

**Centre for Physiology and Biochemical Research (CPBR)  
International Stress and Behavior Society (ISBS)**

# **Program**

**16th International Neuroscience and  
Biological Psychiatry Conference  
(North America)  
"Stress and Behavior"**



**New Orleans, USA**  
June 22-25, 2011

IN PARTNERSHIP WITH:

**Noldus**  
Information Technology



**Conference registration:** all days 9.00-16.00

**Venue:** Tulane University Medical School, 1430 Tulane Avenue,  
New Orleans LA 70112

# Day 1. June 22, 2011

Main Auditorium, Tulane University Medical School (1430 Tulane Avenue), Downtown Campus, New Orleans, LA, USA

## Opening and Welcoming address

**9.00-9.45 Opening Plenary Lecture:** Z Zukowska (Minneapolis, USA) THE HOW AND 'Y' OF STRESS

**9.45-10.30 Plenary Lecture:** J Tasker (New Orleans, USA) PLASTICITY OF THE HYPOTHALAMIC-PITUITARY-ADRENAL AXIS INDUCED BY EXPOSURE TO CHRONIC STRESS

**10.30-11.00 Exhibition**

**11.00-12.00 Lunch break**

**12.00-17.00 Conference Symposium 1: GREATER NEW ORLEANS SOCIETY FOR NEUROSCIENCE-SPONSORED SYMPOSIUM: BIOLOGICAL PSYCHIATRY I**

**Chairs: AV Kalueff, J Tasker (Presentations 30 min)**

Room 6065, Tulane University Medical School (1430 Tulane Avenue), Downtown Campus, New Orleans, LA, USA

- INTRODUCTION
- G Dohanich (New Orleans, USA) ANXIETY, SPATIAL LEARNING/MEMORY, AND LEARNING STRATEGY
- N Vasudevan, AB Buras, E Landers, N Tien, JP Battle, T Gurley (New Orleans, USA) THYROID HORMONE LEVELS REGULATE ANXIETY IN THE MALE MOUSE
- Y Feng (New Orleans, USA) OVER-EXPRESSION OF (PRO)RENIN RECEPTOR INDUCES BOTH ANGIOTENSIN II-DEPENDENT AND INDEPENDENT OXIDATIVE STRESS IN NEURONAL CELLS
- B Hall (New Orleans, USA) REGULATION OF PROTEIN SYNTHESIS MEDIATES THE RAPID ANTIDEPRESSANT EFFECTS OF NMDA RECEPTOR ANTAGONISTS
- A Zsombok, H Gao, K Miyata, KD Hebert, MD Bhaskaran, AV Derbenev (New Orleans, USA) THE ROLE OF TRPV1 RECEPTOR IN THE HYPOTHALAMUS
- S Drury (New Orleans, USA) GENETIC AND EPIGENETIC INFLUENCES IN EARLY ADVERSITY

**15.20-15.50 Exhibition and Coffee break**

- A Kalueff (New Orleans, USA) ZEBRAFISH MODELS OF BRAIN DISORDERS

**16.20-17.00 Conference Presentation:** R Mervis (Tampa, USA) DENDRITIC ALTERATIONS AND NEUROCIRCUITRY ABNORMALITIES IN STRESS- AND NEUROPSYCHIATRIC-RELATED DISORDERS

**17.00-18.00 Welcoming Mini-Reception**

## Day 2. June 23, 2011

Main Auditorium, Tulane University Medical School (1430 Tulane Avenue), Downtown Campus, New Orleans, LA, USA

**9.00-9.45 Special Plenary Lecture:** A Dunn (Hawaii, USA) DEPRESSION: ARE CYTOKINES THE MEDIATORS?

**9.45-10.30 Conference Presentation:** H Russig (Bad Homburg, Germany) INVESTIGATION OF RODENT BEHAVIOR IN THE HOME CAGE INCREASES ANIMAL WELFARE

**10.30-11.15 Conference Presentation:** A Macbeth (Leesburg, USA) NOLDUS INFORMATION TECHNOLOGY: TOOLS AND TECHNIQUES FOR RESEARCH ON STRESS BEHAVIOR

### **11.15-11.30 Exhibition and Coffee break**

**11.30-12.00 Conference Lecture:** B Cooke, J Weathington, A Arnold (Atlanta, USA) JUVENILE ABUSE INDUCES A SEX-SPECIFIC PATTERN OF ANXIETY AND DEPRESSION-LIKE BEHAVIORS IN ADULT RATS

**12.00-14.00 Conference Symposium 2: THE IMPACT OF STRESS ON HIPPOCAMPAL PLASTICITY AND MEMORY: LINKING ELECTROPHYSIOLOGY TO BEHAVIOR**  
**Chairs: NB Yeritsyan, JU Frey (presentations 25 min)**

- INTRODUCTION
- HJ Krugers (Amsterdam, The Netherlands) STRESS-HORMONES, SYNAPTIC PLASTICITY AND MEMORY FORMATION
- JG Howland, BN Czakoff, MJ MacDougall (Saskatchewan, Canada) EFFECTS OF ACUTE STRESS ON SHORT- AND LONG-TERM SYNAPTIC PLASTICITY IN THE HIPPOCAMPAL CA1 AND SUBICULAR REGIONS
- NB Yeritsyan, JU Frey (Magdeburg, Germany) SWIM STRESS ALTERS HIPPOCAMPAL PLASTICITY IN REGION-SPECIFIC MANNER: STRESS-INDUCED SYNAPTIC CROSS-TAGGING IN THE CA1 AND EXCITABILITY CHANGES IN THE DENTATE GYRUS
- DM Diamond (Tampa, USA) TRANSLATIONAL RESEARCH FROM SYNAPTIC PLASTICITY TO CLINICAL OBSERVATIONS PROVIDES INSIGHT INTO THE NEUROBIOLOGY OF FLASHBULB AND TRAUMATIC MEMORIES

### **14.00-15.00 Lunch Break**

**15.00-15:30 Conference Lecture:** S Nakamura (Tokyo, Japan) REDUCED FORM COQ10 RESCUED THE SOCIAL BEHAVIOR DEFICIT IN CHICK DURING DEVELOPMENT

**15.30-18.00 Conference Symposium 3: TUNA NEUROSCIENCE SYMPOSIUM: EXPERIMENTAL MODELS IN STRESS RESEARCH**

**Chairs: AV Kalueff, JE Warnick, TUNA (presentations 20 min)**

- INTRODUCTION (TULANE UNIVERSITY NEUROSCIENCE ASSOCIATION TUNA)
- DJ Guarnieri, CE Brayton, SM Gray, J Maldonado-Aviles, JR Trinko, J Nelson, JR Taylor, SL Gourley, RJ DiLeone (New Haven, USA) GENE PROFILING REVEALS A ROLE FOR STRESS HORMONES IN THE MOLECULAR AND BEHAVIORAL RESPONSE TO FOOD RESTRICTION
- J Halonen, P Zoladz, DM Diamond (Tampa, USA) NEUROBIOLOGY OF FORGOTTEN BABY SYNDROME
- B Bobula, A Gadek-Michalska, G Hess (Krakow, Poland) EFFECTS OF RESTRAINT STRESS ON LONG-TERM POTENTIATION IN RAT FRONTAL CORTEX

**16.20-16.40 Exhibition and Coffee Break**

- J Wabno, G Hess (Krakow, Poland) EFFECTS OF REPEATED CORTICOSTERONE ADMINISTRATION ON GLUTAMATERGIC AND GABAERGIC TRANSMISSION IN RAT FRONTAL CORTEX
- T Kuwaki (Kagoshima, Japan) A PIVOTAL ROLE OF OREXIN (HYPOCRETIN) NEURONS IN FIGHT-OR-FLIGHT RESPONSE
- A Gądek-Michalska, M Szymańska, J Tadeusz, J Szyrka, P Rachwalska, J Bugajski (Krakow, Poland) EFFECT OF REPEATED RESTRAINT STRESS ON IL-1b IN PLASMA AND BRAIN STRUCTURES AND HPA AXIS RESPONSE
- M Koshiba, A Senoo, S Obara, K Mmimura, Y Shirakawa, G Karino, K Otsuhata, M Takahashi, K Yui, H Yamanouchi, S Nakamura (Tokyo, Japan) AN EMOTIONAL MENTAL STATE EXPRESSED AS A CORRELATION STRUCTURE BETWEEN BEHAVIOR AND PHYSIOLOGICAL PARAMETERS BEYOND SPECIES DIFFERENCE

**18.00-18.45 Conference Presentation:** Y Liang, V Kobla (Reston, USA) CLEVER SYS BEHAVIOR RECOGNITION TECHNOLOGY AND HOME CAGE BEHAVIOR ANALYSIS

**18.45-19.20 Conference Presentation:** L Colbert (Somerville, USA) JOURNAL OF VISIALIZED EXPERIMENTS: SCHOLARLY VIDEO PUBLISHING TO INCREASE PRODUCTIVITY IN MEDICAL AND LIFE SCIENCES

## Day 3. June 24, 2011

Main Auditorium, Tulane University Medical School (1430 Tulane Avenue), Downtown Campus, New Orleans, LA, USA

**9.00-9.30 Conference Presentation:** L Colbert (Somerville, USA) JOURNAL OF VISUALIZED EXPERIMENTS: INCREASING STANDARDIZATION AND IMPROVING EDUCATION IN BIOMEDICAL SCIENCES

**9.30-11.30 Conference Symposium 4: ZEBRAFISH NEUROSCIENCE SYMPOSIUM – ZEBRAFISH NEUROSCIENCE RESEARCH CONSORTIUM SYMPOSIUM**

**Chairs: M Viana, C Bonan (presentations 1-2: 30 min, presentations 3-4: 30 min)**

- INTRODUCTION
- AL Piato, G Ghisleni, DB Rosemberg, KM Capiotti, AM Siebel, AP Herrmann, MR Vianna, MR Bogo, DR Lara, CD Bonan (Porto Alegre, Brazil) MODELING ACUTE RESTRAINT STRESS PROTOCOL IN ZEBRAFISH (DANIO RERIO): IMPLICATIONS ON BEHAVIORAL AND PURINERGIC SIGNALING PARAMETERS
- MR Vianna, AL Piato, KM Capiotti, AR Tamborski, JP Oses, LJ Barcellos, MR Bogo, DR Lara, CD Bonan (Porto Alegre, Brazil) PHYSIOLOGICAL AND BEHAVIORAL IMPACTS OF AN UNPREDICTABLE CHRONIC STRESS MODEL IN ZEBRAFISH
- AV Kalueff, E Kyzar, I Zapolsky, S Gaikwad, A Roth, J Green, M Pham, PG St. Pierre, B Hirons (New Orleans, USA) ZEBRAFISH NEUROPHENOME PROJECT
- JE Warnick, A Linker (Russellville, USA) THE ASSESSMENT OF MAXIMUM PREDICTIVE VALUE IN A ZEBRAFISH ANXIOLYTIC SCREENING ASSAY

**11.30-12.00 Exhibition and Coffee break**

**12.00-13.00 Conference Mini-Symposium 5: BIOLOGICAL PSYCHIATRY II**

**Chairs: AV Kalueff, YV Kyrylenko (presentations 20 min)**

- INTRODUCTION
- E Kyzar, S Gaikwad, M Pham, J Green, A Roth, Y Liang, V Kobla, AV Kalueff (New Orleans, USA). TOWARDS HIGH-THROUGHPUT PHENOTYPING OF COMPLEX PATTERNED BEHAVIORS IN RODENTS: FOCUS ON SELF-GROOMING
- Y Kyrylenko (Bremen, Germany) PSYCHIATRIC CASE STUDY
- L Elling, H Schupp, JBayer, A-K Bröckelmann, C Steinberg, C Dobel, M Junghofer (Muenster, Germany) ACUTE PSYCHOSOCIAL STRESS MODULATES MAGNETOENCEPHALOGRAPHIC CORRELATES OF VISUAL ATTENTION

**13.00-14.00 Lunch Break**

**14.00-14.45 Plenary Lecture:** JE Warnick (Russellville, USA) USING SCIENCE TO IMPROVE THE “SWEET SCIENCE”: AN EVIDENCE-BASED APPROACH TO OFFICIATING TRAINING, ATHLETE QUALIFICATIONS, AND FIGHTER SAFETY

**14.45-16.00 Conference Symposium 6: ARKANSAS TECH UNIVERSITY-TULANE COLLABORATIVE INITIATIVE SYMPOSIUM ON STRESS PSYCHOLOGY**

**Chair: JE Warnick (presentations 20 min)**

- INTRODUCTION
- D Hughes, WD Martin, J Warnick (Russellville, USA) LINGUISTIC ANALYSIS OF PRECOMPETITION INTERVIEWS PREDICT THE OUTCOME OF PROFESSIONAL BOXING BOUTS
- D Hughes, B Mader, A Linker, J Osben, R Williams, WD Martin, JE Warnick (Russellville, USA) THE INFLUENCE OF THE “HOME FIELD ADVANTAGE” IN PROFESSIONAL BOXING
- B Mader, J Osben, D Hughes, A Linker, WD Martin, JE Warnick (Russellville, USA) INVESTIGATING THE ABILITY OF THE STRUGGLE INDEX SCORE TO QUANTITATIVELY SUMMARIZE A PROFESSIONAL BOXING BOUT
- DISCUSSION

**16.00-16.30 Exhibition and Coffee Break**

**16.30-17.40 GUIDED POSTER SESSION**

- Y Shirakawa, A Senoo, S Nakamura, M Koshiba (Tokyo, Japan) CORRELATION ANALYSIS OF BRAIN MONOAMINES AND SOCIO-EMOTIONAL BEHAVIORS
- A Stewart, S Gaikwad, AV Kalueff (New Orleans, USA) SPATIOTEMPORAL STABILITY OF ADULT ZEBRAFISH EXPLORATION IN A NOVEL ENVIRONMENT
- S Gaikwad, J Cachat, P Hart, E Kyzar, A Stewart, A Roth, J Green, M Pham, AV Kalueff (New Orleans, USA). VISUALIZING ADULT ZEBRAFISH 3D BEHAVIOR AND ITS UTILITY FOR NEUROSCIENCE RESEARCH
- J Green, S Gaikwad, E Kyzar, A Stewart, A Roth, M Pham, AV Kalueff (New Orleans, USA). ANXIOTIC EFFECTS OF AMPHETAMINE IN ZEBRAFISH
- M Pham, P Hart, E Kyzar, S Gaikwad, J Green, A Roth, R Riehl, M Pham, AV Kalueff. MODELING THE EFFECTS OF KETAMINE IN ZEBRAFISH (DANIO RERIO)
- S Chanin, C Fryar, D Varga, J Raymond, E Kyzar, J Enriquez, S Bagawandoss, S Gaikwad, A Roth, M Pham, I Zapolsky, I Bruce, J Hester, J Green, D Desmond, A Stewart, AV Kalueff (New Orleans, USA). ASSESSING STARTLE RESPONSES AND THEIR HABITUATION IN ADULT ZEBRAFISH
- K Mimura, S Nakamura, M Koshiba (Tokyo, Japan) MULTIVARIATE REPRESENTATION OF CHICK'S SOCIAL BEHAVIORAL DEVELOPMENT AND CORRELATED CELL STRUCTURAL MODULATION IN AMYGDALA CORE NUCLEUS

**17.40-18.00 Closing Ceremony. Announcing the 2012 “Stress and Behavior” Conference**



**Day 4. June 25, 2011**

*Technical tours and business meetings: ISBS, ZNRC*



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