

V. International Symposium on Myocardial Cytoprotection
ISMC2006

A **PTE ÁOK Sebészeti Oktató és Kutató Intézete** rendezésében, a **Magyar Kardiológusok Társasága** és az **International Academy of Cardiovascular Sciences** támogatásával **2006. szeptember 28-30. között a Palatinus Hotelben** (Pécs, Király u. 5.) ötödik alkalommal kerül megrendezésre az **International Symposium on Myocardial Cytoprotection ISMC2006 konferencia**, melynek részletes programja alább olvasható. További információ a <http://soki.aok.pte.hu/ismc2006/> honlapon érhető el. (**PhD-hallgatóknak sikeres tesztkitöltés esetén kreditpont jár.**) Szeretettel várjuk az érdeklődő kollégákat!

Thursday, 28 September

12.30

OPENING CEREMONY

13.00-14.30

SESSION I.

Keynote lectures

Chairmen: L. Szekeres (HUN), A. Ziegelhoffer (SK)

1. **A. Juhász-Nagy** (HUN): A PHYLOGENETIC CORONARY STORY
2. **J. Parratt** (UK): REGULATION OF CORONARY BLOOD FLOW – YET ANOTHER UPDATE
3. **T. Fazekas** (HUN): A HISTORICAL PERSPECTIVE OF THE WOLFF-PARKINSON-WHITE (WPW) SYNDROME: FROM JÁNOS ÁNGYÁN'S PIONEERING CONTRIBUTION TO TRANSVENOUS CATHETER CRYOABLATION
4. **A. Varró** (HUN): REPOLARIZATION RESERVE AND ARRHYTHMOGENESIS

15.00-17.00

SESSION II.

Mitochondrial protection and hypoxic heart

Chairmen: Á. Végh (HUN), G. Baxter (UK)

1. **L. Tretter**, V. Adam-Vizi (HUN): MITOCHONDRIAL PRODUCTION OF REACTIVE OXYGEN SPECIES. MATRIX: RELOADED
2. **B. Sumegi**, A. Tapodi, B. Debreceni, K. Hanto, Z. Bognar, F. Gallyas Jr, (HUN): PIVOTAL ROLE OF KINASE CASCADES IN MITOCHONDRIAL PROTECTION AND CELL SURVIVAL BY POLY(ADP-RIBOSE) POLYMERASE-1 INHIBITION IN OXIDATIVE STRESS
3. **J. Slezak**, N. Tribulova, Z. Spirkova, P.K. Singal. (SK, CAN): ADAPTATION OF CARDIAC MYOCYTE SUBSTRUCTURE TO ISCHEMIC CONDITIONS
4. **B. Ostadal** (CZ): LATE EFFECTS OF EARLY HYPOXIC DISTURBANCES OF CARDIOVASCULAR SYSTEM

5. **P. Kaplan**, Z. Tatarkova, P. Racay, J. Lehotsky, M. Pavlikova, D. Dobrota (SK):
INHIBITION OF CYTOCHROME C OXIDASE BY 4-HYDROXYNONENAL,
A LIPID PEROXIDATION PRODUCT
6. **A. Ziegelhöffer**, T. Holotnakova, M. Ferko, S. Pastorekova, J. Pastorek (SK):
REGULATION OF HYPOXIC GENES IN ACUTE DIABETIC MYOCARDIUM:
THE ROLE OF CA IX

19.00

Wine-tasting in Bishop's Wine-Cellar

20.00

WELCOME DINNER IN HOTEL PALATINUS

Friday, 29 September

8.30-10.10

SESSION III.

Preconditioning: From the basics to clinical practice

Chairmen: J. Slezak (SK), J. Parratt (UK)

1. **J. Peart** (AUS): OPIOID-INDUCED PRECONDITIONING: RECENT ADVANCES
AND FUTURE PERSPECTIVES
2. **Á. Végh**, R. Papp (HUN): THE ROLE OF GAP JUNCTIONS IN THE
ANTIARRHYTHMIC EFFECTS OF PRECONDITIONING
3. **T. Ravingerová**, J. Matejíková, J. Neckář, E. Andelová, D. Pancza, F. Kolář
(SK,CZ) DIFFERENTIAL ROLE OF PI3K/AKT PATHWAY IN THE INFARCT
SIZE LIMITATION AND SUSCEPTIBILITY TO ARRHYTHMIAS IN THE RAT
HEART
4. **P.S. Tappia** (CAN): PHOSPHOLIPASE C ISOZYMES AS POTENTIAL TARGETS
FOR CARDIOPROTECTION IN ISCHEMIA-REPERFUSION
5. **R.C. Kukreja** (USA): CARDIOPROTECTION WITH ERECTILE DYSFUNCTION
DRUGS

10.30-12.30

SESSION IV.

Ischaemia-reperfusion injury- from subcellular mechanism to whole heart

Chairmen: R.C. Kukreja (USA), K. Tóth (HUN)

1. **N.S. Dhalla** (CAN): OXIDATIVE STRESS, Ca²⁺-OVERLOAD AND CYTOKINES ARE
THE MAJOR TARGETS FOR CARDIOPROTECTION IN ISCHEMIC-
REPERFUSED HEARTS
2. **GN. Pierce**, C Hurtado, BP Ander, TG Maddaford, A Lukas, LV Hryshko, JT Wigle, E
Dibrov (CAN): INVOLVEMENT OF SODIUM-CALCIUM EXCHANGE IN
ISCHEMIA/REPERFUSION INJURY IN THE HEART
3. **G. Baxter** (UK): NATRIURETIC PEPTIDE/cGMP SIGNALLING AND REPERFUSION
INJURY
4. **N. Maulik** (USA): MYOCARDIAL ANGIOGENESIS: MOLECULAR MECHANISMS
5. **R. Schulz** (CAN): MATRIX METALLOPROTEINASES BEYOND THE MATRIX -
NOVEL INTRACELLULAR ACTIONS IN MYOCARDIAL OXIDATIVE STRESS
INJURY

6. **E. Giordano**, R. A. Hillary, A. E. Pegg, T. C. Vary, A. D. Sumner, C. Guarnieri, C. M. Calderera and L. M. Shantz (ITA): A LETHAL PHENOTYPE IN MICE WITH CARDIAC OVEREXPRESSION OF ORNITHINE DECARBOXYLASE

13.00-14.00

POSTER SESSION V.

SESSION A

Chairmen: B. Ostadal (SK), L. Tretter (HUN), GN. Pierce (CAN)

1. **A. Görbe**, Z. Giricz, Z. Baka, L. Dux, P. Ferdinandy(HUN): NO-cGMP-PKG SIGNALLING PATHWAY PROTECTS ISCHEMIC CARDIAC MYOCYTES
2. **P. Bencsik**, G. Fodor, Z. Giricz, T. Csont, and P. Ferdinandy (HUN): ROLE OF ENZYMES INVOLVED IN NITRIC OXIDE AND SUPEROXIDE METABOLISM IN ISCHEMIC LATE PRECONDITIONING IN RAT HEARTS
3. **D.S. Burley** & G.F. Baxter (UK): LIMITATION OF MYOCARDIAL REPERFUSION INJURY BY B-TYPE NATRIURETIC PEPTIDE REQUIRES OPENING OF ATP-SENSITIVE POTASSIUM CHANNELS
4. **D.J. Elsey** & G.F. Baxter (UK): PROTECTION AGAINST MYOCARDIAL ISCHAEMIA-REPERFUSION INJURY BY ACTIVATION OF THE H₂S-GENERATING ENZYME CYSTATHIONINE- γ -LYASE
5. **A. Molnár**, A. Tóth¹, Zs. Bagi, Z. Papp, I. Édes, M. Vaszily, Z. Galajda, J. Gy. Papp, A. Varró, V. Szüts, D. Gerő, Zs. Lacza and Cs. Szabó (HUN): ACTIVATION OF THE POLY(ADP-RIBOSE) POLYMERASE PATHWAY IN HUMAN HEART FAILURE
6. **G. Fodor**, J. Pipis, Z. Giricz, T. Csont, P. Ferdinandy (HUN): ACUTE LOVASTATIN TREATMENT BLOCKS THE INFARCT SIZE LIMITING EFFECT OF PRECONDITIONING IN ISOLATED RAT HEARTS
7. **E. Bogнар**, Gy. N. Kiss, I. Solti, K. Hanto, K. Kovacs, B. Sumegi, F. Gallyas (HUN): COMPARISON OF 4-HYDROXY-QUINAZOLINE, VERAPAMIL AND METOPROLOL IN HEART PROTECTION DURING ISCHEMIA- REPERFUSION
8. **G. Jancso**, B. Cserepes, B. Borsiczky, A. Ferencz, B. Racz, J. Lantos, E. Roth (HUN): HEME OXYGENASE-1 HAS PROTECTIVE EFFECT IN THE DELAYED MYOCARDIAL PRECONDITIONING
9. **B. Cserepes**, G. Jancsó, B. Rácz, B. Gasz, B. Gaszner, M. Kürthy, J. Lantos, E. Róth (HUN): CELL PROTECTIVE ROLE OF UROCORTIN AGAINST ISCHAEMIA/REPERFUSION INJURY IN THE PROCESS OF PRE- AND POSTCONDITIONING ON CULTURED CARDIOMYOCYTES
10. **B. Gasz**, B. Rácz, D. Reglődi, B. Borsiczky, A. Ferencz, A. Tamás, B. Cserepes, A. Lubics, F. Gallyas Jr, G. Tóth, I. Lengvári, E. Róth (HUN): EFFECTS OF PITUITARY ADENYLATE CYCLASE ACTIVATING POLYPEPTIDE IN OXIDATIVE STRESS-INDUCED APOPTOSIS OF CARDIOMYOCYTES
11. **T. Ivanics**, P. Kemecsei, A. Takacs, E. Barnucz, Zs. Miklos, L. Ligeti (HUN) ALTERATIONS IN CA²⁺; HANDLING IN THE MANIFEST STATE OF DILATATIVE CARDIOMYOPATHY

SESSION B

Chairmen: I. Szokodi (HUN), T. Ravingerova (SK), H. Heinle (D)

1. **R. Papp**, M. Kovács, M. Gönczi, Gy. Seprényi, Á. Végh (HUN): INVOLVEMENT OF GAP JUNCTIONS IN THE ANTIARRHYTHMIC EFFECT OF PRECONDITIONING; A MOLECULAR STUDY
2. **C. Gamberini**, I. Basile, M. Carboni, F. Bonafé, C. Muscari, E. Giordano, C. M. Caldarera, C. Guarnieri (ITA); EXPRESSION OF INDUCIBLE NITRIC OXIDE SYNTHASE IN ENDOTHELIAL PROGENITOR CELLS.
3. **T. Csont**, P. Bencsik, E. Bereczki, F.G. Kocsis, Z. Giricz, C. Csonka, M. Sántha, P. Ferdinandy (HUN): HYPERCHOLESTEROLEMIA INDUCED BY CHOLESTEROL-ENRICHED DIET LEADS TO CARDIAC DYSFUNCTION IN APOB100 TRANSGENIC MICE: ROLE OF OXIDATIVE STRESS & MMPS
4. **Cs. Cseko**, A. Koller (HUN): DISTINCT ROLE OF HYDROGEN PEROXIDE IN MEDIATION OF FLOW/SHEAR STRESS DEPENDENT DILATION OF ARTERIOLES
5. **R. Halmosi**, A. Palfi, G. Feher, A. Fulop, E. Papp, I. Battyani, B. Sumegi, K. Toth (HUN): THE CARDIOPROTECTIVE EFFECT OF RESVERATROL IN PATIENTS WITH ISCHEMIC HEART DISEASE (REFORM STUDY)
6. **J. Kaszaki**, M. Czóbel, E. Csonka, E. Eszlári, S. Nagy, M. Boros (HUN): ENDOTHELIN-DEPENDENT CHANGES IN CARDIAC CONTRACTILITY AFTER HYPERTONIC COLLOID INFUSIONS. THE ROLE OF MAST CELLS
7. **N. Németh**, K. Pető, E. Bráth, I. Furka, L. Fülöp, P. Nánási, I. Mikó (HUN): SEX DIFFERENCES IN HEMORHEOLOGICAL AND HEMOSTASEOLOGICAL FACTORS AND THE EFFECT OF GONADECTOMY AND REVERSE HORMONE SUBSTITUTION IN A CANINE MODEL
8. **Z. Horváth**, Á. Rosecker, O. Hála and A. Varró (HUN): EFFECT OF THE INHIBITION OF THE I_{KUR} ON THE ACTION POTENTIAL SHAPE IN ISOLATED HUMAN, DOG AND RABBIT ATRIAL PREPARATIONS
9. **Kovács**, L. Hejjel, I. Gál I., E. Róth (HUN): SEQUENTIAL CHANGES OF HEART RATE VARIABILITY FOLLOWING LAPAROSCOPIC OR OPEN CHOLECYSTECTOMY
10. **Kürthy**, E. Arató, G. Jancsó, J. Lantos, B. Cserepes, S. Ferencz, L. Sinay, E. Róth (HUN): THROMBOCYTE FUNCTION IN THE PERIOPERATIVE PHASE OF ACUTE AND ELECTIVE PERIPHERAL REVASCULARISATION SURGERY
11. **I. Waczulikova**, M. Ferko, D. Habodaszova, O. Ulicna, L. Sikurova, A. Ziegelhöffer (SK): CHANGES OF MITOCHONDRIAL FUNCTION IN DIABETIC HEART: THE ROLE OF MITOCHONDRIAL MEMBRANE FLUIDITY

14.00-16.20

SESSION VI.

Regulatory mechanisms in cardiovascular system

Chairmen: N.S. Dhalla (CAN), P. Ferdinandy (HUN)

1. **M.B. Anand-Srivastava** and M. Bassil (CAN): NITRIC OXIDE AND Gi PROTEIN: MODULATORS OF CARDIOVASCULAR PROTECTION
2. **P. Ferdinandy** (HUN): INHIBITION OF MATRIX METALLOPROTEINASE-2 IN CARDIAC STRESS ADAPTATION: ROLE OF HYPERLIPIDEMIA
3. **Á. Koller** (HUN): OXIDATIVE STRESS-INDUCED ALTERED ENDOTHELIAL REGULATION OF CARDIOVASCULAR FUNCTION IN HYPERHOMOCYSTEINEMIA
4. **Ashok K. Srivastava**, Ali Bouallegue and Grace Bou Daou (CAN): NITRIC OXIDE MEDIATED ATTENUATION OF ENDOTHELIN-1 SIGNALING AND

HYPERTROPHIC RESPONSE CONTRIBUTES TO ITS CARDIOVASCULAR PROTECTIVE EFFECT

5. **H. Heinle** (GER): OXIDATIVE STRESS AND THE ARTERIAL FUNCTION - MECHANISMS FOR IMPAIRING AND PROTECTING EFFECTS
6. **V. Kékesi**, Sz. Szilágyi, P. Soós, K. Túri, G. Szűcs, B. Merkely, A. Juhász-Nagy (HUN): LEVOSIMENDAN COMPENSATES THE ENDOTHELIN-1-INDUCED CORONARY VASOSPASM AND REDUCES ISCHAEMIC ARRHYTHMIAS OF THE *IN SITU* DOG HEART
7. **H. S. Sharma** (NL): DNA MICROARRAYS REVEAL ENHANCED ANGIOGENESIS IN CARDIAC HYPERTROPHY

16.50-17.50

SESSION VII.

New development of heart protection in cardiac surgery

Chairmen: I. Édes (HUN), F. Tarr (HUN)

1. **A. Khagani** (UK): NEW DEVELOPMENTS FOR MYOCARDIAL PROTECTION FOR HEART TRANSPLANTATION
2. **N. Marczin** (UK): PREOPERATIVE MYOCARDIAL INJURY: SCOPE, DETECTION AND POSSIBILITIES OF PREVENTION
3. **J. Gál** (UK, HUN): DOES THE TYPE OF ANAESTHESIA CONTRIBUTE TO MYOCARDIAL PROTECTION?

20.00

GALA DINNER IN HOTEL PATRIA

Saturday, 30 September

9.00-10.40

SESSION VIII.

Myofibrillar contractile function

Chairmen: N. Marczin (UK), V. Kékesi (HUN)

1. **I.F. Édes**, G. Csányi, S. Chlopicki., I. Édes, Z. Papp (HUN): LATE STAGE ALTERATIONS IN MYOFIBRILLAR CONTRACTILE FUNCTION IN THE TRANSGENIC MICE MODEL OF HEART FAILURE (TG ALPHA Q*44 MICE)
2. **Z. Hertelendi**, A. Tóth, A. Borbély, Z. Galajda, M. Vaszily, I. Édes, Z. Papp (HUN): CONTRACTILE PROTEIN OXIDATION AND ITS MECHANICAL CONSEQUENCE IN THE HUMAN MYOCARDIUM
3. **C. Terracciano** (ITA): RECOVERY OF CALCIUM CYCLING IN HUMAN MYOCARDIUM AFTER LVAD SUPPORT
4. **I. Szokodi**; R. Kerkelä; A.M. Kubin; B. Sárman; R. Skoumal; L. Papp; M. Tóth; H. Ruskoaho (HUN, FIN): FUNCTIONALLY OPPOSING ROLES OF EXTRACELLULAR SIGNAL-REGULATED KINASE AND P38-MITOGEN-ACTIVATED PROTEIN KINASE IN THE REGULATION OF CARDIAC CONTRACTILITY
5. **F. I. Tarr**, M. Sasvári, Cs. Busman, R. Rácz (HUN): THE NITRIC OXIDE „ELUTING” INTERNAL MAMMARY ARTERY BYPASS GRAFT AND ITS REMODELLING EFFECT ON THE RECIPIENT CORONARY BRANCH

5. **V. Kecskeméti** (HUN): IS THE ELECTROPHYSIOLOGICAL ACTIONS OF
PSYCHOTROP DRUGS RESPONSIBLE FOR THEIR CARDIAC SIDE EFFECTS

11.00-12.15
SESSION IX.

Myocardial contractility

Chairmen: G. Pogátsa (HUN), J. Gál (HUN)

1. **L. Dézsi**, M. Szekeres, G. Kaley, G.L. Nádasy, A. Koller (HUN): INTERACTION OF PRESSURE-INDUCED WALL MECHANICS AND MYOGENIC RESPONSE IN RAT INTRAMURAL CORONARY ARTERIOLES IS MODULATED BY NITRIC OXIDE
2. **A. Kovács**, L. G. Hársing Jr., M. Albert, K. Móricz, G. Szénási (HUN): CHANGES IN VASOCONSTRICTOR REACTIVITY IN REMOTE ARTERIES AFTER FOCAL CEREBRAL ISCHAEMIA IN RATS, *IN VITRO*
3. **G. Szénási**, M. Hegedűs, J. Wellmann, A. Kovács and P. Varga (HUN): THE EFFECTS OF BETA-ADRENOCEPTOR ACTIVATION ON THE TORSADOGENIC ACTION OF DOFETILIDE IN CONSCIOUS RABBITS
4. **J. Barta**, S.K. Sanganalmath, R. Sethi, H. Kumamoto, N. Takeda, I. Édes and N.S. Dhalla (HUN, CAN): ANTITHROMBOTIC AGENTS SARPOGRELATE AND CILOSTAZOL DIFFERENTIALLY AFFECT VENTRICULAR ARRHYTHMIAS AND SURVIVAL IN RAT
5. **E. Bartha**, A. Palfi, L. Mark, Gy. Kiss, R. Halmosi, E. Szabados, E. Kalman, L. Pajor, K. Toth, B. Sumegi (HUN): EFFECT OF ALCOHOL-FREE RED WINE EXTRACT ON ISOPROTERENOL-INDUCED CARDIAC REMODELING IN RATS

12.15

TAKE HOME MESSAGE

SATELLITE SYMPOSIUM

14.00-15.30

a Servier Hungária Kft. szervezésében

Sponsored by Servier Hungary

„Szelektív színuszcsomó gátlás: áttörés az ISZB kezelésében”

„Selective sinus node inhibition: a breakthrough in the treatment of IHD”

Prof. Dr. Tóth Kálmán (HUN): A SZÍVFREKVENCIA ÉS A KARDIOVASZKULÁRIS PROGNÓZIS: A SZÍVFREKVENCIA SZELEKTÍV CSÖKKENTÉSE, EGY ÚJ LEHETŐSÉG A KORONÁRIA BETEGEK KEZELÉSÉBEN
HEART RATE AND CARDIOVASCULAR PROGNOSIS. SELECTIVE HR REDUCTION, A NEW POSSIBILITY IN THE TREATMENT OF CORONARY PATIENTS

Prof. Dr. Édes István (HUN): IF-GÁTLÁS: A SZELEKTÍV SZÍVFREKVENCIA CSÖKKENTÉSTŐL A KORONÁRIA BETEG KEZELÉSÉIG
IF INHIBITION: FROM THE SELECTIVE HR REDUCTION TO THE TREATMENT OF CORONARY PATIENTS