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JOINT MEETING of the

Ludwig Boltzmann Institute for Experimental and Clinical Traumatology and AUVA Research Center, *Vienna, Austria*
Oroboros Instruments and MitoFit Laboratory, *Innsbruck, Austria*
Institute of Surgical Research, *University of Szeged, Hungary*

SCIENTIFIC PROGRAM

DAY 1 | 2018-03-26 MONDAY

09:00-09:15	*Welcome* | Ferenc Bari, Dean, Faculty of Medicine, University of Szeged Mihaly Boros, Head of the Institute of Surgical Research, University of Szeged (15')	
09:15-10:45	SEPSIS AND SYSTEMIC INFLAMMATION | Chair: Marcin F. Osuchowski	
	Marcin F. Osuchowski (Vienna, Austria)	Wiggers-Bernard Initiative - Update *(30')*
	Susanne Drechsler (Vienna, Austria)	Effects of splenectomy in polytrauma and secondary sepsis *(15')*
	József Kaszaki (Szeged, Hungary)	Therapeutic possibilities of microcirculatory and mitochondrial dysfunction in sepsis *(15')*
	Attila Rutai (Szeged, Hungary)	Potential role of endothelin receptors in the therapy of experimental sepsis *(15')*
	Szabolcs Tallósy (Szeged, Hungary)	Microbiological aspects of sepsis models in accordance with Sepsis 3 criteria *(15')*
10:45-11:00	*Coffee break*	
11:00-12:45	CIRCULATORY SHOCK AND ISCHEMIA-REPERFUSION | Chair: Andrey V. Kozlov	
	Vladimir Jakovljevic (Kragujevac, Serbia)	Preconditioning by ion channel modulation in isolated rat heart *(15')*
	Vladimir Zivkovic (Kragujevac, Serbia)	Effects of ischemic and preconditioning with proton pump inhibitors on functional recovery in isolated rat heart *(15')*
	Jovana Bradic (Kragujevac, Serbia)	The effect of potassium-cyanide on isolated rat heart after short term ischemia *(15')*
	Andras Budai (Budapest, Hungary)	ALPPS: Bioenergetic maladaptations during induced liver regeneration *(15')*
	Gabor Varga (Debrecen, Hungary)	Effect of early and delayed remote ischemic preconditioning on hemodynamic, hemorheological and microcirculatory parameters in a rat renal ischemia-reperfusion model *(15')*
	Julia Jilge (Vienna, Austria)	Therapeutic efficiency of human adipose-derived stem cell secretome (ASC-Sec) in emergency setting: in vitro and vivo studies *(15')*
	Andreia Luis (Vienna, Austria)	Endoplasmic Reticulum Stress and Unfolded Protein Response in shock and inflammation *(15')*
12:45-13:45	*Lunch break*	
13:45-14:15	Oroboros O2k-FluoRespirometer and DatLab 7 introduction Erich Gnaiger (Innsbruck, Austria) (30')	
14:15-16:15	BIOLOGICALLY ACTIVE GASES AND SMALL SIGNALLING MOLECULES I. | Chair: Erich Gnaiger	
	Frédéric Bouillaud (Paris, France)	Sulfide and mitochondrial bioenergetics *(30')*
	Andrey V. Kozlov (Vienna, Austria)	Alterations in nitric oxide homeostasis during traumatic brain injury, interplay with mitochondria and glutamate toxicity *(30')*
	Andrea Müllebner (Vienna, Austria)	How do heme oxygenase and nitric oxide synthase regulate macrophage functions *(15')*
	Dániel Érces (Szeged, Hungary)	Differentiation of pulmonary and mesenteric perfusion disorders from exhaled methane concentrations *(15')*
	Gábor Bari (Szeged, Hungary)	Effect of methane inhalation in a large animal model of extracorporal perfusion *(15')*
	Marietta Poles (Szeged, Hungary)	Effect of methane inhalation on nitrosative stress during mesenteric ischemia/reperfusion in rats *(15')*
16:15-16:30	*Coffee break*	

16:30-18:20	BIOLOGICALLY ACTIVE GASES AND SMALL SIGNALLING MOLECULES II. | Chair: Frédéric Bouillaud	
	Erich Gnaiger (Innsbruck, Austria)	*(30')*
	László Juhász (Szeged, Hungary)	Inhibition of N-methyl-D-aspartate receptors improves polymicrobial sepsis-evoked mitochondrial dysfunction in rats. *(15')*
	Eszter Tuboly (Szeged, Hungary)	Excessive alcohol consumption leads to non-microbial endogenous methane production *(15')*
	Dániel Érces (Szeged, Hungary)	Effects of methane inhalation on platelet function in a large animal model of cardiac tamponade *(10')*
	Petra Varga (Szeged, Hungary)	Newly discovered methane donor molecules with antioxidant potential *(10')*
18:20-19:20	*Dinner*	
19:20-20:30	Project discussions	

DAY 2 | 2018-03-27 TUESDAY

09:00-10:30	MORNING SESSION ON MITOCHONDRIA | Chair: László Tretter	
	Petr Pecina (Prague, Chech Republic)	Changes in oxygen kinetics between COX4i1 and COX4i2-containing COX *(30')*
	László Tretter (Budapest, Hungary)	TBA *(30')*
	László Juhász (Szeged, Hungary)	$Ca^{(2+)}$N it be measured? High-resolution O2k-FluoRespirometric detection of extramitochondrial calcium movement *(10')*
	Dávid Kurszán Jász (Szeged, Hungary)	Mitochondrial effects of methane gas treatment on rat cardiomyocytes subjected to simulated ischemia/reperfusion *(10')*
	Eszter Tuboly (Szeged, Hungary)	Novel cardioprotective effects of methane in an ex vivo model *(10')*
10:30-10:45	*Coffee break*	
10:45-12:15	Oroboros O2k workshop on hypoxia I. - demo experiment	
	András Mészáros (Innsbruck, Austria and Szeged, Hungary)	Mitochondrial oxygen kinetics in closed-chamber respirometers *(90')*
12:15-13:00	*Lunch break*	
13:00-13:30	Invited lecture	
	Christos Chinopoulos (Budapest, Hungary)	Interplay of respiratory components and mitochondrial diaphorases on redox state in anoxia *(30')*
13:30-14:30	Oroboros O2k workshop on hypoxia II.	
	Timea Komlódi (Innsbruck, Austria)	Oxygen dependence of H_2O_2 production: AmplexUltraRed® fluorescence *(60')*
14:30-14:45	*Coffee break*	
14:45-16:15	Oroboros O2k workshop on hypoxia III.	
	Erich Gnaiger (Innsbruck, Austria)	Steady-state oxygen kinetics with the Titration-injection microPump TIP2k *(90')*
16:15-16:30	Discussions	
16:30-18:00	COST ACTION MitoEAGLE | Chair: Petr Pecina	
	Ana Ledo (Coimbra, Portugal)	Age-dependent changes in the glutamate-nitric oxide pathway in the hippocampus of the triple transgenic model of Alzheimer's disease: implications on mitochondrial function *(15')*
	Nina Krako (Belgrade, Serbia)	Investigation of subcellular mechanisms in insulin resistance models in hepatocytes and myocytes *(15')*
	Beata Velika (Kosice, Slovakia)	The effect of short-term exposure to moderate altitude on respiration of peripheral-blood mononuclear cells *(15')*
	Andrea Evinova (Bratislava, Slovakia)	Magnesium protects from calcium induced collapse of mitochondrial trans-membrane potential *(Poster)*
	Kasja Pavlovic (Belgrade, Serbia)	C2C12 myoblasts as a cell model for studying the role of mitochondria in insulin resistance *(Poster)*
	Ioana Z. Pavel (Timisoara, Romania)	The acute and chronic effects of a benzylamide derivative of maslinic acid in liver mitochondria isolated from mice with chemically induced skin carcinogenesis *(Poster)*