2nd JOINT MEETING OF SLOVAK AND SERBIAN PHYSIOLOGICAL SOCIETIES

"PHYSIOLOGY WITHOUT FRONTIERS"

Organized by

Slovak Physiological Society, Serbian Physiological Society,
Institute of Normal and Pathological Physiology and Institute for Heart Research,
Slovak Academy of Sciences and NO club



PROGRAM

May 15-18, 2016

Smolenice Castle

Congress Center of the Slovak Academy of Sciences, Bratislava, Slovakia

Basic Information

Chair of the meeting: Oľga Pecháňová (<u>olga.pechanova@savba.sk</u>)
Scientific secretary: Táňa Ravingerová (<u>tatiana.ravingerova@savba.sk</u>)

Programme Commitee

Andrea Čalkovská, Vladimír Jakovljevič, Kamil Javorka, Dragan Djurič, Ján Slezák, Iveta Bernátová, Fedor Jagla, Táňa Ravingerová, Vladimír Štrbák, Oľga Pecháňová

Local Organizing Committee

Oľga Pecháňová, Martina Cebová, Monika Barteková, Veronika Farkašová, Zuzana Matúšková, Radoslava Reháková, Michaela Košútová

Information

Oľga Pecháňová

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Meeting Venue

Smolenice Castle, Zámocká, 919 04 Smolenice, GPS: N 48.51359 / E 17.43232

Important Dates

Registration and payment: by April 15, 2016

Abstract submission: by April 15, 2016

Meeting date: May 15-18, 2016

Program at Glance

May 15, 2016

| 17:00 – 18:00 | Registration |
|---------------|--|
| 18:00 - 18:30 | Opening Ceremony/Welcome Messages |
| | O. Pechanova, A. Calkovska, V. Strbak, V. Jakovljevic, D. Djuric |
| 18:30 – 19:50 | Session 1: INFLAMMATION |
| | Chairpersons: Z. Miloradovic and O. Pechanova |
| 20:00 | Welcome Reception |

May 16, 2016

| 8:00 | Breakfast |
|---------------|--|
| 9:00 - 10:40 | Session 2: OXIDATIVE STRESS |
| | Chairpersons: V. Jakovljevic and J. Slezak |
| 10:40 | Coffee break |
| 11:00 - 12:30 | Session 3: LIPID METABOLISM |
| | Chairpersons: S. Petrovic and M. Cebova |
| 12:30 | Lunch |
| 14:00 – 15:50 | Session 4: HEART FUNCTION |
| | Chairpersons: S. Novokmet and T. Ravingerova |
| 15:40 | Coffee break |
| 16:10 – 17:20 | Session 5: SOCIAL STRESS |
| | Chairpersons: I. Lakic and I. Bernatova |
| 17:30 – 19:00 | Poster Session with Discussion |
| 19:00 | Dinner |

May 17, 2016

| 8:00 | Breakfast |
|---------------|---|
| 9:00 – 10:50 | Session 6: NEUROPHYSIOLOGY |
| | Chairpersons: O. Stanojlovic and F. Jagla |
| 10:50 | Coffee break |
| 11:10 – 12:50 | Session 7: NITRIC OXIDE AND S –COMPOUNDS |
| | Chairpersons: D. Djuric and S. Cacanyiova |
| 13:00 | Lunch |
| 14:00 | Trip to Red Rock Castle |
| 19:00 | Gala Dinner |

May 18, 2016

| 9:00 | Breakfast |
|--------------|--|
| 9:00 - 10:30 | Session 8: LUNG AND OXYGENATION |
| | Chairpersons: D. Blagojevic and A. Calkovska |
| 10:30 | Closing Ceremony and Lunch |

Scientific Program

May 15, 2016

| 18:30 – 19:50 | Session 1: INFLAMMATION |
|---------------|---|
| | Chairpersons: Z. Miloradovic and O. Pechanova |
| 18:30 | Z. Miloradovic et al: Losartan and tempol, but not their combination ameliorate renal inflammatory response at an early stage of experimental focal-segmental glomerulosclerosis. |
| 18:55 | O. Pechanova et al: Red wine extract decreases pro-inflammatory markers in experimental metabolic syndrome. |
| 19:20 | A. Petrovic et al: Melatonin attenuates streptozotocin induced inflammation and oxidative stress in the rat liver by modulation of NF-kB and Nrf2 signaling. |
| 19:35 | I. Zila et al: Lipopolysaccharide induced endotoxemia - effect on cardiorespiratory neural control. |

May 16, 2016

| 9:00 - 10:40 | Session 2: OXIDATIVE STRESS |
|--------------|---|
| | Chairpersons: V. Jakovljevic and J. Slezak |
| 9:00 | V. Jakovljevic et al: Oxidative stress in health and disease: from basic science to applied clinical investigations. |
| 9:25 | S. Slezak et al: Molecular mechanisms of radiation induced heart disease. Effect of selected substances with potential to ameliorate its toxic effect. |
| 9:50 | J. Jeremic et al: Redox status in patients with femoral neck fractures. |
| 10:05 | J. Ristic et al: The impact of positive acceleration (+Gz) on antioxidant capacity and histopathological alterations in different organs and tissues in rats. |
| 10:20 | M. Kluknavsky et al: (–)-Epicatechin reduces high blood pressure development and locomotor activity in young spontaneously hypertensive rats. |

| 11:00 - 12:30 | Session 3: LIPID METABOLISM |
|---------------|--|
| | Chairpersons: S. Petrovic and M. Cebova |
| 11:00 | M. Cebova et al: The effect of palmitate exposure in utero on systolic and vascular function. |
| 11:25 | S. Petrovic et al: Fish oil supplementation improves fatty acid composition of liver phospholipids in mice model of Alzheimer's disease. |
| 11:40 | R. Rehakova et al: The effect of short-term fructose treatment on nitric oxide production and oxidative damage in rats. |
| 11:55 | B. Czippelova et al: The influence of obesity on endothelial function and arterial stiffness in children and adolescents. |
| 12:10 | M. Kosutova et al: The effect of cholesterol-lowering drug in rat mammary gland carcinoma model. |

| 14:00 – 15:50 | Session 4: HEART FUNCTION |
|---------------|--|
| | Chairpersons: S. Novokmet and T. Ravingerova |
| 14:00 | S. Novokmet et al: Effects of metal complexes as potentially anticancer agents on isolated perfused rat heart. |
| 14:25 | T. Ravingerova et al: Cardioprotection by non-invasive "remote" preconditioning in |
| | healthy and diseased heart: potential role of peroxisome proliferator-activated |
| | receptors. |
| 14:50 | I. Stojic et al: The effects of platinum complexes on cardiodynamic parameters in |
| | isolated rat heart. |
| 15:05 | V. Farkasova et al: Remote ischemic preconditioning in hearts of spontaneously |
| | hypertensive rats. |
| 15:20 | M. Zalesak et al: Molecular hydrogen facilitates antiinfarct protection conferred by |
| | hypoxic postconditioning in isolated rat hearts. |
| 15:35 | I. Srejovic et al: The effects of verapamil and its combinations with glutamate and |
| | glycine on cardiodynamics and coronary flow in isolated rat heart. |

| 16:10 - 17:20 | Session 5: SOCIAL STRESS |
|---------------|---|
| | Chairpersons: I. Lakic and I. Bernatova |
| 16:10 | I. Bernatova et al: Chronic stress induces delayed behavioral hyperactivity and |
| | vascular alterations in young prehypertensive rats. |
| 16:35 | I. Lakic et al: The effect of physical and psychosocial stressors on galanin content in |
| | the rat heart. |
| 16:50 | D. Selakovic et al: The effect of supraphysiological dose of testosterone-enanthate |
| | (TE) and exercise on exploratory activity in elevated plus maze (EPM) test - the |
| | advantage of using total exploratory activity (TEA) as a new parameter for |
| | exploratory activity estimation in EPM. |
| 17:05 | Z. Turianikova et al: Oxytocin receptor gene polymorphism is related to |
| | cardiovascular autonomic control. |

| 17:30 – 19:00 | Poster Session with 3 min. Discussion |
|---------------|--|
| | Chairpersons: D. Hrncic, V. Strbak, I. Srejovic and K. Javorka |
| 1. | P. Balis et al: Involvement of reactive oxygen species in blood pressure regulation |
| | in rats exposed to acute stress. |
| 2. | A. Barta et al: Structural changes in myocardium and aorta after aliskiren-induced |
| | inhibition of renin-angiotensin-aldosterone system. |
| 3. | S. Brankovic et al: Effects of the aqueous, ethylacetate and ethanol extracts of |
| | Sideritisraeseri Spp. raeseriBoiss&Heldr on the isolated rat ileum contractions. |
| 4. | A. Puzserova et al: The mechanisms of cocoa flavanol (-)-epicatechin action in the |
| | isolated femoral artery of spontaneously hypertensive rats. |
| 5. | B. Kura et al: The effect of selected drugs on cardiac specific miRNAs expression in |
| | irradiated rat myocardium. |
| 6. | M. Radenkovic et al: Impact of various extracts of corn (Zea mays) silk on |
| | cardiovascular system. |
| 7. | L. Scepanovic et al: Protective impact of N-acetyl-L-cysteine on methionine load |
| | effects in colon rat. |

| 8. | N. Tatalovic et al: Ibogaine affects the redox status in rat heart. |
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| 9. | N. Useinovic et al: Epileptiform EEG activity caused by high methionine content in |
| | diet: advanced-level biosignal analysis. |
| 10. | M. Zalesak et al: Hyperosmotic environment improves ischemic tolerance of non- |
| | preconditioned isolated rat hearts and impairs cardioprotective efficacy of |
| | ischemic preconditioning. |
| 11. | A. Zemancikova et al: Effect of perivascular adipose tissue on neurogenic |
| | contractions in rat conduit arteries. |
| 12. | V. Zivkovic et al: The role of hydrogen sulphide in homocysteine-induced |
| | cardiodynamic effects and oxidative stress markers in the isolated rat heart. |
| 13. | D. Mitrovic et al: Effects of methionine load, cysteine and N-acetyl-L-cysteine on |
| | superoxide dismutase (SOD) level in rat gastrointestinal system. |
| 14. | D. Vasovic et al: Finasteride induces anxiety from bright-space, but not from open- |
| | space in rats. |
| 15. | A. Hadzibegovic et al: The effects of homocysteine and inhibitor of heme- |
| | oxygenase type 1 on AChE activity in the rat cardiac tissue. |
| 16. | S. Kostic et al: Effects of acutely applied methionine on plasma oxidative stress |
| | markers and AChE activity in rat cardiac and brain tissue. |
| 17. | M. Stojanovic et al: Protective impact of L-cysteine on methionine load effects in |
| | the rat colonic mucosa. |
| 18. | V. Vucic et al: Altered fatty acid metabolism in lung cancer tissue. |
| 19. | M. Miler et al: Hesperetin affects some antioxidative enzymes activity in the liver |
| | of old-aged Wistar rats. |
| 20. | S. Trifunovic et al: Daidzein-dependent changes on corticotrophs in adult rats: |
| | stereological and hormonal study. |
| 21. | R. Rovny et al: Variability of nNOS gene is associated with prepulse inhibition of |
| | acoustic startle reflex in humans |

May 17, 2016

| 9:00 - 10:50 | Session 6: NEUROPHYSIOLOGY |
|--------------|---|
| | Chairpersons: O. Stanojlovic and F. Jagla |
| 9:00 | O. Stanojlovic: Experimental models of epilepsies: translational value. |
| 9:25 | F. Jagla: Use of saccadic eye movement tasks in diagnostic tests of mental disorders. |
| 9:50 | D. Hrncic et al: Sleep in modulation of epileptic activity: translational viewpoint. |
| 10:05 | D. Mladenovic et al: Neuroprotective effects of finasteride in thoacetamide- induced hepatic encephalopathy in rats – new insights into the old drug. |
| 10:20 | Z. Matuskova et al: The failure of redox-oxidative balance in the pathophysiology of schizophrenia. |
| 10:35 | J. Joksimovic et al: Analysis of the influence of chronic treatment with testosterone-enanthate (TE) in supraphysiological dose on antidepressant effect of exercise in rats using tail suspension test parameters. |

| 11:10 – 12:50 | Session 7: NITRIC OXIDE AND S –COMPOUNDS |
|---------------|--|
| | Chairpersons: D. Djuric and S. Cacanyiova |
| 11:10 | D. Djuric et al: Cardiovascular effects of homocysteine and related thiolactone |
| | metabolites: what we learnt from extensive five year lasting research? |
| 11:35 | S. Cacanyiova et al: The role of NO-H2S interaction in the vascular tone regulation. |
| 12:00 | D. Blagojevic and Z. Orescanin-Dusic: Redox regulation: from redox congeners to |
| | ATP-mediated contractility. |
| 12:15 | A. Berenyiova et al: Effect of the long-term neuronal and endothelial NO-synthase |
| | inhibition in young spontaneously hypertensive rats. |
| 12:30 | K. Ondrias et al: Modulation of rat hemodynamic parameters by intravenous |
| | administration of L-NAME. |

May 18, 2016

| 9:00 – 10:30 | Session 8: LUNG AND OXYGENATION |
|--------------|--|
| | Chairpersons: D. Blagojevic and A. Calkovska |
| 9:00 | A. Calkovska et al: Tidal volumes and alveolar stability are determined by |
| | phospholipid composition in synthetic surfactants. |
| 9:25 | M. Kolomaznik et al: Reversal of lipopolysaccharide-induced inactivation of |
| | pulmonary surfactant. |
| 9:40 | S. Mikolajcikova et al: Association of haplotype of surfactant protein B with |
| | susceptibility to respiratory disorders in premature and term infants. |
| 9:55 | M. Kozar et al: Changes of selected cardiovascular and oxygenation parameters |
| | according to mode of delivery. |
| 10:10 | M. Antosova et al: Detection of nasal nitric oxide in healthy adults – reference |
| | values and affecting factors. |