

**Centre for Physiology and Biochemical Research (CPBR)  
The Russian Society for BioPsychiatry (RSBP)  
Ukrainian Society for Biological Psychiatry (USBP)  
Institute of Experimental Medicine (IEM RAMS)**

# **Final Program**

**12-th Multidisciplinary International  
Neuroscience and Biological Psychiatry  
Conference "Stress and Behavior"**

St-Petersburg, Russia  
May 16-20, 2009

**Day 1, May 16, 2009**  
**Morning session**

**9.30-10.00 Opening Ceremony and Welcoming Addresses**

**10.00-10.40 Plenary lecture 1. ZEBRAFISH (*DANIO RERIO*) IN NEUROBEHAVIORAL RESEARCH: NEW MODELS, NEW APPLICATIONS, NEW CHALLENGES.** A Kalueff, Pharmacology Dept., Tulane University Medical School, New Orleans, USA

**10.40-11.00 Coffee break**

**11.00-13.00 Symposium 1. Serotonin transporter and the brain. Presentations 30 min**  
**Chairs:** J Homberg (Netherlands), A Kalueff (USA)

**UNDERSTANDING SEROTON-MEDIATED NEURODEVELOPMENTAL CHANGES IN THE BRAIN'S EMOTIONAL-COGNITIVE SYSTEM USING RATS LACKING THE SEROTONIN TRANSPORTER.** J Homberg. Donders Institute for Brain, Cognition and Behavior, Centre for Neuroscience, Radboud University Nijmegen Medical Centre, Department of Cognitive Neuroscience, Molecular Neurobiology Group, Nijmegen, The Netherlands

**WISTAR-ZAGREB 5HT RATS: A RODENT MODEL WITH CONSTITUTIONAL UPREGULATION/DOWNREGULATION OF SEROTONIN TRANSPORTER.** B Jernej, L Cicin-Sain, Rudjer Boskovic Institute, Zagreb, Croatia

**RISK, RESILIENCE, AND GENE X ENVIRONMENT INTERACTIONS IN RHESUS MONKEYS.** S Suomi, Laboratory of Comparative Ethology, National Institute of Child Health and Human Development, NIH, Bethesda, MD, USA

**BRAIN-DERIVED NEUROTROPHIC FACTOR (BDNF) DEFICIENT MICE: A MODEL OF PREDISPOSITION TO DEPRESSION.** J Hensler, L Daws, W Koek, University of Texas Health Science Center, San Antonio, Texas, USA

**13.00-14.00 Lunch break**

## Afternoon session

**14.00-15.00 PLENARY LECTURE 2. THE IMPORTANCE OF THE ENERGY PARAMETER IN BEHAVIORAL PHARMACOLOGY.** L Bachdasarian, R Bulthuis, Metris B.V. Hoofddorp, The Netherlands

**15.00-16.00 PLENARY LECTURE 3. SYNERGISTIC EFFECT OF DRUG ADMINISTRATION AND BEHAVIOR TRAINING ON SOCIAL DEVELOPMENTAL DEFICIT THROUGH SENSITIVE PERIOD.** S Nakamura, D Mochizuki, T Okuya, A Senoh, K Shimizu, Y Sugiura, M Koshiba, Tokyo University of Agriculture and Technology, Tokyo, Japan

### **16.00-16.20 Coffee break**

**16.20-18.00 Symposium 2. Translational neuroscience I. Presentations 20 min**  
**Chairs:** A Kalueff (USA), M Koshiba (Japan)

**STRESS AND EXPERIMENTAL INTRACEREBRAL HEMORRHAGE: CHANGE BIOGENIC AMINES IN THE BRAIN CORTEX IN THE RATS WITH VARIOUS EMOTIONAL RESISTANCE.** E Koplik, V Krilin, N Ivannikova, Anokhin Institute of Normal Physiology RAMS; Cardiologic Science Center RAMS, Moscow, Russia

**EFFECTIVENESS OF THE HOMEOPATHIC PREPARATION NEUREXAN<sup>®</sup> COMPARED WITH COMMONLY USED VALERIAN-BASED PREPARATIONS FOR THE TREATMENT OF NERVOUSNESS/RESTLESSNESS.** R Hübner, Rvan Haselen, P Klein, Westring, Landau Germany; Biologische Heilmittel Heel GmbH, Baden-Baden, Germany; D.S.H. Statistical Services, Rohrbach, Germany

**THE INFLUENCE OF RISPOLENT (RISPERIDONE) ON THE BRAIN DOPAMINE SYSTEM IN RATS.** A Hramenkova, V Kuzik, D Makina, I Morina, E Araustakesyan, G Mazo, M Ivanov, G Oganessian, Sechenov Institute of Evolutionary Physiology and Biochemistry, Bekhterev Research Institute, St. Petersburg, Russia.

**ZEBRAFISH MODELS OF ANXIETY AND DEPRESSION AND ANTIDEPRESSANT ACTION.** R Egan, C Bergner, J Cachat, P Canavello, P Hart, H Amri, E Glasgow, Z Zukowska, A Kalueff. Department of Physiology and Biophysics, Georgetown University Medical Center, Washington, DC; Pharmacology Department, Tulane University Medical School, New Orleans LA, USA

**CONCLUDING REMARKS AND DISCUSSION**

**Day 2, May 17, 2009**  
**Morning session**

**9.00-9.40 PLENARY LECTURE 4. IMAGING STUDIES OF SEROTONIN SYNTHESIS WITH LABELLED A-METHYL-L-TRYPTOPHAN IN RAT MODELS OF DEPRESSION AND HUMANS SUFFERING FROM AFFECTIVE DISORDERS.** M Diksic. Department of Neurology and Neurosurgery, McGill University, Montreal, QC, Canada; Faculty of Medicine, J.J. Strossmayer University, Osijek, Croatia

**9.40-10.40 PLENARY LECTURE 5. NOLDUS TOOLS FOR STRESS BEHAVIORAL RESEARCH.** RF Roelofs. Noldus Information Technology, Wageningen, The Netherlands

**10.40-11.00 Coffee break**

**11.00-13.00 Symposium 4. Cocaine and reward. Presentations 30 min**  
**Chair:** R Gainetdinov (Italy)

**THE ROLE OF GPCR REGULATORY MACHINERY IN COCAINE ACTIONS.** R Gainetdinov, Department of Neuroscience and Brain Technologies, Italian Institute of Technology, Genova, Italy; Department of Cell Biology, Duke University, Durham, NC, USA

**ACCUMBAL DOPAMINE CHANGES CORRELATED WITH COCAINE- AND STRESS-INDUCED BEHAVIORS.** E Budygin, Wake Forest University School of Medicine, Winston-Salem, NC, USA

**DOPAMINE TRANSIENTS IN THE NUCLEUS ACCUMBENS DURING COCAINE SELF ADMINISTRATION.** R Wightman, Department of Chemistry and Neuroscience Center, University of North Carolina, Chapel Hill, NC, USA

**STRESS AND COCAINE INTERACT TO MODULATE BRAIN DERIVED NEUROTROPHIC FACTOR EXPRESSION AND SIGNALING.** F Fumagalli, Center of Neuropharmacology, Department of Pharmacological Sciences, University of Milan, Italy

**13.00-14.00 Lunch break**

## Afternoon session

**14.00-14.40 PLENARY LECTURE 6. FACTORS OF REPRODUCIBILITY OF ANHEDONIA INDUCTION IN A CHRONIC STRESS DEPRESSION MODEL IN MICE.** T Strekalova, HW Steinbusch, Department of Neuroscience, Faculty of Health, Medicine and Life Sciences, Maastricht University, Maastricht, The Netherlands

**14.40-18.00 Symposium 5. Translational neuroscience II. Presentations 20 min**

**Chairs:** T Strekalova (Netherlands), D Avgustinovich (Russia)

**A NEW QUANTITATIVE TRANSLATION SYSTEM OF PSYCHIATRIC CONDITION BASED ON BEHAVIOR MARKER ANALYSIS FROM SOCIAL DEVELOPMENT MODEL**

M Koshiba, K Mimura, T Okuya, A Senoh, K Shimizu, Y Sugiura, D Mochizuki, Y Shirakawa, S Fukasawa, T Ogino, I Aoki, I Kanno, S Nakamura, Tokyo University of Agriculture and Technology, Tokyo; National Institute of Radiological Sciences, Chiba, Japan

**INVOLVEMENT OF SUPERIOR COLLICULUS IN SELECTING BEHAVIORAL RESPONSES IN RATS WHILE IN A CONFLICTING AND STRESSFUL CONTEXT.** E Comoli, P Mercez, University of São Paulo, São Paulo, Brazil

**FEMALES ARE MORE SENSITIVE TO STRESS THAN MALES.** D Avgustinovich, I Kovalenko, Institute of Cytology and Genetics SD RAS, Novosibirsk, Russia.

## 15.40-16.00 Coffee break

**ACUTE AND LONG-TERM EFFECTS OF CHRONIC SOCIAL STRESS AND AGING ON COGNITION: INVOLVEMENT OF NOVEL SYNAPTIC CELL ADHESION MOLECULES.** M Wolf, X Wang, S Scharf, C Liebl, F Holsboer, M Müller, M Schmidt, Max Planck Institute of Psychiatry, Munich, Germany

**VASOPRESSIN PREVENTS THE DEVELOPMENT OF MOTOR AND EMOTIONAL DISORDERS IN POSTERITY OF FEMALE RATS WITH PSYCHOGENIC TRAUMA.** S Tsikunov, T Avaliani, N Apraksina, O Fedotova, Institute for Experimental Medicine RAMS, St. Petersburg, Russia

**MANGANESE-ENHANCED MRI REVEALS THE ALTERED ACTIVITY OF HYPOTHALAMIC NUCLEI AND HIPPOCAMPUS OF MOUSE IN RESPONSE TO FORMALIN AND KETAMINE ADMINISTRATION.** B Lei, J Chen, H Yin, Department of Anatomy and Cell Biology, Department of Electrical Engineering, National Taiwan University, Taipei, Taiwan, ROC

**ACTIVITY OF CALPAIN SYSTEM IN NERVOUS AND IMMUNE CELLS IN MODEL OF MULTIPLE SCLEROSIS.** M Karpenko, I Abdurasulova, V Klimenko, Institute for Experimental Medicine RAMS, St. Petersburg, Russia

**AMPLITUDE OF HEART RATE MODULATION WITH THE PERIOD OF 3 CARDIOCYCLES DEPENDS ON THE PHYSIOLOGICAL AROUSAL OF BRAIN.** V Mukhin, Institute of Experimental Medicine, St. Petersburg, Russia

**CONCLUDING REMARKS AND DISCUSSION**

**Day 3, May 18, 2009**  
**Morning session**

**10.00-10.40 PLENARY LECTURE 7. ACTIVATION OF IMMUNE SYSTEM IN EARLY ONTOGENESIS IMPAIRS THE FORMATION OF COGNITIVE FUNCTIONS.** V Klimenko, O Zubareva, Institute for Experimental Medicine RAMS, St. Petersburg, Russia

**10.40-11.00 Coffee break**

**11.00-13.00 Symposium 6. Alcoholism. Lecture 30 min, Presentations 20 min**  
**Chair:** A Egorov (Russia)

**11.00-11.40 PLENARY LECTURE 8. CURRENT ASPECTS OF EARLY ALCOHOLISM IN RUSSIA.** A Egorov, Sechenov Institute of Evolutionary Physiology and Biochemistry RAS, St. Petersburg State University, St. Petersburg, Russia

**THE INFLUENCE OF SOCIAL INTERACTIONS ON THE DEVELOPMENT OF ALCOHOLISM IN RATS.** A Egorov, T Filatova, T Shnitko, A Afanas'ev, Sechenov Institute of Evolutionary Physiology and Biochemistry RAS, St. Petersburg State University, St. Petersburg, Russia

**EXPERIMENTAL STUDY OF ALCOHOL INFLUENCE ON BIOLOGICAL EFFECTS OF ANTIDEPRESSANTS.** E Kutcher, M Shevchuk, A Petrov, Department of Psychiatry and Addictions, Medical Faculty, St. Petersburg State University; Institute of Evolutionary Physiology and Biochemistry RAS; FSRF Institute of Toxicology FMBAR, St. Petersburg, Russia

**CONCLUDING REMARKS AND DISCUSSION**

**13.00-14.00 Lunch break**

## Afternoon session

**14.00-18.00 Symposium 7. Genetic factors in biological psychiatry. Presentations 20 min**

**Chair:** S. Nakamura (Japan)

**ASSOCIATION BETWEEN eNOS 4a/b POLYMORPHISM AND NITRIC OXIDE LEVELS IN TYPE 2 DIABETIC POLYNEUROPATHY.** M Aydin, E Ozkok, C Kucukali, F Salman, I Kara, Istanbul University, Institute for Experimental Medicine, Department of Neuroscience, Department of Immunology; Istanbul Erenkoy Psychiatric and Neurological Disorders Hospital, Istanbul, Turkey

**DISC1 AND GABAERGIC EXPRESSION IN HIPPOCAMPUS OF NEUREGULIN1 MUTANT MOUSE.** H Yin, P Chen, C Liu, H Hwu, W Fu, Departments of Anatomy and Cell Biology, Psychiatry, and Pharmacology, College of Medicine, National Taiwan University, Taipei, Taiwan, ROC

**EXAMINING THE RELATIONSHIP BETWEEN MnSOD AND NFkB POLYMORPHISMS IN PARKINSON'S DISEASE.** E Ozkok, M Aydin, C Kucukali, Y Cetinkaya, M Gencer, I Kara, Istanbul University, Institute for Experimental Medicine, Department of Neuroscience; Istanbul Erenkoy Psychiatric and Neurological Disorders Hospital; Clinic of Neurology, Haydarpasa Numune Education and Research Hospital, Istanbul, Turkey

**THE ROLE OF INFERIOR COLLICULUS IN AUDIOGENIC SEIZURES IN OUTBRED KRUSHINSKII-MOLODKINA RATS.** K Khudik, Institute of Evolutionary Physiology and Biochemistry RAS, St.-Petersburg, Russia

**MATERNAL/CHILD GENETIC POLYMORPHISM AS A SCHIZOPHRENIA RISK FACTOR.** I Halayenka, V Objedkov, O Levdansky, E Aksyonova, M Siniauskaya, N Danilenko, Laboratory of Cytoplasmic Inheritance, Institute of Genetics and Cytology, Minsk, Belarus

## 15.40-16.00 Coffee break

**16.00-17.00 PLENARY LECTURE 9. PRESENTATION: TSE SYSTEMS: SOPHISTICATED LIFE SCIENCE RESEARCH INSTRUMENTATION.**

**17.00-18.00 Symposium 8. Molecular Physiology of Stress. Presentations 20 min**

**Chair:** Yu.F. Pastuhov (Russia)

**EFFECTS OF INDUCIBLE AND CONSTITUTIVE ISOFORMS OF HEAT SHOCK PROTEIN 70 ON THERMOREGULATORY CHARACTERISTICS IN PIGEONS.** K Lapshina, K Khudik, Sechenov Institute of Evolutionary Physiology and Biochemistry RAS, St. Petersburg, Russia

**THE ROLE OF THE HSP70 IN THE REGULATION OF MOTOR SEIZURES.** A Yakimchuk, L Nitsinskaya, I Ekimova, I Guzhova, Sechenov Institute of Evolutionary Physiology and Biochemistry RAS, St. Petersburg, Russia

**THE EFFECTS OF INTRACEREBROVENTRICULAR ADMINISTRATION OF MYRISTICA FRAGRANS SEED EXTRACT ON FEAR BEHAVIOR IN ADULT MALE RATS.** G Vaezi, K Keramati, M Dadellahi. Biology Department, Islamic Azad University, Garmsar, Damghan, Semnan, Iran

**Day 4, May 19, 2009**  
**Morning session**

**9.00-10.00 PLENARY LECTURE 10. COMPLEX, NATURAL, AND STEREOTYPIC BEHAVIORS, BEHAVIOR REGOGNITION AND TRANSLATIONAL RESEARCH.** Y Liang, Clever Sys., Inc., Reston, VA, USA

**10.00-10.20 Coffee break**

**10.20-13.00 Symposium 9. Neuroimmunophysiology. Presentations 20 min**  
**Chair:** V Klimenko (Russia)

**INTERLEUKIN-1 $\beta$  IN SYSTEM MECHANISMS OF THE STRESS RESPONSE IN RATS.** S Pertsov, Anokhin Institute of Normal Physiology RAMS, Moscow, Russia

**AROMATASE IMMUNORECTIVITY IN THE YOUNG PACIFIC SALMON BRAIN ONCORHYNCHUS MASU: IMMUNOLOCALISATION AND COREGIONALIZATION WITH NADPH-DIAPHORASE AND TYROSINE HYDROXYLASE.** E Pushchina, D Obukhov. Zhirmunsky Institute of Marine Biology FAR RAS, Vladivostok; Department Cytology and Histology, St. Petersburg State University, St. Petersburg, Russia

**NEUROIMMUNOLOGY SHOWING NEONATAL HYPOXIC ENCEPHALOPHY AND NEURO-BEHAVIORAL OUTCOME.** V Garayev, V Klimenko, N Shabalov, Institute for Experimental Medicine RAMS; Kirov Military Medical Academy, St. Petersburg, Russia

**MOLECULAR MECHANISM OF SYNUCLEOPATHIES: A HYPOTHESIS.** Y Pastukhov, A Chesnokova, Sechenov Institute of Evolutionary Physiology and Biochemistry RAS, St. Petersburg, Russia

**CALPAIN INHIBITORS AS A NEW APPROACH TO MULTIPLE SCLEROSIS THERAPY.** P Afanasyev, M Karpenko, I Abdurasulova, V Klimenko, Institute for Experimental Medicine RAMS, St. Petersburg, Russia

**ANXIOLYTIC EFFECTS OF THERMAL PRECONDITIONING AND THE CONCENTRATION OF INDUCIBLE HSP70 IN THE BRAIN OF KRUSHINSKY-MOLODKINA RATS.** M Chernyshev, K Khudik, O Sapach, Y Pastukhov, Sechenov Institute of Evolutionary Physiology and Biochemistry RAS, St. Petersburg, Russia

**CENTRAL MECHANISMS OF THE HEAT SHOCK PROTEIN 70 KDA HYPNOSEDATIVE EFFECT: ROLE OF PROSTAGLANDIN D<sub>2</sub> AND GABA SYSTEM.** I Ekimova, N Frolova, Institute of Evolutionary Physiology and Biochemistry RAS, St. Petersburg, Russia

**13.00-14.00 Lunch break**



## **Afternoon session**

**14.00-16.20 Symposium 10. Clinical problems in biological psychiatry. Presentations 20 min**

**Chairs:** A.V. Kalueff (USA), S Khandewal (India)

**BIOPSYCHOSOCIAL ASPECTS OF BEHAVIOR AND MOOD IN ANTARCTICA.** S Khandelwal, Dept. of Psychiatry, All India Institute of Medical Sciences, New Delhi, India

**MR SPECTROSCOPY OF INTRACRANIAL TUMORS.** D Kozić, J Ostojić, N Boškov, K Koprivšek, Institute of Oncology, Diagnostic Imaging Center, Sremska Kamenica; General Hospital, Zrenjanin, Serbia

**DAILY SERUM AND SALIVA BDNF LEVELS CORRELATE WITH MORNING–EVENING PERSONALITY TYPE IN WOMEN AND ARE AFFECTED BY LIGHT THERAPY.** P Tirassa, M Mazza, F Sornelli, A Iannitelli, G Bersani, F Pacitti, Institute of Neurobiology and Molecular Medicine-CNR, Rome; Dept. of Psychiatric Sciences and Psychological Medicine, Sapienza University of Rome, Polo Pontino; Dept. of Science of Health, University of L'Aquila, L'Aquila, Italy

**DO LATERAL PREFERENCES INFLUENCE THE BODY SCHEMA PERCEPTION?** M Mikheev, A Zartor, S Afanasiev. Sechenov Institute of Evolutionary Physiology and Biochemistry, St. Petersburg, Russia

**ACTIVE COPING STYLE AS A PREDICTOR OF REACTIVE DEPRESSION.** D Zhukov, K Vinogradova, Pavlov Institute of Physiology RAS, Biological Faculty, St. Petersburg State University, St. Petersburg, Russia

**STRESS-PHASE ORIENTED CONCEPT OF BORDERLINE DISORDERS.** A Tadevosyan, S Harutyunyan, National Institute of Health, Department of Stressology, Yerevan, Armenia

### **CONCLUDING REMARKS AND DISCUSSION**


**16.20-16.40 Coffee break**

**16.40-17.00 Official Closing Ceremony. Announcing 2010 ISBS Conference and Summer School**

**Day 5, May 20, 2009**

10.00-11.00 Meetings of RSBS, USBP and ISBS

11.00-16.00 Visit to Pavlov Department of Physiology of the Institute of Experimental Medicine



**International 2010 Stress and Behavior  
Conference & Summer School**

May 16 - 20th  
St. Petersburg, Russia

August 5 - 12th  
Barcelona, Spain

[www.stress-and-behavior.com](http://www.stress-and-behavior.com)

The banner features a central text area flanked by two stylized brain illustrations. Each brain is rendered in a light blue, semi-transparent style with a network of lines and nodes extending from its surface, suggesting neural activity or connectivity. The background of the banner is a light, textured grey.