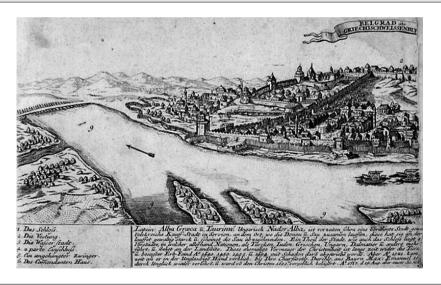
### 3<sup>rd</sup> CONGRESS OF PHYSIOLOGICAL SCIENCES OF SERBIA WITH INTERNATIONAL PARTICIPATION

### MOLECULAR, CELLULAR AND INTEGRATIVE BASIS OF HEALTH AND DISEASE: TRANSDISCIPLINARY APPROACH

Organized by Serbian Physiological Society Co-organized by Military Medical Academy Faculty of Medical Sciences, University of Kragujevac

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)



### FINAL PROGRAM

http://www.physiology.org.rs/eng/htm/konf2014/program.pdf CME accredited by the Health Council of Serbia

> October 29-31, 2014 Military Medical Academy, Belgrade, Republic of Serbia

#### FOREWORD

#### Dear Colleagues,

It is our great pleasure to welcoming you to the 3rd Congress of Physiological Sciences of Serbia with International Participation which will be held during October 29-31, 2014 at the Military Medical Academy in Belgrade. For the last ten years, the Serbian Physiological Society has developed a series of internationally recognized meetings. The conference of physiological sciences with international participation on environmental risk factors and human health (Belgrade/Zrenianin, 2003), 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, Kovačica 2013, and a few CME meetings in the field of atherosclerosis, vascular biology and a risk factors, are excellent examples of such organizational activities. 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 recent years directed us to plan and organize the third national congress in order to improve research background, and make easier approach to the global research cooperation. The scientific program 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 from 27 countries (Belarus, Bosnia and Herzegovina, Bulgaria, Canada, Czech Republic, China, Cuba, France, FYR Macedonia, Germany, Greece, Hungary, Italy, Malaysia, Montenegro, Netherland, Poland, Romania, Russia, Serbia, Singapore, Slovakia, Slovenia, Sweden, Turkey, UK, USA).

Finally, Belgrade is not only the international city but also the place where you will find typical Serbian spirit of life. We appreciate your participation and wish you nice stay with us.

> On behalf of the Program & Organizing Committee Dragan Djurić and Vladimir Jakovljević

#### **PROGRAM & ORGANIZING COMMITTEE CHAIRMEN**

Djurić D (Belgrade) Jakovljević V (Kragujevac)

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Krylov B (St. Petersburg, Russian Federation)
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Lopatina E (St. Petersburg, Russian Federation)
Miklos Z (Budapest, Hungary)
Monos E (Budapest, Hungary)
Muntean D (Timisoara, Romania)
Murphy D (Bristol, UK)
Nadasy G (Budapest, Hungary)
Papapetropoulos A (Athens, Greece)
Pechanova O (Bratislava, Slovak Republic)

Pokorny J (Prague, Czech Republic) Ravingerova T (Bratislava, Slovak Republic) Richter V (Leipzig, Germany) Pierce G (Winnipeg, Canada) Strbak V (Bratislava, Slovak Republic) Svorc P (Kosice, Slovak Republic) Tamas I (Budapest, Hungary) Turan B (Ankara, Turkey) Varro A (Szeged, Hungary)

#### HONORARY COMMITTEE

Čanović P (Kragujevac) Čolić M (MMA) Djokić T (Kosovska Mitrovica) Milenković P (Belgrade) Mujović V (Belgrade)

Novaković M (MMA) Rakić Lj (SASA) Todorović V (MMA) Šušić V (SASA)

\*\* Surnames are given following alphabetical order.

### PROGRAM

### Wednesday, October 29th, 2014

Venue: Military Medical Academy-Amphiteatre, Crnotravska 17, Belgrade (participation upon registration only)

#### 9.00-9.45 OPENING CEREMONY/WELCOME MESSAGES

Jakovljević V, on behalf of the Serbian Physiological Society and Faculty of Medical SciencesUniversity of Kragujevac Novaković M, on behalf of the Military Medical Academy Strbak V (Bratislava, Slovak Republic), on behalf of the International Physiological Community Djurić D, on behalf of the Nomination Committee, Serbian Physiological Society

#### Presentation of the Serbian Physiological Society Awards

Grant N. Pierce, Winnipeg, Canada, Awarded for Contribution in Physiology and Lifetime Achievement Veljko Todorović, Belgrade, Serbia, Awarded for Contribution in Development of the Serbian Physiological Society

9.45-10.00 Pause

#### SESSION 1: ADVANCES IN CARDIOVASCULAR RESEARCH I

Chairmen: Japundžić-Žigon N, Kinscherf R, Papapetropoulos A

#### 10.00-10.20

#### CARDIOVASCULAR EFFECTS OF HYDROGEN SULFIDE

Papapetropoulos A

University of Athens, Faculty of Pharmacy, Athens, Greece

#### 10.20-10.40

#### **GROWTH DIFFERENTIATION FACTOR-15 (GDF-15) AND ATHEROSCLEROSIS**

Kinscherf R, Struck N, Schwarzbach H, Schwarz A, Bonaterra GA Anatomy and Cell Biology, Faculty of Medicine, University of Marburg, Marburg, Germany

#### 10.40-10.55

## THE VOLUME DENSITY OF THE ADVENTITIAL BLOOD VESSELS IN ABDOMINAL AORTIC ANEURYSM AND AORTIC OCCLUSIVE DISEASE AND ITS RELATION TO INFLAMMATION

Labudović-Borović M<sup>1</sup>, Borović S<sup>2</sup>, Radak Dj<sup>2</sup>, Kostić J<sup>1</sup>, Zaletel I<sup>1</sup>, Puškaš N<sup>1</sup>, Marinković J<sup>3</sup>, Milićević Ž<sup>1</sup>, Čolić M<sup>4</sup>

<sup>1</sup>Institute of Histology and Embryology "Aleksandar Dj. Kostić" Faculty of Medicine University of Belgrade, Belgrade Serbia, <sup>2</sup>"Dedinje" Cardiovascular Institute, Belgrade, Serbia, <sup>3</sup>Institute of Medical Statistics, Faculty of Medicine University of Belgrade, Belgrade, Serbia, <sup>4</sup>Military Medical Academy, Belgrade, Serbia

#### 10.55-11.10

## LDL TRANSPORT AND BIOMECHANICAL PROPERTIES OF THE RABBIT CAROTID ARTERY IN THE EXPERIMENTAL ATHEROSCLEROSIS

#### Rosić M

Department of Physiology, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, Serbia

#### 11.10-11.25

#### WILD THYME AFFECTS HEME OXYGENASE-1 IN HYPERTENSION

Mihailović-Stanojević N<sup>1</sup>, Miloradović Z<sup>1</sup>, Ivanov M<sup>1</sup>, Vajić UJ<sup>1</sup>, Karanović D<sup>1</sup>, Bugarski B<sup>2</sup>, Jovović D<sup>1</sup>, Grujić-Milanović J<sup>1</sup>

<sup>1</sup>Institute for Medical Research, University of Belgrade, Belgrade, Serbia, <sup>2</sup>Department of Chemical Engineering, Faculty of Technology and Metallurgy, University of Belgrade, Belgrade, Serbia

#### 11.25-11.40

## NORMAL AND PATHOLOGICAL RESPONSES OF EXTREMITY VEINS TO SUSTAINED GRAVITATIONAL LOAD

#### Nádasy GL, Monos E

Department of Clinical Experimental Research and Human Physiology, Semmelweis University, Budapest, Hungary

#### 11.40-11.55

#### GALECTIN-3 IN CARDIOVASCULAR DISEASES

Djurić T, Alavantić D

Vinča Institute of Nuclear Sciences, Laboratory for Radiobiology and Molecular Genetics, University of Belgrade, Belgrade, Serbia

11.55-12.20 Pause

#### SESSION 2: CARDIAC PHYSIOLOGY AND PHARMACOLOGY

Chairmen: Muntean D, Pechanova O, Varro A

#### 12.15-12.30

#### **RECEPTOR-MEDIATED MODULATION OF Na,K-ATPase SIGNAL TRANSDUCER FUNCTION** Lopatina EV<sup>1,2</sup>

<sup>1</sup>Almazov Federal Heart, Blood and Endocrinology Centre, <sup>2</sup>Pavlov Institute of Physiology of Russian Academy of Sciences, St. Petersburg, Russia

#### 12.30-12.45

#### ROLE OF SODIUM-CALCIUM EXCHANGER IN CARDIAC REPOLARIZATION Varro A

Department of Pharmacology and Pharmacotherapy, University of Szeged, Szeged, Hungary

#### 12.45-13.00

#### **MODULATION OF THE ATP-SENSITIVE POTASSIUM CHANNELS IN THE HEART: AN UPDATE** Muntean D

Department of Pathophysiology, Faculty of Medicine "Victor Babes", University of Medicine and Pharmacy, Timisoara, Romania

#### 13.00-13.15

## ELECTROPHYSIOLOGICAL EFFECTS OF CARBON MONOXIDE IN MAMMALIAN MYOCARDIUM AND THEIR POTENTIAL MECHANISMS

Abramochkin DV<sup>1,2</sup>, Konovalova OP<sup>1</sup>

<sup>1</sup>Department of Human and Animal Physiology, Faculty of Biology, Lomonosov Moscow State University, Moscow, <sup>2</sup>Department of Physiology, Pirogov Russian National Research Medical University, Moscow, Russia

#### 13.15-13.30 HEART RATE VARIABILITY AND BARORECEPTOR REFLEX SENSITIVITY IN DOXORUBICIN-INDUCED CARDIOMYOPATHY

Vasić M<sup>1</sup>, Lončar-Turukalo T<sup>2</sup>, Tasić T<sup>1</sup>, Glumac S<sup>1</sup>, Bajić D<sup>2</sup>, Japundžić-Žigon N<sup>1</sup> <sup>1</sup>Faculty of Medicine, University of Belgrade, Belgrade, Serbia, <sup>2</sup>Faculty of Technical Sciences, University of Novi Sad, Novi Sad, Serbia

#### 13.30-13.45

#### ANTIARRHYTHMIC POTENTIAL OF HYPOLIPIDEMIC DRUGS IN ACUTE ISCHEMIA/REPERFUSION: MOLECULAR MECHANISMS OF LIPID-INDEPENDENT EFFECTS

Ravingerová T<sup>1</sup>, Čarnická S<sup>1</sup>, Adameová A<sup>2</sup>, Ledvényiová V<sup>1</sup>, Rajtík T<sup>2</sup>, Barlaka E<sup>3</sup>, Gablovský I<sup>1</sup>, Nemčeková M<sup>1</sup>, Lazou A<sup>3</sup>

<sup>1</sup>Institute for Heart Research, Slovak Academy of Sciences, Centre of Excellence SAS NOREG, Bratislava, <sup>2</sup>Department of Pharmacology and Toxicology, Faculty of Pharmacy, Comenius University, Bratislava, Slovakia, <sup>3</sup>School of Biology, Aristotle University of Thessaloniki, Thessaloniki, Greece

#### 13.45-14.00

## THE ROLE OF CALCIUM CYCLING DISTURBANCES IN THE DEVELOPMENT OF CARDIOMYOPATHY

Miklós Z, Dunay GA, Ivanics T Institute of Human Physiology and Clinical Experimental Research, Semmelweis University, Budapest, Hungary

#### 14.00-14.15

#### PLATINUM COMPLEXES INDUCED CARDIOTOXICITY OF ISOLATED PERFUSED RAT HEART: COMPARISON OF Pt(II) AND Pt(IV) ANALOGUES VERSUS CISPLATIN

Novokmet SS<sup>1</sup>, Mišić MM<sup>2</sup>, Bugarčić DŽ<sup>3</sup>, Živković IV<sup>4</sup>, Srejović MI<sup>4</sup>, Barudžić SN<sup>1</sup>, Djurić MD<sup>5</sup>, Jakovljević LJV<sup>4</sup>

<sup>1</sup>Department of Pharmacy, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, Serbia, <sup>2</sup>College for Specialized Studies, Zemun, University of Belgrade, Belgrade, Serbia, <sup>3</sup>Department of Chemistry, Faculty of Science, University of Kragujevac, Kragujevac, Serbia, <sup>4</sup>Department of Physiology, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, Serbia, <sup>5</sup>Institute of Medical Physiology "Richard Burian", Faculty of Medicine, University of Belgrade, Belgrade, Serbia

14.15-15.15 Pause/Lunch

#### SESSION 3: IMMUNOLOGY AND EXPERIMENTAL ONCOLOGY

Chairmen: Arsenijević N, Lukić M, Stankov K

#### 15.15-15.30

## ESTIMATION OF NK CELL ACTIVITY IN HEMATOLOGICAL MALIGNANCY BY DIFFERENT ASSAY

Jurišić V<sup>1</sup>, Radovanović A<sup>2</sup>, Mirjačić-Martinović K<sup>2</sup>, Srdić-Rajić T<sup>2</sup>, Tišma N<sup>2</sup>, Konjević G<sup>2</sup> <sup>1</sup>Faculty of Medical Sciences, University of Kragujevac, Serbia, <sup>2</sup> Institute of Oncology and Radiology, Belgrade, Serbia

#### 15.30-15.45

## EPIGENETIC ANALYSIS OF GENE EXPRESSION IN HUMAN MALIGNANT HAEMATOPOIETIC CELL LINES TREATED WITH 5-AZACYTIDINE

Stankov K<sup>1</sup>, Blagojević D<sup>2</sup>, Kojić V<sup>4</sup>, Stankov S<sup>3</sup>, Popović S<sup>1</sup>, Bogdanović G<sup>4</sup>

<sup>1</sup>Clinical Center of Vojvodina, Medical Faculty Novi Sad, University of Novi Sad, Novi Sad, Serbia, <sup>2</sup>Institute for Biological Research "Siniša Stanković", University of Belgrade, Belgrade, Serbia, <sup>3</sup>Health Center Novi Sad, Novi Sad, Serbia, <sup>4</sup>Oncology Institute of Vojvodina, Medical Faculty Novi Sad, University of Novi Sad, Novi Sad, Serbia

#### 15.45-16.00

#### INTERLEUKIN-33/ST2 AXIS PROMOTES BREAST CANCER GROWTH AND METASTASES BY FACILITATING INTRATUMORAL ACCUMULATION OF IMMUNOSUPPRESSIVE AND INNATE LYMPHOID CELLS

Jovanović IP, Pejnović NN, Radosavljević GD, Pantić JM, Milovanović V, Arsenijević NN, Lukić ML Center for Molecular Medicine and Stem Cell Research, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, Serbia

#### 16.00-16.15

#### IMMUNOMODULATION OF ACUTE LIVER INJURY

Volarević V<sup>1</sup>, Simović-Marković B<sup>1</sup>, Bojić S<sup>2</sup>, Nikolić A<sup>1</sup>, Gazdić M<sup>2</sup>, Jakovljević V<sup>3</sup>, Arsenijević N<sup>1</sup>, Lukić ML<sup>1</sup>

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

#### 16.15-16.30

#### CO-LIGATION OF TLR3 AND DECTIN-1 AGONISTS POTENTIATES TH1 POLARIZATION CAPABILITY ON MONOCYTE DERIVED LANGERHANS CELLS IN VITRO

Rajković I<sup>2</sup>, Dragićević A<sup>1</sup>, Vasilijić S<sup>1,2</sup>, Vučević D<sup>1,2</sup>, Božić B<sup>3</sup>, Mihajlović D<sup>2</sup>, Marković M<sup>1</sup>, Čolić M<sup>2</sup> <sup>1</sup>Institute for Medical Research Military Medical Academy, Belgrade, Serbia, <sup>2</sup>Medical Faculty of the Military Medical Academy, University of Defense in Belgrade, Belgrade, Serbia, <sup>3</sup>University of Belgrade, Faculty of Biology, Institute for Physiology and Biochemistry, Belgrade, Serbia

#### 16.30-16.45

### IS GALECTIN-1 BINDING TO MUCINS FUNCTIONALLY RELEVANT FOR HUMAN TROPHOBLAST?

Bojić-Trbojević Ž, Jovanović-Krivokuća M, Kolundžić N, Ćujić D, Vićovac Lj Institute for the Application of Nuclear Energy INEP, University of Belgrade, Belgrade, Serbia

#### 16.45-17.00

## NOVEL SMALL HEAT-SHOCK PROTEIN: RELATION TO MITOCHONDRIAL NETWORK DYNAMICS AND MALIGNANT TRANSFORMATION

Gallyas F Jr, Hocsak E, Pozsgai E, Bellyei S

Department of Biochemistry and Medical Chemistry, University of Pecs Medical School, Pecs, Hungary

#### 17.00-17.15

#### ANTI-OXIDANT AND IMMUNOMODULATORY ROLES OF PLANT-DERIVED BIOPHENOLS Stojanović I<sup>1</sup>, Tzakos A<sup>2</sup>

<sup>1</sup>Department of Immunology, Institute for Biological Research "Siniša Stanković", University of Belgrade, Belgrade, Serbia, <sup>2</sup>Department of Chemistry, Section of Organic Chemistry and Biochemistry, University of Ioannina, Ioannina, Greece

#### 17.15-17.30 Pause

#### SESSION 4: ADVANCES IN PHYSIOLOGY TEACHING

Chairmen: Milanović Z, Mitrović D, Mujović V, Veljković S On behalf of the Teaching Committee, Serbian Physiological Society

#### 17.30-18.15 NEW TEXTBOOKS AND MONOGRAPHS ON PHYSIOLOGY TOPICS IN SERBIAN

18.15-19.00 Meeting of the Serbian Physiological Society Assembly

#### 20.30 Welcome Reception (Skadarlija Bohemian Quarter)

#### Thursday, October 30th, 2014

Military Medical Academy-Amphitheatre

#### SESSION 5: ADVANCES IN CARDIOVASCULAR RESEARCH II

Chairmen: Dhalla NS, Glibetić M, Pierce GN

#### 9.00-9.20

### THE USE OF A NOVEL DIETARY INTERVENTION TO CONTROL CARDIOVASCULAR DISEASE: OUR JOURNEY FROM LAB BENCH TO CLINICAL TRIAL

Pierce GN<sup>1,2</sup>, Bassett C<sup>1</sup>, Edel AL<sup>1,2</sup>, LaVallee R<sup>1,2</sup>, Caligiuri S<sup>1,2</sup>, Aukema H<sup>1,3</sup>, Ravandi A<sup>1,4</sup>, Guzman R<sup>1,5</sup>, Rodriguez-Leyva D<sup>1,6</sup>, Aliani M<sup>1,3</sup>, Dibrov E<sup>1</sup>

<sup>1</sup>Canadian Centre for Agri-food Research in Health and Medicine (CCARM), St. Boniface Hospital, <sup>2</sup>Department of Physiology, University of Manitoba, <sup>3</sup>Department of Human Nutritional Sciences, University of Manitoba, <sup>4</sup>Department of Internal Medicine, University of Manitoba, <sup>5</sup>Department of Surgery, University of Manitoba, Winnipeg, Canada, <sup>6</sup>Cardiovascular Research Division, VI Lenin Universitary Hospital, Holguin, Cuba

9.20-9.40

#### CO2-BATH AS A NOVEL THERAPY FOR PERIPHERAL VASCULAR DISEASE

Dhalla NS, Xu YJ, Elimban V Institute of Cardiovascular Sciences, St. Boniface Hospital Research Centre, Winnipeg, Canada

#### 9.40-9.55

### OMEGA-3 FATTY ACIDS: DIETARY INTAKE, METABOLISM AND ROLE IN INFLAMMATORY PROCESSES

Richter V<sup>1,2</sup>

<sup>1</sup>Institute of Laboratory Medicine, Clinical Chemistry and Molecular Diagnostics, <sup>2</sup>University Hospital Leipzig, Leipzig, Germany

#### 9.55-10.10 EFFECT OF MEDITERRANEAN DIET AND LOW FAT DIET ON LIVER ENZYMES, LIPID AND FATTY ACID STATUS IN NON-ALCOHOLIC FATTY LIVER DISEASE: A PILOT STUDY

Ristić-Medić D<sup>1</sup>, Tufegdžić M<sup>2</sup>, Poštić M<sup>1</sup>, Glibetić M<sup>1</sup>

<sup>1</sup>Centre of Research Excellence in Nutrition and Metabolism, Institute for Medical Research, University of Belgrade, Serbia, <sup>2</sup>Internal Clinic-Department of Gastroenterology, KBC "Dr Dragiša Mišović-Dedinje", Faculty of Medicine, University of Belgrade, Belgrade, Serbia

#### 10.10-10.25

#### DISORDERS OF NITRIC OXIDE PATHWAY IN METABOLIC SYNDROME

Pechanova O

Institute of Normal and Pathological Physiology and Centre of Excellence for Examination a Regulatory Role of Nitric Oxide in Civilization Diseases, Slovak Academy of Sciences, Bratislava, Slovak Republic

#### 10.25-10.40

#### HOW DOES STRESS POSSIBLY AFFECT CARDIAC REMODELING?

Popović D<sup>1</sup>, Plećaš-Solarović B<sup>2</sup>, Pešić V<sup>2</sup>, Petrović M<sup>1</sup>, Vujisić-Tešić B<sup>1</sup>, Popović B<sup>3</sup>, Ignjatović S<sup>1</sup>, Ristić A<sup>1</sup>, Damjanović SS<sup>3</sup>

<sup>1</sup>Institute for Cardiovascular Diseases, Clinical Center of Serbia, Belgrade, <sup>2</sup>Faculty of Pharmacy, University of Belgrade, <sup>3</sup>Institute for Endocrinology, Diabetes and Diseases of Metabolism, Clinical Center of Serbia, Belgrade, Serbia

10.40-11.00 Pause

#### SESSION 6: DIFFERENT SYSTEM PHYSIOLOGY AND OXIDATIVE STRESS

Chairmen: Heinle H, Simić T, Spasić M

### 11.00-11.15

#### PULMONARY SURFACTANT: BEYOND THE ALVEOLUS

Calkovska A Department of Physiology, Jessenius Faculty of Medicine, Comenius University, Martin, Slovakia

#### 11.15-11.30

## OXIDATIVE STRESS IN INFLAMMATION: CONSIDERATIONS ON VASCULAR AND INTESTINAL DISEASES

Heinle H<sup>1</sup>, Eremić N<sup>1</sup>, Gabriel N<sup>1</sup>, Merkel K<sup>1</sup>, Abdel-Aziz H<sup>2</sup> <sup>1</sup>Institute of Physiology, University of Tuebingen, Tuebingen, Germany, <sup>2</sup>Steigerwald GmbH, Darmstadt, Germany

11.30-11.45

#### NON-BACTERIAL METHANOGENESIS IN MAMMALS

Boros M, Ghyczy M, Tuboly E, Hartmann P, Strifler G, Mészáros A Institute of Surgical Research, University of Szeged, Szeged, Hungary

#### 11.45-12.00

#### THE ROLE OF POLYMORPHISMS IN GENES ENCODING ANTIOXIDANT ENZYMES IN SUSCEPTIBILITY TO OXIDATIVE STRESS AND CARDIOVASCULAR RISK AMONG HEMODIALYSIS PATIENTS

Simić T<sup>1</sup>, Suvakov S<sup>1</sup>, Jakovljević J<sup>2</sup>, Savić-Radojević A<sup>1</sup>, Plješa-Ercegovac M<sup>1</sup>, Matić M<sup>1</sup>, Ćorić V<sup>1</sup>, Radić T<sup>1</sup>, Djukić T<sup>1</sup>, Damjanović T<sup>3</sup>, Pekmezović T<sup>4</sup>, Dimković N<sup>3,5</sup>

<sup>1</sup>Institute of Medical and Clinical Biochemistry, Faculty of Medicine, University of Belgrade, Belgrade, Serbia, <sup>2</sup>Institute of Medical Physiology, Faculty of Medicine, University of Belgrade, Belgrade, Serbia, <sup>3</sup>Clinical Department for Renal Diseases, Zvezdara University Medical Center, University of Belgrade, Belgrade, Serbia, <sup>4</sup>Institute of Epidemiology, Faculty of Medicine, University of Belgrade, Belgrade, Serbia, <sup>5</sup>Faculty of Medicine University of Belgrade, Belgrade, Serbia

#### 12.00-12.15

## ACUTE EFFECTS OF HEMODIALYSIS ON SEVERAL BLOOD ANTIOXIDANT ENZYMES ACTIVITIES

Mirić D, Kisić B, Dragojević I Institute of Biochemistry, Faculty of Medicine, University of Priština, Kosovska Mitrovica, Serbia

#### 12.15-12.30

#### SODIUM SULPHIDE EFFECTS ON ANTIOXIDANT ENZYME ACTIVITIES IN RAT OVARIES AND UTERI

Mijušković A, Nikolić-Kokić A, Slavić M, Oreščanin-Dušić Z, Nestorov J, Spasić M, Blagojević D Institute for Biological Research "Siniša Stankovic", University of Belgrade, Belgrade, Serbia

12.30-13.00 Pause

#### CME SESSION

Chairmen: Nestorović V, Prostran M, Radenković M

#### 13.00-13.15

#### RENAL FUNCTION AND NEW ORAL ANTICOAGULANT DRUGS

Prostran M

Institute of Pharmacology, Clinical Pharmacology and Toxicology, Faculty of Medicine, University of Belgrade, Belgrade, Serbia

13.15-13.30

#### PHARMACOLOGICAL ASPECTS OF ENDOTHELIAL DYSFUNCTION

Radenković M

13.45-14.00

Institute of Pharmacology, Clinical Pharmacology and Toxicology, Medical Faculty, University of Belgrade, Serbia

13.30-13.45 **PRINCIPLES AND METHODS OF NANOTOXICITY TESTING IN VITRO AND IN VIVO** Jokanović M Faculty of Medicine, University of Niš, Niš, Serbia

### WHEN PHARMACOLOGY MEETS BIOENERGETICS – IBOGAINE

Oreščanin-Dušić Z Department of Physiology, Institute for Biological Research "Siniša Stanković", University of Belgrade, Belgrade, Serbia

#### **SESSION 7: FREE COMMUNICATIONS**

Chairmen: Boros M, Žunić G, Vićovac Lj

#### 15.00-15.15

## PHYSIOLOGICAL ACTIVITIES OF CELERY (APIUM GRAVEOLENS L.) AND PARSLEY (PETROSELINUM CRISPUM L.)

Branković S<sup>1</sup>, Radenković M<sup>1</sup>, Gočmanac-Ignjatović M<sup>1</sup>, Kostić M<sup>2</sup>, Miladinović B<sup>2</sup>, Veljković M<sup>1</sup>, Kitić D<sup>2</sup> <sup>1</sup>Department of Physiology, Faculty of Medicine, University of Niš, Niš, Serbia, <sup>2</sup>Department of Pharmacy, Faculty of Medicine, University of Niš, Niš, Serbia

#### 15.15-15.30

## THE POSITIVE EFFECT OF NARINGENIN ON SUPERFICIAL MEMBRANE FLUIDITY IN HUMAN ERYTHROCYTES

Ajdžanović V<sup>1</sup>, Spasojević I<sup>2</sup>, Konić-Ristić A<sup>3</sup>, Milenković D<sup>4</sup>, Živanović J<sup>1</sup>, Medigović I<sup>1</sup>, Milošević V<sup>1</sup> <sup>1</sup>Department of Cytology, Institute for Biological Research "Sinisa Stankovic", University of Belgrade, Belgrade, Serbia, <sup>2</sup>Life Systems Department, Institute for Multidisciplinary Research, University of Belgrade, Belgrade, Serbia, <sup>3</sup>Center of Research Excellence in Nutrition and Metabolism, Institute for Medical Research, University of Belgrade, Belgrade, Serbia, <sup>4</sup>INRA, UMR1019, UNH, CRNH Auvergne, Clermont-Ferrand, Unité de Nutrition Humaine, Clermont Université, Université d'Auvergne, Clermont-Ferrand, France

#### 15.30-15.45

## BIOHUMORAL PARAMETERS IN ASSESSMENT OF BIOACTIVE ALPHA TRICALCIUM PHOSPHATE

Kojić Z1, Stojanović D2, Janaćković D2

<sup>1</sup>Institute of Medical Physiology, Faculty of Medicine, University of Belgrade, Belgrade, Serbia, <sup>2</sup>Faculty of Technology and Metallurgy, University of Belgrade, Belgrade, Serbia

#### 15.45-16.00

### SODIUM SENSITIVE HYPERTENSION- CAN BE ASSESSED BY MEASURING URIC ACID LEVELS?

Radenković S<sup>1,2</sup>, Kocić G<sup>3</sup>, Milojković B<sup>4</sup>, Veličković D<sup>4</sup>, Stojanović D<sup>1</sup>, Radović J<sup>1</sup>, Jančić N<sup>4</sup>, Bojanić V<sup>1</sup> <sup>1</sup>Institute of Pathophysiology, Medical Faculty, University of Niš, Niš, Serbia, <sup>2</sup>Clinic of Nephrology, Clinical Center Niš, Niš, Serbia, <sup>3</sup>Institute of Biochemistry, Medical Faculty, University of Niš, Niš, Serbia, <sup>4</sup>Medical Faculty, University of Niš, Niš, Serbia

16.00-16.15 **REGULATORY ROLES OF AMINO ACIDS IN METABOLIC PATHWAYS** Žunić G

Institute for Medical Research, Military Medical Academy, Belgrade, Serbia

16.15-16.30 Pause

#### SESSION 8: ENDOCRINOLOGY, NEUROENDOCRINOLOGY AND NEUROBIOLOGY

Chairmen: Murphy D, Milošević V, Vučković S

#### 16.30-16.50

#### UP-REGULATION OF THE KIDNEY NKCC2 TRANSPORTER IN HYPOTHALAMIC VASOPRESSIN NEURONES IS A COMPONENT OF THE HOMEOSTATIC RESPONSE TO OSMOTIC STRESS

Konopacka A<sup>1</sup>, Qiu J<sup>1</sup>, Greenwood MP<sup>1</sup>, Greenwood M<sup>1</sup>, Lancaster T<sup>1</sup>, Hoe SZ<sup>2</sup>, Lee J<sup>3</sup>, Joseph M<sup>4</sup>, Yao S<sup>1</sup>, Martin A<sup>1</sup>, Paton J<sup>4</sup>, Murphy D<sup>1,2</sup>

<sup>1</sup>School of Clinical Sciences, University of Bristol, Bristol, England, BS1 3NY; <sup>2</sup>Department of Physiology, Faculty of Medicine, University of Malaya, Kuala Lumpur, Malaysia, <sup>3</sup>School of Chemical and Life Sciences, Nanyang Polytechnic, Singapore, <sup>4</sup>School of Physiology and Pharmacology, University of Bristol, Bristol, England

#### 16.50-17.05

#### THYROTROPIN RELEASING HORMONE AND INSULIN SECRETION

Strbak V<sup>1,2</sup>, Bacova Z<sup>1,2</sup>

<sup>1</sup>Institute of Experimental Endocrinology, Slovak Academy of Sciences, <sup>2</sup>Institute of Pathological Physiology, Medical Faculty, Slovak Medical University, Bratislava, Slovakia

#### 17.05-17.20

## MACROPHAGE MIGRATION INHIBITORY FACTOR (MIF)-A POTENTIAL IMPORTANT ROLE IN ESTABLISHMENT OF PREGNANCY

Jovanović-Krivokuća M<sup>1</sup>, Stefanoska I<sup>1</sup>, Abu Rabi T<sup>1</sup>, Al-Abed Y<sup>2</sup>, Stošić-Grujičić S<sup>3</sup>, Vićovac Lj<sup>1</sup> <sup>1</sup>Institute for the Application of Nuclear Energy, INEP, University of Belgrade, Belgrade, Serbia, <sup>2</sup>Laboratory of Biomedical Science, The Feinstein Institute for Medical Research, Community Drive, Manhasset, USA, <sup>3</sup>Institute for Biological Research "Siniša Stanković", University of Belgrade, Belgrade, Serbia

#### 17.20-17.35

### SOY ISOFLAVONES DECREASE PTH CONCENTRATION AND PTH1 RECEPTOR EXPRESSION IN AN ANIMAL MODEL OF THE ANDROPAUSE

Živanović J<sup>1</sup>, Medigović I<sup>1</sup>, Ajdžanović V<sup>1</sup>, Miler M<sup>1</sup>, Ušćebrka G<sup>2</sup>, Milošević V<sup>1</sup>, Filipović B<sup>1</sup> <sup>1</sup>Department of Cytology, Institute for Biological Research "Siniša Stanković", University of Belgrade, Belgrade, Serbia, <sup>2</sup>Department of Animal Science, Faculty of Agriculture, University of Novi Sad, Novi Sad, Serbia

#### 17.35-17.50

## NEUROINFLAMMATION MARKERS AFTER ISCHEMIC BRAIN INJURY IN THE LONG-TERM SURVIVAL RAT MODEL

#### Radenović L

Center for Laser Microscopy, Faculty of Biology, University of Belgrade, Belgrade, Serbia

#### 17.50-18.05

## SYNERGISTIC INTERACTION BETWEEN KETAMINE AND MAGNESIUM IN LOWERING BODY TEMPERATURE IN RATS

Vučković S, Savić-Vujović K, Srebro D, Prostran M

Institute of Pharmacology, Clinical Pharmacology and Toxicology, Faculty of Medicine, University of Belgrade, Belgrade, Serbia

#### 18.05-18.20 THE EFFECT OF AGMATINE IN EXPERIMENTAL AUTOIMMUNE ENCEPHALOMYELITIS

Stevanović I<sup>1</sup>, Ninković M<sup>1</sup>, Stojanović I<sup>3</sup>, Ljubisavljević S<sup>3,4</sup>

<sup>1</sup>Institute for Medical Research, Military Medical Academy, Belgrade, <sup>2</sup>Institute for Biochemistry, Faculty of Medicine, University of Niš, Niš, Serbia, <sup>3</sup>Clinic of Neurology, Clinical Centre of Niš, Niš, Serbia, <sup>4</sup>Institute for Pathophysiology, Faculty of Medicine, University of Niš, Niš, Serbia

#### **INNOVATIVE WORKSHOP**

18.20-19.00

#### THE STELLAR TELEMETRY SYSTEM: AN INNOVATIVE NEW VERSATILE WIRELESS PHYSIOLOGICAL RECORDING SYSTEM FOR ANIMAL RESEARCH Fehmer I

TSE Systems GmbH, Bad Homburg, Germany

#### 20.30 Gala Dinner (Hotel Park)

### Friday, October 31st, 2014

Military Medical Academy- Amphitheatre

#### SESSION 9: NEUROPHYSIOLOGY I

(Joint Session of the Serbian Physiological Society and the Serbian Society of Clinical Neurophysiology)

Chairmen: Andjus P, Krylov B, Kulchitsky V

#### 8.45-9.00

#### EPIGENETIC MECHANISMS OF NEUROPLASTICITY

#### Pokorný J

Institute of Physiology, First Faculty of Medicine, Charles University in Prague, Czech Republic

#### 9.00-9.15

## MOLECULAR AND CELLULAR BASIS OF PATHOPHYSIOLOGY IN AMYOTROPHIC LATERAL SCLEROSIS

Andjus PR

Centre for Laser Microscopy, Faculty of Biology, University of Belgrade, Belgrade, Serbia

#### 9.15-9.30

#### NEW MOLECULAR MECHANISMS OF CHRONIC PAIN RELIEF

Krylov BV Pavlov Institute of Physiology of Russian Academy of Sciences, St. Petersburg, Russia

#### 9.30-9.45

### CHEMORECEPTOR CONTROL OF GAS HOMEOSTASIS IN PATIENTS WITH OBSTRUCTIVE SLEEP APNEA

Kulchitsky VA<sup>1,2</sup>, Kaliadzich ZV<sup>1</sup>, Semenik TA<sup>2</sup>, Furmanchuk DA<sup>1</sup>, Andrianova TD<sup>1</sup>, Pashkevich SG<sup>2</sup> <sup>1</sup>National Centre of Otorhinolaryngology, <sup>2</sup>Institute of Physiology, National Academy of Sciences of Belarus, Minsk, Belarus

#### 9.45-10.00

#### BAROREFLEX SENSITIVITY IN PREMATURE NEWBORNS

Javorka K<sup>1</sup>, Haskova K<sup>2</sup>, Czippelova B<sup>1</sup>, Zibolen M<sup>2</sup>, Javorka M<sup>1</sup> <sup>1</sup>Department of Physiology, Jessenius Faculty of Medicine, Comenius University, <sup>2</sup>Clinic of Neonatology, University Hospital, Martin, Slovakia

#### 10.00-10.15 EXAM STRESS INFLUENCES ON VOCAL AND GRAPHOMOTORIC CHARACTERISTICS: NEUROPHYSIOLOGICAL CONSIDERATIONS

Nešić M<sup>1</sup>, Čičević S<sup>2</sup>, Obrenović J<sup>3</sup>, Nešić V<sup>3</sup>, Ćirić M<sup>1</sup>

<sup>1</sup>Department of Physiology, Faculty of Medicine, University of Niš, Niš, Serbia, <sup>2</sup>Laboratory for Traffic Psychology and Ergonomics, Faculty of Traffic and Transport Engineering, University of Belgrade, Belgrade, Serbia, <sup>3</sup>Department of Psychology, Faculty of Philosophy, University of Niš, Niš, Serbia

#### 10.15-10.30

## CORRELATION ANALYSIS BETWEEN SODIUM, POTASSIUM AND CHLORIDE IN THE SERUM OF PATIENTS TREATED WITH ANTIPSYCHOTIC DRUGS

Milovanović DR1, Vučković Z2, Stanojević-Pirković M3

<sup>1</sup>Department of Pharmacology and Toxicology, Faculty of Medical Sciences, Clinical Centre "Kragujevac", Kragujevac, Serbia, <sup>2</sup>Department of Biochemistry, Clinical Centre "Kragujevac", Kragujevac, Serbia, <sup>3</sup>Department of Biochemistry, Faculty of Medical Sciences, Clinical Centre "Kragujevac", Kragujevac, Serbia 10.30-11.30 Pause

Military Medical Academy- Room of the Scientific Council

#### SESSION 10: NEUROPHYSIOLOGY II

(Joint Session of the Serbian Physiological Society and the Serbian Society of Clinical Neurophysiology)

Chairmen: Radenović L, Stanojlović O, Šaponjić J

#### 11.30-11.45

**OBJECTIVE AND SUBJECTIVE FACTORS AFFECTING THE OCULOMOTOR RESPONSE** Jagla F

Laboratory of Cognitive Neuroscience, Institute of Normal and Pathological Physiology SAS, Bratislava, Slovakia

#### 11.45-12.00

#### REDOX STATUS OF MOTOR CORTEX DUE TO THETA BURST STIMULATION

Malićević B1, Ninković M2, Stevanović I2, Milanović S3, Ilić T1,4

<sup>1</sup>Medical Faculty of Military Medical Academy, University of Defense, Belgrade, Serbia, <sup>2</sup>Institute of Medical Research, Military Medical Academy, Belgrade, Serbia, <sup>3</sup>Institute of Medical Research, Belgrade, Serbia, <sup>4</sup>Department of Neurophysiology, Outpatient Neurology Clinic, Military Medical Academy, Belgrade, Serbia

#### 12.00-12.15

## HYPEREXCITABILITY AS THE CNS DYSFUNCTION: EXPERIMENTAL APPROACH TO UNDERSTAND ITS MECHANISMS

Stanojlović O<sup>1</sup>, Hrnčić D<sup>1</sup>, Rašić-Marković A<sup>1</sup>, Mladenović D<sup>2</sup>, Puškaš N<sup>3</sup>, Macut-Bjekić J<sup>4</sup>, Macut Dj<sup>5</sup>, Djurić D<sup>1</sup>, Šušić V<sup>6</sup>

<sup>1</sup>Institute of Medical Physiology "Richard Burian", Faculty of Medicine, University of Belgrade, Belgrade, Serbia, <sup>2</sup>Institute of Pathophysiology "Ljubodrag Buba Mihailović", Faculty of Medicine, University of Belgrade, Belgrade, Serbia, <sup>3</sup>Institute of Histology and Embryology"Aleksandar Dj. Kostić", Faculty of Medicine, University of Belgrade, Belgrade, Serbia, <sup>4</sup>Clinical Center of Serbia, Faculty of Medicine, University of Belgrade, Belgrade, Serbia, <sup>5</sup>CHC Bežanijska Kosa, Belgrade,Serbia, <sup>6</sup>Serbian Academy of Sciences and Arts, Belgrade, Serbia

#### 12.15-12.30

## REM SLEEP DIVERSITY AS AN EARLY MARKER OF THE IMPAIRED CHOLINERGIC THALAMO-CORTICAL INNERVATION

#### Šaponjić J

Department of Neurobiology, Institute for Biological Research "Siniša Stanković", University of Belgrade, Serbia

#### 12.30-12.45

## PHYSICAL ACTIVITY AND SLEEP IN MODULATION OF EPILEPTOGENESIS: FINDINGS FROM EXPERIMENTAL STUDIES

Hrnčić D<sup>1</sup>, Rašić-Marković A<sup>1</sup>, Leković J<sup>1</sup>, Grubač Ž<sup>1</sup>, Šutulović N<sup>1</sup>, Šušić V<sup>2</sup>, Macut-Bjekić J<sup>3</sup>, Puškaš N<sup>4</sup>, Djurić D<sup>1</sup>, Stanojlović O<sup>1</sup>

<sup>1</sup>Institute of Medical Physiology "Richard Burian", Faculty of Medicine, University of Belgrade, Belgrade, Serbia, <sup>2</sup>Serbian Academy of Sciences and Arts, <sup>3</sup>CHC Bežanijska Kosa, Faculty of Medicine, University of Belgrade, Belgrade, Serbia, <sup>4</sup>Institute of Histology and Embryology "Aleksandar Dj. Kostić", Faculty of Medicine, University of Belgrade, Belgrade, Serbia

#### 12.45-13.00

#### THE EFFECTS OF FINASTERIDE ON MOTOR AND EEG CHANGES IN THIOACETAMIDE-INDUCED HEPATIC ENCEPHALOPATHY IN RATS

Mladenović D<sup>1</sup>, Hrnčić D<sup>2</sup>, Rašić-Marković A<sup>2</sup>, Radosavljević T<sup>1</sup>, Puškaš N<sup>3</sup>, Maksić N<sup>4</sup>, Stanojlović O<sup>2</sup> <sup>1</sup>Institute of Pathophysiology "Ljubodrag Buba Mihailović", Faculty of Medicine, University of Belgrade, Serbia, <sup>2</sup>Institute of Medical Physiology "Richard Burian", Faculty of Medicine, University of Belgrade, Serbia, <sup>3</sup>Institute of Histology and Embryology, Faculty of Medicine, University of Belgrade, Serbia, <sup>4</sup>Centre for Medical Biochemistry, Clinical Centre of Serbia, Belgrade, Serbia

#### 13.00

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

Chairmen: Blagojević D, Djurić D, Jakovljević V, Rosić G

#### Wednesday, October 29th, 2014

9.00-18.00

#### POSTER SESSION I

(The presence of poster authors is required from 14.00 to 16.00)

Chairmen: Kostić T, Miloradović Z, Novokmet S, Pokorny J, Šćepanović Lj, Živković V

P 01 MATRIX METALLOPROTEINASES-2 AND -9, AND GAL-1 ARE POSSIBLE MEDIATORS OF ANTIPHOSPHOLIPID ANTIBODY-INDUCED DECREASE IN TROPHOBLAST INVASION

Abu Rabi T<sup>1</sup>, Jovanović-Krivokuća M<sup>1</sup>, Stefanoska I<sup>1</sup>, Radojčić Lj<sup>2</sup>, Vićovac Lj<sup>1</sup> <sup>1</sup>Institute for the Application of Nuclear Energy, INEP, University of Belgrade, Belgrade, Serbia, <sup>2</sup>Military Medical Academy, Belgrade, Serbia

## P02 CORRELATION BETWEEN THYROID STIMULATING HORMONE LEVEL AND SERUM'S SODIUM AND POTASSIUM LEVEL

Andjelković M<sup>1</sup>, Mitrović M<sup>1</sup>, Nikolić I<sup>1</sup>, Zelen I<sup>1</sup>, Zarić M<sup>1</sup>, Folić M<sup>2</sup> <sup>1</sup>Department of Biochemistry, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, Serbia, <sup>2</sup>Department of Pharmacology, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, Serbia

## P03 DIETARY BEHAVIORS AND NUTRITIONAL ASSESSMENT OF ELITE ATHLETES IN SERBIA

Andjelković M<sup>1,2</sup>, Dikić N<sup>1,2</sup>, Baralić I<sup>1,2,3</sup>, Vesić VM<sup>1,2</sup>, Stojmenovic T<sup>1</sup>, Ćurčić Dj<sup>1</sup>, Djordjević B<sup>1,2,3</sup> <sup>1</sup>Sports Medicine Association of Serbia, Belgrade, Serbia, <sup>2</sup>Center for Sport Nutrition and Supplementation, Belgrade, Serbia, <sup>3</sup>Institute for Bromatology, Faculty of Pharmacy, University of Belgrade, Belgrade, Serbia

#### P04 EFFECT OF CHRONIC HANDBALL TRAINING ON THE PLASMA PHOSPHLIPIDS FATTY ACID COMPOSITION IN FEMALE PLAYERS

Arsić A<sup>1</sup>, Petrović S<sup>1</sup>, Vučić V<sup>1</sup>, Čikiriz N<sup>2</sup>, Jakovljević V<sup>3</sup>, Glibetić M<sup>1</sup>

<sup>1</sup>Centre of Research Excellence in Nutrition and Metabolism, Institute for Medical Research, University of Belgrade, Belgrade, Serbia, <sup>2</sup>Department of Sports Medicine, Military Medical Academy, Belgrade, Serbia, <sup>3</sup>Department of Physiology, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, Serbia

#### P05 PINEAL IMPACT ON EXPRESSION OF THE CLOCK AND STEROIDOGENIC ELEMENTS IN ADULT RAT LEYDIG CELLS

Baburski AZ, Janjić MM, Sokanović SJ, Stojkov NJ, Bjelić MM, Andrić SA, Kostić TS Reproductive Endocrinology and Signaling Group, Department of Biology and Ecology, Faculty of Sciences, University of Novi Sad, Serbia

#### P06 COMPARISON OF ISHEMIC AND PHARMACOLOGICAL PRECONDITIONING WITH OMEPRAZOLE ON FUNCTIONAL RECOVERY OF THE ISOLATED RAT HEART

Barudžić N<sup>1</sup>, Živković V<sup>2</sup>, Djurić D<sup>3</sup>, Srejović I<sup>2</sup>, Petković A<sup>1</sup>, Jeremić J<sup>1</sup>, Bradić J<sup>1</sup>, Trifunović A<sup>1</sup>, Jakovljević V<sup>1</sup>

<sup>1</sup>Department of Pharmacy, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, Serbia, <sup>2</sup>Department of Physiology, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, Serbia, <sup>3</sup>Institute of Medical Physiology "Richard Burian", Faculty of Medicine University of Belgrade, Belgrade, Serbia

## P07 PHYSIOLOGICAL VARIABILITIES IN P300 COGNITIVE EVOKED POTENTIAL IN THE AUDITORY ODDBALL PARADIGM

Biševac B<sup>1</sup>, Milanović Z<sup>1</sup>, Ivetić V<sup>2</sup>, Nestorović V<sup>1</sup>, Smiljić S<sup>1</sup>, Mirić M<sup>1</sup> <sup>1</sup>Institute of Physiology, Medical Faculty, University of Priština, Kosovska Mitrovica, Serbia, <sup>2</sup>Institute of Physiology, Medical Faculty, University of Novi Sad, Serbia

#### P08 CHARACTERISTICS OF METABOLIC SYNDROME IN OBESE WOMEN WITH POLYCYSTIC OVARY SYNDROME

Bjekić-Macut J<sup>1</sup>, Božić-Antić I<sup>2</sup>, Stanojlović O<sup>3</sup>, Rašić-Marković A<sup>3</sup>, Hrnčić D<sup>3</sup>, Macut Dj<sup>2,4</sup> <sup>1</sup>CHC "Bežanijska kosa", Belgrade, Serbia, <sup>2</sup>Clinic for Endocrinology, Diabetes and Metabolic Diseases, Belgrade, Serbia, <sup>3</sup>Institute of Medical Physiology "Richard Burian", Faculty of Medicine University of Belgrade, Serbia, <sup>4</sup>Faculty of Medicine, University of Belgrade, Belgrade, Serbia

#### P09 MOLECULAR ADAPTATIONS OF TESTOSTERONE-PRODUCING LEYDIG CELLS DURING SYSTEMIC *IN VIVO* BLOCKADE OF ANDROGEN RECEPTOR

Bjelić MM, Stojkov NJ, Radović SM, Baburski AZ, Sokanović SJ, Janjić MM, Kostić TS, Andrić SA *Reproductive Endocrinology and Signaling group, DBE, Faculty of Sciences, University of Novi Sad, Novi Sad, Serbia* 

## P10 PREVALENCE OF DISORDERS OF GLYCOREGULATION WITH POLYCYSTIC OVARY SYNDROME

Božić-Antić I<sup>1</sup>, Bjekić-Macut J<sup>2</sup>, Stanojlović O<sup>3</sup>, Rašić-Marković A<sup>3</sup>, Hrnčić D<sup>3</sup>, Macut Dj<sup>1,4</sup> <sup>1</sup>Clinic for Endocrinology, Diabetes and Metabolic Diseases, Clinical Centre of Serbia, Belgrade, <sup>2</sup>CHC "Bežanijska kosa", Belgrade, Serbia, <sup>3</sup>Institute of Medical Physiology "Richard Burian", Faculty of Medicine University of Belgrade, Serbia, <sup>4</sup>Faculty of Medicine University of Belgrade, Belgrade, Serbia

#### P11 PLASMA ALANINE CORRELATE WITH MAXIMAL OXYGEN UPTAKE FOLLOWING SHORT INTENSIVE EXERCISE IN SPORTSMEN

Čikiriz N<sup>1</sup>, Andjelić T<sup>2</sup>, Žunić G<sup>3</sup>

<sup>1</sup>Institute for Hygene, <sup>2</sup>Institute for Medical Biochemistry, <sup>3</sup>Institute for Medical Research, Military Medical Academy, Belgrade, Serbia

### P12 CORTICO-MUSCULAR COHERENCE CHANGES ACROSS SLEEP STATES DURING HEALTHY AND PATHOLOGICAL AGING

Ćirić J<sup>1</sup>, Petrović J<sup>1</sup>, Lazić K<sup>1</sup>, Kalauzi A<sup>2</sup>, Šaponjić J<sup>1</sup>

<sup>1</sup>Department of Neurobiology, Institute for Biological Research "Siniša Stanković", University of Belgrade, Belgrade, Serbia, <sup>2</sup>Department of Life Sciences, Institute for Multidisciplinary Research, University of Belgrade, Belgrade, Serbia

#### P13 GSTM1-NULL GENOTYPE IS ASSOCIATED WITH HIGHER RISK AND SLOWER PROGRESSION OF CLEAR RENAL CALL CARCINOMA

Ćorić V<sup>1</sup>, Radić T<sup>1</sup>, Savić-Radojević A<sup>1</sup>, Basta-Jovanović G<sup>2</sup>, Džamić Z<sup>3,4</sup>, Radojević-Skodrić S<sup>2</sup>, Dragičević D<sup>3,4</sup>, Matić M<sup>1</sup>, Simić T<sup>1</sup>, Plješa-Ercegovac M<sup>1</sup>

<sup>1</sup>Institute of Medical and Clinical Biochemistry, Faculty of Medicine, University of Belgrade, Belgrade, Serbia, <sup>2</sup>Institute of Pathology, Faculty of Medicine, University of Belgrade, Belgrade, Serbia, <sup>3</sup>Faculty of Medicine, University of Belgrade, Belgrade, Serbia, <sup>4</sup>Clinic of Urology, Clinical Centre of Serbia, Belgrade, Serbia

#### P14 ANTI-INFLAMMATORY NUTRITIONAL INTERVENTIONS THROUGH THE USE OF DIFFERENT MODELS OF SUPPLEMENTATION IN YOUNG ATHLETES: FATTY ACIDS VERSUS ANTIOXIDANT SUPPLEMENTATION

Čubrilo D<sup>1</sup>, Djurić D<sup>2</sup>, Živković V<sup>1</sup>, Vučić V<sup>3</sup>, Arsić A<sup>3</sup>, Jakovljević V<sup>1</sup> <sup>1</sup>Department of Physiology, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, Serbia, <sup>2</sup>Institute of Medical Physiology "Richard Burian", Faculty of Medicine, University of Belgrade, Belgrade, Serbia, <sup>3</sup>Centre of Research Excellence in Nutrition and Metabolism, Institute for Medical Research, University of Belgrade, Belgrade, Serbia

#### P15 SENSING *TRICHINELLA SPIRALIS*: INTERACTION BETWEEN HELMINTH–DERIVED MOLECULES AND PATTERN RECOGNITION RECEPTORS

Cvetković J<sup>1</sup>, Aranzamendi-Esteban C<sup>2</sup>, Gruden-Movsesijan A<sup>1</sup>, Ilić N<sup>1</sup>, Sofronić-Milosavljević Lj<sup>1</sup>, Pinelli E<sup>2</sup>

<sup>1</sup>Institute for the Application of Nuclear Energy-INEP, University of Belgrade, Belgrade, Serbia, <sup>2</sup>Centre for Immunology of Infection Diseases and Vaccines, National Institute for Public Health and the Environment (RIVM), Bilthoven, The Netherland

## P16 A DOMAIN-SPECIFIC LANGUAGE AND APPLICATION FOR DESIGNING AND CONDUCTING OF REACTION TIME EXPERIMENTS

Dejanović M<sup>1</sup>, Dejanović I<sup>2</sup>

<sup>1</sup>Institute of Physiology, Faculty of Medicine, University of Priština, Kosovska Mitrovica, Serbia, <sup>2</sup>Department of Computing and Control Engineering, Faculty of Technical Sciences, University of Novi Sad, Novi Sad, Serbia

#### P17 EFFECTS OF AGE, GENDER AND HEMISPHERIC ASSYMETRY ON THE EVENT RELATED POTENTIALS

Dejanović M<sup>1</sup>, Ivetić V<sup>2</sup>, Nestorović V<sup>1</sup>, Milanović Z<sup>1</sup>, Stanojević Z<sup>3</sup>, Mirić M<sup>1</sup> <sup>1</sup>Institute of Physiology, Faculty of Medicine, University of Priština, Kosovska Mitrovica, Serbia, <sup>2</sup>Institute of Physiology, Faculty of Medicine, University of Novi Sad, Novi Sad, Serbia, <sup>3</sup>Institute of Pharmacology, Faculty of Medicine, University of Priština, Kosovska Mitrovica, Serbia

#### P18 STERILE INFLAMMATORY RESPONSE OF SPLEEN TO CADMIUM IN RATS

Demensku J<sup>1</sup>, Mirkov I<sup>1</sup>, Ninkov M<sup>1</sup>, Popov-Aleksandrov A<sup>1</sup>, Zolotarevski L<sup>2</sup>, Kataranovski D<sup>1,3</sup>, Kataranovski M<sup>1,4</sup>

<sup>1</sup>Department of Ecology, Institute for Biological Research "Siniša Stanković", University of Belgrade, Belgrade, Serbia, <sup>2</sup>Institute of Pathology, Military Medical Academy, Belgrade, Serbia, <sup>3</sup>Institute of Zoology, Faculty of Biology, University of Belgrade, Belgrade, Serbia, <sup>4</sup>Institute of Physiology and Biochemistry, Faculty of Biology, University of Belgrade, Belgrade, Serbia

#### P19 RS2274273 GENE POLYMORPHISMS IN THE LOCUS THAT HARBOURS LGALS-3 GENE AND LEFT VENTRICULAR REMODELING AFTER FIRST MYOCARDIAL INFARCTION: PRELIMINARY RESULTS

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#### P20 MATRIX METALLOPROTEINASE-1 AND MATRIX METALLOPROTEINASE-3 PROMOTER GENE POLUMORPHISMS IN LEFT VENTRICULAR REMODELING AFTER FIRST MYOCARDIAL INFARCTION: PRELIMINARY RESULTS

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### P21 OXIDATIVE STRESS IN BLOOD OF RATS SUBJECTED TO AN EXPERIMENTAL MODEL OF OVERTRAINING

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### P22 EVALUATION OF LOCAL ANTI-INFLAMMATORY ACTIVITY OF NOVEL SOFT AND PRODRUG GLUCOCORTICOIDS BY CROTON OIL-INDUCED EAR EDEMA TEST

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### P23 MYELOPEROXIDASE-DERIVED OXIDATIVE STRESS IN PLASMA OF PATIENTS WITH ACUTE CORONARY SYNDROME

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#### P24 ASSESSMENT OF CARDIOVASCULAR DYSFUNCTION IN DIABETIC AND NON-DIABETIC CORONARY PATIENTS UNDERGOING HEART SURGERY

Duicu OM<sup>1</sup>, Vaduva A<sup>2</sup>, Lighezan R<sup>3</sup>, Sturza A<sup>1</sup>, Noveanu L<sup>1</sup>, Gaspar M<sup>4</sup>, Ionac A<sup>5</sup>, Feier H<sup>4</sup>, Muntean DM<sup>1</sup>, Mornos C<sup>5</sup>

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#### P25 GSTT1-NULL GENOTYPE INFLUENCES RISK AND OXIDATIVE PHENOTYPE IN PROGRESSIVE MYOCLONUS EPILEPSY

Ercegovac M<sup>1,6</sup>, Jović N<sup>2,6</sup>, Sokić D<sup>1,6</sup>, Savić-Radojević A<sup>3</sup>, Ćorić V<sup>3</sup>, Radić T<sup>3</sup>, Nikolić D<sup>4,6</sup>, Keemanović M<sup>5</sup>, Matić M<sup>3</sup>, Simić T<sup>3</sup>, Plješa-Ercegovac M<sup>3</sup>

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#### P26 CARDIOVACSULAR REFLEX TESTS AND EVALUATION OF AUTONOMIC DISFUNCTION IN PATIENTS WITH ACUTE MYOCARDIAL INFARCTION

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## P27 INTESTINAL RELAXANT EFFECTS OF ETHANOL AND AQUEOUS EXTRACTS OF DILL (Anethum graveolens L.)

Gočmanac-Ignjatović M<sup>1</sup>, Radenković M<sup>1</sup>, Kitić D<sup>2</sup>, Ilić S<sup>1</sup>, Veljković M<sup>1</sup>, Kostić M<sup>2</sup>, Branković S<sup>1</sup> <sup>1</sup>Department of Physiology, Faculty of Medicine, University of Niš, Niš, Serbia, <sup>2</sup>Department of Pharmacy, Faculty of Medicine, University of Niš, Niš, Serbia

#### P28 CLINICAL, BIOCHEMICAL AND IMMUNOCHEMICAL CHARACTERISTICS OF METABOLIC SYNDROME

Hrischev P<sup>1</sup>, Nikolova J<sup>1</sup>, Atanassova P<sup>2</sup>, Orbetzova M<sup>3</sup>, Nikolov P<sup>4</sup>, Rančić G<sup>5</sup> <sup>1</sup>Department of Physiology, Medical University Plovdiv, Plovdiv, Bulgaria, <sup>2</sup>Department of Anatomy, Histology and Embryology, Medical University Plovdiv, Plovdiv, Bulgaria, <sup>3</sup>Clinic of Endocrinology, Plovdiv, Bulgaria, <sup>4</sup>Clinic of Cardiology, Plovdiv, Bulgaria, <sup>5</sup>Department of Histology and Embryology, Medical Faculty, Niš, Serbia

#### P29 TYPE OF PHYSICAL EXERCISE DETERMINES ACTIVITY OF MATRIX METALLOPROTEINASES IN BLOOD PLASMA

Ilić V<sup>1</sup>, Francisco-Santibanez J<sup>1</sup>, Maslovarić I<sup>2</sup>, Stančić A<sup>1</sup>, Mazić S<sup>3,4</sup>, Bugarski D<sup>1</sup> <sup>1</sup>Institute for Medical Research, University of Belgrade, Belgrade, Serbia, <sup>2</sup>Weightlifting Club "Red Star", Belgrade, Belgrade, Serbia, <sup>3</sup>Department of Sports Medicine of the Republic of Serbia, Belgrade, Serbia, <sup>4</sup>Institute of Medical Physiology "Richard Burian", Faculty of Medicine, University of Belgrade, Belgrade, Serbia

#### P30 TYPE OF PHYSICAL EXERCISE DETERMINES FUNCTIONAL CHARACTERISTICS OF MESENCHYMAL STEM CELLS – MODEL OF C2C12 "MULTIBLAST" CELLS

Ilić V<sup>1</sup>, Maslovarić I<sup>2</sup>, Francisco-Santibanez J<sup>1</sup>, Trivanović D<sup>1</sup>, Mojsilović S<sup>1</sup>, Mazić S<sup>3,4</sup>, Bugarski D<sup>1</sup> <sup>1</sup>Institute for Medical Research, University of Belgrade, Belgrade, Serbia, <sup>2</sup>Weightlifting Club "Red Star", Belgrade, Belgrade, Serbia, <sup>3</sup>Department of Sports Medicine of the Republic of Serbia, Belgrade, Serbia, <sup>4</sup>Institute of Medical Physiology "Richard Burian", Faculty of Medicine, University of Belgrade, Belgrade, Serbia

#### P31 EFFECTS OF PHENCYCLIDINE ON THE RAT ASTROCYTES CELL CULTURE

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#### P32 INTEGRIN BETA1 AS A POTENTIAL LIGAND OF GAL-1 IN HUMAN TROPHOBLAST

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### P33 CARDIOVASCULAR SHORT-TERM VARIABILITY AND BAROREFLEX SENSITIVITY IN PREGNANT RATS

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#### P34 COMPLEXITY OF RR INTERVAL AND RESPIRATORY TIME SERIES AT SPONTANEOUS BREATHING FREQUENCY IN HEALTHY SUBJECTS

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### P35 OXIDATIVE STRESS PARAMETERS IN THE EARLY PHASE OF ACUTE MYOCARDIAL INFARCTION

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#### P36 RELATIVE WAVELET ENERGY AS A MEASURE OF THE MAGNETIC FIELDS EFFECTS ON THE NEURONAL POPULATION ACTIVITY IN *MORIMUS FUNEREUS* (COLEOPTERA, CERAMBYCIDAE) ANTENNAL LOBE

Kesić S<sup>1</sup>, Spasić S<sup>2,3</sup>, Stojadinović G<sup>1</sup>, Petković B<sup>1</sup>, Todorović D<sup>4</sup> <sup>1</sup>Department of Neurophysiology, Institute for Biological Research "Siniša Stanković", University of Belgrade, Belgrade, Serbia, <sup>2</sup>Department for Life Sciences, Institute for Multidisciplinary Research, University of Belgrade, Belgrade, Serbia, <sup>3</sup>Singidunum University, Belgrade, Serbia, <sup>4</sup>Department of Insect Physiology and Biochemistry, Institute for Biological Research "Siniša Stanković", University of Belgrade, Belgrade, Serbia

#### P37 THE ANTIOXIDANT CAPACITY AND RELATIONSHIP DEHYDROASCORBATE/ASCORBIC ACID IN THE LENSES WITH CATARACT

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#### P38 EFFECT OF POMEGRANATE JUICE CONSUMPTION ON LIPID PROFILE AND BLOOD PRESSURE IN PATIENTS WITH METABOLIC SYNDROME

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#### P39 SELF-EATING IN STRESS CONDITIONS – MECHANISMS OF SURVIVAL IN ASTROCYTES DURING GLUCOSE DEPRIVATION AND HYPOXIA *IN VITRO*

Korenić A<sup>1</sup>, Spasojević I<sup>2</sup>, Andjus PR<sup>1</sup>, Radenović L<sup>1</sup> <sup>1</sup>Centre for Laser Microscopy, Department of Physiology and Biochemistry, Faculty of Biology, University of Belgrade, Belgrade, Serbia, <sup>2</sup>Life Sciences Department, Institute for Multidisciplinary Research, University of Belgrade, Belgrade, Serbia

#### P40 OXIDATIVE STRESS AND SERUM LEVELS OF NITRIC OXIDE IN CHRONIC OBSTRUCTIVE PULMONARY DISEASE COMPARED TO HEALTHY SMOKERS

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#### P41 THE VOLUME DENSITY OF THE ADVENTITIAL BLOOD VESSELS IN ABDOMINAL AORTIC ANEURYSM AND AORTIC OCCLUSIVE DISEASE AND ITS RELATION TO INFLAMMATION

Labudović-Borović M<sup>1</sup>, Borović S<sup>2</sup>, Radak Dj<sup>2</sup>, Kostić J<sup>1</sup>, Zaletel I<sup>1</sup>, Puškaš N<sup>1</sup>, Marinković J<sup>3</sup>, Milićević Ž<sup>1</sup>, Čolić M<sup>4</sup>

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#### P42 RESPIRATORY PATTERN AND EEG MICROSTRUCTURE DISORDERS AT SURGICAL LEVEL OF KETAMINE ANAESTHESIA DURING PONTINE CHOLINERGIC NEURONAL LOSS IN RAT

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#### P43 OVER-EXPRESSION OF OXYTOCIN RECEPTORS IN THE HYPOTHALAMIC PVN INCREASES BRS AND BUFFERS BP VARIABILITY IN CONSCIOUS RATS

Lozić M<sup>1</sup>, Greenwood M<sup>2</sup>, Šarenac O<sup>1,2</sup>, Martin A<sup>2</sup>, Hindmarch C<sup>2,4</sup>, Tasić T<sup>1</sup>, Paton J<sup>3</sup>, Murphy D<sup>2,4</sup>, Japundžić-Žigon N<sup>1</sup>

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## P44 ROLE OF CYCLIC GMP IN K<sup>+</sup> CHANNEL ACTIVATION BY NICORANDIL IN HUMAN BYPASS GRAFTS

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#### P45 REPEATED STRESS STIMULATES MITOCHONDRIAL BIOGENESIS IN LEYDIG CELLS OF ADULT RATS

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#### P46 THE CORRELATION BETWEEN eNOS AND ACTIN CYTOSKELETON IN RANULOCYTES OF PHILADELPHIA CHROMOSOME NEGATIVE MYELOPROLIFERATIVE NEOPLASMS

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### P47 SPONTANEOUS ACTIVITY OF THE CEREBELLUM AND ITS ROLE IN NEUROTOXICITY

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#### P48 QUERCETIN AND VITAMIN C PROTECTS NICOTINE-INDUCED OXIDATIVE STRESS IN ERYTHROCYTES OF RATS

Matić MM<sup>1</sup>, Paunović MG<sup>1</sup>, Mladenović JM<sup>1</sup>, Djordjević NZ<sup>2</sup>, Babić GM<sup>3,4</sup>, Ognjanović BI<sup>1</sup>, Štajn AŠ<sup>1</sup>, Saičić ZS<sup>5</sup>

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#### P49 TESTOSTERONE INDUCED CHANGES OF BEHAVIOR IN RATS

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#### P50 ANTIOXIDANT ENZYMES IN POSTMENOPAUSAL WOMEN

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## P51 PROPOFOL ANESTHESIA CHANGES EXPRESSION OF SYNAPTIC PROTEINS IN NEONATAL RAT CORTEX AND THALAMUS

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#### P52 ROLE OF NITRIC OXIDE (NO) IN CARDIAC ANAPHYLAXIS OF ISOLATED MICE HEART Miličić V<sup>1</sup>, Živković V<sup>2</sup>, Djurić D<sup>3</sup>, Jakovljević V<sup>2</sup>

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#### P53 ACUTE EFFECTS OF OLEA EUROPEA L. LEAF EXCTRACT ON HAEMODYNAMICS AND LIPID PEROXIDATION IN NITRIC OXIDE DEPLETED SPONTANEOUSLY HYPERTENSIVE RATS

Miloradović Z<sup>1</sup>, Gvozdenov M<sup>2</sup>, Jovović Dj<sup>1</sup>, Mihailović-Stanojević N<sup>1</sup>, Ivanov M<sup>1</sup>, Vajić JU<sup>1</sup>, Karanović D<sup>1</sup>, Grujić Milanović J<sup>1</sup>

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#### P54 THE ADJUSTMENT OF AUTONOMIC NERVOUS SYSTEM FUNCTION AND INDIVIDUAL APPROACH IN TREATMENT OF DISEASE: THE FIRST STEP IN DEVELOPMENT OF PERSONALIZED MEDICINE

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#### P55 BLOOD-CEREBROSPINAL FLUID BARRIER PERMEABILITY AND LIPID PEROXIDATION MARKERS IN BACTERIAL MENINGITIS

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#### P56 PROGNOSTIC ASPECT OF GOLD CRITERIA IN ASSESING STAGE OF CHRONIC OBSTRUCTIVE PULMONARY DISEASE

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#### P57 THE PROTECTIVE EFFECTS OF QUERCETIN AND (-)-EPICATECHIN AGAINST COPPER-INDUCED OXIDATIVE STRESS IN RAT ERYTHROCYTES

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#### P58 ANTIOXIDATIVE ENZYME ACTIVITIES ARE DECREASED IN THE KIDNEYS OF RATS TREATED WITH ANTIPSYCHOTIC DRUGS

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#### P59 MODIFIED ELECTROPHYSIOLOGICAL RESPONSES OF NEURONS AND GLIAL CELLS ACUTELY ISOLATED FROM THE HIBERNATING LAND SNAIL

Nikolić Lj<sup>1</sup>, Bataveljić D<sup>2</sup>, Moldovan I<sup>1</sup>, Rauš-Balind S<sup>1</sup>, Todorović D<sup>1</sup>, Nedeljković M<sup>1</sup>, Petković B<sup>1</sup> <sup>1</sup>Department of Neurophysiology, Institute for Biological Research "Siniša Stanković", University of Belgrade, Belgrade, Serbia, <sup>2</sup>Center for Laser Microscopy, Institute for Physiology and Biochemistry, Faculty of Biology, University of Belgrade, Belgrade, Serbia

#### P60 ACUTE EFFECTS OF NANDROLONE DECANOATE ON CARDIODYNAMIC PARAMETERS IN ISOLATED RAT HEART

Nikolić T<sup>1</sup>, Živković V<sup>2</sup>, Srejović I<sup>2</sup>, Djurić D<sup>3</sup>, Jakovljević V<sup>2</sup> <sup>1</sup>Department of Pharmacy, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, Serbia,<sup>2</sup>Department of Physiology, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, Serbia, <sup>3</sup>Institute of Medical Physiology "Richard Burian", Faculty of Medicine University of Belgrade, Belgrade, Serbia

#### P61 EFFECTS OF ANTIPSYCHOTICS ON BONE MASS AND BODY COMPOSITION IN MALE RATS PERINATALLY TREATED WITH PHENCYCLIDINE

Nikolić T<sup>1</sup>, Petronijević M<sup>2</sup>, Stojković T<sup>1</sup>, Velimirović M<sup>1</sup>, Jevtić G<sup>1</sup>, Radonjić N<sup>1</sup>, Nenadović M<sup>3</sup>, Petronijević N<sup>1</sup>

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#### P62 POTENTIAL PROTECTIVE EFFECTS OF BETA-GLUCAN AND VITAMIN C ON PARACETAMOL - INDUCED OXIDATIVE STRESS IN RATS

Paunović MG<sup>1</sup>, Matić MM<sup>1</sup>, Mladenović JM<sup>1</sup>, Djordjević NZ<sup>2</sup>, Babić GM<sup>3,4</sup>, Ognjanović BI<sup>1</sup>, Štajn AŠ<sup>1</sup>, Saičić ZS<sup>5</sup>

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#### P63 BEHAVIORAL EFFECTS OF ELECTROMAGNETIC FIELD MEDIATED BY NITRIC OXIDE

Paunović MG<sup>1</sup>, Matić MM<sup>1</sup>, Djordjević NZ<sup>2</sup>, Babić GM<sup>3,4</sup>, Ognjanović BI<sup>1</sup>, Štajn AŠ<sup>1</sup>, Saičić ZS<sup>5</sup> <sup>1</sup>Institute of Biology and Ecology, Faculty of Science, University of Kragujevac, Kragujevac, Serbia, <sup>2</sup>Department of Biomedical Sciences, State University of Novi Pazar, Novi Pazar, Serbia, <sup>3</sup>Department of Obstetrics and Gynecology, Clinical Centre in Kragujevac, Kragujevac, Serbia, <sup>4</sup>Faculty of Medical Sciences, University of Kragujevac, Kragujevac, Serbia, <sup>5</sup>Department of Physiology, Institute for Biological Research "Siniša Stanković", University of Belgrade, Belgrade, Serbia

### Thursday, October 30th, 2014

#### 9.00-18.00 POSTER SESSION II

(The presence of poster authors is required from 14.00 to 16.00)

Chairmen: Javorka K, Mihailović-Stanojević N, Nešić M, Ninković M, Radenković S, Richter V

#### P64 CHARACTERIZATION OF THE MASLINIC ACID EFFECTS ON MOUSE LIVER MITOCHONDRIA

Pavel I<sup>1,2</sup>, Duicu O<sup>1</sup>, Coricovac D<sup>2</sup>, Privistirescu A<sup>1</sup>, Dehelean C<sup>2</sup>, Csuk R<sup>3</sup>, Muntean D<sup>1</sup> <sup>1</sup>Department of Pathophysiology, Faculty of Medicine, "Victor Babes" University of Medicine and Pharmacy, Timisoara, Romania, <sup>2</sup>Department of Toxicology, Faculty of Pharmacy, "Victor Babes", University of Medicine and Pharmacy, Timisoara, Romania, <sup>3</sup>Department of Organic Chemistry, Martin-Luther University Halle-Wittenberg, Halle, Germany

## P65 GLUTATHIONE PEROXIDASE AND SUPEROXIDE DISMUTASE ACTIVITY IN PATIENTS WITH BALKAN ENDEMIC NEPHROPATHY

Pavlović D<sup>1,2</sup>, Puhalo-Sladoje D<sup>1,2</sup>, Mirić D<sup>3</sup>, Ristć S<sup>4</sup>

<sup>1</sup>Department of Biochemistry, University Hospital Foča, Bosnia and Herzegovina, <sup>2</sup>Department of Biochemistry, Faculty of Medicine, University of East Sarajevo, Bosnia and Herzegovina, <sup>3</sup>Institute of Biochemistry, Faculty of Medicine, University of Priština, Kosovska Mitrovica, Serbia, <sup>4</sup>Department of Physiology, Faculty of Medicine, University of East Sarajevo, Bosnia and Herzegovina

#### P66 CATALASE, GLUTATHIONE S-TRANSFERASE AND GLUTATHIONE REDUCTASE ACTIVITIES IN PATIENTS WITH RENAL CELL CARCINOMA

Pavlović I, Stojiljković V, Pejić S, Todorović A, Gavrilović Lj, Popović N, Pajović SB Laboratory of Molecular Biology and Endocrinology, Vinča Institute of Nuclear Sciences, University of Belgrade, Belgrade, Serbia

#### P67 IMMUNOHISTOCHEMICAL IDENTIFICATION OF GHRELIN AND GHRELIN RECEPTOR GHSR-1 AND THEIR FUNCTIONAL ROLE IN THE GASTROINTESTINAL TRACT OF HUMAN

Penkova N<sup>1</sup>, Atanassova P<sup>1</sup>, Rančić G<sup>2</sup>, Nikolova J<sup>3</sup>, Hrischev P<sup>3</sup> <sup>1</sup>Department of Anatomy, Histology and Embryology, Medical University, Plovdiv, Bulgaria, <sup>2</sup>Department of Histology and Embryology, Medical Faculty, Niš, Serbia, <sup>3</sup>Department of Physiology, Medical University, Plovdiv, Bulgaria

#### P68 **TWO DISTINCT REM STATES IN THE RAT MODEL OF IMPAIRED CHOLINERGIC THALAMO-CORTICAL INNERVATION**

Petrović J<sup>1</sup>, Lazić K<sup>1</sup>, Ćirić J<sup>1</sup>, Kalauzi A<sup>2</sup>, Šaponjić J<sup>1</sup> <sup>1</sup>Department of Neurobiology, Institute for Biological Research "Siniša Stanković", University of Belgrade, Belgrade, Serbia, <sup>2</sup>Department of Life Sciences, Institute for Multidisciplinary Research, University of Belgrade, Belgrade, Serbia

#### P69 EFFECTS OF BUCKWHEAT LEAF AND FLOWER MIXTURE ON FATTY ACID COMPOSITION OF RAT BRAIN PHOSPHOLIPIDS

Petrović S, Arsić A, Popović T, Debeljak-Martačić J, Petrović-Oggiano G, Glibetić M Centre of Research Excellence in Nutrition and Metabolism, Institute for Medical Research, University of Belgrade, Belgrade, Serbia

#### P70 THE EFFECT OF ACUTE HEAT STRESS ON RAT PITUITARY-THYROID AXIS

Petrović-Kosanović D<sup>1</sup>, Šošic-Jurjević B<sup>1</sup>, Veličković K<sup>2</sup>, Nestorović N<sup>1</sup>, Ristić N<sup>1</sup>, Ajdžanović V<sup>1</sup>, Jasnić N<sup>3</sup>

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#### P71 A NOVEL MITOCHONDRIAL ATP-SENSITIVE POTASSIUM CHANNEL OPENER MODULATES RESPIRATION IN ISOLATED RAT HEART MITHOCONDRIA

Petrus A, Duicu O, Privistirescu A, Sturza A, Noveanu L, Baczkó I, Jost N, Muntean D Department of Pathophysiology, Faculty of Medicine, "Victor Babes" University of Medicine and Pharmacy, Timisoara, Romania

#### P72 CHANGES IN LINEAR AND NONLINEAR MEASURES OF RR AND QT INTERVAL SERIES AFTER BEER INTAKE

Platiša MM<sup>1</sup>, Gal V<sup>1</sup>, Nestorović Z<sup>1</sup>, Gojković-Bukarica Lj<sup>2</sup> <sup>1</sup>Institute of Biophysics, Faculty of Medicine, University of Belgrade, Belgrade, Serbia, <sup>2</sup>Institute of Pharmacology, Clinical Pharmacology and Toxicology, Faculty of Medicine, University of Belgrade, Belgrade, Serbia

### P73 THE ROLE OF ASCORBIC ACID IN NEUTROPHYL INFLAMMATORY RESPONSE AND OXIDATIVE STRESS INDUCED BY EXHAUSTIVE AND REGULAR EXERCISE

Popović Lj<sup>1</sup>, Mitić N<sup>1</sup>, Mirić D<sup>2</sup>, Radić I<sup>1</sup>

<sup>1</sup>Department of Pathophysiology, Faculty of Medicine, University of Priština, Kosovska Mitrovica, Serbia, <sup>2</sup>Department of Biochemistry, Faculty of Medicine, University of Priština, Kosovska Mitrovica, Serbia

#### P74 LIVER PHOSPHOLIPIDS FATTY ACIDS (FAs) PROFILES IN RATS TREATED WITH "VITALPLANT"

Popović T<sup>1</sup>, Arsić A<sup>1</sup>, Djurendić-Brenesel M<sup>2</sup>, Pilija V<sup>2</sup>, Milić M<sup>3</sup>, Milić N<sup>4</sup> <sup>1</sup>Institute for Medical Research, CENM, University of Belgrade, Belgrade, Serbia, <sup>2</sup>Institute for Forensic Medicine, Clinical Center Vojvodina, Novi Sad, Serbia, <sup>3</sup>Center of Pathology and Histology, Clinical Center Vojvodina, Novi Sad, Serbia, <sup>4</sup> Faculty of Medicine, University of Novi Sad, Novi Sad, Serbia

#### P75 THE STIMULATORY EFFECT OF MODERATE HEAT ON RAT PITUITARY ACTH CELLS: HISTOLOGICAL AND HORMONAL STUDY

Popovska-Perčinić F<sup>1</sup>, Ajdžanović V<sup>2</sup>, Dinevska-Kjovkarovska S<sup>3</sup>, Ristić N<sup>2</sup>, Miova B<sup>3</sup>, Filipović B<sup>2</sup>, Milošević V<sup>2</sup>

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## P76 EFFECT OF ASPARTAME ON CHANGES IN HAEMATO-BIOCHEMICAL AND OXIDATIVE STRESS PARAMETERS IN RED BLOOD CELLS OF RATS

Prokić MD<sup>1</sup>, Paunović MG<sup>2</sup>, Matić MM<sup>2</sup>, Djordjević NZ<sup>3</sup>, Ognjanović BI<sup>2</sup>, Štajn AŠ<sup>2</sup>, Saičić ZS<sup>1</sup> <sup>1</sup>Department of Physiology, Institute for Biological Research "Siniša Stanković", University of Belgrade, Belgrade, Serbia, <sup>2</sup>Institute of Biology and Ecology, Faculty of Science, University of Kragujevac, Kragujevac, Serbia, <sup>3</sup>Department of Biomedical Sciences, State University of Novi Pazar, Novi Pazar, Serbia

## P77 OPIOPHOBIA AS A BARRIER TO THE TRETMENT OF PAIN: THE KNOWLEDGE AND ATTITUDES OF MEDICAL STUDENTS IN SERBIA

Prostran M, Medić B, Stopić B, Djurić M, Vučković S, Savić-Vujović K, Srebro D Institute of Pharmacology, Clinical Pharmacology and Toxicology, Faculty of Medicine, University of Belgrade, Belgrade, Serbia

#### P78 OBESITY AND HIGHLY SENSITIVE C-REACTIVE PROTEIN

Puhalo-Sladoje D<sup>1,2</sup>, Pavlović D<sup>1,2</sup>, Čančar O<sup>1,2</sup>, Čančar V<sup>1,2</sup> <sup>1</sup>University Hospital Foča, Foča, Bosnia and Herzegovina, <sup>2</sup>Biochemistry Department, Faculty of Medicine Foča, University of East Sarajevo, Bosnia and Herzegovina

#### P79 FINASTERIDE – OLD SUBSTANCE WITH NEW EFFECT?

Puškaš N<sup>1</sup>, Mladenović D<sup>2</sup>, Labudović-Borović M<sup>1</sup>, Hrnčić D<sup>3</sup>, Rašić-Marković A<sup>3</sup>, Stanojlović O<sup>3</sup> <sup>1</sup>Institute of Histology and Embryology "Aleksandar Dj. Kostić", Faculty of Medicine, University of Belgrade, Belgrade, Serbia, <sup>2</sup>Institute of Pathophysiology "Ljubodrag Buba Mihailović", Faculty of Medicine, University of Belgrade, Belgrade, Serbia, <sup>3</sup>Institute of Medical Physiology "Richard Burian", Faculty of Medicine, University of Belgrade, Belgrade, Serbia

## P80 THE EFFECTS OF EXTRACT AND OIL OF WILD THYME (THYMUS GLABRESCENS) ON RAT TRACHEAL SMOOTH MUSCLE

Radenković M, Branković M, Kitić D, Veljković M Institute of Physiology, Faculty of Medical Sciences, University of Niš, Niš, Serbia

#### P81 GPX-1 AND GSTO POLYMORPHISMS ARE RELATED TO ADHESION MOLECULES EXPRESSION IN CHRONIC HEART FAILURE

Radić T, Ćorić V, Plješa-Ercegovac M, Simić T, Savić-Radojević A Institute of Medical and Clinical Biochemistry, Faculty of Medicine, University of Belgrade, Belgrade, Serbia

#### P82 INSTABILITY RESISTANCE TRAINING EFFECTS ON MUSCULAR POWER OUTPUTS, RESTING METABOLIC RATE AND MOOD STATE IN INEXPERIENCED RESISTANCE TRAINERS

Radovanović D<sup>1</sup>, Ponorac N<sup>2</sup>, Stojiljković N<sup>1</sup>, Mitić P<sup>1</sup> <sup>1</sup>Faculty of Sport and Physical Education, University of Niš, Niš, Serbia, <sup>2</sup>Faculty of Medicine, University of Banja Luka, Banja Luka, Bosnia and Herzegovina

#### P83 THE TRANSCRIPTIONAL SIGNATURE OF THE INSULIN FAMILY OF GROWTH FACTORS, THEIR RECEPTORS AND EFFECTOR KINASES IN LEYDIG CELLS OF ADULT STRESSED RATS

Radović SM, Bjelić MM, Stojkov NJ, Sokanović SJ, Baburski AZ, Janjić MM, Kostić TS, Andrić SA *Reproductive Endocrinology and Signaling group, DBE, Faculty of Sciences, University of Novi Sad, Novi Sad, Serbia* 

#### P84 GLUCOSE-6-PHOSPHATE DEHYDROGENASE ACTIVITY AND PARAMETERS OF OXIDATIVE STATUS IN FETAL DISTRESS

Raičević S<sup>1</sup>, Selaković D<sup>2</sup>, Joksimović J<sup>2</sup>, Barudžić N<sup>3</sup>, Živković V<sup>2</sup>, Djurić D<sup>4</sup>, Jakovljević V<sup>2</sup> <sup>1</sup>Clinic of Gynecology and Obstetrics, Clinical Centre of Montenegro, Podgorica, Montenegro, <sup>2</sup>Department of Physiology, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, Serbia, <sup>3</sup>Department of Pharmacy, Faculty of Medical Sciences University of Kragujevac, Kragujevac, Serbia, <sup>4</sup>Institute of Medical Physiology "Richard Burian", Faculty of Medicine University of Belgrade, Belgrade, Serbia

#### P85 THE EFFECT OF POTASSIUM CHANNEL OPENER PINACIDIL ON THE HUMAN SAPHENOUS VEINS FROM THE PATIENTS WITH TYPE 2 DIABETES MELLITUS Paikaviá II. Pariá M<sup>2</sup>. Nařiá D<sup>2</sup>. Navakaviá Pl. Diakiá VI. Živanaviá V<sup>3</sup>. Hainla H<sup>4</sup>

Rajković J<sup>1</sup>, Perić M<sup>2</sup>, Nežić D<sup>2</sup>, Novaković R<sup>1</sup>, Djokić V<sup>1</sup>, Živanović V<sup>3</sup>, Heinle H<sup>4</sup>, Gojković-Bukarica Lj<sup>1</sup>

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#### P86 EFFECTS OF ACRYLAMIDE SUBCHRONIC TREATMENT ON THYROID AND ENDOCRINE PANCREAS

Rajković V<sup>1</sup>, Stošić M<sup>2</sup>, Kovač R<sup>1</sup>, Koledin I<sup>1</sup>, Matavulj M<sup>1</sup> <sup>1</sup>Faculty of Natural Sciences, Department of Biology and Ecology, University of Novi Sad, Novi Sad, Serbia, <sup>2</sup>Faculty of Technical Sciences, Department of Environmental Engineering and Occupational Health, University of Novi Sad, Novi Sad, Serbia

#### P87 EFFECTS OF FOLATE SUPPLEMENTATION IN RATS FED WITH FISH FLOUR ENRICHED FOOD

Ranković S<sup>1</sup>, Popović T<sup>1</sup>, Debeljak-Martačić J<sup>1</sup>, Tomić M<sup>2</sup>, Ignjatović Dj<sup>2</sup>, Tovilović-Kovačević G<sup>2</sup>, Glibetić M<sup>1</sup>

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#### P88 EXPOSURE TO ALTERNATING MAGNETIC FIELD (50 Hz, 0.5 mT) AFFECTS RAT PITUITARY ACTH CELLS: STEREOLOGICAL STUDY

Rauš-Balind S, Manojlović-Stojanoski M, Milošević V, Todorović D, Nikolić Lj, Petković B Institute for Biological Research "Siniša Stanković", University of Belgrade, Belgrade, Serbia

#### P89 PRENATAL PROGRAMMING OF THE GONADOTROPIC CELL FUNCTION BY GLUCOCORTICOIDS

Ristić N<sup>1</sup>, Nestorović N<sup>1</sup>, Manojlović-Stojanoski M<sup>1</sup>, Trifunović S<sup>1</sup>, Perčinić-Popovska F<sup>2</sup>, Petrović-Kosanović D<sup>1</sup>, Milošević V<sup>1</sup>

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#### P90 THE EFFECTS OF NANDROLONE AND EXERCISE ON PHYSICAL AND BEHAVIOR PERFOMANCE IN RATS NANDROLONE ATTENUATES BENEFICIAL EFFECTS OF EXERCISE

Rosić G, Joksimović J, Selaković D, Srejović I, Živković V, Jakovljević V Department of Physiology, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, Serbia

#### P91 BIOMARKERS OF THE EARLY PHASE OF ACUTE MYOCARDIAL INFARCTION: GELATINASES A AND B AND DEOXYRIBONUCLEASE I

Rovčanin B1, Kekić D2, Radenković S3, Gopčević K2

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#### P92 MODULATION OF SALT APPETITE BY CENTRAL KAPPA OPIOID SYSTEM

Šarenac O<sup>1,2</sup>, Savić B<sup>1</sup>, Japundžić-Žigon N<sup>1</sup>, Murphy D<sup>2,3</sup>

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### P93 STRESS AND SALT LOADING ON AUTONOMIC CARDIOVASCULAR CONTROL AND OXIDATIVE STRESS IN BHR

Savić B<sup>1</sup>, Oreščanin-Dušić Z<sup>2</sup>, Šarenac O<sup>1,3</sup>, Murphy D<sup>3</sup>, Japundžić-Žigon N<sup>1</sup> <sup>1</sup>Institute of Pharmacology, Clinical Pharmacology and Toxicology, Faculty of Medicine, University of Belgrade, Belgrade, Serbia, <sup>2</sup>Institute for Biological Research "Siniša Stanković", Department of Physiology, University of Belgrade, Belgrade, Serbia, <sup>3</sup>Molecular Neuroendocrinology Research Group, The Henry Wellcome Laboratories for Integrative Neuroscience and Endocrinology, University of Bristol, Bristol, England

### P94 GENDER AND DISTRIBUTION OF ABO BLOOD GROUPS IN SERBIAN PATIENTS WITH ISCHEMIC STROKE

Savić M<sup>1</sup>, Krdžić I<sup>1</sup>, Trajković-Bezmarević S<sup>1</sup>, Bavec A<sup>2</sup>, Nikolić D<sup>3</sup> <sup>1</sup>Special Hospital for Cerebrovascular Disorders "Saint Sava", Belgrade, Serbia, <sup>2</sup>Thermana Lasko, Lasko, Slovenia, <sup>3</sup>Physical Medicine and Rehabilitation Department, University Children's Hospital, Belgrade, Serbia

#### P95 HOMOCISTEINE INHIBITION OF NITRIC OXIDE-MEDIATED RELAXATION OF RAT DUODENUM VIA REDUCED ANTIOXIDATIVE DEFENSE

Šćepanović Lj<sup>1</sup>, Stojanović M<sup>1</sup>, Bosnić O<sup>1</sup>, Mitrović D<sup>1</sup>, Šćepanović V<sup>2</sup>, Šćepanović R<sup>3</sup>, Stojanović T<sup>4</sup>, Ilić S<sup>5</sup>, Djurić D<sup>1</sup>

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#### P96 THE ROLE OF ENDOCARDIAL ENDOTHELIUM IN THE EFFECTS OF HISTAMINE ON RAT MYOCARDIAL CONTRACTION DURING HISTAMINE H1 AND H2 RECEPTOR BLOCKADE

Smiljić S<sup>1</sup>, Radović D<sup>1</sup>, Milanović Z<sup>1</sup>, Nestorović V<sup>1</sup>, Biševac B<sup>1</sup>, Pavlović M<sup>2</sup> <sup>1</sup>Department of Physiology, Faculty of Medical Sciences, University of Priština, Kosovska Mitrovica, Serbia, <sup>2</sup>Institute of Medical Physiology "Richard Burian", Faculty of Medicine, University of Belgrade, Belgrade, Serbia

#### P97 INVOLVEMENT OF NITRIC OXIDE-CGMP SIGNALING IN AGE-ASSOCIATED DECLINE OF RAT TESTICULAR STEROIDOGENESIS

Sokanović SJ, Baburski AZ, Janjić MM, Stojkov NJ, Bjelić MM, Andrić SA, Kostić TS Reproductive Endocrinology and Signaling Group, Department of Biology and Ecology, Faculty of Sciences, University of Novi Sad, Serbia

#### P98 EFFECTS OF ACUTE ACTIVATION OF NMDA RECEPTORS BY GLUTAMATE AND GLYCINE ON CARDIODYNAMICS AND OXIDATIVE STRESS IN ISOLATED RAT HEART

Srejović I<sup>1</sup>, Jakovljević V<sup>1</sup>, Živković V<sup>1</sup>, Barudžić N<sup>2</sup>, Djurić D<sup>3</sup> <sup>1</sup>Department of Physiology, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, Serbia, <sup>2</sup>Department of Pharmacy, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, Serbia, <sup>3</sup>Institute of Medical Physiology "Richard Burian", Faculty of Medicine University of Belgrade, Belgrade, Serbia

#### P99 ROLE OF MUTATED SOD1 AGGREGATES IN THE ACTIVATION OF GLIAL CELLS AND THE PATHOGENESIS OF AMYOTROPHIC LATERAL SCLEROSIS

Stamenković S<sup>1</sup>, Kranz A<sup>2</sup>, Andjus PR<sup>1</sup> <sup>1</sup>Center for Laser Microscopy, Institute for Physiology and Biochemistry, Faculty of Biology, Belgrade, Serbia, <sup>2</sup>Fraunhofer Institute for Cell Therapy and Immunology, Leipzig, Germany

#### P100 THE EXTRACELLULAR MATRIX GLYCOPROTEIN TENASCIN-C PLAYS AN IMPORTANT ROLE IN ADULT NEUROGENESIS INDUCED BY ENRICHED ENVIRONMENT

Stamenković V<sup>1</sup>, Stamenković S<sup>1</sup>, Jakovcevski I<sup>2</sup>, Schachner M<sup>2</sup>, Radenović L<sup>1</sup>, Andjus PR<sup>1</sup> <sup>1</sup>Center for Laser Microscopy, Faculty of Biology, University of Belgrade, Belgrade, Serbia, <sup>2</sup>Center for Molecular Neurobiology, University of Hamburg, Hamburg, Germany

#### P101 EFFECTS OF HOMOCYSTEINE ISOFORMS ON OXYGEN CONSUMPTION OF THE RAT HEART TISSUE HOMOGENATE: THE ROLE OF DIFFERENT GASOTRANSMITTERS

Stanić M<sup>1</sup>, Zakrzewska J<sup>2</sup>, Miladinović Z<sup>2</sup>, Jakovljević J<sup>3</sup>, Čolović M<sup>4</sup>, Krstić D<sup>5</sup>, Djurić D<sup>3</sup> <sup>1</sup>Institute for Multidisciplinary Research, University of Belgrade, Belgrade, Serbia, <sup>2</sup>Institute of General and Physical Chemistry, University of Belgrade, Belgrade, Serbia, <sup>3</sup>Institute of Medical Physiology "Richard Burian", Faculty of Medicine, University of Belgrade, Belgrade, Serbia, <sup>4</sup>Vinča Institute of Nuclear Sciences, University of Belgrade, Belgrade, Serbia, <sup>5</sup>Institute of Medicinal Chemistry, Faculty of Medicine University of Belgrade, Belgrade, Serbia

#### P102 MATHEMATICAL MODELLING OF THE INFLUENCE OF DISTRIBUTION OF CHOLESTEROL CONCENTRATION ON THE PERTURBATIONS OF HYPOTHALAMIC-PITUITARY-ADRENAL AXIS

Stanojević A<sup>1</sup>, Kolar-Anić Lj<sup>1,2</sup>, Čupić Ž<sup>2</sup>, Marković VM<sup>1</sup>, Vukojević V<sup>3</sup> <sup>1</sup>Faculty of Physical Chemistry, University of Belgrade, Belgrade, Serbia, <sup>2</sup>Institute of Chemistry, Technology and Metallurgy, University of Belgrade, Belgrade, Serbia, <sup>3</sup>Karolinska Institutet, Department of Clinical Neuroscience, Stockholm, Sweden

#### P103 SUPRESSIVE EFFECTS OF MAGNESIUM ON SPONTANEOUS AND EVOKED ACTIVITY OF LEECH RETZIUS NEURONS

Stanojević M<sup>1</sup>, Lopičić S<sup>1</sup>, Prostran M<sup>2</sup>, Nedeljkov N<sup>1</sup> <sup>1</sup>Institute for Pathophysiology "Ljubodrag Buba Mihailović", Faculty of Medicine, University of Belgrade, Belgrade, Serbia, <sup>2</sup>Institute for Pharmacology, Clinical Pharmacology and Toxicology, Faculty of Medicine, University of Belgrade, Belgrade, Serbia

#### P104 EFFECTS OF DIFFERENT DOSES ZINC GLUCONATE ON AMINOTRANSFERASES AND ALKALINE PHOSPHATASE ACTIVITIES IN TYPE 2 DIABETIC PATIENTS

Stanojević-Ristić Z<sup>1</sup>, Valjarević D<sup>2</sup>, Mitić R<sup>1</sup>, Dejanović M<sup>3</sup>, Stanić M<sup>4</sup>, Corac A<sup>5</sup> <sup>1</sup>Institute of Pharmacology and Toxicology, Faculty of Medicine, University of Priština, Kosovska Mitrovica, Serbia, <sup>2</sup>Department of Mathematics, Faculty of Natural Sciences and Mathematics, University of Priština, Kosovska Mitrovica, Serbia, <sup>3</sup>Institute of Physiology, Faculty of Medicine, University of Priština, Kosovska Mitrovica, Serbia, <sup>4</sup>Biochemical-Clinical Laboratory, Medical Centre, Kosovska Mitrovica, Serbia, <sup>5</sup>Institute of Hygiene, Faculty of Medicine, University of Priština, Kosovska Mitrovica, Serbia

#### P105 EFFECTS OF CHRONIC HALOPERIDOL AND CLOZAPINE TREATMENT ON THE GLUTATHIONE AND ANTIOXIDATIVE ENZYMES IN THE BRAIN OF PHENCYCLIDINE PERINATALLY TREATED RATS

Stojković T, Velimirović M, Nikolić T, Jevtić G, Petronijević N Institute of Medical and Clinical Biochemistry, Faculty of Medicine, University of Belgrade, Belgrade, Serbia

### P106 THE EFFECTS OF PHYSICAL ACTIVITY ON AEROBIC CAPACITY OF YOUNG FEMALE INDIVIDUALS

Stojmenović T, Dikić N, Andjelković M, Vukašinović-Vesić M, Ćurčić Dj Sports Medicine Association of Serbia, Belgrade, Serbia

#### P107 REVASCULARIZATION OF HEAD AND NECK ARTERIOVENOUS MALFORMATIONS AFTER FEEDING ARTERY OCCLUSION

Stošić S<sup>1</sup>, Andjelić G<sup>2</sup> <sup>1</sup>Clinic for Maxillofacial Surgery, Military Medical Academy, Belgrade, Serbia, <sup>2</sup>Institute for Medical Research, Military Medical Academy, Belgrade, Serbia

#### P108 INHIBITION OF MONOAMINE OXIDASE IMPROVES VASCULAR FUNCTION IN HUMAN MAMMARY ARTERIES

Sturza A<sup>1</sup>, Duicu O<sup>1</sup>, Noveanu L<sup>1</sup>, Gaspar M<sup>2</sup>, Feier H<sup>2</sup>, Ionac A<sup>3</sup>, Lighezan R<sup>4</sup>, Mornos C<sup>3</sup>, Muntean D<sup>1</sup> <sup>1</sup>Department of Functional Sciences – Pathophysiology, <sup>2</sup>Department of Cardiology – Cardiovascular Surgery, <sup>3</sup>Department of Cardiology – 2nd Cardiology Clinic, <sup>4</sup>Department of Microscopical Morphology – Histology, "Victor Babes" University of Medicine and Pharmacy, Timisoara, Romania

#### P109 KETAMINE/XYLAZINE ANESTHESIA IN CHRONOBIOLOGICAL CARDIOVASCULAR STUDIES

Svorc P<sup>1,2</sup>, Bacova I<sup>1</sup>, Svorc Jr. P<sup>2</sup>, Novakova M<sup>1</sup> <sup>1</sup>Department of Physiology, Medical Faculty Safarik University, Kosice, Slovak Republic, <sup>2</sup>Department of Physiology, Medical Faculty Ostrava University, Ostrava, Czech Republic

#### P110 STATIC MAGNETIC FIELD ON CARDIOVASCULAR SHORT-TERM VARIABILITY AND BAROREFLEX SENSITIVITY IN RATS

Tasić T<sup>1</sup>, De Luka SR<sup>2</sup>, Djordjević D<sup>2</sup>, Japundžić-Žigon N<sup>1</sup>, Trbović A<sup>2</sup> <sup>1</sup>Institute of Pharmacology, Clinical Pharmacology and Toxicology, Faculty of Medicine, University of Belgrade, Belgrade, Serbia, <sup>2</sup>Institute of Pathophysiology, Faculty of Medicine, University of Belgrade, Belgrade, Serbia

#### P111 STANDARDIZATION OF THE IN VIVO ASSESSMENT OF OXIDATIVE STRESS IN RAT KIDNEY

Vaduva A<sup>1</sup>, Glameanu C<sup>1</sup>, Muntean D<sup>2</sup>, Dema A<sup>1</sup>

<sup>1</sup>Department of Morphological Sciences - Morphopathology, "Victor Babes" University of Medicine and Pharmacy of Timisoara, <sup>2</sup>Department of Functional Sciences - Pathophysiology, "Victor Babes" University of Medicine and Pharmacy of Timisoara, Timisoara, Romania

#### P112 THE EFFECT OF TRICHINELLA SPIRALIS MUSCLE LARVAE ON MOUSE MELANOMA

Vasilev S<sup>1</sup>, Bosić M<sup>2</sup>, Bursać J<sup>1</sup>, Ilić N<sup>1</sup>, Gruden-Movsesijan A<sup>1</sup>, Sofronić-Milosavljević Lj<sup>1</sup> <sup>1</sup>Institute for the Application of Nuclear Energy-INEP, University of Belgrade, Belgrade, Serbia, <sup>2</sup>Institute of Pathology, Faculty of Medicine, University of Belgrade, Belgrade, Serbia

#### P113 THE EFFECTS OF VITAMIN D<sub>3</sub> AND DEHYDROASCORBIC ACID ON EXPRESSION OF NADPH OXIDASE AND MMP9 IN THE BRAIN OF GERBILS EXPOSED TO TRANSIENT GLOBAL CEREBRAL ISHEMIA

Velimirović M, Jevtić G, Stojković T, Radonjić N, Nikolić T, Petronijević N Institute of Medical and Clinical Biochemistry, Faculty of Medicine, University of Belgrade, Belgrade, Serbia

#### P114 PROTECTIVE EFFECT OF GREEN TEA IN GENTAMICIN-INDUCED ACUTE RENAL FAILURE

Veljković M, Ilić S, Stoljiljković N, Radenković M, Branković S, Gočmanac-Ignjatović M, Ćirić M Department of Physiology, Faculty of Medicine, University of Niš, Niš, Serbia

#### P115 THE EFFECT OF BETAINE ON OXIDATIVE/NITROSATIVE LIVER INJURY IN MICE WITH NON-ALCOHOLIC FATTY LIVER DISEASE

Vesković M<sup>1</sup>, Mladenović D<sup>1</sup>, Borozan S<sup>2</sup>, Gopčević K<sup>3</sup>, Dragutinović V<sup>3</sup>, Labudović M<sup>4</sup>, Jorgačević B<sup>1</sup>, Vučević D<sup>1</sup>, Radosavljević T<sup>1</sup>

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#### P116 MACROPHAGE MIGRATION INHIBITORY FACTOR IS DISPENSABLE FOR ENHANCED MEDULLARY ERYTHROPOIESIS DURING CHRONIC PSYCHOLOGICAL STRESS

Vignjević S<sup>1</sup>, Budeč M<sup>1</sup>, Marković D<sup>1</sup>, Mitrović-Ajtić O<sup>1</sup>, Mojsilović S<sup>1</sup>, Stošić-Grujičić S<sup>2</sup>, Čokić V<sup>1</sup>, Jovčić G<sup>1</sup>

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### P117 FACTORS ASSOCIATED WITH LOW VITAMIN D STATUS AMONG ADULT SERBIAN WOMEN

Vučić V<sup>1</sup>, Petrović S<sup>1</sup>, Ristić-Medić D<sup>1</sup>, Petrović-Oggiano G<sup>1</sup>, Popović-Kuzmanović D<sup>2</sup>, Gurinović M<sup>1</sup>, Glibetić M<sup>1</sup>

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#### P118 THE INFLUENCE OF DEHYDRATION ON PHYSICAL PERFORMANCE IN ELITE BASKETBALL PLAYERS

Vukašinović-Vesić M<sup>1</sup>, Dikić N<sup>1</sup>, Andjelković M<sup>1</sup>, Ćurčić Dj<sup>1</sup>, Antić T<sup>1</sup> Sports Medicine Association of Serbia, Belgrade, Serbia

#### P119 CHRYSIN INDUCES APOPTOSIS IN PERIPHERAL BLOOD LYMPHOCYTES ISOLATED FROM HUMAN CHRONIC LYMPHOCYTIC LEUKEMIA

Zarić M<sup>1</sup>, Mitrović M<sup>1</sup>, Nikolić I<sup>1</sup>, Baskić D<sup>2</sup>, Popović S<sup>2</sup>, Djurdjević P<sup>3,4</sup>, Milosavljević Z<sup>5</sup>, Andjelković M<sup>1</sup>, Zelen I<sup>1</sup>

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#### P120 ROLE OF ANGIOTENSIN-CONVERTING ENZYME (ACE) I/D POLYMORPHISM IN CARDIAC REMODELING AMONG PATIENTS WITH FIRST MYOCARDIAL INFARCTION: PRELIMINARY RESULTS

Životić I<sup>1</sup>, Živković M<sup>1</sup>, Djurić T<sup>1</sup>, Djordjević A<sup>1</sup>, Dekleva M<sup>2</sup>, Marković-Nikolić N<sup>2</sup>, Alavantić D<sup>1</sup>, Stanković A<sup>1</sup>

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#### P121 RENAL TRANSPLANTATION PROMPTLY RESTORES EXCRETORY FUNCTION BUT DECREASED PLASMA L-ARGININE AND ELEVATED ASYMMETRIC DIMETHYLARGININE PERSIST IN PATIENTS DURING THE EARLY PERIOD AFTER SURGERY

Žunić G, Vučević D, Tomić A, Drašković B Military Medical Academy, Belgrade, Serbia

## P122 USE OF HYPERBARIC OXYGENATION AND ERYTHROPOIETIN IN THE TREATMENT OF HEART INSUFFICIENCY

Živković M<sup>1</sup>, Baškot B<sup>2</sup>, Tepić S<sup>3</sup>, Ćorić N<sup>1</sup>

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#### P123 EFFECTS OF HYPERBARIC OXYGEN THERAPY (HBOt) ON OXIDATIVE STRESS AND ANTIOXIDANT ENZYMES ACTIVITIES IN PATIENTS WITH DIABETES MELLITUS TYPE 2

Tepić S<sup>1</sup>, Živković M<sup>2</sup>, Jakovljević V<sup>3</sup>

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#### P124 FEATURES OF HYPERBARIC OXYGENATION ON FREE AMMONIA ALLOCATION IN KIDNEY OF RATS WITH LIVER RESECTION

Savilov PN1,3, Molchanov DV2,3

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#### P125 INFLUENCE OF POSITIVE +GZ ACCELERATION ON THE ANTIOXIDATIVE CAPACITY IN LIVER ANDHYSTOPATHOLOGICAL ALTERNATIONS IN GASTRIC MUCOSA, HEART AND LIVER IN RATS

Janićijević-Hudomal S<sup>1</sup>, Rašić J<sup>1</sup>, Kenić J<sup>2</sup>, Mikić D<sup>3</sup>, Arsić-Komljenović G<sup>4</sup>, Nestorović V<sup>5</sup>, Mirić M<sup>6</sup>, Popović M<sup>7</sup>

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## P126 CHRONIC SOCIAL ISOLATION LEADS TO CARDIOMYOCYTES HYPERTROPHY IN NORMOTENSIVE RATS

Zaletel I<sup>1</sup>, Jovanović P<sup>2</sup>, Labudović-Borović M<sup>1</sup>, Kostić J<sup>1</sup>, Dronjak S<sup>2</sup>, Puškaš N<sup>1</sup> <sup>1</sup>Institute of Histology and Embryology "Aleksandar Dj. Kostić", Faculty of Medicine, University of Belgrade, Belgrade, Serbia, <sup>2</sup>Institute of Nuclear Sciences "Vinča", Department of Molecular Biology and Endocrinology, University of Belgrade, Belgrade, Serbia

#### P127 POLYPHENOL RESVERATROL RELAXES PREGNANT HUMAN MYOMETRIUM

Novaković R<sup>1</sup>, Radunović N<sup>2</sup>, Marković-Lipkovski J<sup>3</sup>, Ćirović S<sup>3</sup>, Heinle H<sup>4</sup>, Gojković-Bukarica Lj<sup>1</sup> <sup>1</sup>Institute of Pharmacology, Clinical Pharmacology and Toxicology, Faculty of Medicine, University of Belgrade, Belgrade, Serbia, <sup>2</sup>Institute of Gynecology and Obstetrics, Clinical Center of Serbia, Belgrade, Serbia, <sup>3</sup>Institute of Pathology, Faculty of Medicine, University of Belgrade, Belgrade, Serbia, <sup>4</sup>Institute of Physiology, University of Tuebingen, Tuebingen, Germany

#### P128 ESTROGEN AND RALOXIFENE INDUCE APOPTOSIS THROUGH INCREASING THE BAX/BCL-2 RATIO AND CASPASE 3 ACTIVATION IN HUMAN ENDOMETRIAL STROMAL THESC CELL LINE

Nikolić I<sup>1</sup>, Zarić M<sup>1</sup>, Andjelković M<sup>1</sup>, Zelen I<sup>1</sup>, Mitrović M<sup>1</sup> <sup>1</sup>Department of Biochemistry, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, Serbia

#### P129 EFFECT OF 17-B ESTRADIOL ON HUMAN TROPHOBLAST INVASIVENESS AND GALECTIN-1 EXPRESSION IN VITRO

Ćujić D, Bojić-Trbojević Ž, Kolundžić N, Vićovac Lj Laboratory for Biology of Reproduction, Institute for the Application of Nuclear Energy, University of Belgrade, Belgrade, Serbia

### **IMPORTANT INFORMATION**

### **CONGRESS DATE**

October 29-31, 2014

### **CONGRESS VENUE**

VMA (Military Medical Academy) – Amphitheatre or Room of the Scientific Council Left entrance/Official entrance Str. Crnotravska 17, Beograd (Participation upon registration only)

### REGISTRATION

The congress desk will be open on:

October 29 <sup>th</sup>	8.00 - 18.30
October 30 <sup>th</sup>	8.00 - 18.30
October 31st	8.00 - 13.00

**REGISTRATION FEE** (before October 5<sup>th</sup> 2014 or after October 5<sup>th</sup> 2014)

PARTICIPANTS $60 \in \text{ or } 80 \in$ MEMBERS OF THE SERBIAN PHYSIOLOGICAL SOCIETY  $20 \in \text{ or } 40 \in$ (confirmation of regularly paid membership fee for 2011, 2012, 2013, and 2014;per year 1000 RSD)STUDENTS (only undergraduates)\*free of charge\*Certificate requiredPlease use exchange offices located near to the congress venue.

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Full registration fee includes admission to all scientific sessions, receiving abstract book with final program and receiving other materials from exhibitors. The congress has been CME accredited with maximal number of credits by Health Council of Serbia.

### **ORAL PRESENTATION**

Speakers are allocated 15 or 20 minutes maximal for the presentation with discussion time (according to the final program).

### POSTER PRESENTATION

Two interactive poster sessions will be held during the congress. Authors are requested to mount their posters from 9.00 to 18.00 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 (14.00 – 16.00). Presentation time together with discussion for every poster will be 5 min maximal. Award will be offered for the best poster presentation.

### **AUDIOVISUAL FACILITIES**

Video beam projection will be available in a congress room for oral presentations. Presentations should be prepared in "Power Point"(\*.ppt file). For special audiovisual facilities, please send in advance a special request to the <u>drvladakgbg@yahoo.com</u>

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Official languages will be English and Serbian (in last case please use the presentation in English). No simultaneous translation will be provided. All abstracts will be published in English.

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Coffee, refreshment and lunch will be served upon request on a commercial basis in a restaurant of the Military Medical Academy and it will be on the responsibility of the participants (except for invited guests). Gala dinner is not included in the registration fee and should be provided with an additional cost of 25 Euro per person.

### SOCIAL PROGRAM

The social program will include welcome reception, gala dinner and cultural events (city tours, countryside etc.); this will not be covered by the registration fee. Please contact congress desk for special inquiries.

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Notification of cancellation should be sent in writing to the Organizing/Program Committee. If a cancellation is received before October 10<sup>th</sup> 2014, 70% of the total amount will be refunded to the participant. We regret that no refunds can be given for cancellations received on or after that date. Please note that for administrative reasons, refunds will be dealt with after the congress.

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Limited number of abstracts presented at the congress will be qualified to be published as a full-length paper in an international journal indexed in *Science Citation Index (Acta Physiologica Hungarica,* official journal of the Hungarian Academy of Sciences). Additional number of papers should be published in *Serbian Journal of Experimental and Clinical Research,* official journal of the Faculty of Medical Sciences, University of Kragujevac, and the Serbian Physiological Society. For both options it will be possible upon invitation ONLY and STRICTLY after peer-review procedure.

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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.

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Please be aware that from global safety reasons the entry to the Military Medical Academy in certain circumstances will be allowed following standard security procedure. The entry to the amphitheatre, room of the scientific council and attendance to all scientific sessions including exhibition will be allowed ONLY for the participants with valid badge identification and after regularly paid congress fee. Exchange office and post office are located beside the registration desk. Parking place in surrounding of Military Medical Academy will be on the responsibility of the participant; please use public or taxi transport.

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