



HRVATSKO DRUŠTVO FIZIOLOGA

Zavod za fiziologiju i radiobiologiju

Veterinarski fakultet Sveučilišta u Zagrebu

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CROATIAN PHYSIOLOGICAL SOCIETY

The 12th Annual Symposium of the Croatian Physiological Society with international participation "Homeostasis - From Cell to Organ" Rijeka, September 28th-30th, 2018

Venue: University of Rijeka, Faculty of Medicine (City Hall, 3rd floor)
Braće Branchetta 20; 51000 Rijeka

***Organized by:* Croatian Physiological Society**

Faculty of Medicine Rijeka

Faculty of Medicine Zagreb

Faculty of Medicine Osijek

Faculty of Medicine Split

Faculty of Health Studies Rijeka

The official languages of the Conference are Croatian and English.

***Organizing Board* – members of the Steering committee of Croatian Physiological Society (CPS)**

Ines Mrakovčić-Šutić, president of CPS, Faculty of Medicine Rijeka

Valentino Pavišić, secretary, Faculty of Medicine Rijeka

Aida Salihagić-Kadić, Faculty of Medicine Zagreb

Željko Dujić, Faculty of Medicine Split

Ines Drenjančević, Faculty of Medicine Osijek

Aleksandra Dugandžić, Faculty of Medicine Zagreb

Mirko Hadžija, Institute Rudjer Boskovic, Zagreb

Ivana Grizelj, Faculty of Medicine Osijek

Martina Mihalj, Faculty of Medicine Osijek

FINAL PROGRAM

September 28th, 2018/Friday

17.00-17,20: **Opening ceremony:**

Ines Mrakovčić-Šutić, president of CPS

Pero Lučin, head of the Department of Physiology, Immunology and Pathophysiology, Faculty of Medicine Rijeka

INVITED LECTURES:

17,20-17,50: **Bojan Polić**

Department of Histology and Embriology, Faculty of Medicine,
University of Rijeka, Croatia

Virus-induced IFN γ causes insulin resistance in muscle and derails glycemic control in obesity

17,50-18,20: **Gordana Blagojević Zagorac**

Department of Physiology, Immunology and Pathophysiology, Faculty of
Medicine, University of Rijeka, Croatia

Role of the small GTPases in the remodeling of the intracellular compartments during MCMV infection

SELECTED ORAL PRESENTATIONS:

18,20-18,35: **Domagoj Kustić**

Clinical Hospital Center Rijeka, Clinical Department of Nuclear Medicine
Impact of HER2 receptor status on axillary nodal burden in patients
with non-luminal A invasive ductal breast carcinoma

18,35-18,50: **Tanja Grubić Kazele**

Department of Physiology, Immunology and Pathophysiology, Faculty of
Medicine, University of Rijeka, Croatia

Hippocampal expression of heat shock protein GP 96, CD91 and TLR2
during experimental autoimmune encephalomyelitis in rats

Refreshments

September 29th, 2018/Sathurday

INVITED LECTURES:

9,00-9,30: **Helena Lenasi**

Institute of Physiology, Medical Faculty, University of Ljubljana, Slovenia

Exercise and microcirculation in diabetes: which mode of exercise is the most effective?

9,30-10,00: **Alardović Jasna**

Faculty of Veterinary Medicine, University of Zagreb, Zagreb, Croatia

Fatty acid analysis as animal health, production and reproduction monitoring tool

10,00-10,30: **Miroslav Župčić**

Department of Anesthesiology, Reanimatology and Intensive Care
Medicine, Faculty of Medicine, University of Rijeka

Hemodynamic implications associated with administration of local anesthetics

10,30-11,00: Coffee break

SELECTED ORAL PRESENTATIONS:

11,00-11,15: **Silvana Petretić Majnarić**

Clinical Hospital Center Rijeka, Clinical Department of Nuclear Medicine
Thyroid hormones and antithyroid antibodies influence infertility treatment, reproductive outcome and indications for assisted reproduction

11,15-11,30: **Ivana Kotri Mihajić**

Clinic for Orthopedics and traumatology Lovran, University of Rijeka, Croatia

Physiological response of musculoskeletal system on injury in children and adults

11,30-11,45: **Božena Ćurko-Cofek**

Department of Physiology and Immunology, Faculty of Medicine, University of Rijeka

Gender-related differences in hepcidin and metallothionein I/II expression in spinal cord of iron-overloaded EAE rats

11,45-13,00: **POSTER SESSION** with refreshments

1. M. Ratko, N Habek, A. **Uroguanylin increases Ca²⁺ concentration in astrocytes via guanylate cyclase C independent signaling pathway** Zagreb, Croatia
2. Dyana Odeh, Lydia Gaćina, Nika Đirlić, Nikola Lesar, Marina Kukolj, Nada Oršolić: **The effect of sevoflurane on oxidative stress and inflammation induced by aluminium chloride in the rat brain** Zagreb, Croatia
3. Valentino Pavišić, Gordana Blagojević Zagorac, Hana Mahmutefendić Lučin, Ljerka Karleuša, Natalia Jug Vučko, Marina Marčelić, Silvija Lukanović Jurić, and Pero Lučin: **Arf6/Rab35 balance in the MCMV infection**, Rijeka, Croatia
4. Hrvoje Jakovac, Tanja Grubić Kezele, Biserka Radošević-Stašić: **MT-I/II interacts with megalin receptor providing survival signals via AKT-1 phosphorylation during cuprizone induced demyelination**, Rijeka, Croatia
5. Gordana Kendel Jovanović, Sandra Pavičić Žeželj, Sanja Klobučar Majanović, Ines Mrakovčić Šutić: **The association of pro-inflammatory potential of the diet with body weight of women**, Rijeka, Croatia
6. Nataša Kozina, Petar Šušnjara, Zrinka Mihaljević, Ante Perica, Ines Drenjančević: **The establishment of the method for measurement of the markers of oxidative stress in HeLa cell culture**, Osijek, Croatia
7. Laskarin Gordana, Kehler Tatjana, Dominović Marin, Persic Viktor, Rogoznica Marija, Rusac Sandra, Rosovic Ivan, Rukavina Daniel: **Peripheral blood NK cells of patients with osteoarthritis mediate granulysin dependent apoptosis of K-562 cells**, Rijeka, Croatia
8. Letica L, Brekalo Z, Kvesić A, Pavišić V, Šutić I, Mrakovčić-Šutić I: **Cross talk between perforin and granulysin expression in peripheral blood of patients with colorectal cancer**, Mostar, Bosnia and Herzegovina, Rijeka, Croatia

9. Marolt Banek I, Roša J, Ježek D, Delaš I: **Effect of metabolic cage housing on glucose and lipids concentrations in blood, body fat accumulation and liver glucose production in young male Wistar rats**, Zagreb, Croatia
10. Šutić I, Barićev-Novaković Z: **Virtual patient-development of gangrene and tumor**, Rijeka, Croatia
11. Šutić I, Barićev-Novaković Z: **A patient with the development of fulminant cancer of unknown position**, Rijeka, Croatia
12. Vilma Dembitz, Barbara Tomić, Ivan Kodvanj, Dora Višnjčić: **Nucleosides prevent 5-aminoimidazole-4-carboxamide ribonucleoside-mediated effects on cell cycle progression and differentiation**, Zagreb, Croatia
13. Jagoda Roša, Iva Marolt Banek, Aleksandra Dugandžić, Josip Roša: **Differential effects of raw soybean diet on hepatic and whole body glucose homeostasis in rat**, Zagreb, Croatia
14. Jug Vučko N, Mahmutefendić Lučin H, Lukanović Jurić S, Karleuša Lj, Blagojević Zagorac G, Pavišić V, Marcelić M, Lučin P: **Furin is important for the early and late endosomal MCMV gene expression in Balb 3T3 fibroblasts**, Zagreb, Croatia
15. Dyana Odeh, Lydia Gaćina, Nika Đirlić, Nikola Lesar, Marina Kukolj, Nada Oršolić: **The effect of sevoflurane on oxidative stress and inflammation induced by aluminium chloride in the rat brain**, Zagreb, Croatia

INVITED LECTURES:

13,00-13,30: **Vilma Dembitz**

Department of Physiology and Croatian Institute for Brain Research,
University of Zagreb School of Medicine

The role of autophagy in cell differentiation

13,30-14,00: **Martina Mihalj**

Department of Physiology and Immunology Faculty of Medicine
University of J. J. Strossmayer of Osijek, Osijek, Croatia

Is there evidence for anti-inflammatory effect of hyperbaric oxygenation?

14,00-14,30: **Ines Drenjančević**

Department of Physiology and Immunology Faculty of Medicine
University of J. J. Strossmayer of Osijek, Osijek, Croatia

The role of angiotensin II AT-1 type receptors in maintenance of the
vascular oxidative stress balance of Sprague-Dawley rats

SELECTED ORAL PRESENTATIONS:

14,30-14,45: **Daniel Knežević**

Department of Anesthesiology, Reanimatology and Intensive Care
Medicine, Faculty of Medicine, University of Rijeka

**Cytotoxic potential of natural killer cells in patients with
coronary heart disease undergoing CABG with regards to
interleukin-18**

14,45-15,00: **Sandra Šučurović**

Department of Physiology and Immunology, Faculty of Medicine,
University of Rijeka

The coordinated expression of PR and ER α regulated genes are crucial for establishment endometrial microenvironment needed for functional implantation site formation

19,00: Gala dinner

September 30th, 2018/Sunday

9,30-10,00: CROATIAN PHYSIOLOGICAL SOCIETY General assembly

INVITED LECTURES:

10,00-10,30: **Jagoda Roša**

Department of Physiology, University of Zagreb, School of Dental
Medicine, Zagreb, Croatia,

The primary cultured hepatocytes as a cellular model for the study of metabolism and its regulation in normal physiological and altered states

10,30-11,00: **Ines Mrakovčić-Šutić**

Department of Physiology and Immunology, Faculty of Medicine,
University of Rijeka

The role of CD 68 in atherosclerotic process

SELECTED ORAL PRESENTATIONS:

11,00-11,15: **Valentino Rački**

Department of Physiology and Immunology, Faculty of Medicine,
University of Rijeka

Immunometabolic phenotype of BV-2 microglial cells upon *in-vitro* antipsychotic drug administration

11,15-11,30: **Ines Drenjančević**

Department of Physiology and Immunology Faculty of Medicine
University of J. J. Strossmayer of Osijek, Osijek, Croatia

The effect of n-3 PUFA dietary supplementation on hemorheology, endothelium-dependent microvascular function and on physical performance

Closing remark: Ines Mrakovčić-Šutić, President of CPS

Refreshments and departures to Zagreb, Osijek, Ljubljana, Mostar, etc.