooth muscle remodelling

15:40-16:00 <Oral abstract talk>

14:00-16:05 **SESSION 8. Myocardial ischemia/reperfusion injury: novel directions (Hall C)**

14:00-14:25 **Péter Ferdinandy** (Budapest, Hungary)
Development of miRNA therapeutics for cardioprotection

14:25-14:50 **Lorrie Kirshenbaum** (Winnipeg, MB, Canada)
Regulation of autophagy and cardiac cell death pathways in the heart

14:50-15:15 **Suleiman Saadeh** (Bristol, UK)
Cardiac pathology and vulnerability to reperfusion injury during open heart surgery

15:15-15:30 <Oral abstract talk>

15:30-15:45 <Oral abstract talk>

15:45-16:00 <Oral abstract talk>

16:15-18:30 **Poster Session I** (even poster numbers, ACADEMY BUILDING)

Day 3 (September 30, 2022) SZEGED HUNGARIAN ACADEMY OF SCIENCES BUILDING

Parallel sessions in Halls A-B-C

9:00-10:30 **SESSION 9. Myocardial calcium handling (Hall A)**

9:00-9:25 **Martin Morad** (Charleston, SC, USA)
Calcium signaling consequences of CPVT mutations in caffeine and calcium binding sites of ryanodine receptor: evidence from CRISPR/Cas9 gene edits in human ipSC-CMs

9:25-9:50 **David Eisner** (Manchester, UK)
Background Ca^{2+} entry and Ca^{2+} waves in cardiac muscle

9:50-10:15 **Antonio Zaza** (Milan, Italy)
PLN- R14del, a controversial cardiomyopathy - observations from patient-derived cardiomyocytes and transgenic mice

10:15-10:30 <Oral abstract talk>

9:00-10:30 **SESSION 10. Pathologies associated with altered hemodynamics (Hall B)**

9:00-9:25 **Bohuslav Ostadal** (Prague, Czech Republic)
Developmental aspects of cardiac adaptation to increased work load

9:25-9:50 **Tamás Radovits** (Budapest, Hungary)
Investigation of pressure overload-induced myocardial remodeling and pressure unloading induced reverse remodeling in rat models

9:50-10:15 **Petr Ostadal** (Prague, Czech Republic)
Hemodynamic effects of extracorporeal membrane oxygenation (ECMO) in cardiogenic shock

10:15-10:30 <Oral abstract talk>

9:00-10:30 **SESSION 11. Diabetic cardiomyopathy (Hall C)**

9:00-9:25 **Dinender Singla** (Orlando, FL, USA)
BMP-7 attenuates diabetic cardiomyopathy

9:25-9:50 **Belma Turan** (Ankara, Turkey)
Differential effects of the acute or chronic applications of GLP-1 receptor agonists on the remodeling of aging heart

9:50-10:15 **Fatima Mraiche** (Doha, Qatar)
The off-target NHE1 inhibitory effect of SGLT2 inhibitors in cardiac remodeling

10:15-10:30 <Oral abstract talk>

10:30-11:00 *Coffe break*

11:00-12:30 **SESSION 12. Heart failure with preserved ejection fraction (Hall A)**

- 11:00-11:25 **Zoltán Papp** (Debrecen, Hungary)
Pharmacological venodilation to treat pulmonary hypertension complicating heart failure with preserved ejection fraction (PH-HFpEF)
- 11:25-11:50 **Suresh Tyagi** (Louisville, KY, USA)
Remote ischemia mechanism of heart failure with preserved ejection fraction (HFpEF)
- 11:50-12:15 **Róbert Halmosi** (Pécs, Hungary)
Role of mitochondrial quality control processes in heart failure
- 12:15-12:30 <Oral abstract talk>

11:00-12:30 **SESSION 13. Cardiac arrhythmias: novel mechanisms (Hall B)**

- 11:00-11:25 **Carol Ann Remme** (Amsterdam, The Netherlands)
Pro-arrhythmic consequences of branched chain amino acid dysregulation
- 11:25-11:50 **Godfrey Smith** (Glasgow, UK)
Electrophysiological heterogeneity in populations of ventricular cardiomyocytes and the consequences for the action potential response to specific ion channel inhibition
- 11:50-12:15 **Andrew Trafford** (Manchester, UK)
TRPC6 channels as a driver of cardiac arrhythmias
- 12:15-12:30 <Oral abstract talk>

11:00-12:30 **SESSION 14. Cardiac remodelling (Hall C)**

- 11:00-11:25 **Georgios Kararigas** (Reykjavík, Iceland)
Sex-biased responses in cardiac remodelling
- 11:25-11:50 **Attila Tóth** (Debrecen, Hungary)
Direct cardiac myosin activators: positive inotropy with potential side effects
- 11:50-12:15 **Zoltán Varga** (Budapest, Hungary)
Inflammasome activation in end-stage heart failure
- 12:15-12:30 <Oral abstract talk>

12:30-14:00 *Lunch*

14:00-16:00 **SESSION 15. Cardiac hypertrophy (Hall A)**

- 14:00-14:25 **Elisabetta Cerbai** (Florence, Italy)
Human hypertrophic cardiomyopathy: from electrophysiological insights to pharmacological strategies
- 14:25-14:50 **Alicia D'Souza** (Manchester, UK)
Why do athletes have cardiac arrhythmias? A view from the lab bench
- 14:50-15:15 **Róbert Sepp** (Szeged, Hungary)
The genetic landscape of hypertrophic cardiomyopathy in Hungary
- 15:15-15:40 **Péter Bencsik** (Szeged, Hungary)
Novel targets for volume overload induced LV hypertrophy
- 15:40-16:00 <Oral abstract talk>

14:00-16:00 **SESSION 16. Myocardial conditioning and cardioprotection (Hall B)**

- 14:00-14:25 **Ricardo Gelpi** (Buenos Aires, Argentina)
Molecular basis of myocardial remote ischemic preconditioning

- 14:25-14:50 **Tanya Ravingerova** (Bratislava, Slovakia)
Physical exercise as a form of non-ischemic „conditioning“: potential molecular mechanisms of cardioprotection
- 14:50-15:15 **Frantisek Kolar** (Prague, Czech Republic)
Excess ischemic arrhythmias may protect against myocardial infarction
- 15:15-15:40 **Zoltán Giricz** (Budapest, Hungary)
Extracellular vesicles in cardioprotection
- 15:40-16:00 **Milan Ivanov** (Belgrade, Serbia)
Effects of NADPH oxidase blockade and hyperbaric oxygen preconditioning on 4-HNE, NGAL, and HO-1 tissue expression in postischemic acute kidney injury induced in spontaneously hypertensive rats

14:00-16:00 SESSION 17. Mitochondrial function and oxidative stress (Hall C)

- 14:00-14:25 **Antigone Lazou** (Thessaloniki, Greece)
Modulation of mitochondrial quality control and metabolism in cardiac dysfunction
- 14:25-14:50 **Vladimir Jakovljevic** (Kragujevac, Serbia)
Association of oxidative stress and periapical lesions in hypertensive rats
- 14:50-15:15 **Ferenc Gallyas** (Pécs, Hungary)
Repurposing of desethylamiodarone for cancer therapy
- 15:15-15:40 **Márta Sárközy** (Szeged, Hungary)
The effects of the preimplantation factor on the development of radiation-induced heart disease in a rat model
- 15:40-16:00 <Oral abstract talk>

16:15-18:30 Poster Session II (odd poster numbers, ACADEMY BUILDING)

20:00-24:00 Gala Dinner and Award Ceremonies

Day 4 (October 1, 2022) SZEGED HUNGARIAN ACADEMY OF SCIENCES BUILDING

9:00-10:30 SESSION 18. Novel targets in cardiovascular disease (Hall A)

- 9:00-9:25 **Ildikó Bock-Marquette** (Pécs, Hungary)
Enhancing cardiac regenerative therapies by reminding the adult heart on its embryonic state
- 9:25-9:50 **Norbert Szentandrassy** (Debrecen, Hungary)
TRPM4 in ventricular myocardium, can it be a novel target in cardiovascular disease?
- 9:50-10:15 **Inna Rabinovich-Nikitin** (Winnipeg, MB, Canada)
Shift work adversely affects myocardial autophagy and cardiac function following myocardial infarction
- 10:15-10:30 <Oral abstract talk>

9:00-10:20 SESSION 19. Novel targets in cardiovascular disease and considerations in cardiotoxicity (Hall B)

- 9:00-9:25 **Anikó Görbe** (Szeged and Budapest, Hungary)
Hidden cardiotoxicity - cardiac safety testing in ischemic and comorbid conditions: development of preclinical test platforms
- 9:25-9:50 **Paramjit Tappia** (Winnipeg, MB, Canada)
Dual role of phospholipase C isozymes during ischemia-reperfusion injury in the heart
- 9:50-10:05 <Oral abstract talk>
- 10:05-10:20 <Oral abstract talk>

10:40- 11:00 Closing Ceremony