

7th MEETING OF THE EUROPEAN SECTION AND
8th MEETING OF THE NORTH AMERICAN SECTION OF THE INTERNATIONAL ACADEMY OF
CARDIOVASCULAR SCIENCES (IACS)

"CARDIOPROTECTION AND CARDIOMETABOLIC DISEASES:
FROM BENCH TO BEDSIDE"

- IN A HYBRID FORMAT -



UNIVERSITY OF BANJA LUKA
FACULTY OF MEDICINE



Organised by

*International Academy of Cardiovascular Sciences (IACS) - European and North American Sections
Faculty of Medicine, University of Banja Luka, The Republic of Srpska, Bosnia & Herzegovina
Serbian Association for Arteriosclerosis, Thrombosis and Vascular Biology Research, Belgrade, Serbia
Association for Atherosclerosis and Cardiovascular Research, Banja Luka, The Republic of Srpska, Bosnia & Herzegovina*



FINAL PROGRAMME

Venue

Banski dvor - City Culture Centre

20-23 September 2021

Banja Luka, The Republic of Srpska, Bosnia & Herzegovina

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FOREWORD

We are very pleased to inform you that the 7th Meeting of European Section and 8th Meeting of North American Section of the International Academy of Cardiovascular Sciences (IACS) will be jointly held during 20-23 September 2021 in Banja Luka, the Republic of Srpska, Bosnia and Herzegovina, in a hybrid format. The well-known COVID-19 pandemic in 2020 caused a cancellation of the European Section and North American Section IACS meetings in Banja Luka and Montreal, respectively. In order to overcome this obstacle, while taking advantage of the currently more favourable epidemiological situation in the Balkans, it was decided to allow the presenters who are at liberty to come to Banja Luka to have floor presentations, reserving the time slots for those prominent scientists from around the globe who cannot do that, to participate online. We believe that the hybrid format of the meeting will allow us to create the best meeting possible.

Banja Luka and its Faculty of Medicine has long been a centre of cardiovascular research, which was even more strengthened since 2018, when the Centre for Biomedical Research was established within this faculty. Previous results in the field of cardiovascular research prompted us to apply for the organisation of this IACS conference, in order to improve our research foundations and make easier access to global research cooperation.

Our wish is to attract the researchers from abroad and especially from the surrounding countries. This time, the IACS meeting is named “Cardioprotection and Cardiometabolic Diseases: From Bench to Bedside”. It is focused on cardioprotection, cardiometabolic diseases, risk factors, oxidative stress and inflammation, genetics, epidemiology, prevention, nutrition, exercise applied aspects in cardiovascular research will be also presented. The scientific programme will include a broad mix of topics from molecular, cellular, clinical and integrative aspects of cardiovascular sciences going ahead to the scientific problems covered by the international scientific community.

We do hope that this meeting is a unique opportunity for all participants to exchange their ideas and give their own contribution to this fruitful cooperation. Finally, Banja Luka, the capital of the Republic of Srpska, is a place rich in history, monuments, recreational areas, museums and galleries. Today, Banja Luka is not only a vibrant university centre, but also an oasis of good energy and beauty and a well-developed tourist destination, popular among domestic and foreign guests seeking a relaxing getaway in the countryside and an adventurous rafting in the canyon of the River Vrbas. Our venue – the Centre of Culture *Banski Dvor* (Governor’s Palace) offers excellent conditions for scientific meetings, as this one certainly is.

We appreciate your participation, wishing you a warm welcome to Banja Luka and the Republic of Srpska, Bosnia and Herzegovina.

On behalf of the Organising and Programme Committee,

Ranko Škrbić, Meeting Chair

Miloš P Stojiljković, Meeting Co-Chair

Meeting Chair and Meeting Co-Chair/Organising and Programme Committee

Ranko Škrbić, Banja Luka, the Republic of Srpska, Bosnia and Herzegovina

Miloš P Stojiljković, Banja Luka, the Republic of Srpska, Bosnia and Herzegovina

Honorary Co-Chairs/International Organising and Programme Committee

Roberto Bolli (Louisville, KY, USA), President, IACS

Naranjan S Dhalla (Winnipeg, MB, Canada), Founder and CEO, IACS

Gary Lopaschuk (Edmonton, AB, Canada), President, North American Section, IACS

Bohuslav Oštádal (Prague, Czech Republic), Past president, IACS

Grant N Pierce (Winnipeg, MB, Canada), President-Elect, IACS

Andras Varro (Szeged, Hungary), President, European Section, IACS

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Belma Turan, Ankara, Turkey
Suresh C Tyagi, Louisville, KY, USA
Andras Varro, Szeged, Hungary
Nathan D Wong, Irvine, CA, USA

Local Programme and CME Planning Committee

| | |
|---|--|
| Branko Beleslin, Belgrade, Serbia | Lana Nežić, Banja Luka, RS, BA |
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| Milan Milojević, Belgrade, Serbia | Nebojša M Tasić, Belgrade, Serbia |
| Zoran Miloradović, Belgrade, Serbia | Zoran Todorović, Belgrade, Serbia |
| Milan A Nedeljković, Belgrade, Serbia | Duško Vulić, Banja Luka, RS, BA |

Local Organising Committee

| | |
|-----------------------------|-------------------------------|
| Đorđe Đukanović, Banja Luka | Žana M Maksimović, Banja Luka |
| Ana Golić, Banja Luka | Nataša Miljuš, Banja Luka |
| Milkica Grabež, Banja Luka | Sonja Trbojević, Banja Luka |

Scientific Topics

- Advances in heart failure and arrhythmia research
- COVID-19 and cardiovascular system
- Advances in cardiometabolic diagnostics and treatment
- Advances in cardiovascular protection
- Advances in cardiovascular biology and toxicity research

Advances in experimental diabetes research

Experimental models in cardiovascular research

Clinical aspects of cardiovascular research

Programme at a Glance

**International Academy of Cardiovascular Sciences (IACS)
7th Meeting of European Section and 8th Meeting of North American Section
(Meeting Venue: Banski Dvor, Banja Luka)**

Monday, 20 September 2021 Opening Ceremony

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|-------------|--|
| 15.00 | Arrival and Registration |
| 17.00-19.30 | Opening Ceremony/Welcome Messages Presidential Address/ Keynote Speakers (three talks, 30 min each) Presentations of the Faculty of Medicine University of Banja Luka Awards |
| 19.15 | CV Network Joint Photo |
| 20.00 | Welcome Reception (Venue: Crystal Hall, Hotel Bosna) |

Tuesday, 21 September 2021 Parallel Scientific Sessions

| | |
|-------------|--|
| 09.00-13.30 | Two Parallel Scientific Sessions |
| 13.00-15.00 | Lunch Break/IACS Board Meeting |
| 15.00-16.30 | Roberto Bolli Young Investigator Award Competition |
| 15.00-19.30 | Online Symposium 1 |
| 18.00-19.30 | Poster Session 1 (“wine and cheese”) |
| 20.00 | Departure for dinner (Venue: Restaurant Integra) |

Wednesday, 22 September 2021 Parallel Scientific Sessions

| | |
|-------------|---|
| 09.00-13.30 | Two Parallel Scientific Sessions |
| 13.30-15.00 | Lunch Break/IACS Board Meeting |
| 15.00-18.00 | Gary Lopaschuk Student Award Competition |
| 15.00-18.00 | Online Symposium 2 |
| 18.00-18.40 | Berlin-Chemie Online Symposium |
| 18.00-19.30 | Poster Session 2 (“wine and cheese”) |
| 20.00 | Departure for IACS Awards Session/Gala Dinner (Venue: Restaurant Stara Ada) |

Thursday, 23 September 2021 Parallel Clinical Sessions/ Pharmaceutical Industry Symposia

| | |
|-------------|--|
| 08.30-10.30 | American College of Cardiology – Serbia and Republic of Srpska Chapter |
| 09.00-10.45 | Dedinje Cardiovascular Institute Symposium |
| 09.00-12.00 | Online Symposium 3 |

| | |
|-------------|--|
| 10.45-13.10 | Novartis, Sandoz and Sanofi Symposia |
| 10.45-11.30 | Scientific Session |
| 13.15 | Concluding Remarks/Closing Ceremony |
| 13.30-19.30 | Excursion to the River Vrbas Rafting Area with Lunch and Wine Tasting or Guided City Walking Tour (Stara Ada) |
| 20.00 | Free Evening |

Friday, 24 September 2021

Departure of participants

PROGRAMME

MONDAY, 20 SEPTEMBER 2021

Venue: Banski Dvor, Banja Luka (Concert Hall)

OPENING CEREMONY/WELCOME MESSAGES/PRESIDENTIAL ADDRESS/KEYNOTE LECTURES/AWARDS

17.00 -19.30

Chairs:

Roberto Bolli (Louisville, KY, USA), President, IACS

Naranjan S Dhalla (Winnipeg, MB, Canada), Executive Director, Honorary Life President, IACS

Grant N Pierce (Winnipeg, MB, Canada), President-Elect, IACS

Ranko Škrbić (Banja Luka, RS, Bosnia and Herzegovina), Chair, Organizing Committee

Miloš P Stojiljković (Banja Luka, RS, Bosnia and Herzegovina), Chair, Programme Committee

Andras Varro (Szeged, Hungary), President, IACS-European Section

Opening ceremony/Welcome messages

Chairs: Grant N Pierce (Winnipeg, Canada), Andras Varro (Szeged, Hungary)

Presidential Address (30 min)

MOLECULAR INSIGHTS INTO CARDIAC CALCIUM SIGNALING FROM GENE EDITING OF RYANODINE RECEPTOR IN HUMAN STEM CELL DERIVED CARDIOMYOCYTES

Xiaohua Zhang,¹ Yanli Xia,¹ Martin Morad^{1, 2}

(1) Cardiac Signaling Center of University of South Carolina, Medical University of South Carolina, and Clemson University, Charleston, SC, USA.

(2) Department of Regenerative Medicine and Cell Biology, Medical University of South Carolina, Charleston, SC, USA.

Naranjan Dhalla Honorary Award Lecture (30 min)

SHIFT WORK DISRUPTS CIRCADIAN RHYTHM AND MITOCHONDRIAL QUALITY CONTROL IN THE HEART

Lorrie A Kirshenbaum¹

(1) Institute of Cardiovascular Sciences, St. Boniface Hospital Albrechtsen Research Centre, Department of Physiology and Pathophysiology, Rady Faculty of Health Sciences, University of Manitoba, Winnipeg, Manitoba, Canada.

Jay Mehta Annual Award Lecture (30 min)

CELL THERAPY FOR HEART DISEASE: CURRENT STATUS AND FUTURE DIRECTIONS

Roberto Bolli¹

(1) Institute of Molecular Cardiology, University of Louisville, Louisville, Kentucky, USA.

Moderators: Ranko Škrbić (Banja Luka, RS, Bosnia and Herzegovina), Miloš P Stojiljković (Banja Luka, RS, Bosnia and Herzegovina)

PRESENTATIONS OF THE FACULTY OF MEDICINE UNIVERSITY OF BANJA LUKA AWARDS

19.15

CV NETWORK JOINT PHOTO (at Concert Hall, Banski Dvor)

20.00

WELCOME RECEPTION (Venue: Crystal Hall, Hotel Bosna)

TUESDAY, 21 SEPTEMBER 2021

SYMPOSIUM 1: ADVANCES IN HEART FAILURE AND ARRHYTHMIA RESEARCH (Concert Hall)

9.00-10.30

Chairs: Andras Varro (Szeged, Hungary), Paramit S Tappia (Winnipeg, MB, Canada)

CHALLENGES AND OPPORTUNITIES FOR THE IMPROVED THERAPY OF HEART FAILURE

Naranjan S Dhalla¹

(1) Institute of Cardiovascular Sciences, St Boniface Hospital Research Centre, College of Medicine, University of Manitoba, Winnipeg, Canada.

TARGETING PHOSPHOLIPASE C FOR THE PREVENTION OF CARDIAC HYPERTROPHY

Paramit S Tappia¹

(1) Asper Clinical Research Institute, St Boniface Hospital, Winnipeg, MB Canada.

PROARRHYTHMIC RISK AFTER HEAVY CHRONIC ENDURANCE TRAINING IN DOG

András Varró¹

(1) Department of Pharmacology and Pharmacotherapy, Faculty of Medicine, University of Szeged, Szeged, Hungary.

ANTIARRHYTHMIC EFFECTS OF DESETHYLAMIODARONE, THE MAIN METABOLITE OF AMIODARONE, IN ANIMAL MODELS OF ATRIAL FIBRILLATION

István Baczkó¹

(1) Department of Pharmacology and Pharmacotherapy, Faculty of Medicine, University of Szeged, Szeged, Hungary.

SYMPOSIUM 2: EXPERIMENTAL MODELS IN CARDIOVASCULAR RESEARCH (Assembly Hall)

09.00-10.00

Chairs: Alan P Robertson (Ames, IA, USA), Vladimir Živković (Kragujevac, Serbia)

DO WORMS HAVE A HEART? - CAENORHABDITIS ELEGANS AS A MODEL IN CARDIAC RESEARCH

Alan P Robertson,¹ Sasa M Trailovic²

(1) Department of Pharmacology, College of Veterinary Medicine, Iowa State University, Ames, IA, USA.

(2) Department of Pharmacology and Toxicology, Faculty of Veterinary Medicine, University of Belgrade, Belgrade, Serbia.

HOW HIIT AND MIT AFFECT ON HYPERTENSIVE RAT HEART?

Vladimir Zivkovic,¹ Biljana Jakovljevic,² Ivan Srejovic,¹ Nevena Jeremic,³ Tamara Nikolic Turnic,³ Isidora Milosavljevic,³ Jovana Jeremic,³ Jovana Bradic,³ Sergey Bolevich,⁴ Vladimir Jakovljevic^{1,4}

(1) Department of Physiology, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, Serbia.

(2) Medical College of Applied Sciences in Zemun, Belgrade, Serbia.

(3) Department of Pharmacy, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, Serbia.

(4) Department of Human Pathology, 1st Moscow State Medical University IM Sechenov, Moscow, Russia.

10.30-10.45 Coffee Break

SYMPOSIUM 3: ADVANCES IN CARDIOMETABOLIC DIAGNOSTICS AND TREATMENT I (Concert Hall)

10.45-12.15

Chairs: Nebojša M Lalić (Belgrade, Serbia), Ana Jerončić (Split, Croatia)

MECHANISMS UNDERLYING CARDIOPROTECTIVE EFFECTS IN CVOTS IN DIABETES: WHAT DO WE KNOW?

Nebojša M Lalić¹

(1) Faculty of Medicine University of Belgrade, Clinic for Endocrinology, Diabetes and Metabolic Diseases, UCCS, Belgrade, Serbia.

CVOTS USING NEW APPROACHES IN TREATMENT OF DYSLIPIDEMIA: LESSONS TO BE LEARNED

Katarina S Lalić¹

(1) Faculty of Medicine University of Belgrade, Clinic for Endocrinology, Diabetes and Metabolic Diseases, UCCS, Belgrade, Serbia.

THE ROLE OF VASCULAR AGING BIOMARKERS IN CARDIOVASCULAR DISEASE PREVENTION

Ana Jerončić¹

(1) Univeristy of Split School of Medicine, Split, Croatia.

THE MICROCIRCULATION, ARTERIAL HYPERTENSION AND VASCULAR AGING

Šekib Sokolović¹

(1) Clinic for Heart, Vascular and Rheumatic Diseases, University Clinical Centre of Sarajevo, Sarajevo, Bosnia and Herzegovina.

SYMPOSIUM 4: ADVANCES IN CARDIOMETABOLIC DIAGNOSTICS AND TREATMENT II (Assembly Hall)

10.45-12.15

Chairs: Harpal S Buttar (Ottawa, ON, Canada), Nebojša M Tasić (Belgrade, Serbia)

FUTURE OF CARDIOVASCULAR RISK PROTECTION: PATIENT BY PATIENT APPROACH

Nebojša M Tasić^{1,2} Danijela Tasić^{1,3} Biljana Despotović¹ Zorana Kovačević¹ Marko Filipović¹ Slađana Božović¹ Milan Arsić¹

(1) *Dedinje Cardiovascular Institute, Belgrade, Serbia.*

(2) *Medical Faculty, University of Belgrade, Belgrade, Serbia.*

(3) *Faculty of Medicine, University of Banja Luka, Banja Luka, the Republic of Srpska, Bosnia and Herzegovina.*

LIPIDOMICS AS A NOVEL TOOL IN CARDIOVASCULAR RESEARCH

Zoran Todorović^{1,2} Siniša Đurašević³ Tomislav Tosti⁴ Iva Lakić³ Ilijana Grigorov⁵ Jelena Đorđević³ Nina Đukanović⁶

(1) *School of Medicine, University of Belgrade, Belgrade, Serbia.*

(2) *University Medical Centre "Bežanijska kosa", Belgrade, Serbia.*

(3) *Faculty of Biology, University of Belgrade, Belgrade, Serbia.*

(4) *Faculty of Chemistry, University of Belgrade, Belgrade, Serbia.*

(5) *Institute for Biological Research "Siniša Stanković"—National Institute of Republic of Serbia, University of Belgrade, Belgrade, Serbia.*

(6) *High Medical School "Milutin Milanković", Belgrade, Serbia.*

METABOLIC SYNDROME TREATMENT - BILE ACIDS ROLE

Momir Mikov¹ Svetlana Goločorbin-Kon² Aleksandar Rašković¹ Saša Vukmirović¹ Maja Đanić¹ Nebojša Pavlović² Bojan Stanimirov³ Boris Milijašević¹ Karmen Stankov³ Armin Mooranian⁴ Hani Al-Salami⁴

(1) *Department of Pharmacology, Toxicology and Clinical Pharmacology, Faculty of Medicine, University of Novi Sad, Novi Sad, Serbia.*

(2) *Department of Pharmacy, Faculty of Medicine, University of Novi Sad, Novi Sad, Serbia.*

(3) *Department of Biochemistry, Medical faculty of Novi Sad, University of Novi Sad, Novi Sad, Serbia.*

(4) *Biotechnology and Drug Development Research Laboratory, Curtin Medical School, Curtin Health Innovation Research Institute, Curtin University, Perth, Western Australia, Australia.*

STROKE VOLUME VARIATION AS AN INDICATOR OF FLUID RESPONSIVENESS IN THE ABDOMINAL AORTIC ANEURYSM RESECTION

Dragana Lončar-Stojiljković^{1,2}

(1) *Dedinje Cardiovascular Institute, Belgrade, Serbia.*

(2) *Faculty of Medicine, University of Banja Luka, Banja Luka, the Republic of Srpska, Bosnia and Herzegovina.*

HEALTHFUL FOODS AND LIFESTYLE MODIFICATIONS ARE THE BEST COST-EFFECTIVE STRATEGIES FOR THE PREVENTION OF CARDIOVASCULAR AND CARDIOMETABOLIC DISEASES

Harpal S Buttar¹

(1) *Department of Pathology and Laboratory Medicine, University of Ottawa, School of Medicine, Ottawa, Ontario, Canada.*

FISH OIL AND EVENING PRIMROSE OIL IMPROVES OXIDATIVE STRESS MARKERS IN BREAST CANCER PATIENTS RECEIVING AROMATASE INHIBITORS

Aleksandra Arsić¹ Predrag Krstić² Jovana Jeremić³ Vladimir Jakovljević³ Dragana Stamatović² Vesna Vucić¹

(1) *Department for Nutritional Biochemistry and Dietology, Institute for Medical Research, National Institute for Republic of Serbia, University of Belgrade, Belgrade, Serbia.*

(2) Department of Haematology, Military Medical Academy, Belgrade, Serbia.

(3) Department of Physiology, University of Kragujevac, Faculty of Medical Sciences, Kragujevac, Serbia.

PROGNOSTIC VALUE OF NITRIC OXIDE AS A SERUM BIOMARKER IN PATIENTS WITH ARDS CAUSED BY INFLUENZA A H1N1

Pedja Kovacevic,^{1,2} Sasa Dragić,^{1,2} Danica Momcicevic,^{1,2} Vlado Djajic,^{1,2} Ranko Skrbic,³ Biljana Zlojutro^{1,2}

(1) Medical Intensive Care Unit, University Clinical Centre of the Republic of Srpska, Banja Luka, the Republic of Srpska, Bosnia and Herzegovina.

(2) Faculty of Medicine, University of Banja Luka, the Republic of Srpska, Bosnia and Herzegovina.

(3) Department of Pharmacology, Toxicology and Clinical Pharmacology, Faculty of Medicine, University of Banja Luka, Banja Luka, Bosnia and Herzegovina.

13.00-15.00 Lunch/IACS Council Meeting (Hotel Bosna)

SYMPOSIUM 5: ROBERTO BOLLI YOUNG INVESTIGATOR AWARD COMPETITION (Concert Hall)

15.00-16.30

Panel of Judges: Grant N Pierce (Winnipeg, MB, Canada), Jan Slezak (Bratislava, Slovakia), Jerzy Beltowski (Lublin, Poland)

MITOCHONDRIAL AUTOPHAGY AND CELL SURVIVAL IS REGULATED BY THE CIRCADIAN CLOCK GENE IN CARDIAC MYOCYTES DURING ISCHEMIC STRESS

Inna Rabinovich-Nikitin,¹ Lorrie A Kirshenbaum²

(1) Department of Physiology and Pathophysiology, The Institute of Cardiovascular Sciences, St. Boniface Hospital Albrechtsen Research Centre, Winnipeg, Manitoba, Canada.

(2) Department of Pharmacology and Therapeutics, Rady College of Medicine, Max Rady Faculty of Health Sciences, University of Manitoba, Winnipeg, Manitoba, Canada.

ROLE OF SACUBITRIL/VALSARTAN IN HYPERTENSIVE CARDIOMYOPATHY IN RATS

Jovana Jeremic,¹ Jovana Bradic,¹ Isidora Milosavljevic,¹ Ivan Srejovic,² Vladimir Zivkovic,² Nevena Jeremic,¹ Tamara Nikolic Turnic,¹ Irena Tanaskovic,³ Stefani Bolevich,⁴ Vladimir Jakovljevic,² Marko Zivanovic,⁵ Nduka Okwose,⁵ Dragana Seklic,⁶ Nevena Milivojevic,⁶ Jelena Grujic,⁶ Djordje Jakovljevic,⁵ Nenad Filipovic⁷

(1) Department of Pharmacy, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, Serbia.

(2) Department of Physiology, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, Serbia.

(3) Department of Histology and Embryology, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, Serbia.

(4) Department of Pathophysiology, I.M. Sechenov First Moscow State Medical University, Moscow, Russia.

(5) Faculty of Medical Sciences, Newcastle University and Institute for Health and Wellbeing (CSELS), Faculty of Health and Life Sciences, Coventry University, UK.

(6) Institute for Information Technologies Kragujevac, University of Kragujevac, Kragujevac, Serbia.

(7) Faculty of Engineering, University of Kragujevac, Kragujevac, Serbia.

VARIED EFFECTS OF SELECTIVE ION CHANNEL INHIBITORS IN HUMAN, RAT, DOG, RABBIT, AND GUINEA PIG CARDIAC VENTRICULAR PREPARATIONS: A COMPARISON OF MODELS IN CARDIAC

ELECTROPHYSIOLOGY

Tamás Árpádfy-Lovas,¹ Muhammad Naveed,¹ Mohammed A Aiman Saleh,¹ László Virág,¹

István Baczkó,¹ András Varró¹

(1) Department of Pharmacology and Pharmacotherapy, Faculty of Medicine, University of Szeged, Szeged, Hungary.

NEW INSIGHT INTO THE ROLE OF ALLIUM URSINUM IN CARDIOPROTECTION

Jovana Bradic,¹ Marina Rankovic,¹ Milos Krivokapic,² Jasmina Sretenovic,³ Jovana Jeremic,¹ Marina Tomovic,¹ Ivan Srejovic,³ Vladimir Zivkovic,³ Vladimir Jakovljevic^{3,4}

(1) Department of Pharmacy, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, Serbia.

(2) Department of Clinical Pharmacy, Faculty of Medicine, University of Montenegro, Podgorica, Montenegro.

(3) Department of Physiology, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, Serbia.

(4) Department of Human Pathology, 1st Moscow State Medical University IM Sechenov, Moscow, Russia.

SYMPOSIUM 6: ONLINE 1 (at Red Salon plus web platform)

15.00-19.00

Chairs: Lana Nežić (Banja Luka, RS, Bosnia and Herzegovina), Nina Japundžić-Žigon (Serbia)

SEX DEPENDENT EFFECT OF PERINATAL HYPOXIA ON CARDIAC TOLERANCE TO OXYGEN DEPRIVATION IN ADULTS

Bohuslav Ostádal¹

(1) Institute of Physiology, Czech Academy of Sciences, Prague, Czech Republic.

BRANCHED CHAIN KETOACIDS MEDIATE INSULIN RESISTANCE IN THE FAILING HEART

Gary Lopaschuk¹

(1) Mazankowski Alberta Heart Institute, University of Alberta, Edmonton, AB, Canada.

HOW TO ACHIEVE LDL-C TARGETS IN CLINICAL PRACTICE IN 2021? NEW ILEP RECOMMENDATIONS

Maciej Banach¹

(1) Department of Preventive Cardiology and Lipidology, Medical University of Lodz, Lodz, Poland.

HYPOXIA AND MITOCHONDRIAL DAMAGE ASSOCIATED MOLECULAR PATTERNS IN THE PATHOGENESIS OF VEIN GRAFT FAILURE

Devendra K Agrawal¹

(1) Department of Translational Research, Western University of Health Sciences, Pomona, CA, USA.

TARGETING CARDIAC FIBROBLAST TO MYOFIBROBLAST CONVERSION IN HEART FAILURE

Michael Czubryt¹

(1) Department of Physiology and Pathophysiology, University of Manitoba, Winnipeg, MB, Canada.

TARGETING MONOAMINE OXIDASE-RELATED CARDIOVASCULAR OXIDATIVE STRESS WITH METFORMIN: OLD DRUG, NEW TRICKS

Danina M Muntean,¹ Adrian Sturza,¹ Octavian M Crețu²

(1) Department of Functional Sciences - Pathophysiology, Centre for Translational Research and Systems Medicine, "Victor Babeş" University of Medicine and Pharmacy, Timișoara, Romania.

(2) Department of Surgery – Surgical Semiotics I, Centre for Hepato-Biliary and Pancreatic Surgery, "Victor Babeş" University of Medicine and Pharmacy, Timișoara, Romania.

PLASMA EXOSOMES IN CARDIAC SURGERY: OPPORTUNITY FOR PRECISION PERIOPERATIVE CARDIOPROTECTION?

Vincenzo Lionetti¹, Giulia Furini,¹ Alessandro Carrozzo,² Lucia Rosa Chincoli,³ Valentina Casieri¹

(1) Laboratory of Medical Science, Institute of Life Sciences, School of Advanced Studies Sant Anna, Pisa, Italy.

(2) Department of Cardiac Surgery, ICLAS, GVM Care and Research, Rapallo, Italy.

(3) Department of Excellence of Biotechnology, Chemistry and Pharmacy, University of Siena, Siena, Italy.

GENOMIC AND TRANSCRIPTOMIC BASIS OF HEART FAILURE

Anna Gams,¹ Ruslan M. Deviatiiarov,² Tatiana V. Tatarinova,³ Ramesh Singh,⁴ Palak Shah,⁴ Oleg Gusev,⁵ Igor R. Efimov¹

(1) Department of Biomedical Engineering, The George Washington University, Washington, DC, USA.

(2) Institute of Fundamental Medicine and Biology, Kazan Federal University, Kazan, Russia.

(3) Department of Biology, University of La Verne, La Verne, California, USA.

(4) Inova Heart and Vascular Institute, Fairfax, Virginia, USA.

(5) Division of Genomic Technologies, Center for Life Science Technologies (CLST), RIKEN, Yokohama, Japan.

REDOX REGULATION OF HEART AND ROLE OF AKR6

Srinivas M Tipparaju¹

(1) Department of Pharmaceutical Sciences, USF College of Pharmacy, Tampa, FL, USA.

PHOSPHODIESTERASE 5 INHIBITION AND CARDIOPROTECTION: FROM BASIC SCIENCE TO CLINICAL POSSIBILITIES

Rakesh C Kukreja¹

(1) Division of Cardiology, Department of Internal Medicine Virginia Commonwealth University School of Medicine, Richmond, VA, USA.

CARDIAC CELL THERAPY: FROM BENCH TO BEDSIDE

Buddhadeb Dawn¹

(1) Department of Internal Medicine, Division of Cardiovascular Medicine, Kirk Kerkorian School of Medicine at the University of Nevada Las Vegas, Las Vegas, NV, USA.

STEM CELLS AND BIOMATERIALS FOR CARDIAC REGENERATION AND REPAIR

Sanjiv Dhingra¹

(1) Institute of Cardiovascular Sciences, St. Boniface Hospital Research Centre, Regenerative Medicine Program, Department of Physiology and Pathophysiology, Faculty of Health Sciences, University of Manitoba, Winnipeg, Canada.

EXOSOME AMELIORATE DOXORUBICIN-INDUCED CARDIOMYOPATHY

Dineder Singla¹

(1) Division of Metabolic and Cardiovascular Sciences, Burnett College of Biomedical Sciences, College of Medicine, University of Central Florida, Orlando, Florida, USA.

MYOCARDIAL INFARCTION OR MYOCARDIAL INJURY DURING COVID 19 INFECTION – DIAGNOSTIC CHALLENGES

Besim Prnjavorac,¹ Omer Bedak,² Denis Mršić,² Tamer Bego,³ Lejla Prnjavorac,⁴ Ajdin Ibrahimović,⁵ Elvira Čorhodžić,⁵ Anel Mahmutović⁵

(1) Department of Pneumology, COVID Division, General Hospital Tešanj, Tešanj, Bosnia and Herzegovina.

(2) Department of Internal Medicine, General Hospital Tešanj, Tešanj, Bosnia and Herzegovina.

(3) Department of Cardiology, University Clinical Centre, Tuzla, Bosnia and Herzegovina.

(4) Faculty of Pharmacy, Sarajevo, Bosnia and Herzegovina.

(5) General Hospital Tešanj, Tešanj, Bosnia and Herzegovina.

POSTER SESSION I (Venue: Grand Salon)

18.00-19.30

PP01 THE ELECTROPHYSIOLOGICAL EFFECTS OF CANNABIDIOL ON ACTION POTENTIAL AND TRANSMEMBRANE POTASSIUM CURRENTS IN DOG AND RABBIT CARDIAC PREPARATIONS

Muhammad Naveed,¹ Leila Topal,¹ János Prorok,¹ Bence Pászti,¹ Dezső Csupor,² István Baczkó,¹ László Virág,¹ Norbert Jost,¹ András Varró¹

(1) Department of Pharmacology and Pharmacotherapy, Faculty of Medicine, University of Szeged, Szeged, Hungary.

(2) Department of Pharmacognosy, Faculty of Pharmacy, University of Szeged, Szeged, Hungary.

PP02 POTENTIAL CARDIOPROTECTIVE EFFECTS OF GARLIC'S BIOACTIVE ORGANOSULFUR COMPOUNDS: AN *IN SILICO* MOLECULAR DOCKING STUDY

Nikola Nedeljkovic,¹ Andjela Gogic,¹ Milos Nikolic,¹ Marina Mijajlovic,¹ Jovana Jeremic,¹ Vladimir Jakovljevic,¹ Nevena Jeremic¹

(1) Department of Pharmacy, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, Serbia.

PP03 VASORELAXANT EFFECTS OF AN ETHANOLIC EXTRACT OF CHOKEBERRY (*ARONIA MELANOCARPA* (MICHX.) ELLIOTT) FRUIT ON ISOLATED THORACIC AORTIC RINGS IN RATS

Suzana Brankovic,¹ Milica Milutinovic,² Milica Kostic,² Nemanja Kitic,³ Bojana Miladinovic,² Dusanka Kitic²

(1) Department of Physiology, Faculty of Medicine, University of Niš, Niš, Serbia.

(2) Department of Pharmacy, Faculty of Medicine, University of Niš, Niš, Serbia.

(3) Faculty of Medicine, University of Niš, Niš, Serbia.

PP04 *IN SILICO* ANALYSIS OF KETO DERIVATIVES OF BILE ACIDS AS CARDIOPROTECTIVE TGR5 ACTIVATORS

Nebojsa Pavlovic,¹ Bojan Stanimirov,¹ Maja Djanic,¹ Slavica Lazarevic,¹ Karmen Stankov,¹ Svetlana Golocorbin-Kon,¹ Momir Mikov¹

(1) Faculty of Medicine, University of Novi Sad, Novi Sad, Serbia.

PP05 EFFECTS OF FOUR WEEKS TREADMILL TRAINING ON CARDIOVASCULAR BIOMARKERS, OXIDATIVE STRESS, AND HISTOMORPHOMETRIC CHANGES OF HEART AND AORTA IN HYPERHOMOCYSTEINEMIC RATS

Dusan Todorovic,¹ Marija Stojanovic,¹ Slavica Mutavdzin,¹ Kristina Gopcevic,² Sanja Stankovic,³ Milica Labudovic Borovic,⁴ Dragan Djuric¹

(1) Institute of Medical Physiology "Richard Burian", Faculty of Medicine, University of Belgrade, Belgrade, Serbia.

(2) Institute of Chemistry in Medicine "Prof. Dr Petar Matavulj", Faculty of Medicine, University of Belgrade, Belgrade, Serbia.

(3) Centre of Medical Biochemistry, Clinical Centre of Serbia, Belgrade, Serbia.

(4) Institute of Histology and Embryology "Aleksandar Dj. Kostic", Faculty of Medicine, University of Belgrade, Belgrade, Serbia.

PP06 PLASMINOGEN ACTIVATOR INHIBITOR, URIC ACID, HOMOCYSTEINE AND FOLATE SHOULD BE SIGNIFICANT RISK MARKERS FOR CORONARY ARTERY DISEASE

Predrag Djuric,¹ Slobodan Obradovic,¹ Zorica Mladenovic,¹ Marijan Spasic,¹ Zoran Jovic,¹ Ivana Lecic Krstic,² Zoran Radojicic,³ Dragan Djuric⁴

(1) Clinic of Cardiology, Military Medical Academy, Belgrade, Serbia.

(2) Clinic for Anesthesiology and Intensive Care, Military Medical Academy, Belgrade, Serbia.

(3) Faculty of Organizational Sciences, University of Belgrade, Belgrade, Serbia.

(4) Institute of Medical Physiology, Faculty of Medicine, University of Belgrade, Belgrade, Serbia.

PP07 INVOLVEMENT OF ATP-SENSITIVE POTASSIUM CHANNELS IN PINACIDIL EFFECTS ON THE ISOLATED HUMAN INTERNAL MAMMARY ARTERY GRAFTS OBTAINED FROM PATIENTS WITH/WITHOUT TYPE-2 DIABETES MELLITUS

Jovana Rajkovic,¹ Miodrag Peric,² Jelena Stanisic,³ Milos Gostimirovic,¹ Radmila Novakovic,¹ Vladimir Djokic,¹ Snezana Tepavcevic,³ Jelena Rakocevic,⁴ Milica Labudovic-Borovic,⁴ Helmut Heinle,⁵ Ljiljana Gojkovic-Bukarica¹

(1) Institute of Pharmacology, Clinical Pharmacology and Toxicology, Medical Faculty, University of Belgrade, Belgrade, Serbia.

(2) Dedinje Cardiovascular Institute, Belgrade, Serbia.

(3) Laboratory for Molecular Biology and Endocrinology, Vinca Institute of Nuclear Sciences, University of Belgrade, Belgrade, Serbia.

(4) Institute of Histology and Embryology, Medical Faculty, University of Belgrade, Belgrade, Serbia.

(5) Institute of Physiology, University of Tübingen, Tübingen, Germany.

PP08 ANALYSIS OF ELECTROCARDIOGRAPHIC REPOLARIZATION PARAMETERS IN PATIENTS WITH POLYCYSTIC OVARY SYNDROME

Lili Adrienn Szabó,¹ Anna Vágvölgyi,¹ Sándor Magony,¹ Szabolcs Nyiraty,¹ Bettina Tóth,¹ Fruzsina Pesej,¹ György Ábrahám,¹ Attila Nemes,¹ Csaba Lengyel,¹ Tamás Várkonyi,¹ István Baczkó,² Andrea Orosz²

(1) Department of Internal Medicine, University of Szeged, Szeged, Hungary.

(2) Department of Pharmacology and Pharmacotherapy, University of Szeged, Szeged, Hungary.

PP09 ASSOCIATION BETWEEN APICAL PERIODONTITIS AND CARDIAC FUNCTION IN HYPERTENSIVE RATS

Andjela Milojevic Samanovic,¹ Vladimir Jakovljevic,^{2,3} Miroslav Vasovic,¹ Slobodanka Mitrovic,⁴ Marina Rankovic,² Katarina Mihajlovic,⁵ Sergey Bolevich,³ Vladimir Zivkovic²

(1) Department of Dentistry, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, Serbia.

(2) Department of Physiology, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, Serbia.

(3) Department of Human Pathology, 1st Moscow State Medical, University IM Sechenov, Moscow, Russia.

(4) Department of Pathology, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, Serbia.

(5) Department of Pharmacy, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, Serbia.

PP10 12-OXOCHENOXYCHOLIC ACID ALLEVIATES DOXORUBICIN-INDUCED APOPTOSIS OF CARDIOMYOCYTES *IN VIVO*

Bojan Stanimirov,¹ Karmen Stankov,¹ Nebojša Pavlović,² Maja Đanić,³ Iva Barjaktarovic,⁴ Momir Mikov³

(1) Department of Biochemistry, Faculty of Medicine, University of Novi Sad, Novi Sad, Serbia.

(2) Department of Pharmacy, Faculty of Medicine, University of Novi Sad, Novi Sad, Serbia.

(3) Department of Pharmacology, Toxicology and Clinical Pharmacology, Faculty of Medicine, University of Novi Sad, Novi Sad, Serbia.

(4) Center for Forensic Medicine, Toxicology and Molecular Genetics, Clinical Center of Vojvodina, Faculty of Medicine, University of Novi Sad, Novi Sad, Serbia.

PP11 ADVANTAGEOUS ANTIARRHYTHMIC EFFECTS OF DESETHYLAMIODARONE (DEA) COMPARING TO ITS PARENT COMPOUND AMIODARONE (AMIO)

Zsófia Kohajda,¹ László Virág,² Zoltán Husti,² Anita Sztojkov-Ivanov,³ Norbert Nagy,¹ Richard Varga,³ János Prorok,³ Noémi Tóth,³ Tamás Árpádfy-Lovas,³ Szilvia Déri,³ Vivien Demeter-Haludka,³ László Tizslavicz,⁴ Leila Topál,² Imre Földesi,⁵ Norbert Jost,² István Baczkó,² András Varró²

(1) ELKH-SZTE Research Group of Cardiovascular Pharmacology, University of Szeged, Szeged, Hungary.

(2) Department of Pharmacology and Pharmacotherapy, University of Szeged, Szeged, Hungary.

(3) Department of Pharmacodynamics and Biopharmacy, University of Szeged, Szeged, Hungary.

(4) Department of Pathology, Faculty of Medicine, University of Szeged, Szeged, Hungary.

(5) Department of Laboratory Medicine, Faculty of Medicine, University of Szeged, Szeged, Hungary.

PP12 EFFECT OF ISCHEMIC POSTCONDITIONING ON ACTIVATION OF MATRIX METALLOPROTEINASES, BIGLYCAN LEVEL AND CARDIAC miRNA EXPRESSION IN *IN VIVO* PORCINE MODEL OF ACUTE MYOCARDIAL INFARCTION

Tamara Szabados,¹ Kamilla Gömöri,¹ Judit Pipis,² Péter Ferdinandy,^{2,3} Anikó Görbe,^{1,3} Péter Bencsik^{1,2}

(1) Department of Pharmacology and Pharmacotherapy, Faculty of Medicine, University of Szeged, Szeged, Hungary.

(2) Pharmahungary Group, Szeged, Budapest, Hungary.

(3) Department of Pharmacology and Pharmacotherapy, Faculty of Medicine, Semmelweis University, Budapest, Hungary.

PP13 THE EFFECTS OF RU(II) COMPLEX VERSUS CISPLATIN ON SYSTEMIC REDOX STATUS AND CARDIAC FUNCTION OF ISOLATED RAT HEART

Katarina Mihajlovic,¹ Vladimir Jakovljevic,^{2,3} Vladimir Zivkovic,² Ivan Srejovic,² Isidora Milosavljevic,¹ Jovana Jeremic,¹ Maja Savic,¹ Jasmina Sretenovic,² Slobodan Novokmet¹

(1) Department of Pharmacy, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, Serbia.

(2) Department of Physiology, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, Serbia.

(3) Department of Human Pathology, 1st Moscow State Medical, University IM Sechenov, Moscow, Russian Federation.

PP14 ACENOCOUMAROL RESISTANCE IN SERBIAN PATIENTS CAUSED BY VKORC1 GENE VARIANTS

Liljana Rakicevic,¹ Mirjana Kovac,² Dragica Radojkovic¹

(1) Institute of molecular genetics and genetic engineering, University of Belgrade, Belgrade, Serbia.

(2) Hemostasis Department, Blood Transfusion Institute of Serbia, Belgrade, Serbia.

PP15 ASSESSMENT OF CARDIOMETABOLIC ALTERATIONS IN HYPERANDROGENIC RAT PCOS MODEL

Jovana Joksimovic Jovic,¹ Maja Nikolic,¹ Jasmina Sretenovic,¹ Nikola Jovic,² Jovan Rudic,³ Kristina Andric,⁴ Ivana Nikolic,⁵ Zoran Milosavljevic,⁶ Slobodanka Mitrovic,⁷ Vladimir Jakovljevic^{1,8}

(1) Department of Physiology, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, Serbia.

(2) Department of Gynecology and Obstetrics, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, Serbia.

(3) University Clinic for Gynecology and Obstetrics "Narodni Front", Belgrade, Serbia.

(4) Department of Dermatovenerology, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, Serbia.

(5) Department of Biochemistry, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, Serbia.

(6) Department of Histology and Embriology, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, Serbia.

(7) Department of Pathology, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, Serbia.

(8) Department of Human Pathology, I.M. Sechenov First Moscow State Medical University, Moscow, Russia.

PP16 PROTECTIVE ROLE OF VITAMIN B1 IN DOXORUBICIN-INDUCED CARDIOTOXICITY IN RATS: FOCUS ON REDOX AND APOPTOTIC MARKERS IN HEART

Marina Rankovic,¹ Andjela Milojevic Samanovic,² Nevena Draginic,¹ Vladimir Zivkovic,³ Ivan Srejovic,³ Slobodanka Mitrovic,⁴ Tamara Nikolic Turnic,¹ Vladimir Jakovljevic^{3,5}

(1) Department of Pharmacy, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, Serbia.

(2) Department of Dentistry, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, Serbia.

(3) Department of Physiology, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, Serbia.

(4) Department of Pathology, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, Serbia.

(5) Department of Human Pathology, I.M. Sechenov First Moscow State Medical University, Moscow, Russia.

PP17 VARIANTS C.454-397T>C AND C.454-351A>G OF ESTROGEN RECEPTOR A INFLUENCES RESULTS OF LUPUS ANTICOAGULANT SCREENING AND FIBRINOGEN MEASUREMENT IN PATIENTS WITH ACUTE MYOCARDIAL INFARCTION

Liljana Rakicevic,¹ Dragan Matic,² Nebojsa Antonijevic,^{3,4} Andjelo Beletic,⁵ Dragica Radojkovic⁶

(1) Institute of molecular genetics and genetic engineering, University of Belgrade, Belgrade, Serbia.

(2) Cardiology Clinic, Clinical Center of Serbia, Belgrade, Serbia.

(3) Faculty of Medicine, University of Belgrade, Belgrade, Serbia.

(4) Cardiology Clinic, Clinical Center of Serbia, Serbia.

(5) Center for Medical Biochemistry, Clinical Center of Serbia, Belgrade, Serbia.

(6) Institute of molecular genetics and genetic engineering, University of Belgrade, Belgrade, Serbia.

PP18 CARDIOPROTECTION AGAINST ACUTE MYOCARDIAL INFARCTION BY MATRIX METALLOPROTEINASE INHIBITION IN NORMO- AND HYPERCHOLESTEROLEMIA

Tamara Szabados,¹ Kamilla Gömöri,¹ György Dormán,² Péter Ferdinandy,¹ Anikó Görbe,¹ Péter Bencsik¹

(1) Department of Pharmacology and Pharmacotherapy, University of Szeged and Pharmahungary Group, Szeged, Hungary.

(2) Targetex Biosciences, Dunakeszi, Hungary.

PP19 CARDIAC RECEPTOR-INTERACTING PROTEIN KINASE 3 INCREASES CALCIUM-INDUCED MITOCHONDRIAL SWELLING IN ACUTE MYOCARDIAL ISCHEMIA/REPERFUSION INJURY INDEPENDENTLY OF NECROPTOSIS

Csaba Horvath,¹ Megan Young,² Izabela Jarabicova,¹ Lucia Kindernay,³ Kristina Ferenczyova,³ Tanya Ravingerova,³ Martin Lewis,² M Saadeh Suleiman,² Adriana Adameova¹

(1) Department of Pharmacology and Toxicology, Faculty of Pharmacy, Comenius University in Bratislava, Bratislava, Slovakia.

(2) Faculty of Health Sciences, Bristol Heart Institute, The Bristol Medical School, University of Bristol, Bristol, United Kingdom.

(3) Centre of Experimental Medicine, Institute for Heart Research, Slovak Academy of Sciences, Bratislava, Slovakia.

PP20 FOLLOW-UP OF INFLUENCE OF PSYCHOTRAUMA ON INTIMA-MEDIA THICKNESS IN YOUNG ADULTS FOLLOWING THE WAR

Tamara Savic,¹ Dusko Vulic,^{2,3} Drenka Secerov Zecevic,² Zoran Vujkovic,^{4,5} Marija Burgic,⁶ Goran Spasojevic,⁷ Nathan D Wong^{2,8}

(1) Neurology Clinic, University Clinical Centre of the Republic of Srpska, Banja Luka, the Republic of Srpska, Bosnia and Herzegovina.

(2) Academy of Sciences and Arts Republic of Srpska, Banja Luka, the Republic of Srpska, Bosnia and Herzegovina.

(3) Department of Internal Medicine, Faculty of Medicine, University of Banja Luka, Banja Luka, the Republic of Srpska, Bosnia and Herzegovina.

(4) Neurology Clinic, University Clinical Centre of the Republic of Srpska, Banja Luka, the Republic of Srpska Bosnia and Herzegovina.

(5) Department of Neurology, Faculty of Medicine, University of Banja Luka, Banja Luka, the Republic of Srpska, Bosnia and Herzegovina.

(6) Department of Psychiatry, Faculty of Medicine, University of Banja Luka, Banja Luka, the Republic of Srpska, Bosnia and Herzegovina.

(7) Department of Anatomy, Faculty of Medicine, University of Banja Luka, Banja Luka, the Republic of Srpska, Bosnia and Herzegovina.

(8) Heart Disease Prevention Program, Division of Cardiology, Department of Medicine, University of California, Irvine, CA, USA.

PP21 CARDIOTOXIC EFFECTS AND OXIDATIVE STRESS INDUCED BY POTENTIALLY ANTITUMOR RUTHENIUM AGENTS IN MICE

Maja Savic,¹ Vesna Stankovic,² Katarina Mihajlovic,¹ Tamara Nikolic Turnic,¹ Vladimir Jakovljevic,^{3,4} Slobodan Novokmet¹

(1) Department of Pharmacy, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, Serbia.

(2) Department of Pathology, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, Serbia.

(3) Department of Physiology, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, Serbia.

(4) Department of Human Pathology, I.M. Sechenov First Moscow State Medical University, Moscow, Russia.

PP22 THE SMALL-CONDUCTANCE CA₂₊-ACTIVATED POTASSIUM CHANNEL CONTRIBUTES TO THE SINUS-NODE PACEMAKING UNDER BETA-ADRENERGIC ACTIVATION

Gergő Bitay,¹ Noémi Tóth,¹ Szilvia Déri,¹ Zsófia Kohajda,² András Varró,¹ Norbert Nagy²

(1) Department of Pharmacology and Pharmacotherapy, Faculty of Medicine, University of Szeged, Hungary.

(2) ELKH-SZTE Research Group of Cardiovascular Pharmacology, Hungarian Academy of Sciences, Szeged, Hungary.

PP23 THE EFFECTS OF CHRONIC EMPAGLIFLOZIN TREATMENT ON ECHOCARDIOGRAPHIC AND MORPHOMETRIC PARAMETERS OF RAT AORTA

Maja Nikolic,¹ Jovana Joksimovic Jovic,¹ Jasmina Sretenovic,¹ Vladimir Zivkovic,¹ Ivan Srejovic,¹ Danijela Djokovic,² Nemanja Muric,² Zorica Savovic,³ Stefan Simovic,^{3,4} Vladimir Jakovljevic^{1,5}

(1) Department of Physiology, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, Serbia.

(2) Department of Psychiatry, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, Serbia.

(3) Clinic for Cardiology, University Clinical Center Kragujevac, Kragujevac, Serbia.

(4) Department of Internal Medicine, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, Serbia.

(5) Department of Human Pathology, 1st Moscow State Medical University IM Sechenov, Moscow, Russia.

PP24 TIME-DEPENDENT ALTERATION IN MORPHOMETRIC PARAMETERS AND COLLAGEN CONTENT OF THE HEART IN RATS EXPOSED TO SWIMMING AND NANDROLONE DECANOATE

Jasmina Sretenovic,¹ Ivan Srejovic,¹ Jovana Joksimovic Jovic,¹ Maja Nikolic,¹ Tamara Nikolic Turnic,² Maja Savic,² Maja Jevdjevic,³ Zoran Milosavljevic,⁴ Sergej Bolevich,⁵ Vladimir Jakovljevic^{1,5}

(1) Department of Physiology, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, Serbia.

(2) Department of Pharmacy, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, Serbia.

(3) College of Health Studies in Cuprija, Cuprija, Serbia.

(4) Department of Histology and Embryology, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, Serbia.

(5) Department of Human Pathology, 1st Moscow State Medical University IM Sechenov, Moscow, Russia.

PP25 THE INFLUENCE OF CREATINE AND BETAIN SUPPLEMENTATION ON THE REDOX STATUS OF RATS

Marijana Andjic,¹ Nevena Draginic,^{1,3} Veljko Prokic,² Suzana Pantovic,² Vladimir Zivkovic,² Marina Rankovic,² Ksenija Vucicevic,¹ Milica Milinkovic,² Vladimir Jakovljevic^{2,3}

(1) Department of Pharmacy, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, Serbia.

(2) Department of Physiology, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, Serbia.

(3) Department of Human Pathology, 1st Moscow State Medical University IM Sechenov, Moscow, Russia.

PP26 INCREASED CARDIOVASCULAR RISK IN BREAST CANCER PATIENTS ON AROMATASE INHIBITORS

Vesna Vucic,¹ Predrag Krstic,² Milica Kojadinovic,¹ Marija Paunovic,¹ Snjezana Petrovic,¹ Danijela Ristic Medic,¹ Aleksandra Arsic¹

(1) Department of Nutritional Biochemistry and Dietology, Institute for Medical Research, National Institute for Republic of Serbia, University of Belgrade, Belgrade, Serbia.

(2) Department of Hematology, Military Medical Academy, Belgrade, Serbia.

PP27 THE EFFECTS OF LEMON BALM ETHANOLIC EXTRACT ON EXPERIMENTAL AUTOIMMUNE MYOCARDITIS IN RATS

Isidora Milosavljevic,¹ Nevena Draginic,^{1,2} Jovana Jeremic,¹ Ivan Srejovic,³ Vladimir Zivkovic,³ Slobodanka Mitrovic,⁴ Marina Tomovic,¹ Sergey Bolevich,² Vladimir Jakovljevic^{3,4}

(1) Department of Pharmacy, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, Serbia.

(2) Department of Human Pathology, I.M. Sechenov First Moscow State Medical University, Moscow, Russia.

(3) Department of Physiology, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, Serbia.

(4) Department of Pathology, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, Serbia.

PP28 POTENTIAL ROLE AND THERAPEUTIC INTERESTS OF D-CHIRO-INOSITOL IN REDUCING OF OXIDATIVE STRESS IN BLOOD OF PATIENTS WITH POLYCYSTIC OVARY SYNDROME

Tamara Nikolic Turnic,¹ Dusan Simic,² Aleksandra Dimitrijevic,³ Aleksandar Zivadinovic,³ Jelena Milosevic-Stevanovic,² Dusan Djuric,¹ Vladimir Zivkovic,⁴ Vladimir Jakovljevic⁴

(1) Department of Pharmacy, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, Serbia.

(2) Department of Gynecology and Obstetrics, Faculty of Medicine, University of Nis, Nis, Serbia.

(3) Department of Gynecology and Obstetrics, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, Serbia.

(4) Department of Physiology, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, Serbia.

20.00 **BUSES LEAVE FOR DINNER** (Venue: Restaurant Integra)

WEDNESDAY, 22 SEPTEMBER 2021

SYMPOSIUM 7: ADVANCES IN CARDIOVASCULAR PROTECTION I (Concert Hall)

09.00-10.30

Chairs: Dragan M Djuric (Belgrade, Serbia), Ferenc Gallyas (Pécs, Hungary)

USING DIETARY FLAXSEED FOR CARDIAC AND HEPATIC DISEASE

Mihir Parikh,^{1,4,5} Branislav Kura,² Thane G. Maddaford,^{1,4,5} Spencer D. Proctor,³ Thomas Netticadan,^{1,4,6} Grant N Pierce^{1,4,5}

(1) Department of Physiology and Pathophysiology, Faculty of Health Sciences, University of Manitoba, Winnipeg, MB, Canada.

(2) Institute for Heart Research, Centre of Experimental Medicine, Slovak Academy of Sciences, Bratislava, Slovak Republic.

(3) Metabolic and Cardiovascular Diseases Laboratory, Division of Human Nutrition, University of Alberta, Edmonton, AB, Canada.

(4) Canadian Centre for Agri-food Research in Health and Medicine (CCARM), Winnipeg, MB, Canada.

(5) the Institute of Cardiovascular Sciences, Winnipeg, MB, Canada.

(6) Agriculture and Agri-Food Canada, St. Boniface Hospital Albrechtsen Research Centre, Winnipeg, MB, Canada.

HOMOCYSTEINE AND RELATED B VITAMINS AS TARGET FOR CARDIOPROTECTION: WHAT MIGHT BE CONCLUDED FROM CARDIOMETABOLIC MODELS

Dragan M Djuric¹

(1) Institute of Medical Physiology "Richard Burian" Faculty of Medicine, University of Belgrade, Belgrade, Serbia.

CREATINE PHOSPHATE - A NEW TOOL IN CARDIOPROTECTION

Vladimir L Jakovljevic,^{1,2} Vladimir Zivkovic,¹ Ivan M Srejovic,³ Nevena Jeremic,⁴ Tamara Nikolic Turnic,⁴ Isidora Milosavljevic,⁴ Jovana Jeremic,⁴ Jovana Bradic,⁴ Sergey Bolevich²

(1) Department of Physiology, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, Serbia.

(2) Department of Human Pathology, I.M. Sechenov First Moscow State Medical University, Moscow, Russia.

(3) Department of Physiology, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, Serbia.

(4) Department of Pharmacy, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, Serbia.

CARDIOPROTECTIVE EFFECTS OF BGP-15, A NOVEL INSULIN SENSITISER

Ferenc Gallyas¹

(1) Department of Biochemistry and Medical Chemistry, Faculty of Medicine, University of Pécs, Pécs, Hungary.

SYMPOSIUM 8: ADVANCES IN CARDIOVASCULAR BIOLOGY AND TOXICITY RESEARCH I (Assembly Hall)

09.00-10.30

Chairs: Monika Bartekova (Bratislava, Slovakia), Miloš P Stojiljković (Banja Luka, RS, Bosnia and Herzegovina)

TARGETING MYOCARDIAL ISCHEMIA-REPERFUSION INJURY WITH FLAVONOID QUERCETIN: IMPACT OF AGE AND SELECTED COMORBIDITIES

Monika Bartekova,^{1,2} Kristina Ferenczyova,¹ Barbora Kalocayova,¹ Lucia Kindernay,¹ Veronika Farkasova,¹ Matus Sykora,¹ Maria Fogarassyova,¹ Tanya Ravingerova,¹ Miroslav Barancik¹

(1) Institute for Heart Research, Centre of Experimental Medicine, Slovak Academy of Sciences, Bratislava, Slovakia.

(2) Institute of Physiology, Faculty of Medicine, Comenius University, Bratislava, Slovakia.

MICRORNA INTERACTOME NETWORK IN CARDIOPROTECTION AND CARDIOTOXICITY

Péter Ferdinandy^{1,2}

(1) Semmelweis University, Budapest, Hungary.

(2) Pharmahungary Group, Szeged, Hungary.

ISOPRENALINE-INDUCED MYOCARDIAL INJURY AS A MODEL IN CARDIOVASCULAR PHARMACOLOGY

Miloš P Stojiljković¹

(1) Department of Pharmacology, Toxicology and Clinical Pharmacology, Faculty of Medicine, University of Banja Luka, Banja Luka, Bosnia and Herzegovina.

PAROXETINE MITIGATES CARDIAC REMODELING BY DOXORUBICIN AND INCREASES SURVIVAL

Nina Japundžić-Žigon¹

(1) Institute of Pharmacology, Toxicology and Clinical Pharmacology, Faculty of Medicine, University of Belgrade, Belgrade, Serbia.

10.30-10.45 Coffee Break

SYMPOSIUM 9: ADVANCES IN CARDIOVASCULAR PROTECTION II (Concert Hall)

10.45-12.05

Chairs: Táňa Ravingerová (Bratislava, Slovakia), Belma Turan (Ankara, Turkey)

BENEFICIAL EFFECTS OF INSULIN APPLICATION ON DEPRESSED HEART FUNCTION OF THE ELDERLY RATS THROUGH PRESERVATION OF LONG QT INTERVALS OF ECGS

Belma Turan^{1,2}

(1) Department of Biophysics, Faculty of Medicine, Lokman Hekim University, Ankara, Turkey.

(2) Department of Biophysics, Faculty of Medicine, Ankara University, Ankara, Turkey.

EFFECT OF STATINS ON PARAOXONASE 1 (PON1) EXPRESSION IN THE KIDNEY AND RENAL HANDLING OF HOMOCYSTEINE THIOLACTONE

Jerzy Beltowski¹

(1) Department of Pathophysiology, Medical University of Lublin, Lublin, Poland.

NON-INVASIVE "CONDITIONING": POTENTIAL MECHANISMS OF ANTIISCHEMIC CARDIOPROTECTION

Táňa Ravingerová¹, Ľubomír Lonek¹, Lucia Kindernay¹, Vladislava Zohdi², Adriana Adameová³

(1) Institute for Heart Research, Centre of Experimental Medicine, Slovak Academy of Sciences, Bratislava, Slovakia.

(2) Institute of Anatomy, Faculty of Medicine, Comenius University, Bratislava, Slovakia.

(3) Department of Pharmacology and Toxicology, Faculty of Pharmacy, Comenius University, Bratislava, Slovakia.

WINE POLYPHENOL RESVERATROL AND VASCULAR TONE - NEW INSIGHTS

Ljiljana Gojkovic-Bukarica¹, Milos Gostimirovic¹, Jovana Rajkovic¹, Ana Bukarica², Vladimir Kanjuh³

(1) Institute of Pharmacology, Clinical Pharmacology and Toxicology, Faculty of Medicine, University of Belgrade, Serbia.

(2) Faculty of Medicine, University of Belgrade, Serbia.

(3) Serbian Academy of Sciences and Arts, Belgrade, Serbia.

SYMPOSIUM 10: ADVANCES IN CARDIOVASCULAR BIOLOGY AND TOXICITY RESEARCH II (Assembly Hall)

10.45-12.30

Chairs: Jan Slezak (Bratislava, Slovakia), Nenad Ponorac (Banja Luka, RS, Bosnia and Herzegovina)

MOLECULAR HYDROGEN: POTENTIAL IN MITIGATING OXIDATIVE-STRESS-INDUCED INJURY

Jan Slezak¹

(1) Institute for Heart Research, Slovak Academy of Sciences, Bratislava, Slovakia.

REACTIVE OXYGEN SPECIES IN RENAL ISCHAEMIA ASSOCIATED WITH HYPERTENSION – OUR EXPERIMENTAL EXPERIENCES

Zoran Miloradović,¹ Milan Ivanov,¹ Nevena Mihailović-Stanojević,¹ Jelica Grujić Milanović,¹ Danijela Karanović,¹ Una Jovana Vajić,¹ Maja Životić,² Đurđica Jovović¹

(1) Institute for Medical Research, National Institute of the Republic of Serbia, University of Belgrade, Belgrade, Serbia.

(2) Faculty of Medicine, University of Belgrade, Belgrade. Serbia.

MODIFICATION OF THE EXPRESSION OF SELECTED MIRNAS IN THE HEART DURING SIMULATED TRANSPLANTATION: EFFECT OF MOLECULAR HYDROGEN

Branislav Kura,¹ Barbora Kalocayova,¹ Barbara Szeiffova Bacova,¹ Matus Sykora,¹ Narcisa Tribulova,¹ Vladan Hudec,² Matej Ondrusek,² Ivo Gasparovic,² Rastislav Sramaty,² Michal Hulman,² Jan Slezak²

(1) Centre of Experimental Medicine, Institute for Heart Research, Slovak Academy of Sciences, Bratislava, Slovakia.

(2) Department of Cardiac Surgery, Faculty of Medicine, National Institute of Cardiovascular Diseases, Comenius University, Bratislava, Slovakia.

MITIGATION OF ISCHEMIA/REPERFUSION INJURY DURING HEART TRANSPLANTATION. EFFECT OF MOLECULAR HYDROGEN

Barbora Kalocayova,¹ Branislav Kura,¹ Barbara Szeiffova Bacova,¹ Matus Sykora,¹ Narcisa Tribulova,¹ Vladan Hudec,² Matej Ondrusek,² Ivo Gasparovic,² Rastislav Sramaty,² Michal Hulman,² Jan Slezak¹

(1) Centre of Experimental Medicine, Institute for Heart Research, Slovak Academy of Sciences, Bratislava, Slovakia.

(2) Department of Cardiac Surgery, Faculty of Medicine, National Institute of Cardiovascular Diseases, Comenius University, Bratislava, Slovakia.

SIMVASTATIN SUPPRESSES LIPOPOLYSACCHARIDE-INDUCED CARDIOMYOCYTE APOPTOSIS AND PREVENTS MYOCARDIAL INJURY BY MODULATING THE CROSSTALK BETWEEN WNT/B-CATENIN AND NF-KB PATHWAYS

Lana Nežić,¹ Ljiljana Amidžić,² Radoslav Gajanin,³ Vesna Jacević,⁴ Ranko Skrbic¹

(1) Department of Pharmacology, Toxicology and Clinical Pharmacology, Faculty of Medicine, University of Banja Luka, Banja Luka, Bosnia and Herzegovina.

(2) Center for Biomedical Research, School of Medicine, University of Banja Luka, 14 Save Mrkalja St, 78000 Banja Luka, Bosnia and Herzegovina.

(3) Institute of Pathology, University Clinical Center of Republic of Srpska, School of Medicine, University of Banja Luka, Banja Luka, Bosnia and Herzegovina.

(4) Department for Experimental Toxicology and Pharmacology, National Poison Control Centre, Military Medical Academy, Belgrade, Serbia.

(5) Department of Pharmacology, Toxicology and Clinical Pharmacology, Faculty of Medicine, University of Banja Luka, Banja Luka, Bosnia and Herzegovina.

SYMPOSIUM 11: COVID-19 AND CARDIOVASCULAR SYSTEM (Concert Hall)

12.15-13.15

Chairs: Tatjana Simić (Belgrade, Serbia), Zoltan Papp (Debrecen, Hungary)

THE ROLE OF GLUTATHIONE TRANSFERASE GENETIC PROFILE IN SUSCEPTIBILITY OF DEVELOPING SYMPTOMATIC COVID-19

Tatjana Simic,^{1,2} Marija Pljesa-Ercegovac,¹ Vesna Coric,¹ Ivana Milosevic,³ Tatjana Djukic,¹ Zoran Bukumiric,⁴ Ana Savic Radojevic,¹ Marija Matic,¹ Djurdja Jerotic,¹ Nevena Todorovic,⁷ Milika Asanin,⁷ Marko Ercegovac,⁸ Jovan Ranin,³ Goran Stevanovic³

(1) Institute of Medical and Clinical Biochemistry, Faculty of Medicine, University of Belgrade, Belgrade, Serbia.

(2) Serbian Academy of Sciences and Arts, Belgrade, Serbia.

(3) Clinic of Infectious and Tropical Diseases, Clinical Centre of Serbia, Belgrade, Serbia.

(4) Institute of Medical Statistics, Faculty of Medicine, University of Belgrade, Belgrade, Serbia.

(5) Institute of Medical and Clinical Biochemistry, Faculty of Medicine, University of Belgrade, Belgrade, Serbia.

(6) Clinic of Infectious and Tropical Diseases, Clinical Centre of Serbia, Belgrade, Serbia.

(7) Clinic of Cardiology, Clinical Centre of Serbia, Belgrade, Serbia.

(8) Clinic of Neurology, Clinical Centre of Serbia, Belgrade, Serbia.

FOLIC AND FOLINIC ACID (LEUCOVORIN) PREVENT SARS-COV-2 NOVEL ENTRY PATHWAY VIA NEUROFILIN-1 RECEPTOR - *IN SILICO* STUDY

Relja Suručić,¹ Dragan M Djuric,^{2,3} Miloš P Stojiljković,⁴ Ranko Škrbić⁴

(1) Department of Pharmacognosy, Faculty of Medicine, University of Banja Luka, Banja Luka, the Republic of Srpska, Bosnia and Herzegovina.

(2) Institute of Physiology "Richard Burian", Faculty of Medicine, University of Belgrade, Belgrade, Serbia.

(3) Visiting Professor, Faculty of Medicine, University of Banja Luka, Banja Luka, the Republic of Srpska, Bosnia and Herzegovina.

(4) Department of Pharmacology, Toxicology and Clinical Pharmacology, Faculty of Medicine, University of Banja Luka, Banja Luka, the Republic of Srpska, Bosnia and Herzegovina.

CARDIOMETABOLIC AND ANTIVIROTIC PROPERTIES OF POMEGRANATE (*PUNICA GRANATUM*) PEEL EXTRACT; FROM CLINICAL STUDIES BACK TO EXPERIMENTAL RESEARCH

Ranko Škrbić^{1,2}, Milkica Grabež^{2,3}, Relja Suručić^{2,4}, Miloš P Stojiljković^{1,2}, Katarina Šavikin⁵

(1) Department of Pharmacology, Toxicology and Clinical Pharmacology, Faculty of Medicine, University of Banja Luka, Banja Luka, the Republic of Srpska, Bosnia and Herzegovina.

(2) Centre for Biomedical Research, Faculty of Medicine, University of Banja Luka, Banja Luka, the Republic of Srpska, Bosnia and Herzegovina.

(3) Department of Hygiene, Faculty of Medicine, University of Banja Luka, Banja Luka, the Republic of Srpska, Bosnia and Herzegovina.

(4) Department of Pharmacognosy, Faculty of Medicine, University of Banja Luka, Banja Luka, the Republic of Srpska, Bosnia and Herzegovina.

(5) Institute for Medicinal Plant Research "Dr Josif Pančić", Belgrade, Serbia

NORMALIZATION OF TISSUE ACE AND ACE2 ACTIVITIES AND CARDIOMYOCYTE SIGNALLING IN A RAT MODEL OF REPEATED REMOTE ISCHAEMIC CONDITIONING

Beáta Bódi¹, Patrick M Pilz², Lilla Mártha¹, Dietmar Abraham², Miriam Lang², Ouafa Hamza², Miklós Fagyas¹, Petra L Szabó², Attila Tóth^{1,3}, Bruno K Podesser², Attila Kiss², Zoltán Papp^{1,3}

(1) Division of Clinical Physiology, Department of Cardiology, Faculty of Medicine, University of Debrecen, Hungary.

(2) Ludwig Boltzmann Cluster for Cardiovascular Research, Centre for Biomedical Research, Medical University Vienna, Vienna, Austria.

(3) HAS-UD Vascular Biology and Myocardial Pathophysiology Research Group, Hungarian Academy of Sciences, Budapest, Hungary.

SYMPOSIUM 12: ADVANCES IN EXPERIMENTAL DIABETES RESEARCH (Concert Hall)

12.15-12.45

Chairs: Vladimir L Jakovljević (Kragujevac, Serbia), Amela Matavulj (Banja Luka, RS, Bosnia and Herzegovina)

PROTECTIVE POWER OF MINOCYCLINE AS HEART CONDITIONING AGENT IN EXPERIMENTAL TYPE 2 DIABETES MELLITUS

Ivan M Srejavic¹, Nikola M Sobot², Tanja S Sobot³, Jovana N Jeremic⁴, Sergey B Bolevich⁵, Stefani S Bolevich⁶, Slobodanka LJ Mitrovic⁷, Andjela D Milojevic Samanovic⁸, Marina R Rankovic¹, Vladimir I Zivkovic³, Vladimir LJ Jakovljevic^{3,5}

(1) Department of Physiology, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, Serbia.

(2) Clinic for Cardiac Surgery, University Clinical Centre of the Republic of Srpska, Banja Luka, the Republic of Srpska, Bosnia and Herzegovina.

(3) Department of Physiology, Faculty of Medicine, University of Banja Luka, Banja Luka, the Republic of Srpska, Bosnia and Herzegovina.

(4) Department of Pharmacy, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, Serbia.

(5) Department of Human Pathology, First Moscow State Medical University (Sechenov University), Moscow, Russia.

(6) Department of Pathophysiology, First Moscow State Medical University (Sechenov University), Moscow, Russia.

(7) Department of Pathology, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, Serbia.

(8) Department of Dentistry, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, Serbia.

AMELORATIVE EFFECTS OF SACUBITRIL/VALSARTAN IN DIABETIC CARDIOMYOPATHY

Nevena Jeremic,¹ Jovana Bradic,¹ Isidora Milosavljevic,¹ Jovana Jeremic,¹ Vladimir Zivkovic,² Ivan Srejovic,² Tamara Nikolic Turnic,¹ Nenad Filipovic,³ Vladimir Jakovljevic²

(1) Department of Pharmacy, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, Serbia.

(2) Department of Physiology, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, Serbia.

(3) Faculty of Engineering, University of Kragujevac, Kragujevac, Serbia.

13.30-15.00 Lunch/IACS Council Meeting (Crystal Hall, Hotel Bosna)

SYMPOSIUM 13: GARY LOPASCHUK STUDENT AWARD COMPETITION (Concert Hall)

15.00-16.30

Panel of Judges: Istvan Baczko (Szeged, Hungary), Monika Bartekova (Bratislava, Slovakia), Nathan D Wong (Irvine, CA, USA)

SIX-WEEK ADMINISTRATION OF *M. OFFICINALIS* EXTRACT AMELIORATES EXPERIMENTAL AUTOIMMUNE MYOCARDITIS IN RATS: FOCUS ON OXIDATIVE STRESS

Nevena Draginic,^{1,2} Marijana Andjic,¹ Marina Rankovic,¹ Jovana Jeremic,¹ Ivan Srejovic,³ Jasmina Sretenovic,³ Vladimir Zivkovic,³ Sergey Bolevich,² Vladimir Jakovljevic,^{2,3} Isidora Milosavljevic¹

(1) Department of Pharmacy, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, Serbia.

(2) Department of Human Pathology, 1st Moscow State Medical, University IM Sechenov, Moscow, Russia.

(3) Department of Physiology, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, Serbia.

THE MECHANISMS OF RESVERATROL'S INTERACTION WITH CALCIUM SIGNALING IN THE VASCULAR SMOOTH MUSCLE CELLS OF DIABETIC PATIENTS

Milos Gostimirovic,¹ Jovana Rajkovic,¹ Igor Zivkovic,² Dusko Terzic,³ Vladimir Djokic,¹ Ljiljana Gojkovic-Bukarica¹

(1) Institute of Pharmacology, Clinical Pharmacology and Toxicology, Faculty of Medicine, University of Belgrade, Belgrade, Serbia.

(2) Institute for Cardiovascular Diseases "Dedinje", Belgrade, Serbia.

(3) Clinic for Cardiosurgery, Clinical Centre of Serbia, Belgrade, Serbia.

INVESTIGATION OF THE REVERSE Na^+/Ca^{2+} EXCHANGER FUNCTION IN THE SPONTANEOUS AUTOMATICITY OF RABBIT SINUS NODE CELLS

Noémi Tóth,¹ Axel Loewe,² Zsófia Kohajda,³ Gergő Bitay,¹ Jouko Levijoki,⁴ Julius Gy. Papp,³ András Varró,^{1,3} Norbert Nagy,^{1,3}

(1) Department of Pharmacology and Pharmacotherapy, Albert Szent-Györgyi Medical School, University of Szeged, Szeged, Hungary.

- (2) *Institute of Biomedical Engineering, Karlsruhe Institute of Technology, Karlsruhe, Germany.*
(3) *ELKH-SZTE Research Group of Cardiovascular Pharmacology, University of Szeged, Szeged, Hungary.*
(4) *Orion Pharma, Espoo, Finland.*

CARVACROL-INDUCED VASODILATION OF ISOLATED HUMAN UMBILICAL ARTERIES - BLOCKING THE L-TYPE CALCIUM CHANNELS

Đorđe Đukanović¹, Sonja Marinković¹, Milica Gajić Bojić¹, Saša Trailović², Miloš P Stojiljković³, Ranko Škrbić³

- (1) *Centre for Biomedical Research, Faculty of Medicine, University of Banja Luka, Banja Luka, Bosnia and Herzegovina.*
(2) *Faculty of Veterinary Medicine, University of Belgrade, Belgrade, Serbia.*
(3) *Department of Pharmacology, Toxicology and Clinical Pharmacology, Faculty of Medicine, University of Banja Luka, Banja Luka, Bosnia and Herzegovina.*

SYMPOSIUM 14: ONLINE 2 (at Red Salon plus web platform)

15.00-18.00

Chairs: Zoran Todorović (Belgrade, Serbia), Nataša Stojaković (Banja Luka, RS, Bosnia and Herzegovina)

STRESS ECHOCARDIOGRAPHY TO PHENOTYPE THE FAILING HEART: STRESS ECHO 2030

Tonino Bombardini¹

- (1) *Department of Echocardiography, Institute of Clinical Physiology, National Council of Research, Pisa, Italy.*

MYOCARDIAL REVASCULARIZATION 2021: TO WHOM, WHEN AND HOW? PERSONAL VIEW

Miodrag Č Ostojić¹

- (1) *Clinic of Cardiology, University Clinical Centre, Faculty of Medicine, University of Belgrade, Belgrade, Serbia.*

EXTRACORPOREAL MEMBRANE OXYGENATION (ECMO) AND LEFT VENTRICULAR FUNCTION IN CARDIOGENIC SHOCK

Petr Ostadal¹

- (1) *Cardiovascular Center, Na Homolce Hospital, Prague, Czech Republic.*

CHALLENGES AND OPPORTUNITIES IN MANAGING PATIENTS WITH CARDIOMETABOLIC DISEASE: A MAP FOR PROGRESS?

Brent M Egan^{1,2}

- (1) *Vice-President, Cardiovascular Disease Prevention; American Medical Association, Improving Health Outcomes, USA.*
(2) *School of Medicine, University of South Carolina, Greenville, SC, USA.*

HOME TREATMENT OF PULMONARY EMBOLISM IN EVERY DAY CLINICAL PRACTICE

Gregor Tratar¹

- (1) *University Clinical Centre Ljubljana, Ljubljana, Slovenia.*

CARDIAC CACHEXIA

Goran Lončar¹

(1) *Dedinje Cardiovascular Institute, Belgrade, Serbia.*

ANGIOTENSIN ACTION INHIBITORS IN COVID-19: ETHICAL CONSIDERATIONS FOR PRESCRIBING

Miroslav Radenković¹

(1) *Department of Pharmacology, Clinical Pharmacology and Toxicology, Faculty of Medicine, University of Belgrade, Belgrade, Serbia.*

DYSBIOTIC 1-CARBON METABOLISM IN GROWTH RETARDATION

Suresh C Tyagi¹

(1) *Department of Physiology, School of Medicine, University of Louisville, Louisville, USA.*

HYPERTROPHIC CARDIAC REMODELING – ANOTHER EVIDENCE OF GENDER EQUALITY

Dragan Radovanović¹

(1) *Faculty of Sport and Physical Education, University of Nis, Nis, Serbia.*

SYMPOSIUM 15: BERLIN-CHEMIE ONLINE SYMPOSIUM (at Red Salon plus web platform)

18.00-18.40

OPTIMAL MEDICAL TREATMENT VS REVASCLARIZATION IN THE POST ORBITA AND ISCHEMIA ERA

Peter Collins¹

(1) *Department of Cardiac Medicine, National Heart and Lung Institute, Imperial College School of Medicine, London, United Kingdom.*

MICROVASCULAR DISEASE AND CHRONIC CORONARY SYNDROMES

Ralf Dechend¹

(1) *HELIOS Clinic, Berlin, Germany.*

POSTER SESSION II (Venue: Grand Salon)

18.00-19.30

PP29 LACTOBACILLUS RHAMNOSUS MITIGATES PERIODONTAL DISEASE IN HYPERHOMOCYSTEINEMIC MICE

Dragana Stanisić,^{1,2} Suresh C Tyagi,² Nevena Jeremić,^{2,3}

(1) *Department of Dentistry, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, Serbia.*

(2) *Department of Physiology, School of Medicine, University of Louisville, Louisville, USA.*

(3) *Department of Pharmacy, Faculty of Medical Sciences, University of Kragujevac, Kragujevac, Serbia.*

PP30 MATRIX METALLOPROTEINASES AND THEIR ROLE IN MECHANISMS UNDERLYING EFFECTS OF QUERCETIN ON HEART FUNCTION IN ZUCKER DIABETIC FATTY RATS

Barbora Bořanská,¹ Monika Barteková,¹ Kristína Ferenczyová,¹ Mária Fogarassyová,¹ Lucia Kindernay,¹
Miroslav Barančík¹

(1) *Centre of Experimental Medicine, Slovak Academy of Sciences, Bratislava, Slovakia.*

PP31 THE EFFECTS OF A MELDONIUM PRE-TREATMENT ON THE SEPSIS-INDUCED RAT HEART INJURY

Iva Lakić,¹ Siniša Đurašević,¹ Aleksandra Ružičić,¹ Tomislav Tosti,² Saša Đurović,³ Sofija Glumac,⁴ Slađan Pavlović,⁵ Slavica Borković-Mitić,⁵ Ilijana Grigorov,⁵ Sanja Stanković,^{6,7} Nebojša Jasnić,¹ Zoran Todorović,^{4,8} Jelena Đorđević¹

(1) Faculty of Biology, University of Belgrade, Belgrade, Serbia.

(2) Faculty of Chemistry, University of Belgrade, Belgrade, Serbia.

(3) Institute of General and Physical Chemistry, University of Belgrade, Belgrade, Serbia.

(4) School of Medicine, University of Belgrade, Belgrade, Serbia.

(5) Institute for Biological Research "Siniša Stanković" – National Institute of Republic of Serbia, University of Belgrade, Belgrade, Serbia.

(6) Centre for Medical Biochemistry, University Clinical Centre of Serbia, Belgrade, Serbia.

(7) Faculty of Medical Sciences, University of Kragujevac, Kragujevac, Serbia.

(8) University Medical Centre "Bežanijska kosa", University of Belgrade, Belgrade, Serbia.

PP32 HIGH FAT HIGH FRUCTOSE DIET AND CARDIOMETABOLIC SYNDROME IN WISTAR RATS: CHALLENGES REMAIN

Marija Paunovic,¹ Vesna Vucic,¹ Maja Milosevic,² Aleksandra Arsic,¹ Danijela Ristic-Medic,¹ Milica Kojadinovic,¹ Snjezana Petrovic¹

(1) Department for Nutritional Biochemistry and Dietology, Centre of Research Excellence in Nutrition and Metabolism, Institute for Medical Research, University of Belgrade, Belgrade, Serbia.

(2) Department of Neuroendocrinology, Institute for Medical Research, University of Belgrade, Belgrade, Serbia.

PP33 THE CYP2C19*17 VARIANT IS NOT ASSOCIATED WITH AN INCREASED RESPONSE TO CLOPIDOGREL, BUT IT INCREASES THE RISK FOR THE DEVELOPMENT OF CAROTID ARTERY STENOSIS

Lilijana Rakicevic,¹ Mirjana Novkovic,¹ Dragana Backovic,² Evgenija Strugarevic,³ Mirjana Kovac,^{4,5} Jelena Kusic-Tisma,¹ Dragica Radojkovic¹

(1) Institute of molecular genetics and genetic engineering, University of Belgrade, Belgrade, Serbia.

(2) Faculty of Pharmacy, University of Belgrade, Belgrade, Serbia.

(3) Institute for Cardiovascular Diseases Dedinje, Belgrade, Serbia.

(4) Faculty of Medicine, University of Belgrade, Belgrade, Serbia,

(5) Hemostasis Department, Blood Transfusion Institute of Serbia, Belgrade, Serbia.

PP34 CAPILLARY NETWORK AND CONNEXIN-43 ARE ENHANCED IN RESPONSE OF HAIRLESS RAT HEART TO INCREASED THERMOGENESIS

Katarina Andelova,¹ Barbara Szeiffova Bacova,¹ Matus Sykora,¹ Stanislav Pavelka,² Narcis Tribulova¹

(1) Centre of Experimental Medicine, Slovak Academy of Sciences, Bratislava, Slovakia.

(2) Institute of Physiology, v.v.i., Academy of Sciences of the Czech Republic, Prague, Czech Republic.

PP35 UTILIZING SECRETED PEPTIDES TO REMIND THE ADULT ORGANS ON THEIR EMBRYONIC STATE – NEW DIRECTIONS IN ANTI-AGING REGENERATIVE THERAPIES

Ildiko Bock-Marquette,^{1,2} Ferenc Gallyas,^{1,2} Klaudia Maar,^{1,2}

(1) Department of Biochemistry and Medical Chemistry, Medical School, University of Pecs, Pecs, Hungary.

(2) Research Group of Regenerative Science, Sport and Medicine, Szentagotthai Research Centre, University of Pecs, Pecs, Hungary.

PP36 THE CARDIOPROTECTIVE EFFECTS OF RESVERATROL IN HEART FAILURE

Laszlo Deres,¹ Adam Riba,¹ Roland Gal,¹ Eszter Szabados,¹ Tamas Habon,¹ Ferenc Gallyas,² Kalman Toth,¹ Robert Halmosi¹

(1) 1st Department of Medicine, University of Pecs, Pecs, Hungary.

(2) Department of Biochemistry and Medical Chemistry, University of Pecs, Pecs, Hungary.

PP37 INVESTIGATIONS ON CARDIAC REMODELING ASSOCIATED WITH THE CELLULAR ELECTROPHYSIOLOGICAL EFFECTS OF LONG-TERM ENDURANCE TRAINING IN SMALL- AND IN LARGE ANIMAL ATHLETE'S HEART MODEL

Leila Topal,¹ Alexandra Polyák,^{1,2} Noémi Tóth,¹ János Prorok,^{1,3} Norbert Nagy,^{1,3} László Virág,¹ Norbert Jost,^{1,3} István Baczkó,¹ Attila Farkas,⁴ András Varró^{1,3}

(1) Department of Pharmacology and Pharmacotherapy, Faculty of Medicine, University of Szeged, Szeged, Hungary.

(2) Department of Paediatrics, University of Szeged, Szeged, Hungary.

(3) Working Group of Cardiovascular Pharmacology, Hungarian Academy of Sciences, Szeged, Hungary.

(4) 2nd Department of Internal Medicine and Cardiology Centre, Faculty of Medicine, University of Szeged, Szeged, Hungary.

PP38 EFFECTS OF FLAVONOID QUERCETIN ON SELECTED CARDIOVASCULAR PARAMETERS AND ISCHEMIA-REPERFUSION INJURY OF THE MYOCARDIUM IN RATS WITH EXPERIMENTAL TYPE 2 DIABETES

Kristina Ferenczyova,¹ Lucia Kindernay,¹ Barbora Kalocayova,¹ Matus Sykora,¹ Marek Jelemensky,¹ Peter Balis,² Andrea Berenyiova,² Anna Zemancikova,² Jozef Torok,² Sona Cacanyiova,² Tomas Rajtik,³ Miroslav Barancik,¹ Monika Bartekova¹

(1) Institute for Heart Research, Centre of Experimental Medicine, Slovak Academy of Sciences, Bratislava, Slovakia.

(2) Institute of Normal and Pathological Physiology, Centre of Experimental Medicine, Slovak Academy of Sciences, Bratislava, Slovakia.

(3) Department of Pharmacology and Toxicology, Faculty of Pharmacy, Comenius University in Bratislava, Bratislava, Slovakia.

PP39 THE ROLE OF ACTION POTENTIAL RESTITUTION VERSUS CA²⁺ CYCLING IN THE MECHANISM OF ALTERNANS IN CANINE VENTRICULAR MYOCARDIUM

Norbert Nagy,¹ Noémi Tóth,¹ Zsófia Kohajda,² Jozefina Szlovák,¹ Gergő Bitay,¹ Roland Veress,³ Balazs Horvath,⁴ Julius Gy. Papp,² András Varró¹

(1) Department of Pharmacology and Pharmacotherapy, Faculty of Medicine, University of Szeged, Szeged, Hungary.

(2) ELKH-SZTE Research Group of Cardiovascular Pharmacology, Hungarian Academy of Sciences, Szeged, Hungary.

(3) *Department of Physiology, Faculty of Medicine, University of Debrecen, Debrecen, Hungary.*

(4) *Department of Physiology, Faculty of Medicine, University of Debrecen, Debrecen, Hungary.*

PP40 IDENTIFICATION OF POTENTIAL PHYSICAL AND PSYCHOLOGICAL STRESS INITIATED PEPTIDES IN SUPPORT OF TISSUE REGENERATION AND REPAIR IN HUMANS

Szabolcs Maar,^{1,2} Lilla Adrienn Czuni,² Szilard Rendeki,³ Aniko Takatsy,¹ Klaudia Maar,^{1,2} Gabor Faskerti,^{1,2} Ferenc Gallyas,^{1,2} Ildiko Bock-Marquette^{1,2}

(1) *Department of Biochemistry and Medical Chemistry, University of Pecs Medical School, Pecs, Hungary.*

(2) *Szentagothai Research Centre, University of Pecs, Pecs, Hungary.*

(3) *Military Medicine, Disaster Medicine and Law Enforcement Medicine, University of Pecs Medical School, Pecs, Hungary.*

PP41 THYMOSIN BETA-4 ALTERS ROCK1 EXPRESSION IN THE ADULT HYPOXIC MAMMALIAN HEART

Klaudia Maar,^{1,2} Jeffrey E Thatcher,³ Eric N Olson,⁴ Ferenc Gallyas,^{1,2} Ildiko Bock-Marquette^{1,2,3,4}

(1) *Department of Biochemistry and Medical Chemistry, University of Pecs Medical School, Pecs, Hungary.*

(2) *Szentagothai Research Centre, University of Pecs, Pecs, Hungary.*

(3) *Department of Cardiovascular and Thoracic Surgery, University of Texas Southwestern Medical Center, Dallas, Texas, USA.*

(4) *Department of Molecular Biology, University of Texas Southwestern Medical Center, Dallas, Texas, USA.*

PP42 PROTECTIVE EFFECT OF SELECTED SUBSTANCES ON RADIATION-INDUCED HEART DAMAGE IN RATS

Alexandra Trusikova,¹ Branislav Kura,¹ Barbora Kalocayova,¹ Barbara Szeiffova Bacova,¹ Matus Sykora,¹ Marek Zalesak,¹ Jan Slezak¹

(1) *Centre of Experimental Medicine, Institute for Heart Research, Slovak Academy of Sciences, Bratislava, Slovakia.*

PP43 INFLUENCE OF STATINS ON ACTIVITY OF ANTI-OXIDATIVE ENZYMES IN CAROTID PLAQUES

Dragana Drakul,¹ Branislava Ćurčić,¹ Duško Blagojević,² Zorana Oreščanin-Dušić,² Srđan Radanović,³ Dragana Sokolović,¹ Milica Cvijetić,¹ Radmil Marić¹

(1) *Faculty of Medicine, University of East Sarajevo, Foča, the Republic of Srpska, Bosnia and Herzegovina.*

(2) *Institute for Biological Research "Siniša Stanković" Belgrade, Belgrade, Serbia.*

(3) *University Hospital Foča, Foča, the Republic of Srpska, Bosnia and Herzegovina.*

PP44 IN VITRO RELAXING EFFECT OF AQUEOUS SOLUTION OF SATUREJA MONTANA DRY EXTRACT ON ISOLATED RAT BLOOD VESSELS

Dragana Sokolović,¹ Dragana Drakul,¹ Milica Cvijetić,¹ Milan Kulić,¹ Dragana Pavlović,¹ Duško Blagojević,² Slobodan Milovanović¹

(1) *Faculty of Medicine, University of East Sarajevo, Foča, the Republic of Srpska, Bosnia and Herzegovina.*

(2) Institute for Biological Research "Siniša Stanković" Belgrade, Belgrade, Serbia.

PP45 miRNA EXPRESSION PROFILING - A POTENTIAL TOOL FOR DETECTING PERSONALIZED REGENERATIVE CAPACITIES IN HUMANS

Gabor Faskerti,^{1,2} Lilla Czuni,² Peter Urban,² Jozsef Kun,² Szabolcs Maar,^{1,2} Ferenc Gallyas,^{1,2} Ildiko Bock-Marquette^{1,2}

(1) Department of Biochemistry and Medical Chemistry, University of Pecs, Pecs, Hungary.

(2) Research Group of Regenerative Science, Sport and Medicine Szentagothai Research Centre, University of Pecs, Pecs, Hungary.

PP46 TRANSLOCATOR PROTEIN MODULATION BY 4'-CHLORODIAZEPAM AND NO SYNTHASE INHIBITION: HOW IT DOES EFFECT ON CARDIAC OXIDATIVE STRESS, CARDIOMETABOLIC AND INFLAMMATORY MARKERS IN ISOPRENALINE-INDUCED RAT MYOCARDIAL INFARCTION?

Ana Ilic,¹ Dusan Todorovic,² Slavica Mutavdzin,² Novica Boricic,³ Biljana Bozic Nedeljkovic,⁴ Sanja Stankovic,⁵ Tatjana Simic,¹ Predrag Stevanovic,⁶ Vera Celic,⁷ Dragan Djuric²

(1) Department of Cardiology, University Clinical Hospital Center "Dr Dragisa Misovic - Dedinje", Belgrade, Serbia.

(2) Institute of Medical Physiology "Richard Burian", Faculty of Medicine, University of Belgrade, Belgrade, Serbia.

(3) Institute of Pathology, Faculty of Medicine, University of Belgrade, Belgrade, Serbia.

(4) Institute for Physiology and Biochemistry "Ivan Djaja", Faculty of Biology, University of Belgrade, Belgrade, Serbia.

(5) Center for Medical Biochemistry, Clinical Center of Serbia, Belgrade, Serbia.

(6) Department of Anesthesiology, Reanimatology and Intensive Care Medicine, University Clinical Hospital Center "Dr Dragisa Misovic - Dedinje", Belgrade, Serbia.

(7) Department of Cardiology, University Clinical Hospital Center "Dr Dragisa Misovic - Dedinje", Belgrade, Serbia.

PP47 WORK HOURS OF RESEARCH STAFF IN A HOSPITAL-BASED RESEARCH FACILITY DURING THE COVID-19 PANDEMIC

Broderick Hirst¹

(1) Albrechtsen Research Centre, St Boniface Hospital, Winnipeg, MB, Canada.

PP48 GUT MICROBIOTA GENERATED METABOLITES OF SIMVASTATIN

Maja Đanić,¹ Nebojša Pavlović,² Bojan Stanimirov,³ Saša Vukmirović,¹ Slavica Lazarević,¹ Momir Mikov¹

(1) Department of Pharmacology, Toxicology and Clinical Pharmacology, Faculty of Medicine, University of Novi Sad, Novi Sad, Serbia.

(2) Department of Pharmacy, Faculty of Medicine, University of Novi Sad, Novi Sad, Serbia.

(3) Department of Biochemistry, Faculty of Medicine, University of Novi Sad, Novi Sad, Serbia.

PP49 MYOCARDIAL TISSUE BLOOD VESSEL ALTERATIONS OCCURRING DURING CARDIOTOXICITY INDUCED BY DOXORUBICIN

Nenad Stojiljkovic,¹ Sonja Ilic,¹ Nikola Stojanovic,¹ Slavica Stojnev²

(1) Department of Physiology, Faculty of Medicine, University of Niš, Niš, Serbia.

(2) *Clinic of Pathology, University Clinical Center Niš, Niš, Serbia.*

PP50 SIGNIFICANCE OF IGG AND IGM ANTIBODY DETERMINATION IN COVID-19 PATIENTS AND THEIR ASSOCIATION WITH THE SEVERITY OF CLINICAL PICTURE

Merima Bukva,¹ Neven Meseldžić,¹ Lejla Prnjavorac,² Besim Prnjavorac,¹ Fahir Bečić,¹ Tamer Bego¹

(1) *Faculty of Pharmacy, University of Sarajevo, Sarajevo, Bosnia and Herzegovina.*

(2) *General Hospital Tešanj, Tešanj, Bosnia and Herzegovina.*

PP51 IMPACT OF PROLONGED DURATION OF DIFFERENT TYPES OF RENAL REPLACEMENT THERAPIES ON SERUM LEVELS OF ENDOTHELIN -1 AND PULMONARY FUNCTION TESTS

Pedja Kovacevic,^{1,2} Sasa Dragic,^{1,2} Danica Momcicevic,^{1,2} Sandra Topolovac,^{1,2} Tijana Kovacevic,^{1,2} Biljana Zlojutro^{1,2}

(1) *Medical Intensive Care Unit, University Clinical Centre of the Republic of Srpska, Banja Luka, the Republic of Srpska, Bosnia and Herzegovina.*

(2) *Faculty of Medicine, University of Banja Luka, Banja Luka, the Republic of Srpska, Bosnia and Herzegovina.*

PP52 CARDIOPROTECTIVE POTENTIAL OF SEMISYNTHETIC BILE ACIDS – RATIONAL DRUG DESIGN

Slavica Lazarević,¹ Maja Đanić,¹ Nebojša Pavlović,² Saša Vukmirović,¹ Bojan Stanimirov,³ Momir Mikov¹

(1) *Department of Pharmacology, Toxicology and Clinical Pharmacology, Faculty of Medicine, University of Novi Sad, Novi Sad, Serbia.*

(2) *Department of Pharmacy, Faculty of Medicine, University of Novi Sad, Novi Sad, Serbia.*

(3) *Department of Biochemistry, Faculty of Medicine, University of Novi Sad, Novi Sad, Serbia.*

PP53 PREDICTIVE PERFORMANCE OF TROPONIN-T IN COVID-19 HOSPITALISED PATIENTS

Bojan Stanetic¹

(1) *Clinic for Cardiology, University Clinical Centre of the Republic of Srpska, Banja Luka, the Republic of Srpska, Bosnia and Herzegovina.*

PP54 SERUM LEVELS OF NITRIC OXIDE AND ENDOTHELIN-1 IN PATIENTS WITH PERIPHERAL ARTERIAL OCCLUSIVE DISEASE MANAGED WITH HYPERBARIC OXYGEN THERAPY

Sasa Dragic,^{1,2} Pedja Kovacevic,^{1,2} Danica Momcicevic,^{1,2} Biljana Zlojutro,^{1,2} Milka Jandric,^{1,2} Tijana Kovacevic,^{2,3} Vlado Djajic^{2,4}

(1) *Medical Intensive Care Unit, University Clinical Centre of the Republic of Srpska, Banja Luka, the Republic of Srpska, Bosnia and Herzegovina.*

(2) *Faculty of Medicine, University of Banja Luka, Banja Luka, the Republic of Srpska, Bosnia and Herzegovina.*

(3) *Pharmacy Department, University Clinical Centre of the Republic of Srpska, Banja Luka, the Republic of Srpska, Bosnia and Herzegovina.*

(4) *University Clinical Centre of the Republic of Srpska, Banja Luka, the Republic of Srpska, Bosnia and Herzegovina.*

PP55 VASODILATORY EFFECTS OF MIDAZOLAM AND NOVEL BENZODIAZEPINE-LIKE LIGAND MP-III-058 ON RAT AORTA

Milica Gajić Bojić,¹ Ranko Škrbić,¹ Miroslav M Savić²

(1) Centre for Biomedical Research, Faculty of Medicine, University of Banja Luka, Banja Luka, the Republic of Srpska, Bosnia and Herzegovina.

(2) Department of Pharmacology, Faculty of Pharmacy, University of Belgrade, Belgrade, Serbia.

PP56 EFFECTS OF MINOCYCLINE AS PRECONDITIONING/POSTCONDITIONING AGENT IN CARDIAC ISCHEMIA/REPERFUSION INJURY

Marko Ravic,¹ Jovana Jeremic,¹ Jovana Bradic,¹ Tamara Nikolic Turnic,¹ Sergey Bolevich,² Vladimir Jakovljevic^{2,3}

(1) University of Kragujevac, Faculty of Medical Sciences, Department of Pharmacy, Kragujevac Serbia.

(2) I.M. Sechenov First Moscow State Medical University, Department of Human Pathology, Moscow, Russia.

(3) University of Kragujevac, Faculty of Medical Sciences, Department of Physiology, Kragujevac Serbia.

PP57 SEX DIFFERENCES IN THE USE OF CARDIOVASCULAR MEDICATIONS

Milica Cvijetić,¹ Dragana Sokolović,¹ Branislava Ćurčić,² Nikolina Dukić,¹ Milica Kunarac², Dragana Drakul¹

(1) Faculty of Medicine Foča, University of East Sarajevo, East Sarajevo, the Republic of Srpska, Bosnia and Herzegovina.

(2) University Hospital Foča, Foča, the Republic of Srpska, Bosnia and Herzegovina.

20.00

BUSES LEAVE AT 20.00 FOR STARA ADA RESTAURANT - IACS AWARDS SESSION/GALA DINNER

THURSDAY, 23 SEPTEMBER 2021

SYMPOSIUM 16: AMERICAN COLLEGE OF CARDIOLOGY – SERBIA AND REPUBLIC OF SRPSKA CHAPTER (Concert Hall)

08.30-10.30

Chairs: Duško Vulić, Banja Luka, RS, Bosnia and Herzegovina), Milan A Nedeljković (Belgrade, Serbia)

CARDIOPROTECTIVE STRATEGIES IN DIABETES

Nathan D Wong¹

(1) University of California, Irvine, CA, USA.

IMPLEMENTATION MEASURES SECONDARY PREVENTION CORONARY HEART DISEASE IN CLINICAL PRACTICE

Dusko Vulic¹

(1) Faculty of Medicine, University of Banja Luka, Banja Luka, the Republic of Srpska, Bosnia and Herzegovina.

TAVI DURABILITY AND STRUCTURAL VALVE DEGENERATION

Milan A Nedeljkovic¹

(1) *University Clinical Centre of Serbia, Belgrade, Serbia.*

INOCA - DIAGNOSTIC AND PROGNOSTIC PROBLEM

Ana Đorđević-Dikić¹

(1) *Clinic for Cardiology, University Clinical Centre of Serbia, Faculty of Medicine, University of Belgrade, Belgrade, Serbia.*

STEM CELLS IN ISCHEMIC HEART DISEASE: 20 YEARS OF EXPERIENCE

Branko Beleslin¹

(1) *University Clinical Centre of Serbia, Faculty of Medicine, University of Belgrade, Belgrade, Serbia.*

SYMPOSIUM 17: DEDINJE CARDIOVASCULAR INSTITUTE SYMPOSIUM I (Assembly Hall)

09.00-10.30

Chairs: Miodrag Perić, Nenad Ilijevski, Petar Otašević, Dragana Lončar-Stojiljković, Slobodan Mićović, Ivana Petrović, Branko Lozuk (Belgrade, Serbia)

NEW APPROACH IN THE TREATMENT OF NON-ISCHAEMIC DILATED CARDIOMYOPATHY

Miodrag Perić,¹ Dragana Košević,¹ Petar Vuković,¹ Velibor Ristić,¹ Johannes Mueller²

(1) *Dedinje Cardiovascular Institute, Belgrade, Serbia.*

(2) *Berlin Heals, Berlin, Germany.*

HEART FAILURE WITH MID-RANGE EJECTION FRACTION: DOES IT REALLY EXIST?

Petar Otašević¹

(1) *Dedinje Cardiovascular Institute, Belgrade, Serbia.*

2021 ESC/EACTS RECOMMENDATIONS ON THE MODE OF INTERVENTION FOR THE TREATMENT OF SEVERE AORTIC STENOSIS: PRACTICE CHANGING UPDATES

Milan Milojević,¹ Petar Milacic,¹ Ivana Petrovic,¹ Milovan Bojic¹

(1) *Dedinje Cardiovascular Institute, Belgrade, Serbia.*

CHALLENGING CASES IN CARDIAC SURGERY IN EVERYDAY PRACTICE

Branislav Stojković¹

(1) *Dedinje Cardiovascular Institute, Belgrade, Serbia.*

10.30-10.45 Coffee Break

SYMPOSIUM 18: NOVARTIS SYMPOSIUM (Concert Hall)

10.45-11.25

PHARMACOLOGICAL PROPERTIES OF INCLISIRAN

Ranko Škrbić¹

(1) *Department of Pharmacology, Toxicology and Clinical Pharmacology, Faculty of Medicine, University of Banja Luka, Banja Luka, the Republic of Srpska, Bosnia and Herzegovina.*

siRNA MOLECULE IN LOWERING LDL CHOLESTEROL

Tamara Kovačević-Preradović¹

(1) Clinic for Cardiology, University Clinic Centre of the Republic of Srpska, Banja Luka, the Republic of Srpska, Bosnia and Herzegovina.

SYMPOSIUM 19: SANDOZ SYMPOSIUM (Concert Hall)

11.25-12.10

TREATMENT OF HYPERLIPIDEMIA FOR SECONDARY PREVENTION OF STROKE

Zoran Vujković¹

(1) Clinic for Neurology, University Clinic Centre of the Republic of Srpska, Banja Luka, the Republic of Srpska, Bosnia and Herzegovina.

SYMPOSIUM 20: SANOFI SYMPOSIUM - PCSK9 INHIBITOR (ALIROCUMAB)-THE NEW POWERFUL SOLUTION IN ATHEROSCLEROSIS MANAGEMENT (Concert Hall)

12.10-13.10

ALIROCUMAB FOR RESIDUAL RISK REDUCTION

Duško Vulić¹

(1) Faculty of Medicine, University of Banja Luka, Board for Cardiovascular Pathology, Academy of Sciences and Arts of the Republic of Srpska, Banja Luka, the Republic of Srpska.

DYSLIPIDEMIA REAL-WORLD EVIDENCE

Ivan Pečín¹

(1) Faculty of Medicine, University of Zagreb, Clinic for Internal Medicine, University Hospital Center, Zagreb, Croatia.

SYMPOSIUM 21: DEDINJE CARDIOVASCULAR INSTITUTE SYMPOSIUM II (Assembly Hall)

10.45-11.15

Chairs: Miodrag Perić, Nenad Ilijevski, Petar Otašević, Dragana Lončar-Stojiljković, Slobodan Mićović, Ivana Petrović, Branko Lozuk (Belgrade, Serbia)

URGENT CAROTID ENDARTERECTOMY – OUR EXPERIENCE AND RESULTS

Predrag Gajin¹, Mihailo Nešković¹, Predrag Matić¹, Slobodan Tanasković¹, Srdjan Babić¹, Igor Atanasijević¹, Aleksandar Babić¹, Marko Nikolić¹, Enes Ljatif¹, Nenad Ilijevski¹

(1) Dedinje Cardiovascular Institute, Belgrade, Serbia.

PERIOPERATIVE PATIENT BLOOD MANAGEMENT IN CARDIAC SURGERY

Jelena Lesanovic¹, Dragana Unic Stojanovic¹, Evgenija Strugarevic¹

(1) Dedinje Cardiovascular Institute, Belgrade, Serbia.

SYMPOSIUM 22: CLINICAL ASPECT OF CARDIOVASCULAR DISEASES (Assembly Hall)

11.15-12.30

Chairs: Mirza Dilić (Sarajevo, Bosnia and Herzegovina), Sanja Stanković (Belgrade, Serbia),

QUANTIFICATION OF ATHEROGENIC LIPOPROTEINS FOR LIPID-LOWERING STRATEGIES: SUMMARY OF LESSONS LEARNED AND RECOMMENDATIONS

Sanja Stankovic^{1,2}

(1) Centre of Medical Biochemistry, University Clinical Centre of Serbia, Belgrade, Serbia.

(2) Faculty of Medical Sciences, University of Kragujevac, Kragujevac, Serbia.

DE-ESCALATION STRATEGY IN DAPT HYPERRESPONDERS: IMPORTANCE OF PLATELET REACTIVITY TEST

Mirza Dilić¹

(1) Faculty of Medicine, University of Sarajevo, Sarajevo, Bosnia and Herzegovina.

SYMPOSIUM 23: ONLINE 3 (at Red Salon plus web platform)

09.00-12.00

Chairs: Ivan M Srežović (Kragujevac, Serbia), Tanja Šobot (Banja Luka, RS, Bosnia and Herzegovina)

PERINEURAL MIGRATION OF STEM CELLS TO THE DAMAGED AREAS OF BRAIN AND HEART

Aleksandra Zamaro,¹ Vladimir Kulchitsky¹

(1) Brain Center, National Academy of Sciences, Minsk, Belarus.

CELL-PERMEABLE SUCCINATE, BUT NOT IDEBENONE, IMPROVES MITOCHONDRIAL RESPIRATION IN A MODEL OF CERIVASTATIN-INDUCED MITOCHONDRIAL DYSFUNCTION IN HUMAN PLATELETS

Vlad F Avram,^{1,2} Imen Chamkha,^{3,4} Eleonor Åsander-Frostner,^{3,4} Johannes K. Ehinger,^{3,4} Romulus Z Timar,¹ Danina M Muntean,^{5,2} Eskil Elmér^{3,4}

(1) Department of Internal Medicine – Diabetes, Nutrition and Metabolic Diseases, "Victor Babeş" University of Medicine and Pharmacy, Timișoara, Romania.

(2) Centre for Translational Research and Systems Medicine, "Victor Babeş" University of Medicine and Pharmacy, Timișoara, Romania.

(3) Mitochondrial Medicine, Department of Clinical Sciences Lund, Faculty of Medicine, Lund University, Lund, Sweden.

(4) Abliva AB, Medicon Village, Lund, Sweden.

(5) Department of Functional Sciences - Pathophysiology, Centre for Translational Research and Systems Medicine, "Victor Babeş" University of Medicine and Pharmacy, Timișoara, Romania.

PLATELETS AND PLACENTAL MITOCHONDRIA RESPIRATION IS IMPAIRED IN PREECLAMPSIA

Anca M Bîrnă,^{1,2} Theia Lelcu,^{1,2} Adina Lința,^{1,2} Vlad F Avram,^{2,3} Oana M Aburel,^{1,2} Claudia Borza,^{1,2} Zoran L Popa,⁴ Marius L Craina,⁴ Danina M Muntean^{1,2}

(1) Department III Functional Sciences - Pathophysiology, "Victor Babeş" University of Medicine and Pharmacy, Timișoara, Romania.

(2) Centre for Translational Research and Systems Medicine, "Victor Babeş" University of Medicine and Pharmacy, Timișoara, Romania.

(3) Department VII Internal Medicine – Diabetes, Nutrition and Metabolic Diseases, "Victor Babeş" University of Medicine and Pharmacy, Timișoara, Romania.

(4) Department XII Obstetrics and Gynecology, "Victor Babeş" University of Medicine and Pharmacy, Timișoara, Romania.

MONOAMINE OXIDASES ARE SOURCES OF CARDIAC OXIDATIVE STRESS IN OBESITY AND PREDIABETES

Adrian Sturza,¹ Adrian P Merce,¹ Loredana N Ionică,¹ Anca M Bîcă,¹ Danina M Muntean¹

(1) Department of Functional Sciences - Pathophysiology, Centre for Translational Research and Systems Medicine, "Victor Babeş" University of Medicine and Pharmacy, Timișoara, Romania.

PLATELET RESPIRATION IS IMPAIRED IN PATIENTS WITH SEPSIS AND RESCUED BY CELL PERMEABLE SUCCINATE: A PILOT STUDY

Paul Bina,^{1,2} Vlad Florin Avram,^{3,4} Anca-Mihaela Bina,^{5,6} Oana Aburel,^{5,6} Radu Burghilea,^{1,2} Claudia Borza,^{4,6} Adrian Neagu,⁵ Elmér Eskil,⁷ Mirela Muntean Danina^{5,6}

(1) Clinic of Anaesthesia and Intensive Care, Emergency County Hospital "Pius Brinzeu", Timisoara, Romania.

(2) Faculty of Medicine, "Victor Babes" University of Medicine and Pharmacy, Timisoara, Romania.

(3) Department VII Internal Medicine – Diabetes, Nutrition and Metabolic Diseases, "Victor Babeş" University of Medicine and Pharmacy, Timișoara, Romania.

(4) Department III Functional Sciences - Pathophysiology, "Victor Babeş" University of Medicine and Pharmacy, Timișoara, Romania.

(5) Department III Functional Sciences - Pathophysiology, "Victor Babeş" University of Medicine and Pharmacy, Timișoara, Romania.

(6) Centre for Translational Research and Systems Medicine, "Victor Babeş" University of Medicine and Pharmacy, Timișoara, Romania.

(7) Mitochondrial Medicine, Department of Clinical Sciences Lund, Faculty of Medicine, Lund University, Lund, Sweden.

DESATURASE ENZYME ACTIVITIES AND CARDIOMETABOLIC RISK FACTORS AMONG TESTICULAR CANCER SURVIVORS

Milica Zeković,¹ Marko Živković,² Irena Krga,¹ Marija Takić,¹ Sanja Stanković,³ Nebojša Bojanić,^{2,4} Zoran Džamić,^{2,4} Uroš Bumbaširević^{2,4}

(1) Center of Research Excellence in Nutrition and Metabolism, National Institute for Medical Research, University of Belgrade, Belgrade, Serbia.

(2) Clinic of Urology, University Clinical Centre of Serbia, Belgrade, Serbia.

(3) Center for Medical Biochemistry, University Clinical Centre of Serbia, Belgrade, Serbia; University of Kragujevac, Faculty of Medical Sciences, Kragujevac, Serbia.

(4) Faculty of Medicine, University of Belgrade, Belgrade, Serbia.

METHYLENE BLUE REDUCES MAO-RELATED OXIDATIVE STRESS IN HUMAN EPICARDIAL TISSUE

Oana-Maria Aburel,^{1,2} Adrian Sturza,^{1,2} Adrian P Merce,^{2,3} Laurentiu Braescu,^{2,3} Anca Bina,¹ Cristian Mornos,⁴ Claudia Borza,^{1,2} Danina M Muntean^{1,2}

(1) Department of Functional Sciences – Pathophysiology, “Victor Babeş” University of Medicine and Pharmacy, Timișoara, Romania.

(2) Center for Translational Research and Systems Medicine, “Victor Babeş” University of Medicine and Pharmacy, Timișoara, Romania.

(3) Department of Cardiology-Cardiovascular Surgery, “Victor Babeş” University of Medicine and Pharmacy, Timișoara, Romania.

(4) Department of Cardiology-Cardiology II, “Victor Babeş” University of Medicine and Pharmacy, Timișoara, Romania.

CELL-PERMEABLE SUCCINATE IMPROVES PLATELET RESPIRATION IN PATIENTS UNDERGOING CARDIOPULMONARY BYPASS: A PILOT STUDY

Adrian P Merce,¹ Anca M Bina,² Darius G Burimam,¹ Vlad F Avram,³ Horea B Feier,¹ Claudia Borza,⁴ Eskil Elmer,⁵ Danina M Muntean⁴

(1) Department of Cardiology-Cardiovascular Surgery, Centre for Translational Research and Systems Medicine, “Victor Babeş” University of Medicine and Pharmacy, Timișoara, Romania.

(2) Department of Functional Sciences - Pathophysiology, Centre for Translational Research and Systems Medicine, “Victor Babeş” University of Medicine and Pharmacy, Timișoara, Romania.

(3) Department of Diabetes, Nutrition and Metabolic Diseases, Centre for Translational Research and Systems Medicine, “Victor Babeş” University of Medicine and Pharmacy, Timișoara, Romania.

(4) Department of Functional Sciences - Pathophysiology, Centre for Translational Research and Systems Medicine, “Victor Babeş” University of Medicine and Pharmacy, Timișoara, Romania.

(5) Mitochondrial Medicine, Department of Clinical Sciences Lund, Faculty of Medicine, Lund University, BMC Lund, Sweden.

IMPAIRMENT OF PLATELET MITOCHONDRIAL RESPIRATION IN PATIENTS WITH NON-DIABETIC CHRONIC KIDNEY DISEASE: A PILOT STUDY

Mihaela-Roxana Patruica,¹ Anca Bîna,² Vlad F Avram,³ Florica Gadalean,¹ Adrian Vlad,⁴ Lavinia Balint,¹ Silvia Ienciu,¹ Carmen Socaciu,⁵ Ligia Petrica,¹ Danina M Muntean²

(1) Department of Internal Medicine II – Division of Nephrology, Centre for Molecular Research in Nephrology and Vascular Disease, “Victor Babeş” University of Medicine and Pharmacy, Timisoara, Romania.

(2) Department of Functional Sciences – Pathophysiology, Centre for Translational Research and Systems Medicine, “Victor Babeş” University of Medicine and Pharmacy, “Victor Babeş” University of Medicine and Pharmacy, Timișoara, Romania.

(3) Department of Internal Medicine - Diabetes, Nutrition and Metabolic Diseases, Centre for Translational Research and Systems Medicine, “Victor Babeş” University of Medicine and Pharmacy, Timisoara, Romania.

(4) Department of Internal Medicine - Diabetes, Nutrition and Metabolic Diseases, Centre for Molecular Research in Nephrology and Vascular Disease, “Victor Babeş” University of Medicine and Pharmacy, Timisoara, Romania.

(5) Department of Food Science, Faculty of Food Science and Technology, University of Agricultural Sciences and Veterinary Medicine Cluj-Napoca, Cluj-Napoca, Romania.

PLATELET MITOCHONDRIAL RESPIRATION IS ALTERED IN THE EARLY STAGES OF DIABETIC KIDNEY DISEASE: A PILOT STUDY

Ligia Petrica,¹ Mihaela Roxana Patruica,¹ Anca Bîănă,² Vlad F Avram,³ Florica Gadalean,¹ Adrian Vlad,⁴ Victor Dumitrascu,⁵ Daliborca Vlad,⁵ Roxana Popescu,⁶ Flaviu Bob,¹ Petru Matusz,⁷ Dragos Catalin Jianu,⁸ Sorin Ursoniu,⁹ Danina M Muntean²

(1) Department of Internal Medicine II – Division of Nephrology, Centre for Molecular Research in Nephrology and Vascular Disease “Victor Babes” University of Medicine and Pharmacy Timisoara, Romania.

(2) Department of Functional Sciences – Pathophysiology, Centre for Translational Research and Systems Medicine “Victor Babes” University of Medicine and Pharmacy, Timișoara, Romania.

(3) Department of Internal Medicine - Diabetes, Nutrition and Metabolic Diseases, Centre for Translational Research and Systems Medicine “Victor Babes” University of Medicine and Pharmacy Timisoara, Romania.

(4) Department of Internal Medicine II – Division of Diabetes, Nutrition and Metabolic Diseases, Centre for Molecular Research in Nephrology and Vascular Disease, “Victor Babes” University of Medicine and Pharmacy, Timisoara, Romania.

(5) Department of Biochemistry and Pharmacology – Division of Pharmacology, Centre for Molecular Research in Nephrology and Vascular Disease, “Victor Babes” University of Medicine and Pharmacy, Timisoara, Romania.

(6) Department of Morphologic Microscopy - Division of Cellular and Molecular Biology, Centre for Molecular Research in Nephrology and Vascular Disease “Victor Babeș” University of Medicine and Pharmacy, Timisoara, Romania.

(7) Department of Anatomy and Embryology– Division of Anatomy and Embryology; “Victor Babes” University of Medicine and Pharmacy, Timisoara, Romania.

PHARMACOGENETIC BIOMARKERS IN PERSONALIZED THERAPY OF CARDIOVASCULAR DISEASES

Karmen Stankov,¹ Aleksandar Redžek,² Momir Mikov,³ Ljiljana Rakićević,⁴ Dragica Radojković,⁴ Lazar Velicki,² Dejan Sakač,² Bojan Stanimirov,¹ Nebojša Pavlović⁵

(1) Department of Biochemistry, Medical Faculty, University of Novi Sad, Novi Sad, Serbia.

(2) Institute of Cardiovascular diseases of Vojvodina, Medical Faculty, University of Novi Sad, Novi Sad, Serbia.

(3) Department of Pharmacology and Toxicology, Medical Faculty, University of Novi Sad, Novi Sad, Serbia.

(4) Institute of Molecular Genetics and Genetic Engineering, University of Belgrade, Novi Sad, Serbia.

(5) Department of Pharmacy, Medical Faculty, University of Novi Sad, Novi Sad, Serbia.

CONCLUDING REMARKS AND TAKE HOME MESSAGE (Concert Hall)

13.15

Chairs:

Roberto Bolli (Louisville, KY, USA), President, IACS

Naranjan S Dhalla (Winnipeg, MB, Canada), Executive Director, Honorary Life President, IACS
Grant N Pierce (Winnipeg, MB, Canada), President-Elect, IACS
Ranko Škrbić (Banja Luka, RS, Bosnia and Herzegovina), Chair, Organizing Committee
Miloš P Stojiljković (Banja Luka, RS, Bosnia and Herzegovina), Chair, Programme Committee
Andras Varro (Szeged, Hungary), President, IACS-European Section

EXCURSION TO THE RIVER VRBAS RAFTING AREA WITH LUNCH AND WINE TASTING OR GUIDED CITY WALKING TOUR

13.30-19.00

Notice for Roberto Bolli Young Investigator Award and Gary Lopaschuk Student Award competitions

Pre-selected candidates will present their papers orally, at special sessions on 21 and 22 September 2021, respectively. One committee for each of the two awards (3 judges in each committee) will choose the winners, who will receive their prizes and certificates at the Awards Ceremony.

Notice for Poster Award Competition

All posters will be evaluated by 4 different committees (3 judges in each committee) for the following 12 Poster Awards:

- Morris Karmazyn Poster Awards – 4
- Margaret Moffat Poster Awards – 4
- Karl Werdan Poster Awards – 2
- Attila Ziegelhoffer Poster Awards – 2

Each awardee will receive a prize and a certificate the Awards Ceremony.

Important Information

Meeting date

20-23 September 2021

Meeting venue

The Culture Centre Banski dvor (Governor's Palace), Banja Luka, the Republic of Srpska, Bosnia and Herzegovina

Registration

The registration desk will be open on:

20 September 2021, from 15 h to 19:30 h

21 September 2021, from 8 h to 19:30 h

22 September 2021, from 8 h to 19:30 h

23 September 2021, from 8 h to 13 h

Technical Organiser

Travel Agency ZEPTER PASSPORT, Banja Luka, Veselina Maslese 8, 78000 Banja Luka, RS, Bosnia and Herzegovina

info@zepterpassport.com mob. + 387 65 880 960

www.zepterpassport.com

Registration Information

| Type of participant | Early bird registration (until 31 July 2021) | Registration from 1 August 2021 |
|---|---|------------------------------------|
| Researchers (with the exception of invited speakers) | 105 € | 160 € |
| Students* | 80 € | 100€ |

*Status to be documented by the Dean's letter

The registration fees include attendance to meeting sessions, opening cocktail, gala dinner and welcome reception, coffee breaks and congress bag, with social program.

Hotel accommodation

| | |
|------------------|-------------|
| Room type | Hotel Bosna |
| Single Room | EUR 68 |
| Double/Twin room | EUR 92 |

*price per day, tax included, BB

Registration and accommodation forms can be found on the official meeting

website www.iacs2021.com.

Official Language

Official language of the meeting will be English. No simultaneous translation will be provided. All accepted abstracts will be published in English.

Oral Presentation

Keynote speakers are allocated 30 minutes for their talks. Invited Speakers and Oral presenters are allocated with 20 and 15 minutes, including discussion, respectively.

Poster Presentation

Interactive poster session (entitled “wine and cheese”) will be held during the meeting. Authors are requested to mount their posters from 09.00 to 19.30 on the day of the poster presentation (posters to be presented for all the time of the meeting). 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 from 18 to 19:30 h.

Lunch, Dinner and Refreshment

Full hospitality will be provided to all Invited Speakers (according to the invitation letters) and to all registered participants with paid registration fees.

Audiovisual Facilities

For oral presentations, video beam projection will be available in conference rooms. Presentations should be prepared in PowerPoint (*.ppt file). For special audiovisual facilities, please send a special request to the Organising Committee in advance.

Online Presentations

All three meeting rooms – Concert Hall, Assembly Hall and Red Salon – will be covered by live stream on a Zoom platform. A viewer will be able to switch from one meeting room to the other. The complete online sessions will be held on 21 and 22 September 2021 from 15 to 19 h from the Red Salon.

The complete Zoom platform information is as follows.

Topic: IACS2021

Time: Sep 20, 2021 08:00 AM Sarajevo, Skopje, Zagreb

Every day, until Sep 23, 2021, 4 occurrence(s)

Sep 20, 2021 08:00 AM

Sep 21, 2021 08:00 AM

Sep 22, 2021 08:00 AM

Sep 23, 2021 08:00 AM

Please download and import the following iCalendar (.ics) files to your calendar system.

Daily:

<https://us06web.zoom.us/meeting/tZUofuGrrjkvEtcnbpE5YPzxiYod75YzH6ZS/ics?icsToken=98tyKuGpqzliGdSXtRGERpwcGYr4WenziHpYj7dekh31JnVqUhnPNttNuUqKcL4>

Join Zoom Meeting

<https://us06web.zoom.us/j/81598302583?pwd=V3BadHozemFGaHBkVUwybXQ0azMxZz09>

Meeting ID: 815 9830 2583

Passcode: 822910

One tap mobile

+17207072699,,81598302583#,,,,*822910# US (Denver)

+12532158782,,81598302583#,,,,*822910# US (Tacoma)

Dial by your location

+1 720 707 2699 US (Denver)

+1 253 215 8782 US (Tacoma)

+1 301 715 8592 US (Washington DC)

+1 312 626 6799 US (Chicago)

+1 346 248 7799 US (Houston)

+1 646 558 8656 US (New York)

Meeting ID: 815 9830 2583

Passcode: 822910

Find your local number: <https://us06web.zoom.us/j/kD0F2IXbK>

Social Programme

The social programme will include an excursion to the River Vrbas rafting area or a guided city tour on 23 September 2021, starting after 13 h. Please contact the meeting desk for special inquiries.

Abstracts

All the submitted abstracts will be published in the Supplement 1 of the biomedical journal *Scripta Medica*.

Full-length papers

Certain number of presentations will be selected and invited to be published as full-length papers in a special issue of an internationally recognised journal *Canadian Journal of Physiology and Pharmacology*. This option will be possible upon invitation and following a peer-review procedure.

Organising & Programme Committee Contacts

Professor Ranko Škrbić, MD, PhD

Department of Pharmacology, Toxicology and Clinical Pharmacology

Faculty of Medicine, University of Banja Luka

16 Save Mrkalja Street, BA-78000 Banja Luka, RS, Bosnia & Herzegovina

Mobile: +387 65 011011

E-mail: ranko.skrbic@med.unibl.org

Professor Miloš P Stojiljković, MD, PhD

Department of Pharmacology, Toxicology and Clinical Pharmacology

Faculty of Medicine, University of Banja Luka

14 Save Mrkalja Street, BA-78000 Banja Luka, RS, Bosnia & Herzegovina

Mobile: +387 66 917993

E-mail: milos.stojiljkovic@med.unibl.org

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