

# **4th CONGRESS OF PHYSIOLOGICAL SCIENCES OF SERBIA WITH INTERNATIONAL PARTICIPATION**

Organized by the Serbian Physiological Society



Under the auspices of

*Federation of European Physiological Societies (FEPS)*

*International Union of Physiological Sciences (IUPS)*

*International Society for Pathophysiology (ISP)*

*International Academy of Cardiovascular Sciences (IACS)*

## **CURRENT TRENDS IN PHYSIOLOGICAL SCIENCES: FROM CELL SIGNALS TO THE BIOLOGY OF AGING**



### **FINAL PROGRAM**

September 19-23, 2018  
Faculty of Medicine, University of Nis,  
Nis, Republic of Serbia

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(available at: [physiology.org.rs/4thCPS.php](http://physiology.org.rs/4thCPS.php))

CME accredited by the Health Council of Serbia  
(Decision No. 153-02-507/2018-01 from 05.03.2018.)

September 19-23, 2018  
Faculty of Medicine, University of Nis,  
Nis, Republic of Serbia

## FOREWORD

Dear Colleagues,

We are very pleased to inform you that the 4th *Congress of Physiological Sciences of Serbia with International Participation* will be held during September 19-23, 2018 at the Faculty of Medicine University of Nis. For the last 16 years, the Serbian Physiological Society has developed a series of national and internationally recognized congresses and meetings: the conferences of physiological sciences with international participation on environmental risk factors, oxidative biology and human health (Zlatibor 2001; Belgrade/Zrenjanin, 2003; Kragujevac 2004), the first congress of physiological sciences with international participation (Belgrade, 2005), the satellite symposium of the XIV International Symposium on Atherosclerosis (Belgrade, 2006), the scientific conference with international participation on nutrition, treatment and cardiovascular risk management (Novi Sad, 2007), the scientific conference with international participation devoted to our famous physiologist Richard A. Burian (Belgrade, 2008), second congress of physiological sciences with international participation (Kragujevac, 2009), the scientific conference with international participation on preclinical testing of active substances and cancer research with international symposium on anti-cancer agents, cardiotoxicity and neurotoxicity (Kragujevac, 2011) and under the auspice of EU 7th framework program, the joint scientific meeting of the national physiological societies organized by the Slovak Physiological Society and Serbian Physiological Society (Kovacicica 2013), third congress of physiological sciences with international participation (Belgrade, 2014), second European meeting of the International Academy of Cardiovascular Sciences (Belgrade, 2015), second joint scientific meeting of the national physiological societies organized by the Slovak Physiological Society and Serbian Physiological Society (Smolenice 2016, Slovakia), the joint scientific meeting of the national physiological societies organized by the Hungarian Physiological Society and Serbian Physiological Society (Subotica 2017), satellite symposium of the 8th International Congress of Pathophysiology (Kragujevac, 2018), and a few CME meetings in the field of atherosclerosis, vascular biology, risk factors and health. These meetings were recognized internationally, attracted a worldwide scientific audience, and had been supported by the Federation of European Physiological Societies (FEPS), the International Union of Physiological Sciences (IUPS), the International Society for Pathophysiology (ISP), the International Academy of Cardiovascular Sciences (IACS), and the International Atherosclerosis Society (IAS). Such success in former years directed us to plan and organize the fourth national congress of physiological sciences in order to improve research background, and make easier approach to the global research cooperation. Our wish is having this congress traditional and progressive, and to attract the physiologists from abroad and

especially surrounding countries. This time congress is more directed to cardiovascular research, oxidative stress, genetics, neuroscience, endocrinology, nutrition, exercise and hyperbaric physiology however translational and applied aspects in physiological research will be also presented. The scientific program will include a broad mix of topics from molecular, cellular and integrative aspects of physiological sciences going ahead to the scientific problems covered by the international scientific community.

We really hope that this congress is a unique opportunity for all participants to exchange their ideas and give their own contribution in this fruitful cooperation. Finally, city of Nis, located in south part of Serbia is not only the place where you will find typical Serbian spirit of life, but also the place which is known for the worldwide recognized sacral and historical objects and monuments, museums, galleries etc.

We appreciate your participation and wishing you warm welcome to Nis and south part of Serbia.

*On behalf of the Organizing/Program Committee*

Vladimir Jakovljevic and Dragan M. Djuric



## CONGRESS COMMITTEES CHAIRMEN

Jakovljevic V (Kragujevac), *Organizing Committee Chairman*

Djuric DM (Belgrade), *Program Committee Chairman*

Stojiljkovic N (Nis), *Local Organizing Committee Chairman*

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Srejovic I (Kragujevac)

Zivkovic V (Kragujevac)

## CME COORDINATOR

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Strbak V (Bratislava,  
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Tyagi S (Louisville, USA)

Weber G (Louisville, USA)

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## LOCAL PROGRAM COMMITTEE

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Miloradovic Z (Belgrade)	Vuckovic S (Belgrade)
Milosevic V (Belgrade)	Zivkovic M (Vinca)
Miric D (K. Mitrovica)	Zivkovic V (Kragujevac)
Miric M (K. Mitrovica)	

**WEDNESDAY, SEPTEMBER 19th, 2018**

Venue: Faculty of Medicine University of Nis, Nis  
(participation upon registration only)

16.00-17.00

Arrival/Registration

17.00-17.20

**OPENING CEREMONY/WELCOME ADRESSES**

Dhalla NS, *Honorary President, International Academy of Cardiovascular Sciences, on behalf of the International Physiological Community*  
Djuric DM, *President, Assembly, Serbian Physiological Society*  
Jakovljevic V, *President, Executive Board, Serbian Physiological Society*  
Pierce GN, *President Elect, International Academy of Cardiovascular Sciences, on behalf of the International Physiological Community*  
Stojiljkovic N, *Chairman, Local Organizing Committee*

17.20-18.20

**SESSION 1: PRESENTATION OF THE SERBIAN  
PHYSIOLOGICAL SOCIETY AWARDS FOR CONTRIBUTION IN  
PHYSIOLOGY AND LIFETIME ACHIEVEMENT**

**FERROPTOSIS: NEW TARGETS FOR MODULATION OF CELL FATE**

Spasic M

*Department of Physiology, Institute of Biological Research "Sinisa Stankovic", University of Belgrade, Belgrade, Serbia*

**MECHANISM OF CARDIOVASCULAR REMODELING IN HEART  
FAILURE**

Tyagi S

*University of Louisville, Louisville, USA*

18.30

Welcome Reception

**THURSDAY, SEPTEMBER 20th, 2018**

**SESSION 2: CARDIAC PHYSIOLOGY AND  
CARDIOPROTECTION**

Chairmen: Kukreja R, Ostadal B, Zivkovic V

09.00-09.15

**CARDIAC TOLERANCE TO OXYGEN DEPRIVATION: EFFECT OF  
AGE AND SEX**

Ostadal B, Drahota Z, Milerova M, Ostadalova I, Charvatova Z, Houstek J, Kolar F  
*Institute of Physiology, Czech Academy of Sciences, Prague, Czech Republic*

09.15-09.30

**CARDIAC METABOLIC CONTROL AND AUTOPHAGY: THE ROLE OF  
PPAR $\beta$ / $\Delta$  SIGNALING IN THE METABOLICALLY STRESSED HEART**

Lazou A  
*School of Biology, Aristotle University of Thessaloniki, Thessaloniki, Greece*

09.30-09.45

**ROLE OF PROTEIN KINASE G IN CARDIOPROTECTION**

Kukreja R  
*Pauley Heart Center, Virginia Commonwealth University, Richmond, USA*

09.45-10.00

**CARDIOPROTECTION INDUCED BY CHRONIC CONTINUOUS AND  
INTERMITTENT HYPOXIA**

Kolar F, Neckar J, Borchert G, Hlavackova M, Ostadal B  
*Department of Developmental Cardiology, Institute of Physiology of the Czech Academy of Sciences, Prague, Czech Republic*

10.00-10.15

**THE IMPACT OF CALCIUM AND POTASSIUM CHANNEL MODULATORS ON FUNCTIONAL RECOVERY AFTER ISCHEMIA IN THE ISOLATED RAT HEART**

Zivkovic V<sup>1</sup>, Simonovic N<sup>2</sup>, Jeremic J<sup>3</sup>, Finderle Z<sup>4</sup>, Jakovljevic B<sup>5</sup>, Srejovic I<sup>1</sup>, Nikolic Turnic T<sup>3</sup>, Milosavljevic I<sup>3</sup>, Jakovljevic V<sup>1,6</sup>

<sup>1</sup>Department of Physiology, Faculty of Medical Sciences, University of Kragujevac, Kragujevac,

<sup>2</sup>Health Center "Vozdovac", Belgrade, <sup>3</sup>Department of Pharmacy, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, <sup>4</sup>Department of Physiology, Medical Faculty, University of Ljubljana, Ljubljana, Slovenia, <sup>5</sup>Medical College of Applied Sciences in Zemun, Belgrade, Serbia,

<sup>6</sup>Department of Human Pathology, 1<sup>st</sup> Moscow State Medical, University IM Sechenov, Moscow, Russian Federation

10.15-10.30

**POTENTIALLY CARDIOPROTECTIVE EFFECTS OF CHRONIC DATS ADMINISTRATION ON ISCHEMIC/REPERFUSION INJURY OF HEARTS IN RATS WITH METABOLIC SYNDROME**

Jeremic N<sup>1</sup>, Jeremic J<sup>1</sup>, Zivkovic V<sup>2</sup>, Srejovic I<sup>2</sup>, Nikolic Turnic T<sup>1</sup>, Bradic J<sup>1</sup>, Tyagi SC<sup>3</sup>, Jakovljevic V<sup>2,4</sup>

<sup>1</sup>Department of Pharmacy, Faculty of Medical Sciences, University of Kragujevac, Kragujevac,

<sup>2</sup>Department of Physiology, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, Serbia,

<sup>3</sup>Department of Physiology, University of Louisville, Louisville, USA, <sup>4</sup>Department of Human Pathology, 1<sup>st</sup> Moscow State Medical, University IM Sechenov, Moscow, Russian Federation

10.30-10.45

**POTENTIAL ROLE OF N-METHYL-D-ASPARTATE RECEPTORS IN HEART PRECONDITIONING**

Srejovic I<sup>1</sup>, Zivkovic V<sup>1</sup>, Jeremic N<sup>2</sup>, Nikolic Turnic T<sup>2</sup>, Jeremic J<sup>2</sup>, Milosavljevic I<sup>2</sup>, Djuric D<sup>3</sup>, Jakovljevic V<sup>1,4</sup>

<sup>1</sup>Department of Physiology, Faculty of Medical Sciences, University of Kragujevac, Kragujevac,

<sup>2</sup>Department of Pharmacy, Faculty of Medical Sciences, University of Kragujevac, Kragujevac,

<sup>3</sup>Institute of Medical Physiology "Richard Burian", Faculty of Medicine, University of Belgrade, Belgrade, Serbia, <sup>4</sup>Department of Human Pathology, 1<sup>st</sup> Moscow State Medical, University IM Sechenov, Russian Federation

10.45-11.00

Pause

### **SESSION 3: ADVANCES IN VASCULAR BIOLOGY AND ATHEROSCLEROSIS RESEARCH**

Chairmen: Agrawal D, Kinscherf R, Tyagi S

11.00-11.15

#### **PATHOPHYSIOLOGY OF KARYOPHERINS IN INFLAMMATORY DISEASES: POTENTIAL ROLE IN THE INSTABILITY OF ATHEROSCLEROTIC PLAQUES**

Agrawal D

*Department of Clinical & Translational Science, Creighton University School of Medicine, Omaha, USA*

11.15-11.30

#### **DIFFERENCES BETWEEN ANGOTENSIN 2 TYPE 1 RECEPTOR ANTAGONISM AND TYPE 2 RECEPTOR STIMULATION IN MODEL OF SPONTANEOUSLY HYPERTENSIVE RATS WITH INDUCED ACUTE KIDNEY INJURY**

Miloradovic Z, Ivanov M, Jovovic Dj, Karanovic D, Vajic UJ, Mihailovic  
Stanojevic N, Grujic Milanovic J

*University of Belgrade, Institute for Medical Research, Belgrade, Serbia*

11.30-11.45

#### **EVIDENCE FOR THE ROLE OF THE NEUROPEPTIDE PACAP DURING ATHEROSCLEROSIS DEVELOPMENT AND PROGRESSION**

Kinscherf R<sup>1</sup>, Rasbach E<sup>1</sup>, Splitthoff P<sup>1</sup>, Schwarz A<sup>1</sup>, Schutz LM<sup>1</sup>, Mey L<sup>1</sup>,  
Schwarzbach<sup>1</sup>, Eiden HL<sup>2</sup>, Weihe E<sup>3</sup>, Bonaterra G<sup>1</sup>

<sup>1</sup>Department of Medical Cell Biology, Institute for Anatomy and Cell Biology, Medical Faculty, Philipps-University of Marburg, Marburg, <sup>2</sup>Section on Molecular Neuroscience, Laboratory of Cellular and Molecular Regulation, National Institute of Mental Health Intramural Research Program, Bethesda, Maryland, USA, <sup>3</sup>Section on Molecular Neuroscience, Institute for Anatomy and Cell Biology, Medical Faculty, Philipps-University of Marburg, Marburg, Germany

11.45-12.00

**NITRIC OXIDE-DEPENDENT SIGNALING PATHWAYS IN  
EXPERIMENTAL METABOLIC SYNDROME**

Pechanova O, Cebova M, Rehakova R, Kosutova M, Barta A

*Institute of Normal and Pathological Physiology, Centre of Experimental Medicine, Slovak Academy of Sciences, Bratislava, Slovak Republic*

12.00-12.15

**VITAMIN D: NOVEL DEFENCE AGAINST OXIDATIVE STRESS IN  
VASCULAR AND ADIPOSE TISSUES**

Muntean D

*Department of Pathophysiology - Functional Sciences, Timisoara Center for Translational Research and Systems Medicine, "Victor Babes" University of Medicine and Pharmacy, Timisoara, Romania*

12.15-12.30

**MATRIX METALLOPROTEINASES AS BIOMARKERS IN  
CARDIOVASCULAR DISEASES**

Gopcevic K

*Institute of Chemistry in Medicine "Prof. dr Petar Matavulj", Faculty of Medicine, University of Belgrade, Belgrade, Serbia*

12.30-12.45

Pause

**SESSION 4: SUDDEN CARDIAC DEATH AND NOVEL  
REGULATORS OF CARDIAC ACTIVITY**

Chairmen: Abramochkin D, Baczko I, Dhalla NS

12.45-13.00

**POTENTIAL THERAPY FOR THE PREVENTION OF SUDDEN  
CARDIAC DEATH**

Dhalla NS

*Institute of Cardiovascular Sciences, St. Boniface General Hospital Albrechtsen Research Centre, and Department of Physiology & Pathophysiology, Rady College of Medicine, University of Manitoba, Winnipeg, Canada*

13.00-13.15

**ESTABLISHMENT AND CHARACTERIZATION OF A LQT2-5 DOUBLE TRANSGENIC RABBIT MODEL**

Baczko I<sup>1</sup>, Hornyik T<sup>1,2</sup>, Castiglione A<sup>2</sup>, Franke G<sup>2</sup>, Major P<sup>3</sup>, Koren G<sup>4</sup>, Brunner M<sup>2</sup>, Bosze Z<sup>3</sup>, Odening K<sup>2</sup>, Varro A<sup>1</sup>

<sup>1</sup>*Department of Pharmacology and Pharmacotherapy, University of Szeged, Szeged, Hungary,*

<sup>2</sup>*Department of Cardiology and Angiology I, Heart Center University of Freiburg, Freiburg, Germany,*

<sup>3</sup>*NARIC Agricultural Biotechnology Institute, Godollo, Hungary,* <sup>4</sup>*Cardiovascular Research Center, Brown University, Providence, USA*

13.15-13.30

**DIADENOSINE POLYPHOSPHATES AND NAD<sup>+</sup> AS NOVEL REGULATORS OF CARDIAC ELECTRICAL ACTIVITY**

Abramochkin D<sup>1,2</sup>, Filatova T<sup>1,2</sup>, Pustovit K<sup>1,2</sup>, Potekhina V<sup>1</sup>, Kuzmin V<sup>1,2</sup>

<sup>1</sup>*Department of Human and Animal Physiology, Lomonosov Moscow State University, Moscow,*

<sup>2</sup>*Department of Physiology, Pirogov Russian National Research Medical University, Moscow, Russian Federation*

13.30-13.45

**ELECTRICAL ACTIVITY IN THE MYOCARDIUM OF THORACIC VEINS AND EXTRA-NODAL PROARRHYTHMIC AUTOMATICITY DURING THE DEVELOPMENT OF MAMMALIAN HEART**

Kuzmin VS, Potekhina VM, Ivanova AD, Abramochkin DV

*Department of Human and Animal Physiology, Biological Faculty, MV Lomonosov Moscow State University, Moscow, Russian Federation*

13.45-15.00

Pause/Lunch



## **SESSION 5: GENOMICS AND GENETIC EPIDEMIOLOGY**

Chairmen: Alavantic D, Stankovic A, Zivkovic M

15.00-15.15

### **GENOMICS AS A BASIS OF INTEGRATIVE “OMICS” APPROACH IN RESEARCH OF CARDIOVASCULAR PATHOPHYSIOLOGY**

Zivkovic M, Alavantic D

*Laboratory for Radiobiology and Molecular Genetics, Institute of Nuclear Sciences “Vinca”, University of Belgrade, Belgrade, Serbia*

15.15-15.30

### **GENETICS OF MATRIX METALLOPROTEINASES (MMPS) IN VASCULAR DISEASES**

Djuric T, Zivkovic M

*Laboratory for Radiobiology and Molecular Genetics, Institute of Nuclear Sciences “Vinca”, University of Belgrade, Belgrade, Serbia*

15.30-15.45

### **FROM MICRO RNA TO MACRO EFFECTS IN HEALTH AND DISEASE: A FOCUS ON BIOINFORMATICAL APPROACH**

Jovanovic I, Stankovic A

*Laboratory for Radiobiology and Molecular Genetics, Institute of Nuclear Sciences “Vinca”, University of Belgrade, Belgrade, Serbia*

15.45-16.00

### **FRUCTOSE RICH DIET AND RAAS GENES: TISSUE AND GENDER-SPECIFIC EFFECTS**

Bundalo M<sup>1,2</sup>, Koricanac G<sup>3</sup>, Stankovic A<sup>1</sup>

*<sup>1</sup>Laboratory for Radiobiology and Molecular Genetics, Institute of Nuclear Sciences “Vinca”, University of Belgrade, Belgrade, <sup>2</sup>University Hospital Wurzburg, Department for Clinical Biochemistry and Pathobiochemistry, Wurzburg, Germany, <sup>3</sup>Laboratory for Molecular Biology and Endocrinology Institute of Nuclear Sciences “Vinca”, University of Belgrade, Belgrade, Serbia*

16.00-16.15

**PROTHROMBIN GENE VARIANTS AND THROMBOPHILIA**

Djordjevic V<sup>1</sup>, Pruner I<sup>1</sup>, Gvozdenov M<sup>1</sup>, Tomic B<sup>1</sup>, Kovac M<sup>2,3</sup>, Miljic P<sup>2,4</sup>,  
Radojkovic D<sup>1</sup>

*<sup>1</sup>Institute of Molecular Genetics and Genetic Engineering, University of Belgrade, Belgrade, <sup>2</sup>Faculty of Medicine, University of Belgrade, Belgrade, <sup>3</sup>Blood Transfusion Institute of Serbia, Hemostasis Department, Belgrade, Belgrade, <sup>4</sup>Clinic of Hematology, University Clinical Center, Belgrade, Serbia*

16.15-16.30

**IMPACT OF MTHFR GENETIC VARIANT AND NUTRITION ON  
MATERNAL GLOBAL DNA METHYLATION AND DEVELOPMENTAL  
PATHOLOGIES IN CHILDREN**

Babic Bozovic I, Vranekovic J, Brajenovic Milic B

*Department of Biology and Medical Genetics, School of Medicine, University of Rijeka, Rijeka, Croatia*

16.30-18.00

**POSTER SESSION I**

**FRIDAY, SEPTEMBER 21st, 2018**

**SESSION 6: REDOX HOMEOSTASIS AND GASOTRANSMITTERS**

Chairmen: Bkaily G, Boros M, Slezak J

09.00-09.15

**ROS, OR ANTI-ROS, THAT IS THE QUESTION**

Bkaily G

*Department of Anatomy and Cell Biology, Faculty of Medicine and Health Sciences, University of Sherbrooke, Sherbrooke, Canada*

09.15-09.30

**REDOX HOMEOSTASIS AND CELLULAR RECEPTORS: REGULATION OF SMOOTH MUSCLE CONTRACTILITY**

Blagojevic D

*Institute for Biological Research "Sinisa Stankovic", University of Belgrade, Belgrade, Serbia*

09.30-09.45

**BIOACTIVE ROLE FOR METHANE IN EUKARYOTIC BIOLOGICAL SYSTEMS**

Boros M

*Institute of Surgical Research, University of Szeged, Szeged, Hungary*

09.45-10.00

**POSSIBLE MECHANISMS OF ACTION OF MOLECULAR HYDROGEN AS A NEW THERAPEUTIC AGENT AGAINST OXIDATIVE STRESS CONDITIONS: SCAVENGER OF HYDROXYL RADICALS, INNATE ANTIOXIDANTS MEDIATOR, OR PROMOTER OF ATP PRODUCTION?**

Slezak J<sup>1</sup>, Gvozjakova A<sup>2</sup>, Kura B<sup>1</sup>, Barancik M<sup>1</sup>

*<sup>1</sup>Center of Experimental Medicine, Slovak Academy of Sciences, Bratislava, <sup>2</sup>Faculty of Medicine, Comenius University in Bratislava, Pharmacobiochemical Laboratory of 3<sup>rd</sup> Medical Department, Bratislava, Slovak Republic*

10.00-10.15

Pause

**SESSION 7: REDOX REGULATION BETWEEN HEALTH AND DISEASE**

Chairmen: Korac B, Kotur Stevuljevic J, Simic T

10.15-10.30

**RELATION OF REDOX AND STRUCTURAL ALTERATIONS OF RAT SKIN IN THE FUNCTION OF CHRONOLOGICAL AGING**

Jankovic A<sup>1</sup>, Korac A<sup>2</sup>, Korac B<sup>1,2</sup>

*<sup>1</sup>Institute for Biological Research "Sinisa Stankovic", University of Belgrade, Belgrade, <sup>2</sup>Faculty of Biology, University of Belgrade, Belgrade, Serbia*

10.30-10.45

### **REDOX SIGNALING AS A NOVEL STRATEGY TO TREAT MALE INFERTILITY**

Otasevic V<sup>1</sup>, Korac A<sup>2</sup>, Korac B<sup>1,2</sup>

<sup>1</sup>*Institute for Biological Research "Sinisa Stankovic", University of Belgrade, Belgrade,* <sup>2</sup>*Faculty of Biology, University of Belgrade, Belgrade, Serbia*

10.45-11.00

### **ASSOCIATION OF GLUTATHIONE S-TRANSFERASE POLYMORPHISMS WITH BALKAN ENDEMIC NEPHROPATHY AND BEN RELATED URINARY BLADDER CARCINOMA**

Matic M<sup>1,2</sup>, Savic Radojevic A<sup>1,2</sup>, Pljesa Ercegovic M<sup>1,2</sup>, Reljic Z<sup>1</sup>, Dragicevic D<sup>2,3</sup>, Suvakov S<sup>1,2</sup>, Dragicevic B<sup>3</sup>, Simic T<sup>1,2</sup>

<sup>1</sup>*Institute of Medical and Clinical Biochemistry, Faculty of Medicine, University of Belgrade, Belgrade,* <sup>2</sup>*Faculty of Medicine, University of Belgrade, Belgrade,* <sup>3</sup>*Clinic of Urology, Clinical Center of Serbia, Belgrade, Serbia*

11.00-11.15

### **THE ROLE OF GLUTATHIONE TRANSFERASES IN RENAL CELL CARCINOMA: A FRIEND OR FOE?**

Coric V<sup>1,2</sup>, Simic T<sup>1,2</sup>, Savic Radojevic A<sup>1,2</sup>, Matic M<sup>1,2</sup>, Dragicevic D<sup>2,3</sup>, Radic T<sup>2</sup>, Dzamic Z<sup>2,3</sup>, Pljesa Ercegovic M<sup>1,2</sup>

<sup>1</sup>*Institute of Medical and Clinical Biochemistry, Faculty of Medicine, University of Belgrade, Belgrade,* <sup>2</sup>*Faculty of Medicine, University of Belgrade, Belgrade,* <sup>3</sup>*Clinic of Urology, Clinical Center of Serbia, Belgrade, Serbia*

11.15-11.30

### **INFLAMMATION AND OXIDATIVE STRESS IN THE PATHOGENESIS OF PREECLAMPSIA**

Stefanovic A<sup>1</sup>, Mihajlovic M<sup>1</sup>, Ardalic D<sup>2</sup>, Banjac G<sup>2</sup>, Cabunac P<sup>2</sup>, Mikovic Z<sup>2</sup>, Spasojevic Kalimanovska V<sup>1</sup>, Kotur Stevuljevic J<sup>1</sup>

<sup>1</sup>*Department of Medical Biochemistry, Faculty of Pharmacy, University of Belgrade, Belgrade,* <sup>2</sup>*Clinic of Gynecology and Obstetrics "Narodni Front", Belgrade, Serbia*

11.30-11.45

Pause

## **SESSION 8: ENDOCRINOLOGY, ADIPOBIOLOGY AND AGING**

Chairmen: Andric S, Chaldakov G, Strbak V

11.45-12.00

### **CONVENTIONAL AND REGULATORY SECRETORY PATHWAY OF INSULIN, POSSIBLE ROLE IN DIABETES MELLITUS**

Strbak V

*Biomedical Research Center, Institute of Experimental Endocrinology, Slovak Academy of Sciences, Bratislava, Slovak Republic*

12.00-12.15

### **MITOCHONDRIA IN RESPONSE TO STRESS AND INSULIN RESISTANCE**

Andric SA<sup>1</sup>, Radovic SM<sup>1</sup>, Starovlah IM<sup>1</sup>, Nef S<sup>2</sup>, Kostic TS<sup>1</sup>

*<sup>1</sup>Laboratory for Reproductive Endocrinology and Signaling (LaRES), Faculty of Science, University of Novi Sad, Novi Sad, Serbia, <sup>2</sup>Laboratory for Developmental and Functional Genomics, Faculty of Medicine, University of Geneva, Geneva, Switzerland*

12.15-12.30

### **THE MALE REPRODUCTIVE AGING: CONTRIBUTION OF NO-cGMP SIGNALS TO AGING PROCESS**

Kostic T<sup>1</sup>, Sokanovic S<sup>1</sup>, Capo I<sup>2</sup>, Medar M<sup>1</sup>, Andric S<sup>1</sup>

*<sup>1</sup>Laboratory for Reproductive Endocrinology and Signaling, Department of Biology and Ecology, Faculty of Sciences, University of Novi Sad, Novi Sad, <sup>2</sup>Faculty of Medicine, University of Novi Sad, Novi Sad, Serbia*

12.30-12.45

### **CITRUS FLAVANONES ALTER THE EXPRESSION OF GENES INVOLVED IN TRIGLYCERIDE METABOLISM IN OLD AGE WISTAR RATS**

Miler M<sup>1</sup>, Zivanovic J<sup>1</sup>, Ajdzanovic V<sup>1</sup>, Jaric I<sup>1</sup>, Sosic Jurjevic B<sup>1</sup>, Markovic Z<sup>2</sup>, Potrebic M<sup>1</sup>, Milosevic V<sup>1</sup>

*<sup>1</sup>Department of Cytology, Institute for Biological Research "Sinisa Stankovic", University of Belgrade, Belgrade, <sup>2</sup>Clinical Hospital Centre "Dr Dragisa Misovic-Dedinje", Belgrade, Serbia*

12.45-13.00

**HUMAN BODY AS A MULTICRINE SYSTEM, WITH SPECIAL  
REFERENCE TO CELL PROTEIN SECRETION: FROM VASCULAR  
SMOOTH MUSCLES TO ADIPOSE TISSUE**

Chaldakov G

*Department of Anatomy and Cell Biology, Medical University, Varna, Bulgaria*

13.00-15.00

Pause/Lunch

**SESSION 9: ADVANCES IN NUTRITION AND  
EXERCISE RESEARCH**

Chairmen: Blagojevic D, Pierce G, Vucic V

15.00-15.15

**DIETARY FLAXSEED: WHAT WE NOW KNOW AS WELL AS FUTURE  
DIRECTIONS FOR RESEARCH ON CARDIOVASCULAR DISEASE**

Pierce G

*Canadian Centre for Agri-food Research in Health and Medicine, and the Institute of Cardiovascular Sciences, St. Boniface Hospital, and the Department of Physiology and Pathophysiology, Rady Faculty of Health Sciences, University of Manitoba, Winnipeg, Canada*

15.15-15.30

**NUTRITION IN CHRONIC KIDNEY DISEASE**

Ristic Medic D

*Centre of Research Excellence in Nutrition and Metabolism, Institute for Medical Research, University of Belgrade, Belgrade, Serbia*

15.30-15.45

**NUTRITION, INFLAMMATION AND DISEASE**

Vucic V

*Centre of Research Excellence in Nutrition and Metabolism, Institute for Medical Research University of Belgrade, Belgrade, Serbia*

15.45-16.00

**THE INFLUENCE OF EXERCISE ON ARTERIAL HYPERTENSION:  
EVIDENCE FROM RECENT EXPERIMENTAL DATA**

Jakovljevic V<sup>1,2</sup>, Plecevic S<sup>3</sup>, Jakovljevic B<sup>4</sup>, Zivkovic V<sup>1</sup>, Srejovic I<sup>1</sup>, Nikolic  
Turnic T<sup>5</sup>, Milosavljevic I<sup>5</sup>, Jeremic J<sup>5</sup>

<sup>1</sup>*Department of Physiology, Faculty of Medical Sciences, University of Kragujevac, Kragujevac,*  
<sup>2</sup>*Department of Human Pathology, 1st Moscow State Medical, University IM Sechenov, Moscow,*  
<sup>3</sup>*Russian Federation, Sports Medicine Association of Serbia, Belgrade,* <sup>4</sup>*Medical College of Applied*  
<sup>5</sup>*Sciences in Zemun, Belgrade, Department of Pharmacy, Faculty of Medical Sciences, University of*  
*Kragujevac, Kragujevac, Serbia*

16.00-16.15

**EXERCISE AND DIALYL TRISULFIDE INTERVENTION ALTERS THE  
GUT MICROBIOME TO IMPROVE KIDNEY FUNCTION IN TYPE-I  
DIABETES**

Weber G, Theilen N, Pushpakumar S, Sen U

*Department of Physiology, School of Medicine, University of Louisville, Louisville, USA*

16.15-17.00

Assembly of the Serbian Physiological Society

17.00-18.30

**POSTER SESSION II**

19.30

Gala Dinner

**SATURDAY, SEPTEMBER 22nd, 2018**

**SESSION 10: ADVANCES IN NEUROPHYSIOLOGY AND  
NEUROBIOLOGY RESEARCH**

Chairmen: Nesic M, Milosevic V, Rosic G

09.00-09.15

**AN OVERVIEW OF BEHAVIORAL MANIFESTATIONS THAT  
CORRELATES TO ALTERATIONS IN HIPPOCAMPAL MC4 RECEPTOR  
EXPRESSION**

Joksimovic J<sup>1</sup>, Selakovic D<sup>1</sup>, Jovicic N<sup>2</sup>, Mihailovic V<sup>3</sup>, Katanic J<sup>3</sup>, Boroja T<sup>3</sup>,  
Rosic G<sup>1</sup>

<sup>1</sup>Department of Physiology, Faculty of Medical Sciences, University of Kragujevac, Kragujevac,

<sup>2</sup>Department of Histology and Embryology, Faculty of Medical Sciences, University of Kragujevac,  
Kragujevac, <sup>3</sup>Department of Chemistry, Faculty of Science, University of Kragujevac, Kragujevac,  
Serbia

09.15-09.30

**QUANTITATIVE RELATIONSHIP BETWEEN HIPPOCAMPAL  
ANDROGEN AND ESTROGEN  $\alpha$  RECEPTORS AS A POTENTIAL  
PREDICTIVE FACTOR IN EVALUATION OF DEPRESSIVE STATE  
ALTERATION IN RATS**

Selakovic D<sup>1</sup>, Joksimovic J<sup>1</sup>, Jovicic N<sup>2</sup>, Mihailovic V<sup>3</sup>, Katanic J<sup>3</sup>, Boroja T<sup>3</sup>,  
Pantovic S<sup>1</sup>, Rosic G<sup>1</sup>

<sup>1</sup>Department of Physiology, Faculty of Medical Sciences, University of Kragujevac, Kragujevac,

<sup>2</sup>Department of Histology and Embryology, Faculty of Medical Sciences, University of Kragujevac,  
Kragujevac, <sup>3</sup>Department of Chemistry, Faculty of Science, University of Kragujevac, Kragujevac,  
Serbia

09.30-09.45

**EFFECTS OF QUERCETIN IN ASSOCIATION WITH MODERATE  
EXERCISE TRAINING ON NERVE FUNCTIONS IN  
EXPERIMENTAL DIABETIC PERIPHERAL NEUROPATHY**

Chis I<sup>1</sup>, Clichici A<sup>2</sup>, Moldovan R<sup>1</sup>, Clichici S<sup>1</sup>

<sup>1</sup>Department of Physiology, "Iuliu Hatieganu" University of Medicine and Pharmacy, Cluj-Napoca,

<sup>2</sup>Student, University of Medicine and Pharmacy "Iuliu Hatieganu", Cluj-Napoca, Romania



09.45-10.00

**THE UNDERLYING THERAPEUTIC MECHANISMS OF HYPERBARIC OXYGENATION IN THE RECOVERY AFTER EXPERIMENTAL CEREBRAL INJURY**

Brkic P<sup>1</sup>, Jeremic R<sup>1</sup>, Dacic S<sup>2</sup>, Djelic M<sup>1</sup>, Pekovic S<sup>3</sup>

*<sup>1</sup>Institute of Medical Physiology, Faculty of Medicine, University of Belgrade, Belgrade, <sup>2</sup>Institute of Physiology and Biochemistry, Faculty of Biology, University of Belgrade, Belgrade, <sup>3</sup>Department of Neurobiology, Institute for Biological Research "Sinisa Stankovic", University of Belgrade, Belgrade, Serbia*

10.00-10.15

**ELECTROPHYSIOLOGICAL CORRELATES (EOG, EEG, EMG) OF HUMAN EXECUTIVE FUNCTIONING**

Jagla F

*Centre of Experimental Medicine, Slovak Academy of Sciences, Institute of Normal and Pathological Physiology, Bratislava, Slovak Republic*

10.15-10.30

**DISSOCIATION OF THE SIMULTANEOUSLY SPOKEN AND WRITTEN NUMBERS IN THE SERIAL SEVEN SUBTRACTION TASK AND CARDIOVASCULAR REACTIVITY**

Nesic M<sup>1</sup>, Ciric M<sup>1</sup>, Cicevic S<sup>2</sup>, Stankovic M<sup>3</sup>, Cirovic N<sup>3</sup>

*<sup>1</sup>Department of Physiology, Medical Faculty, University of Nis, Nis, <sup>2</sup>Faculty of Transport and Traffic Engineering, University of Belgrade, Belgrade, <sup>3</sup>Department of Psychology, Faculty of Philosophy, University of Nis, Nis, Serbia*

10.30-10.45

Pause

## **SESSION 11: NEUROPHYSIOLOGY AND NEUROPHARMACOLOGY OF PAIN: BASIC AND TRANSLATIONAL ASPECTS**

Chairmen: Hrcic D, Jagla F, Savic Vujovic K

10.45-11.00

### **NON-PHARMACOLOGICAL MODULATION OF PAIN PERCEPTION: FOCUS ON POST-EXERCISE AND POST-ICTAL ANALGESIA**

Hrcic D, Sutulovic N, Grubac Z, Ademovic A, Rasic Markovic A, Stanojlovic O

*Laboratory of Neurophysiology, Institute of Medical Physiology "Richard Burian", Belgrade  
University Faculty of Medicine, Belgrade, Serbia*

11.00-11.15

### **OLD-NEW DRUGS KETAMINE AND MAGNESIUM IN THE PHARMACOTHERAPY OF PAIN**

Savic Vujovic K, Vuckovic S, Medic B, Prostran M

*Department of Pharmacology, Clinical Pharmacology and Toxicology, Faculty of Medicine, University  
of Belgrade, Belgrade, Serbia*

11.15-11.30

### **THE ROLE OF ANTIDEPRESSANTS IN PHARMACOTHERAPY OF PAIN: RESULTS OF EXPERIMENTAL AND TRANSLATIONAL STUDIES**

Medic B<sup>1</sup>, Savic Vujovic K<sup>1</sup>, Srebro D<sup>1</sup>, Vuckovic S<sup>1</sup>, Vujovic A<sup>2</sup>, Prostran M<sup>1</sup>

*<sup>1</sup>Department of Pharmacology, Clinical Pharmacology and Toxicology, Faculty of Medicine,  
University of Belgrade, Belgrade, <sup>2</sup>Hospital for ENT, KHC "Dragisa Misovic", Belgrade, Serbia*

11.30-11.45

### **THE EFFICACY OF ANTIEPILEPTIC DRUGS IN ANIMAL PAIN MODELS**

Micov A, Tomic M, Pecikoza U, Stepanovic Petrovic R

*Department of Pharmacology, Faculty of Pharmacy, University of Belgrade, Belgrade, Serbia*

11.45-12.00

**BEHAVIORAL ALTERATIONS LINKED WITH ANXIETY IN  
EXPERIMENTAL MODEL OF CHRONIC PELVIC PAIN**

Sutulovic N<sup>1</sup>, Grubac Z<sup>1</sup>, Ademovic A<sup>1</sup>, Puskas N<sup>2</sup>, Rasic Markovic A<sup>1</sup>, Stanojlovic O<sup>1</sup>, Hrnac D<sup>1</sup>

*<sup>1</sup>Laboratory of Neurophysiology, Institute of Medical Physiology "Richard Burian", Belgrade University Faculty of Medicine, Belgrade, <sup>2</sup>Institute of Histology and Embryology "Aleksandar Dj. Kostic", Belgrade University Faculty of Medicine, Belgrade, Serbia*

12.00-12.15

Pause

**SESSION 12: VARIA**

Chairmen: Kojic Z, Spasic M, Volarevic V

12.15-12.30

**MODULATION OF IMMUNE RESPONSE IN ACUTE LIVER FAILURE**

Volarevic V<sup>1</sup>, Gazdic M<sup>2</sup>, Simovic Markovic B<sup>1</sup>, Arsenijevic A<sup>1</sup>, Milosavljevic N<sup>1</sup>, Acovic A<sup>1</sup>, Jakovljevic V<sup>3</sup>, Djonov V<sup>4</sup>, Trajkovic V<sup>5</sup>, Arsenijevic N<sup>1</sup>, Lukic ML<sup>1</sup>

*<sup>1</sup>Center for Molecular Medicine and Stem Cell Research, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, <sup>2</sup>Department of Genetics, Faculty of Medical Sciences University of Kragujevac, Kragujevac, <sup>3</sup>Department of Physiology, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, <sup>4</sup>Institute of Anatomy, University of Bern, Bern, Switzerland, <sup>5</sup>Institute of Microbiology and Immunology, School of Medicine, University of Belgrade, Belgrade, Serbia*

12.30-12.45

**SAFETY ASSESSMENT OF MICRO- AND NANO-STRUCTURED  
HYDROXYAPATITE PARTICLES USING IN VITRO AND IN VIVO  
MODELS**

Kojic Z<sup>1</sup>, Jokic B<sup>2</sup>, Stojanovic D<sup>3</sup>, Janackovic Dj<sup>3</sup>

*<sup>1</sup>Institute of Physiology "Richard Burian", Faculty of Medicine, University of Belgrade, Belgrade, <sup>2</sup>Faculty of Applied Arts, University of Arts, Belgrade, <sup>3</sup>Faculty of Technology and Metallurgy, University of Belgrade, Belgrade, Serbia*

12.45-13.00

**CHANGES IN CHROMATIN TEXTURAL ENTROPY IN PHYSIOLOGICAL CONDITIONS**

Pantic I

*Institute of Medical Physiology "Richard Burian", Faculty of Medicine, University of Belgrade, Belgrade, Serbia*

13.00-13.15

**THE ENCAPSULATION OF LYCOPENE IN NANOLIPOSOMES ENHANCES ITS PROTECTIVE POTENTIAL IN METHOTREXATE INDUCED KIDNEY INJURY MODEL**

Stojiljkovic N<sup>1</sup>, Ilic S<sup>1</sup>, Stojanovic N<sup>2</sup>, Stojnev S<sup>3</sup>

*<sup>1</sup>Department of Physiology, Faculty of Medicine, University of Nis, Nis, <sup>2</sup>Faculty of Medicine, University of Nis, Nis, <sup>3</sup>Department of Pathology, Faculty of Medicine, University of Nis, Nis, Serbia*

13.15-13.30

**THE USE OF BONE METABOLIC MARKERS IN EXERCISE PHYSIOLOGY**

Ponorac N

*Department of Physiology, Faculty of Medicine, University of Banja Luka, Banja Luka, Bosnia and Herzegovina*

13.30-13.45

**CME LECTURE: MECHANISM OF CARDIOVASCULAR PROTECTION: WHAT CAN WE LEARN FROM FEMALE?**

Petrovska S, Dejanova B, Manchevska S, Pluncevic Gligorovska J

*Institute of Physiology, Medical Faculty, Skopje, University "Ss. Cyril and Methodius", Skopje, Former Yugoslav Republic of Macedonia*

13.45-14.00

**MELISSA OFFICINALIS ESSENTIAL OIL ALLEVIATES ANXIETY-RELATED SYMPTOMS – IN VITRO MODELS AND IN VIVO ANIMAL STUDIES**

Stojanovic N<sup>1</sup>, Randjelovic P<sup>1</sup>, Mladenovic M<sup>2</sup>, Stojiljkovic N<sup>1</sup>, Ilic S<sup>1</sup>, Nikolic G<sup>1</sup>, Radulovic N<sup>2</sup>

*<sup>1</sup>Faculty of Medicine University of Nis, Nis, <sup>2</sup>Department of Chemistry, Faculty of Science and Mathematics, University of Nis, Nis, Serbia*

14.00

### **CONCLUDING REMARKS & TAKE HOME MESSAGE**

Chairmen: Djuric DM, Jakovljevic V, Stojiljkovic N

14.30

Excursion & Departure

**THURSDAY, SEPTEMBER 20th, 2018**

### **POSTER SESSION I**

16.30-18.00 (The presence of poster authors is required)

Chairmen: Djuric T, Naumovic N, Nestorovic V, Ristic Medic D, Srejovic I

#### **P01 CARDIAC OXIDATIVE STRESS PARAMETERS IN TWO DIFFERENT MODELS OF STREPTOZOTOCIN-INDUCED DIABETES MELLITUS IN WISTAR MALE RATS**

Mutavdzin S<sup>1</sup>, Gopcevic K<sup>2</sup>, Jakovljevic Uzelac J<sup>1</sup>, Despotovic J<sup>1</sup>, Stankovic S<sup>3</sup>, Labudovic Borovic M<sup>4</sup>, Djuric D<sup>1</sup>

*<sup>1</sup>Institute of Medical Physiology "Richard Burian", Faculty of Medicine, University of Belgrade, Belgrade, <sup>2</sup>Institute of Medical Chemistry, Faculty of Medicine, University of Belgrade, Belgrade, <sup>3</sup>Emergency Centre, Clinical Centre of Serbia, Belgrade, <sup>4</sup>Institute of Histology and Embryology "Aleksandar Dj. Kostic", Faculty of Medicine, University of Belgrade, Belgrade, Serbia*

#### **P02 THE FATTY ACID AMIDE HYDROLASE INHIBITOR URB597 AFFECTS CATECHOLAMINE SYNTHESIS IN THE HEART OF CHRONICALLY STRESSED RATS**

Ferizovic H, Jankovic M, Stefanovic B, Spasojevic N, Dronjak S

*Department of Molecular Biology and Endocrinology, Institute of Nuclear Sciences "Vinca", University of Belgrade, Belgrade, Serbia*

**P03 PROLIFERATION CAPACITY OF CARDIAC ADIPOSE TISSUE  
DERIVED STEM CELLS – CLINICAL IMPLICATIONS**

Stojanovic S<sup>1</sup>, Najman S<sup>1</sup>, Milic D<sup>2</sup>, Korac A<sup>3</sup>

<sup>1</sup>Department of Biology and Human Genetics and Department for Cell and Tissue Engineering, Faculty of Medicine, University of Nis, Nis, <sup>2</sup>Clinic for Cardiovascular and Transplant Surgery, Clinical Centre Nis and Faculty of Medicine, University of Nis, Nis, <sup>3</sup>Faculty of Biology, University of Belgrade, Belgrade, Serbia

**P04 GALIUM VERUM L. EXTRACT ATTENUATES MYOCARDIAL  
ISCHEMIA/REPERFUSION INJURY**

Bradic J<sup>1</sup>, Zivkovic V<sup>2</sup>, Srejovic I<sup>2</sup>, Nikolic Turnic T<sup>1</sup>, Jeremic J<sup>1</sup>, Tomovic M<sup>1</sup>, Petkovic A<sup>1</sup>, Jakovljevic V<sup>2,3</sup>

<sup>1</sup>Department of Pharmacy, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, <sup>2</sup>Department of Physiology, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, Serbia, <sup>3</sup>Department of Human Pathology, 1st Moscow State Medical University IM Sechenov, Moscow, Russian Federation

**P05 DIALLYL TRISULFIDE AMELIORATES DIABETES AND  
IMPROVES CARDIAC FUNCTION**

Jeremic J<sup>1</sup>, Jeremic N<sup>1</sup>, Nikolic Turnic T<sup>1</sup>, Bradic J<sup>1</sup>, Ravic M<sup>1</sup>, Zivkovic V<sup>2</sup>, Srejovic I<sup>2</sup>, Tyagi S<sup>3</sup>, Jakovljevic V<sup>2,4</sup>

<sup>1</sup>Department of Pharmacy, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, <sup>2</sup>Department of Physiology, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, Serbia, <sup>3</sup>Department of Physiology, School of Medicine, University of Louisville, Louisville, USA, <sup>4</sup>Department of Human Pathology, 1st Moscow State Medical, University IM Sechenov, Moscow, Russian Federation

**P06 ANTI-ATHEROGENIC EFFECTS OF ESTROGEN IN  
CHOLESTEROL-FED RABBITS**

Naumovic N, Slavic D, Karaba Jakovljevic D, Barak O, Drapsin M

Department of Physiology, Medical faculty Novi Sad, University of Novi Sad, Novi Sad, Serbia

**P07 INFLUENCE OF HMG-CoA REDUCTASE INHIBITORS ON FATTY  
ACID PROFILE AND HOMOCYSTEINE LEVELS IN RATS**

Nikolic Turnic T<sup>1</sup>, Arsic A<sup>2</sup>, Vucic V<sup>2</sup>, Petrovic S<sup>2</sup>, Ristic Medic D<sup>2</sup>, Zivkovic V<sup>3</sup>, Jeremic J<sup>1</sup>, Milosavljevic I<sup>1</sup>, Djuric D<sup>4</sup>, Jakovljevic V<sup>3,5</sup>

<sup>1</sup>Department of Pharmacy, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, <sup>2</sup>Centre of Research Excellence in Nutrition and Metabolism, Institute for Medical Research, University of Belgrade, Belgrade, <sup>3</sup>Department of Physiology, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, <sup>4</sup>Institute of Medical Physiology "Richard Burian", School of Medicine, University of Belgrade, Belgrade, Serbia, <sup>5</sup>Department of Human Pathology, 1st Moscow State Medical University IM Sechenov, Moscow, Russian Federation

**P08 THE EFFECTS OF CHRONIC ADMINISTRATION OF Ru(II) COMPLEX AND CISPLATIN ON CARDIODYNAMIC PARAMETERS AND OXIDATIVE STRESS IN ISOLATED RAT HEART**

Radonjic K<sup>1</sup>, Jakovljevic V<sup>2,3</sup>, Zivkovic V<sup>2</sup>, Srejovic I<sup>2</sup>, Nikolic Turnic T<sup>1</sup>, Milosavljevic I<sup>1</sup>, Jeremic J<sup>1</sup>, Savic M<sup>1</sup>, Sretenovic J<sup>2</sup>, Bradic J<sup>1</sup>, Novokmet S<sup>1</sup>

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Moscow, Russian Federation

**P09 THE EFFECTS OF THIAMINE ON CARDIAC FUNCTION ON ANIMAL MODEL OF DOXORUBICIN – INDUCED CARDIOTOXICITY**

Rankovic M<sup>1</sup>, Radonjic T<sup>2</sup>, Jeremic J<sup>1</sup>, Jeremic N<sup>1</sup>, Srejovic I<sup>3</sup>, Zivkovic V<sup>3</sup>, Nikolic Turnic T<sup>1</sup>, Jakovljevic V<sup>3,4</sup>

<sup>1</sup>Department of Pharmacy, Faculty of Medical Sciences, University of Kragujevac, Kragujevac,

<sup>2</sup>Health Center “Milutin Ivkovic”, Belgrade, <sup>3</sup>Department of Physiology, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, Serbia, <sup>4</sup>Department of Human Pathology, 1<sup>st</sup> Moscow State Medical University IM Sechenov, Moscow, Russian Federation

**P10 EFFECTS OF VALSARTAN ON CARDIAC FUNCTION AND PRO-OXIDATIVE PARAMETERS OF HEALTHY AND DIABETIC RAT**

Ravic M<sup>1</sup>, Ristic P<sup>2</sup>, Srejovic I<sup>3</sup>, Vranic A<sup>1</sup>, Babic G<sup>4</sup>, Bolevich S<sup>5</sup>, Zivkovic V<sup>3</sup>, Jakovljevic V<sup>3,5</sup>

<sup>1</sup>Department of Pharmacy, Faculty of Medical Sciences, University of Kragujevac, Kragujevac,

<sup>2</sup>Department of Endocrinology, Military Medical Academy, University of Defense, Belgrade,

<sup>3</sup>Department of Physiology, Faculty of Medical Sciences, University of Kragujevac, Kragujevac,

<sup>4</sup>Department of Obstetrics and Gynecology, Faculty of Medical Sciences, Clinical Centre "Kragujevac", University of Kragujevac, Kragujevac, Serbia, <sup>5</sup>Department of Human Pathology, 1<sup>st</sup> Moscow State Medical University IM Sechenov, Moscow, Russian Federation

**P11 CHRONIC EFFECTS OF CAFFEIC ACID ON BLOOD PRESSURE AND HEART PERFORMANCE IN SPONTANEOUSLY HYPERTENSIVE RATS**

Mihailovic Stanojevic N, Miloradovic Z, Grujic Milanovic J, Ivanov M, Karanovic D, Vajic UJ, Jovovic Dj

University of Belgrade, Institute for Medical Research, Department for Cardiovascular Physiology, Belgrade, Serbia



**P12 THE EFFECTS OF NO SYNTHESIS INHIBITION ON CARDIODYNAMICS, CORONARY FLOW AND  $\text{Ca}^{2+}$  INFLUX IN PROPOFOL ANESTHETIZED RATS: NEW INSIGHT IN PROPOFOL INDUCED CARDIOPROTECTION**

Djuric M<sup>1</sup>, Nikolic Turnic T<sup>2</sup>, Kostic S<sup>3</sup>, Radonjic K<sup>2</sup>, Jeremic J<sup>2</sup>, Petkovic A<sup>2</sup>, Bradic J<sup>2</sup>, Milosavljevic I<sup>2</sup>, Srejanovic I<sup>4</sup>, Zivkovic V<sup>4</sup>, Stevanovic P<sup>1</sup>, Jakovljevic V<sup>4</sup>

<sup>1</sup>Department of Anesthesiology, Reanimatology and Intensive Care Medicine, University Clinical Hospital Center "Dr. Dragisa Misovic - Dedinje", Belgrade, <sup>2</sup>Department of Pharmacy, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, <sup>3</sup>Faculty of Medicine, University of Belgrade, Belgrade, <sup>4</sup>Department of Physiology, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, Serbia

**P13 STATUS OF OXIDATIVE STRESS AS A RISK FACTOR FOR RUPTURE OF INTRACRANIAL ANEURYSM WALL**

Scepanovic V<sup>1</sup>, Tasic G<sup>1</sup>, Repac N<sup>1</sup>, Nikolic I<sup>1</sup>, Janicijevic A<sup>1</sup>, Todorovic D<sup>2</sup>, Stojanovic M<sup>2</sup>, Scepanovic R<sup>3</sup>, Mitrovic D<sup>2</sup>, Scepanovic T<sup>4</sup>, Borozan S<sup>5</sup>, Scepanovic Lj<sup>2</sup>

<sup>1</sup>The Clinic of Neurosurgery, Clinical Center of Serbia, University of Belgrade, Belgrade, <sup>2</sup>Institute of Medical Physiology "Richard Burian", Faculty of Medicine, University of Belgrade, Belgrade, <sup>3</sup>Military Medical Academy, Belgrade University of Defense, Belgrade, <sup>4</sup>Institute of Neonatology, Belgrade, <sup>5</sup>Department of Chemistry, Faculty of Veterinary Medicine, University of Belgrade, Belgrade, Serbia

**P14 HYPERBARIC OXYGEN ENHANCES NEUROPROTECTION AND STIMULATES NEUROGENESIS AFTER BRAIN INJURY IN RATS: AN INTERMEDIARY ROLE OF INTERLEUKIN-10**

Jeremic R<sup>1</sup>, Brkic P<sup>1</sup>, Dacic S<sup>2</sup>, Djelic M<sup>1</sup>, Pekovic S<sup>3</sup>

<sup>1</sup>Institute of Medical Physiology "Richard Burian", School of Medicine, University of Belgrade, Belgrade, <sup>2</sup>Department of Neurobiology, Institute for Biological Research "Sinisa Stankovic", University of Belgrade, Belgrade, <sup>3</sup>Institute of Physiology and Biochemistry, Faculty of Biology, University of Belgrade, Belgrade, Serbia

**P15 HYPERBARIC OXYGEN PRECONDITIONING IMPROVES RENAL HAEMODYNAMICS AND KIDNEY FUNCTION IN EXPERIMENTAL MODEL OF ISCHEMIC ACUTE KIDNEY INJURY**

Ivanov M<sup>1</sup>, Brkic P<sup>2</sup>, Vajic UJ<sup>1</sup>, Karanovic D<sup>1</sup>, Jovovic Dj<sup>1</sup>, Mihailovic Stanojevic N<sup>1</sup>, Milacic D<sup>3</sup>, Djelic M<sup>2</sup>, Grujic Milanovic J<sup>1</sup>, Jeremic R<sup>2</sup>, Miloradovic Z<sup>1</sup>

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**P16 EFFECTS OF NADPH OXIDASE INHIBITION AND HYPERBARIC OXYGEN PRECONDITIONING ON RENAL HAEMODYNAMICS AND KIDNEY FUNCTION IN EXPERIMENTAL MODEL OF ISCHEMIC ACUTE KIDNEY INJURY IN SPONTANEOUSLY HYPERTENSIVE RATS**

Kovacevic S<sup>1</sup>, Ivanov M<sup>2</sup>, Miloradovic Z<sup>2</sup>, Brkic P<sup>3</sup>, Vajic UJ<sup>2</sup>, Mihailovic Stanojevic N<sup>2</sup>, Jovovic Dj<sup>2</sup>, Karanovic D<sup>2</sup>, Grujic Milanovic J<sup>2</sup>, Jeremic R<sup>3</sup>, Nesovic Ostojic J<sup>1</sup>

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**P17 HYPERBARIC OXYGENATION INCREASE LEVEL OF POLYUNSATURATED FATTY ACIDS IN PLASMA TOTAL LIPIDS IN DIABETES PATIENTS**

Arsic A<sup>1</sup>, Vucic V<sup>1</sup>, Petrovic S<sup>1</sup>, Resanovic I<sup>2</sup>, Ristic Medic D<sup>1</sup>, Gluvic Z<sup>3</sup>, Milacic D<sup>4</sup>, Isenovic RE<sup>2</sup>

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**P18 CARDIOPROTECTIVE USE OF HYPERBARIC OXYGENATION AND ERYTHROPOIETIN IN THE TREATMENT OF HEART FAILURE**

Zivkovic M<sup>1</sup>, Baskot B<sup>2</sup>, Coric N<sup>1</sup>, Ristivojevic D<sup>1</sup>, Savic B<sup>1</sup>

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**P19 GAL-3 PROMOTES EXPRESSION OF INDOLEAMINE 2,3-DIOXYGENASE IN RENAL DCs RESULTING WITH ATTENUATION OF ACUTE KIDNEY INJURY**

Simovic Markovic B<sup>1</sup>, Djokovic B<sup>1</sup>, Gazdic M<sup>2</sup>, Miloradovic D<sup>1,2</sup>, Acovic A<sup>3</sup>, Arsenijevic A<sup>1</sup>, Miloradovic D<sup>1</sup>, Arsenijevic N<sup>1</sup>, Lukic ML<sup>1</sup>, Volarevic V<sup>1</sup>

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**P20 MORPHOMETRIC ANALYSIS OF STRUCTURAL RENAL ALTERATIONS AND BENEFICIAL EFFECTS OF AMINOGUANIDINE IN ACUTE KIDNEY INJURY INDUCED BY CISPLATIN IN RATS**

Ilic S<sup>1</sup>, Stojiljkovic N<sup>1</sup>, Stojanovic N<sup>2</sup>, Randjelovic P<sup>1</sup>

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**P21 THE EFFECTS OF OLIVE LEAF EXTRACT SUPPLEMENTATION OF LOSARTAN TREATMENT ON OXIDATIVE STRESS AND KIDNEY FUNCTION IN EXPERIMENTAL FOCAL SEGMENTAL GLOMERULOSIS**

Karanovic D<sup>1</sup>, Mihailovic Stanojevic N<sup>1</sup>, Grujic Milanovic J<sup>1</sup>, Miloradovic Z<sup>1</sup>, Ivanov M<sup>1</sup>, Vajic UJ<sup>1</sup>, Dekanski D<sup>2</sup>, Jovovic Dj<sup>1</sup>

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**P22 EFFECTS OF *Urticadioica* L. LEAF EXTRACT ON eNOS, iNOS, AND nNOS EXPRESSION IN THE KIDNEY OF SPONTANEOUSLY HYPERTENSIVE RATS**

Vajic UJ<sup>1</sup>, Mihailovic Stanojevic N<sup>1</sup>, Miloradovic Z<sup>1</sup>, Ivanov M<sup>1</sup>, Bugarski B<sup>2</sup>, Grujic Milanovic J<sup>1</sup>, Karanovic D<sup>1</sup>, Jovovic Dj<sup>1</sup>

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**P23 SERUM MYELOPEROXIDASE ACTIVITY AND BIOMARKERS OF PROTEIN OXIDATIVE DAMAGE IN DIABETIC NEPHROPATHY**

Miric D<sup>1</sup>, Kisic B<sup>1</sup>, Miric B<sup>2</sup>, Dragojevic I<sup>1</sup>

<sup>1</sup>University of Pristina, School of Medicine, Kosovska Mitrovica, <sup>2</sup>State University of Novi Pazar, Department of Technical Sciences, Novi Pazar, Serbia

**P24 THE EFFECT OF MESENHYMAL STEM CELLS ON ANGIOGENESIS AND LIVER INFLAMMATION AFTER PARTIAL HEPATECTOMY**

Miloradovic D<sup>1,2</sup>, Gazdic M<sup>1,2</sup>, Simovic Markovic B<sup>1</sup>, Arsenijevic A<sup>1</sup>, Acovic A<sup>1</sup>, Miloradovic D<sup>1</sup>, Arsenijevic N<sup>1</sup>, Djonov V<sup>3</sup>, Volarevic V<sup>1</sup>

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**P25 THE EFFECT OF CB1 RECEPTOR ANTAGONIST ON THE CONCENTRATION OF LEPTIN AND RESISTIN IN ADIPOSE TISSUE AND THE HOMA INDEX DURING NON-ALCOHOLIC FATTY LIVER DISEASE IN MICE**

Jorgacevic B<sup>1</sup>, Vucevic D<sup>1</sup>, Mladenovic D<sup>1</sup>, Veskovic M<sup>1</sup>, Jesic Vukicevic R<sup>2</sup>, Radosavljevic T<sup>1</sup>

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**P26 THE EFFECT OF RIBONABANT ON HEPATIC PROFILE IL-6 AND IFN- $\gamma$  IN C57BL/6 MICE WITH NONALCOHOLIC FATTY LIVER DISEASE**

Jorgacevic B<sup>1</sup>, Vucevic D<sup>1</sup>, Mladenovic D<sup>1</sup>, Veskovic M<sup>1</sup>, Jesic Vukicevic R<sup>2</sup>, Radosavljevic T<sup>1</sup>

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**P27 THE WHEY EFFECTS ON p53 AND NF $\kappa$ B PROTEIN EXPRESSION IN LIVER OF CHRONICALLY ALCOHOLISED WISTAR RATS**

Radic I<sup>1</sup>, Mijovic M<sup>2</sup>, Tatalovic N<sup>3</sup>, Blagojevic D<sup>3</sup>, Adzic M<sup>4</sup>, Mitic M<sup>4</sup>, Ristic S<sup>5</sup>, Velickovic S<sup>1</sup>, Miric M<sup>1</sup>, Nestorovic V<sup>6</sup>, Janicijevic Hudomal S<sup>7</sup>

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**P28 PRETREATMENT OF DIABETIC RATS WITH ETHYL PYRUVATE UPREGULATES HMGB1-DRIVEN PROTECTIVE AUTOPHAGY IN THE LIVER**

Petrovic A<sup>1</sup>, Bogojevic D<sup>1</sup>, Ivanovic Matic S<sup>1</sup>, Martinovic V<sup>1</sup>, Korac A<sup>2</sup>, Jovanovic Stojanov S<sup>1</sup>, Grigorov I<sup>1</sup>

<sup>1</sup>*Department of Molecular Biology, Institute for Biological Research "Sinisa Stankovic", University of Belgrade, Belgrade,* <sup>2</sup>*Faculty of Biology, Centre for Electron Microscopy, University of Belgrade, Belgrade, Serbia*

**P29 CURCUMIN ADMINISTRATION DECREASE EXPERIMENTAL LIVER INJURIES INDUCED BY ACUTE EXPOSURE TO THIOACETAMIDE**

Login CC<sup>1</sup>, Ordean DG<sup>1</sup>, Nagy AL<sup>2</sup>, Moldovan R<sup>1</sup>, Decea N<sup>1</sup>, Aluaș M<sup>3</sup>, Clichici S<sup>1</sup>, Suciū SM<sup>1</sup>

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**P30 THE EFFECT METHIONINE-CHOLINE DEPRIVATION ON LIVER AND BRAIN ACETYLCHOLINESTERASE ACTIVITY IN C57BL/6 MICE**

Vucevic D<sup>1</sup>, Cerovic I<sup>1</sup>, Mladenovic D<sup>1</sup>, Veskovic M<sup>1</sup>, Stevanovic I<sup>2</sup>, Jorgacevic B<sup>1</sup>, Radosavljevic T<sup>1</sup>

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**P31 ACTIVATION OF AUTOPHAGY IS IMPORTANT FOR MESENCHYMAL STEM CELL-BASED ATTENUATION OF ACUTE HEPATITIS**

Gazdic M<sup>1,2</sup>, Simovic Markovic B<sup>1</sup>, Vucicevic Lj<sup>3</sup>, Paunovic V<sup>3</sup>, Arsenijevic A<sup>1</sup>, Acovic A<sup>1</sup>, Misirkic M<sup>3</sup>, Arsenijevic N<sup>2</sup>, Lukic ML<sup>2</sup>, Trajkovic V<sup>3</sup>, Volarevic V<sup>1</sup>

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**P32 ACETYLCHOLINESTERASE ACTIVITY, OXIDATIVE STATUS AND MORPHOMETRIC PARAMETERS IN THE RAT ILEUM AFTER THREE WEEK METHIONINE TREATMENT**

Stojanovic M<sup>1</sup>, Scepanovic Lj<sup>1</sup>, Todorovic D<sup>1</sup>, Mitrovic D<sup>1</sup>, Borozan S<sup>2</sup>, Dragutinovic V<sup>3</sup>, Labudovic Borovic M<sup>4</sup>, Lalic I<sup>4</sup>, Despotovic S<sup>4</sup>, Scepanovic V<sup>5</sup>, Scepanovic R<sup>6</sup>, Scepanovic T<sup>7</sup>, Djuric D<sup>1</sup>

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**P33 GAL-3 DELETION ACTIVATES COLON INFILTRATING DCS TO PRODUCE INFLAMMATORY CYTOKINES AND GENERATE DETRIMENTAL TH1 AND TH17 IMMUNE RESPONSE IN CHRONIC DEXTRAN SODIUM SULPHATE INDUCED COLITIS IN MICE**

Arsenijevic A<sup>1</sup>, Simovic Markovic B<sup>1</sup>, Gazdic M<sup>2</sup>, Miloradovic D<sup>1,2</sup>, Acovic A<sup>3</sup>, Miloradovic D<sup>1</sup>, Arsenijevic N<sup>1</sup>, Lukic ML<sup>1</sup>, Volarevic V<sup>1</sup>

<sup>1</sup>Center for Molecular Medicine and Stem Cell Research, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, <sup>2</sup>Department of Genetics, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, <sup>3</sup>Department for Dentistry, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, Serbia

**P34 FECAL SST2 CORRELATES WITH DISEASE SEVERITY OF ULCERATIVE COLITIS**

Gajovic N<sup>1</sup>, Jovanovic M<sup>2</sup>, Jurisevic M<sup>3</sup>, Simovic Markovic B<sup>1</sup>, Pavlovic M<sup>4</sup>, Jovanovic M<sup>5</sup>, Arsenijevic N<sup>1</sup>, Zdravkovic N<sup>2</sup>

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**P35 INTESTINAL SMOOTH MUSCLES RELAXANT ACTIVITY OF THE BLACK CURRANT (*RIBES NIGRUM* L.) JUICE VARIETY OMETA**

Brankovic S<sup>1</sup>, Miladinovic B<sup>2</sup>, Kostic M<sup>2</sup>, Milutinovic M<sup>2</sup>, Kitic N<sup>3</sup>, Savikin K<sup>4</sup>, Gocmanac Ignjatovic M<sup>1</sup>, Kitic D<sup>2</sup>

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**FRIDAY, SEPTEMBER 21st, 2018**

**POSTER SESSION II**

17.00-18.30

(The presence of poster authors is required)

Chairmen: Brkic P, Jeremic N, Kostic T, Milanovic Z, Miloradovic Z

**P36 THE EFFECTS OF HIGH-FAT DIET ON PLASMA FATTY ACID PROFILE IN RATS**

Petrovic S<sup>1</sup>, Arsic A<sup>1</sup>, Vucic V<sup>1</sup>, Ristic Medic D<sup>1</sup>, Obradovic M<sup>2</sup>, Isenovic ER<sup>2</sup>

<sup>1</sup>Centre of Research Excellence in Nutrition and Metabolism, Institute for Medical Research, University of Belgrade, Belgrade, Serbia, <sup>2</sup>Institute of Nuclear Sciences "Vinca", University of Belgrade, Laboratory of Radiobiology and Molecular Genetics, Belgrade, Serbia

**P37 INVESTIGATION OF ANTIOXIDANT ACTIVITY OF FENNEL STEM EXTRACT (*Foeniculum vulgare* Miller)**

Gocmanac Ignjatovic M<sup>1</sup>, Brankovic S<sup>1</sup>, Kitic D<sup>2</sup>, Kostic M<sup>2</sup>, Milutinovic M<sup>2</sup>, Veljkovic M<sup>1</sup>, Ilic S<sup>1</sup>

<sup>1</sup>Department of Physiology, Faculty of Medicine, University of Nis, Nis, <sup>2</sup>Department of Pharmacy, Faculty of Medicine, University of Nis, Nis, Serbia

**P38 TESTOSTERONE EFFECTS ON THE PITUITARY GONADOTROPIC CELLS IN AN ANIMAL MODEL OF THE ANDROPAUSE**

Ajdzanovic V<sup>1</sup>, Jakovljevic V<sup>2</sup>, Miler M<sup>1</sup>, Ristic N<sup>1</sup>, Potrebic M<sup>1</sup>, Sretenovic J<sup>2</sup>, Popovska Percinic F<sup>3</sup>, Pendovski L<sup>2</sup>, Milosevic V<sup>1</sup>

<sup>1</sup>Department of Cytology, Institute for Biological Research "Sinisa Stankovic", University of Belgrade, Belgrade, <sup>2</sup>Department of Physiology, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, Serbia, <sup>3</sup>Department of Functional Morphology, Faculty of Veterinary Medicine, "Ss Cyril and Methodius" University in Skopje, Skopje, Former Yugoslav Republic of Macedonia



**P39 ADRENOCORTICAL ACTIVITY AND ANXIETY-LIKE BEHAVIOR IN FEMALE OFFSPRING AFTER PRENATAL GLUCOCORTICOID ADMINISTRATION**

Manojlovic Stojanoski M, Nestorovic N, Petkovic B, Raus Balind S, Ristic N, Trifunovic S, Ajdzanovic V, Filipovic B, Sosic Jurjevic B, Milosevic V  
*Institute for Biological Research "Sinisa Stankovic", University of Belgrade, Belgrade, Serbia*

**P40 MITOCHONDRIAL DYNAMIC AND ACROSOMAL REACTION ARE DISTURBED IN SPERMATOZOA FROM STRESSED ADULT RATS**

Starovlah IM, Radovic SM, Patricio D, Kostic TS, Andric SA  
*University of Novi Sad, Faculty of Sciences, Laboratory for Reproductive Endocrinology and Signaling, Novi Sad, Serbia*

**P41 LONG-TERM INHIBITION OF PDE5 POSITIVELY AFFECTS STRUCTURAL AND FUNCTIONAL CHARACTERISTICS OF AGED TESTES OF WISTAR RATS**

Sokanovic SJ<sup>\*</sup>, Capo I<sup>2</sup>, Medar MM<sup>1</sup>, Andric SA<sup>1</sup>, Kostic TS<sup>1</sup>  
*<sup>1</sup>Laboratory for Reproductive Endocrinology and Signaling, Department of Biology and Ecology, Faculty of Sciences, University of Novi Sad, Novi Sad, <sup>2</sup>Department of Histology and Embryology, Faculty of Medicine, University of Novi Sad, Novi Sad, <sup>\*</sup>Current institution: Department of Neurobiology, Institute for Biological Research "Sinisa Stankovic", University of Belgrade, Belgrade, Serbia*

**P42 BEHAVIORAL AND IMMUNOHISTOCHEMICAL ALTERATIONS IN PRENATALLY ANDROGENIZED FEMALE RATS**

Rankov Petrovic B<sup>1</sup>, Cirkovic V<sup>1</sup>, Sutulovic N<sup>1</sup>, Hrnčić D<sup>1</sup>, Puskas N<sup>2</sup>, Macut Dj<sup>3</sup>, Stanojlovic O<sup>1</sup>, Rasic Markovic A<sup>1</sup>  
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**P43 THE SEX DIFFERENCES IN THE EFFECTS OF ENDOCANNABINOIDS ON ANXIETY-LIKE BEHAVIOUR IN CHRONICALLY STRESSED RATS**

Jankovic M, Ferizovic H, Spasojevic N, Stefanovic B, Dronjak S  
*Institute of Nuclear Sciences "Vinca", Laboratory of Molecular Biology and Endocrinology, University of Belgrade, Belgrade, Serbia*

**P44 BIOMARKERS OF INFLAMMATION AND OXIDATIVE STRESS IN PATIENTS WITH POLYCYSTIC OVARY SYNDROME AND OBESITY**

Kisic B, Miric D

*Institute of Biochemistry, Faculty of Medicine, Kosovska Mitrovica, Serbia*

**P45 PLASMA ZINC, COPPER AND INSULIN LEVELS AFTER ZINC SUPPLEMENTATION IN TYPE 2 DIABETIC PATIENTS**

Stanojevic Ristic Z<sup>1</sup>, Valjarevic D<sup>2</sup>, Stevic S<sup>1</sup>, Milosevic N<sup>3</sup>, Rasic J<sup>1</sup>, Dejanovic M<sup>4</sup>

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**P46 FRACTAL ANALYSIS OF RETINAL MICROVASCULAR MORPHOLOGY DURING DIABETIC RETINOPATHY PROGRESSION**

Popovic N<sup>1</sup>, Lipovac M<sup>1</sup>, Radunovic M<sup>1</sup>, Popovic T<sup>2</sup>

*<sup>1</sup>Department of Physiology, Faculty of Medicine, University of Montenegro, Podgorica, <sup>2</sup>Faculty for Information Systems and Technologies, University of Donja Gorica, Podgorica, Montenegro*

**P47 INFLUENCE OF MgSO<sub>4</sub> ON SURVIVAL TIME OF ISOLATED FROG SCIATIC NERVE IN EX-VIVO CONDITIONS**

Rovcanin Dragovic I, Cmiljanic O, Drecun M, Popovic N

*Department of Physiology, Faculty of Medicine, University of Montenegro, Podgorica, Montenegro*

**P48 PRONOUNCED DEPOLARIZATION AND LACK OF RECOVERY OF RETZIUS NEURONS ELICITED BY 2,4 - DIAMINO BUTYRIC ACID**

Spasic S<sup>1</sup>, Stanojevic M<sup>1</sup>, Nedeljkovic V<sup>1</sup>, Prostran M<sup>2</sup>, Lopacic S<sup>1</sup>

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**P49 SUBCHRONIC SLEEP FRAGMENTATION MODULATES ANXIETY-LIKE BEHAVIOR IN RATS**

Grubac Z, Sutulovic N, Ademovic A, Lekovic A, Rasic Markovic A, Stanojlovic O, Hrnčić D

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**P50 SPECTRAL AND BIOTIC CHARACTERISTICS OF EPILEPTIFORM GRAPHOELEMENTS: IMPLICATIONS FOR ARTIFICIAL INTELLIGENCE SIGNAL PROCESSING**

Vorkapic M<sup>1</sup>, Useinovic N<sup>1</sup>, Jankovic M<sup>2</sup>, Savic A<sup>2,3</sup>, Rasic Markovic A<sup>1</sup>, Stanojlovic O<sup>1</sup>, Hrnčić D<sup>1</sup>

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**P51 BEHAVIORAL CHANGES IN ACUTE PILOCARPINE-INDUCED SEIZURES IN RATS – IMPLICATIONS FOR TRANSLATIONAL STUDIES OF ANTICONVULSIVE AND ANTIEPILEPTOGENIC PROCEDURES**

Vasovic D<sup>1</sup>, Mladenovic D<sup>2</sup>, Hrnčić D<sup>3</sup>, Sutulovic N<sup>3</sup>, Stanojlovic O<sup>3</sup>

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**P52 AUDITORY P300 EVENT RELATED POTENTIAL IN THE ISCHEMIC STROKE**

Stojkovic S<sup>1</sup>, Dejanovic M<sup>2</sup>, Stanojevic Z<sup>3</sup>, Milosevic N<sup>1</sup>, Milanovic Z<sup>2</sup>

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**P53 THE ASSOCIATION OF SMARTPHONE USAGE WITH SUBJECTIVE SLEEP QUALITY AND DAYTIME SLEEPINESS AMONG MEDICAL STUDENTS**

Randjelovic P<sup>1</sup>, Stojiljkovic N<sup>1</sup>, Radulovic N<sup>2</sup>, Ilic I<sup>3</sup>, Stojanovic N<sup>4</sup>, Ilic S<sup>1</sup>

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**P54 EFFECTS OF CHRONIC ADMINISTRATION OF NANDROLONE DECANOATE AND SWIMMING EXERCISE ON THE REDOX STATE IN PERIPUBERTAL RATS**

Sretenovic J<sup>1</sup>, Savic M<sup>2</sup>, Radonjic K<sup>2</sup>, Zivkovic V<sup>1</sup>, Srejsovic I<sup>1</sup>, Jakovljevic V<sup>1,3</sup>

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**P55 EFFECTS OF EIGHT WEEKS OF BENCH PRESS AND SQUAT POWER TRAINING ON STABLE AND UNSTABLE SURFACES**

Radovanovic D<sup>1</sup>, Ignjatovic A<sup>2</sup>

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**P56 ANTITUMOR ACTIVITY OF RUTHENIUM(II) TERPYRIDINE COMPLEXES IN HETEROTOPIC MOUSE COLORECTAL CARCINOMA**

Savic M<sup>1</sup>, Milovanovic M<sup>2</sup>, Milovanovic J<sup>2,3</sup>, Stojanovic B<sup>2,4</sup>, Jakovljevic V<sup>5,6</sup>, Novokmet S<sup>1</sup>

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**P57 FECAL GALECTIN-1 A POTENTIAL STATE MARKER OF COLORECTAL CARCINOMA AND DISEASE SEVERITY**

Jurisevic M<sup>1</sup>, Jovanovic M<sup>2</sup>, Jovanovic I<sup>3</sup>, Gajovic N<sup>3</sup>, Zdravkovic N<sup>4</sup>, Jovanovic M<sup>4</sup>, Pavlovic M<sup>5</sup>, Arsenijevic N<sup>3</sup>

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**P58 POTENTIAL ROLE OF LOCAL GALECTIN-3 AS BIOMARKER FOR COLORECTAL CARCINOMA**

Jurisevic M<sup>1</sup>, Gajovic N<sup>2</sup>, Zdravkovic N<sup>3</sup>, Jovanovic M<sup>3</sup>, Vojvodic D<sup>4</sup>, Arsenijevic A<sup>2</sup>, Jovanovic I<sup>2</sup>, Jovanovic M<sup>5</sup>

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**P59 ANTIPROLIFERATIVE AND ANTI-INVASIVE EFFECTS OF NEWLY SYNTHESIZED 3-(4-SUBSTITUTEDBENZYL)-5-ISOPRPOYL-5-PHENYLHYDANTOIN DERIVATES ON HUMAN BREAST CANCER CELL LINE MDA-MB-231**

Obradovic A<sup>1</sup>, Matic M<sup>1</sup>, Paunovic M<sup>1</sup>, Ognjanovic B<sup>1</sup>, Bozic B<sup>2</sup>, Uscumlic G<sup>3</sup>, Bozic Nedeljkovic B<sup>2</sup>

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**P60 ANTIPROLIFERATIVE EFFECTS OF PLATINUM(IV) COMPLEXES WITH SOME ESTERS OF ETHYLENEDIAMINE-N,N'-DI-S,S-(2,2'-DIBE-NZYL) ACETIC ACID ON CHORIOCARCINOMA CELL LINE JEG-3**

Paunovic M<sup>1</sup>, Matic M<sup>1</sup>, Obradovic A<sup>1</sup>, Jevtic V<sup>2</sup>, Trifunovic S<sup>2</sup>, Ognjanovic B<sup>1</sup>, Saicic Z<sup>3</sup>

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**P61 THE EFFECTS OF DIFFERENT CIRCULATING LEVELS OF NEUROPEPTIDE Y ON SURVIVAL RATIO AND PROLIFERATION INDEX OF HUMAN TROPHOBLAST CELL LINE JEG-3**

Matic M<sup>1</sup>, Obradovic A<sup>1</sup>, Paunovic M<sup>1</sup>, Ognjanovic B<sup>1</sup>, Saicic Z<sup>2</sup>

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**P62 MONOSODIUM GLUTAMATE: SOME CENTRAL AND PERIPHERAL EFFECTS**

Ciric M<sup>1</sup>, Najman S<sup>2</sup>, Nesic M<sup>1</sup>, Pavlovic V<sup>1</sup>, Puskas N<sup>3</sup>, Jankovic Velickovic Lj<sup>4</sup>

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**P63 ANTI-AGING PROPERTIES OF PROTEIN PERSULFIDATION**

Zivanovic J<sup>1,2</sup>, Kouroussis E<sup>1</sup>, Miler M<sup>2</sup>, Schott-Roux S<sup>1</sup>, Jaric I<sup>2</sup>, Jakovljevic V<sup>3,4</sup>, Milosevic V<sup>2</sup>, Filipovic RM<sup>1</sup>

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**P64 XENOGENEIC HEMOGLOBIN AS MODULATOR OF DIFFERENTIATION CAPACITY OF VARIOUS CELL LINES**

Stancic A<sup>1</sup>, Drvenica I<sup>1</sup>, Ilic V<sup>1</sup>, Bugarski B<sup>2</sup>, Bugarski D<sup>1</sup>

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**P65 OVERALL HEMOSTATIC POTENTIAL AND THROMBIN GENERATION IN PATIENTS WITH ATRIAL FIBRILLATION RECEIVING RIVAROXABAN**

Petkovic A<sup>1</sup>, Jakovljevic V<sup>2,5</sup>, Pruner I<sup>3</sup>, Vranic A<sup>1</sup>, Mahmoud Hourani Soutari N<sup>3,4</sup>, Antovic J<sup>3,4</sup>

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**P66 RHEUMATOID ARTHRITIS CLOSES THE GAP IN HEMOSTATIC BALANCE BETWEEN PRE- AND POSTMENOPAUSAL WOMEN**

Vranic A<sup>1</sup>, Pruner I<sup>2</sup>, Veselinovic M<sup>3</sup>, Mahmoud Hourani Soutari N<sup>2,4</sup>,

Petkovic A<sup>1</sup>, Jakovljevic V<sup>5,6</sup>, Antovic A<sup>7</sup>

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## Teaching Issues

**P68 PHYSIOLOGY LECTURE IN AN AMERICAN MEDICAL SCHOOL: TRENDS AND PERSPECTIVES**

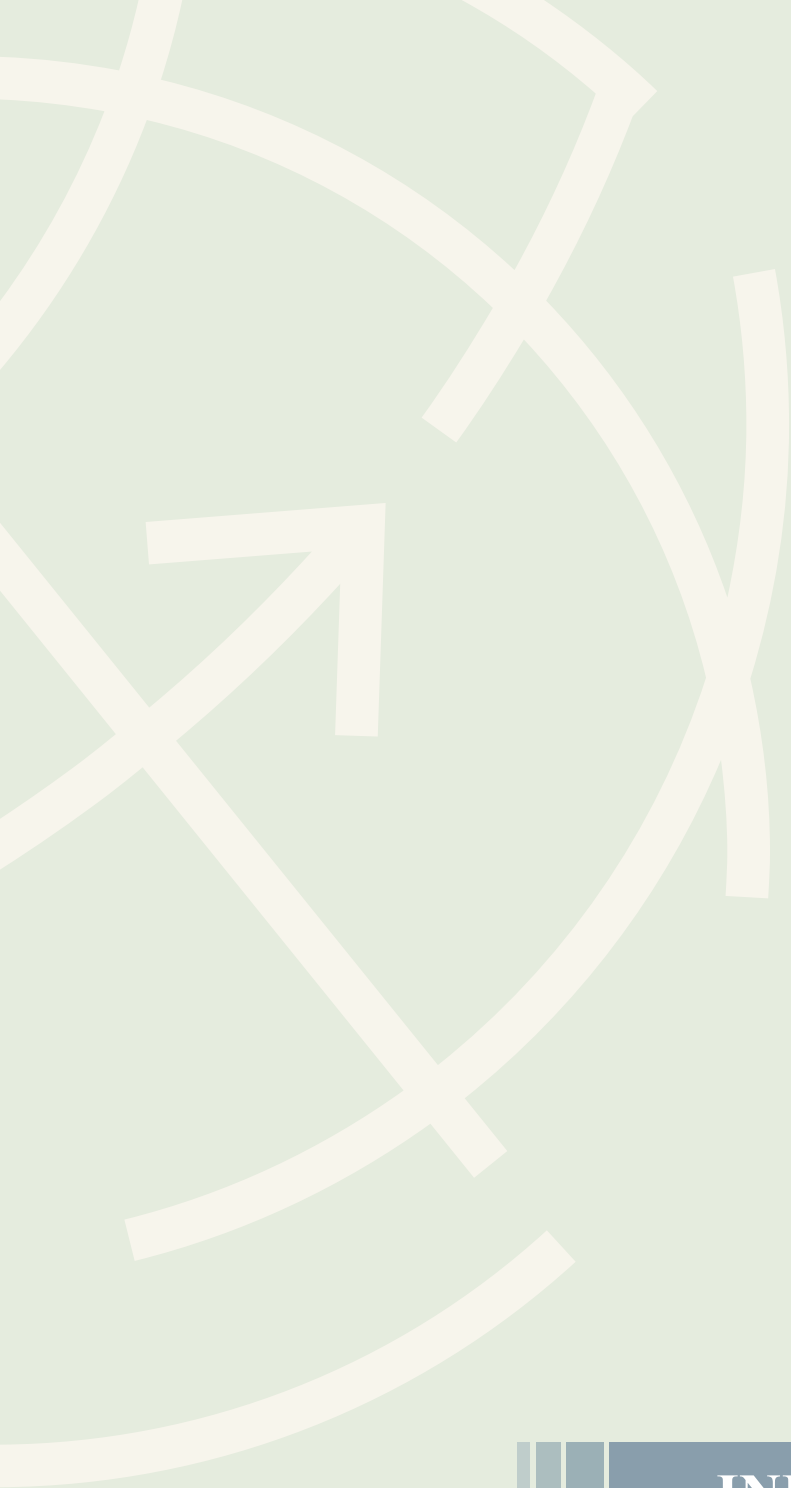
Zagvazdin Y

Nova Southeastern University, Fort Lauderdale, USA

**P69 ARE WE SERIOUSLY PREPARING STUDENTS FOR THE CHALLENGES OF THE 21ST CENTURY?**

Kojic Z<sup>1</sup>, Ristic S<sup>2</sup>

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## INFORMATIONS

## IMPORTANT INFORMATION

**Congress date:** September 19-23, 2018

**Congress Venue:** Faculty of Medicine, University of Nis, Nis, Serbia (Blvd. Dr Zorana Djindjića 81)

(Participation upon registration only)

### ABSTRACTS

Only abstracts accompanied by the payment of the registration fee will be considered for inclusion in Final Program and publication in Abstract Book.

**REGISTRATION FEE** (before September 1<sup>st</sup> 2018 or after September 1<sup>st</sup> 2018)

PARTICIPANTS 60 € or 80 €

MEMBERS OF THE SERBIAN PHYSIOLOGICAL SOCIETY 20 € or 40 €

(confirmation of regularly paid membership fee for 2015, 2016, 2017, and 2018; per year 1000 RSD)

STUDENTS (only undergraduates) \*free of charge

\*Certificate required

Please use exchange offices located near to the congress venue.

### **NOTICE:**

For attendees from abroad – payment in Euro to account of Serbian Physiological Society:

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Full registration includes admission to all scientific sessions, opening ceremony, welcome reception, cocktail, and receiving abstract book. The meeting has been CME accredited.

**COFFEE, REFRESHMENT AND LUNCH**

Lunch, coffee or tea should be provided by sponsors or on a commercial basis in a restaurant of the Faculty of Medicine University of Nis during the working days of the congress.

**OFFICIAL LANGUAGE**

Official languages will be Serbian and English. If you choose the first option please prepare presentation in English. No simultaneous translation will be provided. All abstracts and other materials will be published in English.



## **ORAL PRESENTATIONS**

Speakers are allocated 15 minutes maximal for presentation with discussion time according to the final program timetable except in the Serbian Physiological Society Award Session.

## **POSTER PRESENTATIONS**

A few interactive poster sessions will be held during the meeting. Authors are requested to mount their posters from 9.00 to 18.30 on the day of the poster presentation. Poster size should be 120 (height) cm x 80 (width) cm. Poster figures should be designed to be viewed from a distance and the authors should use clear, visible graphics and large text fonts. Material for mounting posters will be provided in the poster area. Authors are requested to be present by their posters during the poster session for which their poster has been scheduled. Award will be offered for the best poster presentations in a group of young investigators.

## **AUDIOVISUAL FACILITIES**

For oral presentations, video beam projection will be available in a conference room. Presentations should be prepared in „Power Point“(\*.ppt file). For special audiovisual facilities, please send in advance a special request to the [drvkladakgbg@yahoo.com](mailto:drvkladakgbg@yahoo.com)

## **SOCIAL PROGRAM**

The social program will include convivial (welcome reception) and cultural (city tours, sacral objects, visits to museums, galleries etc.) events; only the first will be covered by the registration fee. Please contact congress desk for special inquiries.

## **ACCOMMODATION**

Hotel accommodation and arrival/departure service will be organized in different price categories and at special rates. In order to receive an e-mail invitation and/or confirmation, please indicate your e-mail address.

## **FULL-LENGTH PAPERS**

Certain number of abstracts presented at the congress will be published as full-length papers in *Serbian Journal of Experimental and Clinical Research*, official journal of the Faculty of Medical Sciences, University of Kragujevac and the Serbian Physiological Society. In addition, certain number of abstracts presented at the congress will be offered to be published as full-length papers in an international journal indexed in *Current Contents/Science Citation Index*. For both options it will be possible upon invitation ONLY and STRICTLY after peer-review procedure after the meeting.

**FOR OTHER INQUIRES PLEASE CONTACT:**

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