



**CARDIOVASCULAR  
RESEARCH DAYS**

**Final Program  
16<sup>th</sup>-18<sup>th</sup> January 2020, Weissensee,  
Austria**

**Translation in cardiovascular medicine – expectations, failures  
and success**

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**Thursday, 16<sup>th</sup> January 2020**

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- 13:00-14:00**      **Resident Lunch: “Meet the Editors”**  
**Bruno Podesser (A), EJCTS, JCVPT**  
**Johann Wojta (A), Cardiovasc Res, Thrombosis & Haemostasis**  
**David Chambers (UK), EACTS**  
**Ronglih Liao (USA), CIRC RES**  
**Alessio Rungatscher (I), ICVTS**  
**Zoltan Papp (H), EHJ, ESC HF**
- 14:00-15:30**      **Symposium I: Young Fellows Round Table Discussion**  
**“The future of the physician scientist in cardiovascular medicine”**  
**Chairs:      Can Gollmann-Tepeköylü (A)**  
**Luca Koechlin (CH)**  
**Round table:**  
**Bruno Podesser (A)**  
**Zoltan Papp (H)**  
**Guiseppe Faggian (I)**  
**Gabor Szabo (G)**  
**Franz Eberli (CH)**
- „Perspectives from an early career position” (7 min):**  
**Can Gollmann-Tepeköylü (A)**  
**Luca Koechlin (CH)**  
**Niklas Thierfelder (G)**  
**Daniele Linardi (I)**  
**Márta Sárközy (H)**

## Cardiovascular Research Days 2020, Final Program

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15:30-15:50	Coffee break
15:50-16:00	Official Opening: Bruno Podesser (A)
16:00-17:30	<b>Symposium II : “Regeneration and Cell Therapy”</b> <b>Chairs: Johann Wojta (A)</b> <b>Zoltan Papp (H)</b> “Why is cell therapy in cardiovascular medicine still waiting for translation?” <b>Mariann Gyöngyösi (A) 15+5 min</b> “Inflammation in cardiovascular regeneration and repair - the role of monocytes and macrophages?” <b>Johann Wojta (A) 15+5 min</b> “Assessment of endothelial function in vivo: Bench-to-bed-side gap?” <b>Stefan Chlopicki (PL) 15+5 min</b> Human Placental Tissues for Tissue Engineering and Regenerative Medicine” <b>Karl Schneider (A) 7+3 min</b> “The use of placenta-derived hydrogels as coating material for small diameter vascular grafts to improve endothelialization <i>in vitro</i> ” <b>Sabine Rohringer (A) 7+3 min</b> “A microfluidic model to study the interaction between cardiomyocytes and fibroblast in cardiac scar formation” <b>Gregory Reid (CH) 7+3 min</b>
17:30-18:00	Coffee break
18:00-18:45	<b>Keynote Lecture I: “How to translate knowledge into a start-up company” Marcel Wassink (NL), NLC – The European HealthTech venture builder</b> <b>Chairs: Bruno K. Podesser (A)</b> <b>Manuel Mayr (UK)</b>
19:00-19:15	Reception by the Major of Weissensee, Gerhard Koch
19:15	Common dinner at the Restaurant “Vis a Vis”, Congress Center Weissensee

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Friday, 17<sup>th</sup> January 2020

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- 08:00-10:00**      **Symposium III: “Intraoperative myocardial protection”**  
**Chairs:      Bruno K. Podesser (A)**  
                         **Giuseppe Faggian (I)**  
“Why are we still using cardioplegic solutions, developed 50 years ago?”  
**David Chambers (UK) 15+5 min**  
“Polarized cardioplegia- a clinical success?”  
**Francesco Onorati F (I) 15+5 min**  
“Can we get rid of inflammatory cytokines?”  
**Sven Peterß (G) 15+5 min**  
“New concept in donor heart preservation?”  
**Andreas Zuckermann (A) 15+5 min**  
“Analysis of myocardial ischemia parameters after coronary artery bypass grafting with minimal extracorporeal circulation and a novel microplegia versus off-pump coronary artery bypass grafting”  
**Luca Koechlin (CH) 7+3 min**  
“Cytosorb in cardiac surgery – perioperative use in patients with infective endocarditis”  
**Jules Miazza (CH) 7+3 min**  
“First case of transplantation with donor heart after circulatory death in Austria”  
**Arezu Aliabadi-Zuckermann (A) 7+3 min**
- 10:00-10:30**      **Coffee break**
- 10:30-12:00**      **Symposium IV: “Myocardial protection in STEMI patients”**  
**Chairs:      John Pernow (S)**  
                         **Wolfgang Wandschneider (A)**  
“The role of the red blood cell in myocardial ischemia-reperfusion injury”  
**John Pernow (S) 15+5 min**  
“Has remote ischemic conditioning failed after CONDI II?”  
**Petra Kleinbongard (G) 15+5 min**  
“Tenascin C- a potential target in remodeling”  
**Attila Kiss (A) 15+5 min**

“The effect of repetitive remote ischemic conditioning on long-term ventricular remodelling, cardiac contractility and ACE activation after MI in rats”

**Patrick Pilz (A) 7+3 min**

“Sex-based differences in cardiac ischemic preconditioning in chronic kidney disease: potential role of the RISK and SAFE pathways”

**Márta Sárközy (H) 7+3 min**

“Metabolic-function mismatch of infarcted myocardium predicts long-term outcome”

**Ena Hasimbegovic (A) 7+3 min**

**12:00-12:45**

**Symposion V (see Appendix):**

**“Moderated poster sessions I”**

**Chairs: David Santer (CH)**

**Seth Hallström (A)**

**“Moderated poster sessions II”**

**Chairs: Gabor Szabo (G)**

**Attila Kiss (A)**

**“Moderated poster sessions III”**

**Chairs: Helga Bergmeister (A)**

**Attila Tóth (H)**

**12:45-14:45**

**Lunch Break**

**14:45-15:30**

**Dry Lab:**

**invited specialist: Robert Bruce**

**in collaboration with Kinamed/Neucomed**

**15:30-17:00**

**Symposium VI: “Heart Failure Management”**

**Chairs: Klaus Markstaller (A)**

**Andreas Zuckermann (A)**

“Do we have novel and really effective drugs for acute and advanced HF?”

**Zoltan Papp (H) 15+5 min**

“HF management in the operative setting – what are the news?”

**Maria Angela Rajek (A) 15+5min**

“Baroreceptor stimulation in chronic HF”

**Martin Oberhoffer (G) 15+5min**

“Investigation of the effects of omecamtiv mecarbil on the in vitro contractility and Ca<sup>2+</sup> transients of isolated canine left ventricular cardiomyocytes”

**Arnold Péter Ráduly (H) 7+3 min**

“Presence of Tenascin-C accompanied by cardiac and vascular dysfunction in a mouse model of Duchenne Muscular Dystrophy”

**Lujza Petra Szabó (A) 7+3 min**

“Functional reduction of the pacemaker current I<sub>f</sub> in left and right atrial appendages in atrial fibrillation”

**Susanne Scheruebel (A) 7+3 min**

**17:00-17:15 Coffee break**

**17:15-18:30 Symposium VII: “Heart Valve Therapies”**

**Chairs: Gabor Szabo (G)**

**Christoph Holzinger (A)**

“Pro-Contra: TAVI in mid-risk patients”

**Franz Eberli (CH) vs. Martin Grabenwöger (A) 20 min**

“Pro-Contra: aortic valve regurgitation – replace or reconstruct”

**Gabor Szabo (G) vs. Christian Dinges (A) 20 min**

“3D-printing in cardiovascular medicine – a physician’s point of view”

**Nikolaus Thierfelder (G) 7+3 min**

“Valvular remodeling in ischemic mitral regurgitation”

**Ouafa Hamza (A) 7+3 min**

“Assessment of post repair aortic valve function during cardioplegic arrest using the Aortic Root Pressurizing Device”

**Christian Dinges (A) 7+3 min**

**18:30-19:15 Keynote Lecture II: “Crossroad between Cardiac Regeneration and Degeneration“ Ronglih Liao, Stanford and Harvard University, USA**

**Chairs: Bruno K. Podesser (A)**

**Franz Eberli (CH)**

**20:45 Common dinner at the “Alm hintern Brunn”**

Winter wonderland walk to the alpine hut from Hotel Enzian at 19:45

Saturday, 18<sup>th</sup> January 2020

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**09:30-11:00**

**Symposium VIII: “ Future in tissue engineering”**

**Chairs: Anna Marsano (CH)**

**Kurt Huber (A)**

“Small vascular conduits – why did translation fail so far?”

**Helga Bergmeister (A) 15+5 min**

“In vitro biomimetic engineering of three dimensional niches with high angiogenesis potential”

**Anna Marsano (CH) 15+5 min**

“Cartography of native and decellularized bovine pericardium – does location matter?”

**Maximilian Grab (G) 7+3 min**

“Regulation of tissue ingrowth into hydrogels using 2 functionally different crosslinkers: a tissue engineering approach”

**Martina Steinmauer (G) 7+3 min**

“Silica Nanoparticle internalization by Human Mesenchymal Stem Cells”

**Deborah Fusco (CH) 7+3 min**

“Mesenchymal stem cell-conditioned medium recovers endothelial function of vascular grafts with ischemia/reperfusion injury in diabetic rats”

**Sevil Korkmaz-Icöz (G) 7+3 min**

**11:00-11:30**

**Coffee break**

**11:30-13:00**

**Symposium IX: “Latest experimental and clinical techniques”**

**Chairs: Attila Kiss (A)**

**Manuel Mayr (UK)**

“A Multi-omics approach to cardiovascular disease”

**Manuel Mayr (UK) 15+5 min**

“A new horizon – next generation sequencing?”

**Martin Bilban (A) 15+5 min**

“Imaging – a prerequisite for experimental and clinical excellence?”

**Marcus Hacker (A) 15+5 min**

“Circulating microRNA levels indicate platelet activation in endotoxemia despite platelet P2Y<sub>12</sub> inhibition”

**Clemens Gutmann (UK) 7+3 min**

“Intronic Alu RNA editing couples mRNA stability with pre-mRNA processing of inflammatory gene expression in human atherosclerotic heart disease”

**Marco Sachse (G) 7+3 min**

“An Outlook on Microstructurally Motivated Modeling of Growth and Remodeling in Pressure Overloaded Hearts”

**Justyna Anna Niestrawska (A) 7+3 min**

**13:00**

**„Carl Apstein Award“**

**Closing remarks: Bruno Podesser (A)**

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### Appendix

List of poster presentations

#### Poster Session 1

<b>First author</b>	<b>Title</b>
L. Weber	Importance of Tenascin-C in vascular remodeling following myocardial infarction in mice
Zs. Arnold	Tenascin-C aggravates cardiac remodeling and vascular dysfunction in diabetic mice
B. Freystetter	Multi-layered electro-spun scaffolds – development and evaluation for application in cardiovascular tissue engineering
C. Mork	Bretschneider (Custodiol®) and St. Thomas 2 cardioplegia solution in mitral valve repair via anterolateral right thoracotomy
N. Baumgartner	Effects on Tenascin-C on left ventricular hemodynamics and high-energy phosphates in isolated rat hearts
L. Koechlin	Analysis of myocardial ischemia parameters after coronary artery bypass grafting with minimal extracorporeal circulation and a novel microplegia versus off-pump coronary artery bypass grafting
I. Aykac	Cellular model of diabetic cardiomyopathy using human induced pluripotent stem cell-derived cardiomyocytes
R. Mani	Rewarming speed affects cardiopulmonary and neurological functions after deep hypothermic cardiac arrest

#### Poster Session 2

<b>First author</b>	<b>Title</b>
B. Kronsteiner	Multimodal imaging approach to map cardiac vagus nerve anatomy
D. Aguilar	Characterization of extracellular matrix hydrogels for cardiac tissue repair
P. Hajnal	Biochemical method for measuring efficacy of thrombin inhibitors
V. Bányhegyi	New aspects in the renin-angiotensin-aldosterone system
M.A.J. Umar	Endogenous regulation of neprilysin activity in the human blood
L. Grefen	Comparative <i>in-vitro</i> assessment of treatment effects on pericardial tissue for cardiovascular application
M. Sachse	Expression of the RNA-binding protein HuR in peripheral blood mononuclear cells reflects extent of atherosclerosis



### Poster Session 3

<b>First author</b>	<b>Title</b>
B.I. Nagy	Novel pulsatile perfusion system for vascular graft preconditioning
E. Acar	Neuregulin-1 treatment improves diastolic function and left ventricular morphology in a rat model of chronic kidney disease
C. Dostal	Remote conditioning preserves myocardial ischemia and reperfusion induced vascular endothelial dysfunction
A. Crnic	An <i>in vitro</i> engineered bio-polymeric gel composed of alginate, gelatin and fibrin, to mimic the connective tissue for vascular remodeling
T. Sürig	Effects of different flow-derived shear stresses on three-dimensional culture of human stromal vascular fraction cells
M. Grab	3D-printing in cardiovascular research – an engineer's point of view
S. Watzinger	Tenascin-C promotes adverse cardiac fibrosis and angiotensin-converting enzyme 1 expression in human ventricular cardiac fibroblasts

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