Thursday, 11th January 2024

12:00 Welcome: B. Podesser (A) and H. Wojta (A)

12:15-14:00 Resident Lunch: Meet the Editors
N. Bonaros (A): ICTVS
B. Podesser (A): EJCTS, JCVPT
Z. Papp (HU): European Heart Failure, ESC Heart Failure
F. Panen (CH): European Heart Journal
Z. Ungvari (US/HU): Geroscience

14:00-14:30 Coffee break
14:30-16:00  Symposium I: Young Surgeons Forum  
“Training the current and next generations”  
Chair: C. Gollmann-Tepeköylü (A), J. Kalisnik (A)  
D. Zimpfer (A) and M. Arnreiter (A)  
M. Kreibich (G) and V. Banhegyi (G)  
D. Santer (CH)  
G. Wieselthaler (USA/A)  
organized by the Austrian Young Surgeons Forum

16:00-16:30  Coffee break

16:30-18:00  Symposium II: (R)evolution in vascular grafts and tissue engineering
Chair: B. Winkler (A), H. Bergmeister (A)

Introduction lectures (15+5min):
A. Marsano (CH): Exploring Troponin Release with In Vitro Cardiac Models.

Presentation (7+3min):
Julian Hubrich (G): Biogenic polymer-based patches for congenital cardiac surgery.
S. Specht (A): Effect of different vascular graft materials on endothelialization using senescent endothelial cells at different inflammatory stages.
C. Radner (G): “Role of elastin in thoracic aortic aneurysm”
18:00-18:45  **Keynote Lecture I: G. Brandacher (A):** Extended Subzero organ preservation using nature-inspired cryoprotectants
Chair: D. Chambers (UK), B. Podesser (A)

19:00  **Common dinner at the Restaurant “Oase” in the Congress Center**

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**Friday, 12th January 2024**

08:00-09:30  **Symposium III: (R)evolution in myocardial and vascular protection**
Chair: G. Szabó (G) and D. Santer (CH)

*Introduction lectures (15+5min):*
D. Chambers (GB): Myocardial or Endothelial Protection? Preferable both, but is that achievable with current cardioplegic solutions?
J. Pernow (S): Cardioprotective effects of red blood cells through activated soluble guanylate cyclase and release of cyclic GMP
F. Paneni (CH): Editing Chromatin to prevent Cardiometabolic Disease

*Presentation (7+3min):*
L. Saemann (G): Improved preservation of ventricular contractility of old donor hearts during static cold storage by the senomorphic agent ruxolitinib.
H. Lieder (G): Erythrocytes as carriers of cardioprotective signals: transfer of remote ischemic conditionings’ cardioprotection with erythrocytes from healthy human volunteers to isolated perfused rat hearts subjected to regional myocardial I/R.
J. Reiner (A): SGLT2 Inhibition Improves Cardiac Recovery and Metabolism following Cold Cardioplegic Arrest in Isolated Murine Hearts.

9:45-10:15 Coffee break

10:15-11:45 Symposium IV: (R)evolution: Comorbidities: perioperative challenges
Chair: M. Kreibich (G) and D. Zimpfer (A)

Introduction lectures (15+5min):
M. Siegemund (CH): Sedation, Sleep and Delirium – the unhappy triad of Intensive Care.
Z. Papp (HU): Cardiotonic drugs in bridging to intervention: from molecular targets to clinical applicability.

Presentation (7+3min):
R. Mani (I): Nitric oxide administered in oxygenator during Ecmo improves ventricular-arterial coupling and decreases inflammation and oxidative stress in an experimental model of pulmonary arterial hypertension.
S. Martinazzi (I): Nitric oxide added to the ECMO circuit improves neuroprotection and cardiac function after cardiac arrest
E. Han (A): Comparison of bed-side high-sensitive troponin I with laboratory testing troponin T in patients with acute chest pain
M. Ernst (A): 5S-Study: Safe and Simple Single-Shot Pulmonary Vein Isolation with Pulsed Field Ablation using Sedation
K. Merse (HU): Investigation of the effects of the phosphodiesterase-5 inhibitor tadalafil in a rat model of uremic cardiomyopathy
11:45-13:00  Symposium V: Moderated poster sessions I-III

Session I

Chair: C. Gollmann-Tepeköylü (A) and S. Hallström (A)

V. Banhegyi (G): Daily practice with the DryLab system improves surgical skills and promotes interest for cardiac surgery among visiting students.

V. Banhegyi (G): Regulation of tissue and circulating angiotensin-converting enzymes in cardiovascular diseases.


A. Stampfer (A): Early inhibition of angiotensin converting enzyme after myocardial infarction ameliorates murine cardiac remodeling by modulating the expression of extracellular matrix genes.

K. Freystaetter (G): Type I and II Hybrid Aortic Arch Repair as a safe alternative to open surgery in high-risk patients.

C. Herz (G): Hemodynamic In-vitro Analysis of Left Ventricular Assist Device Outflow Graft Orientations.

A. Szabó (HU): Stress may influence serum ACE activity.


Session II
Chair: K.Schneider (A) and A. Marsano (CH)
K. Mueller (D): A bioinspired microfiber-based mitral valve scaffold via melt electrowriting.
S. Simon (D): Sustainability in Laboratory Practices: Challenges and Possibilities to Reach Environmental Stewardship in Research Facilities.
Z. Ocskay (HU): Characterization of the mechanisms leading to age-related changes of meningeal lymphatics.
B. Pelzmann (A): Preliminary data on a low molecular-weight factor isolated from human plasma which blocks L-type Ca2+ current in cardiomyocytes.
E. Han (A): Elevated tumor markers in long COVID patients with cardiovascular symptoms.
A. Goncalves (A): Cardiac Implications of Breast cancer: insights from a metabolic alterations.
P. Berkowicz (PL): Cardiac inflammation is activated in early but not in end-stage heart failure in Tgαq*44 mice.

Session III
Chair: A. Rungatscher (I) and F. Moscato (A)
T. Pintér (HU): Technical error or a new beginning? Exploring the issues in neprilysin biomarker research in heart failure.


L. Weber (A): Crosstalk of Tenascin C and Lymphatics in Left Ventricular Hypertrophy-Induced Cardiac Remodeling.

E. Pichler (A): IL4 receptor signalling reduces atherosclerotic lesion size in a mouse model.

P. Gibler (A): Mouse strain specific response to a murine coronavirus respiratory infection reveals Kcnn4 as potential target or indicator of severity.

R. Losonczi (HU): Investigation of the effects of sex-based differences on the severity of trastuzumab-induced chronic cardiotoxicity in a rat model.

D. Volford (HU): Investigation of the effects of sex-based differences on the severity of paclitaxel-induced chronic cardiotoxicity in a rat model.


L. Wolner (A): The impact of the novel St Thomas’ Hospital polarizing cold blood cardioplegia on hemodynamic recovery in infarcted rat hearts.

15:30-17:00  Symposium VI: Advancements in cardiovascular technology and research

Chair: R. Seitelberger (A) and G.B. Luciani (I)

Introduction lectures (15+5min):

Z. Ungvari (US/HU): New Horizons in Cardiovascular Health: Geroscience’s Revolutionary Contributions to Future Cardiology.
S. Globits (A): The Reality of Cardiovascular Medicine.

**Presentation (7+3min):**
S. Boeddu (G): Preventive Impella® Support in High-Risk Patients Undergoing Cardiac Surgery
U. Resch (G): Comparative proteomic analysis of human ventricular tissue of over 100 patients undergoing heart transplantation
Z. Arnold (A): Secondary interventions after total arch replacement using the frozen elephant trunk prosthesis: open surgery versus endovascular techniques

20:00 **Common dinner at the “Bergbahnstüberl”**

**Saturday, 13th January 2024**

9:00-10:30 **Symposium VII: (R)evolution: Cardio-Oncology**
Chair: J. Wojta (A) and A. Kiss (A)

**Introduction lectures (15+5min):**
S. Chlopicki (PL): Detrimental effects of anti-cancer drugs on endothelial function; towards personalized vasculo-oncology.
M. Maczewski (PL): Multiple myeloma is cardiotoxic through reduction of coronary flow reserve at the capillary level.

**Presentation (7+3min):**
P. Pokreisz (A): Development of spontaneous multifocal metastatic mammary tumours is accompanied by cardiac systolic and diastolic dysfunction in mice.
10:30-11:00 Coffee break

11:00-12:30 Symposium VIII: (R)evolution: Personalized medicine
Chair: S. Chlopicki (PL) and Z. Jakus (HU)

Introduction lectures (15+5min):
D. Tsiantoulas (A): Dissecting the functions of APRIL in cardiovascular diseases
F. Moscato (A): 3D Printing and Simulation for Personalization of Cardiovascular Devices, Implants and Surgical Procedures

Presentation (7+3min):
L. Grefen (G): From Concept to Clinical Reality: 3D Printing and Aortic Graft Development
J. Buech (G): Next step towards precision medicine in thoracic aortic disease – the potential of long non-coding RNAs
C. Spielvogel (A): Screening for abnormal cardiac scintigraphy uptake at risk for cardiac amyloidosis using deep learning: An international, multi-center, cross-tracer study
C. Dostal (A): High-throughput proteomic analysis unveils metabolic and mitochondrial signaling rewiring by chronic ivabradine treatment in Duchenne Muscular Dystrophy

12:45 „Carl Apstein Award“
Closing remarks B. Podesser (A) and H. Wojta (A)