**3rd INTERNATIONAL DRUG ABUSE RESEARCH SOCIETY**

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**INTERNATIONAL SOCIETY FOR NEUROCHEMISTRY SATELLITE MEETING**

**PROGRAM & ABSTRACTS**

*Recent Frontiers and Advances in Drug Addiction*

*August 23-26, 2011*

*Grand Hyatt Hotel, Istanbul, Turkey*

**Conference Organizers:**

Syed F. Ali (USA), George Koob (USA), Michael Kuhar (USA), Ali Unlu (TURKEY), Barbara Mason (USA), Hyoung Chun Kim (S. Korea), Emmanuel Onaivi (USA), Jesus Angulo (USA), James O’Callaghan (USA), Hakan Coskunol (TURKEY) and Sakire Pogun (TURKEY)
The International Drug Abuse Research Society (IDARS) would like to thank the following organizations for their generous financial support of the meeting:

International Society for Neurochemistry (ISN)

National Institute on Alcohol Abuse and Alcoholism (NIAAA)

Institute of Pharmaceutical Sciences, Kangwon National University, Chunchon, South Korea

National Center for Toxicological Research/US Food and Drug Administration (NCTR/FDA)

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General Information about the Meeting Site

ISTANBUL

Istanbul is a cosmopolitan city built on two continents. The most recent population census shows that it has a population of about 12 million people, from which almost 65% are inhabitants of the Asian side. Fulfilling the residential role of the city, it doesn't present a lot to see historically. In contrast, the European side is the commercial and cultural center, further divided into two districts (the Old City and the modern downtown) by a narrow channel of water called 'the Golden Horn'. Below you will find some helpful details to make your stay easier when you are in Istanbul.

Arrival
Most countries' citizens require a visa to enter Turkey. For some countries this visa can be supplied directly upon arrival at the airport, for others it is advisable to pre-arrange it at a Turkish Embassy in the home country. Check with your local Turkish Embassy prior to departure. **US citizens can obtain their visa at the airport. Visa cost will be $20 dollars US per passport.**

Climate
The regional location of Istanbul is the second most humid region of the country, with an average humidity of 73%. The maximum that has been recorded is 41°C (105.8 ºF) - 16°C (59°F). **August temperatures will be between 85ºF and 95ºF with high humidity. It is advised to bring loose summer clothing.**

Money
The currency used in the Turkish Republic is the Lira – however most places can take Euros and USD. For that reason, many prices are quoted in USD (especially in the tourist areas). Visa and Master cards are accepted generally everywhere, although American Express or Diners Cards can pose difficulties. Travelers' Cheques are not easily cashed as most of the banks and exchange offices (doviz burosu) charge a sizable commission. It is advisable to use them as direct payment where possible, instead of cashing them.

Electricity
In Istanbul, electricity is supplied at **220 volts with plugs of two round prongs.** As is not easy to find adapters in the city, **it is advisable to bring your own for use of any extra electrical item.**

Internet Cafes
It is very easy to find Internet cafes anywhere in the city with reasonable prices. A set time-related fee is charged for the use of the computer or the Internet, but use of scanners, printers, etc. is usually extra.

Taxis
All taxis in the city (a total of 22,000!) carry a meter. If the meter does not appear to be working, it is advisable to change taxis. The night fare commences after midnight. Taxis will cost 40-50 Turkish Lira from airport to the Grand Hyatt Hotel. Luxury buses are available from the airport to Taskin Square (which is a 5 minute walk to the hotel). These are blue buses (Havas) that run every 30 minutes and cost 10 Turkish Lira ($7.50 US). When you arrive at Taskin Square you will see the Intercontinental Hotel (tall building). The Grand Hyatt is across from the Intercontinental Hotel.
Time
The whole country is in one time zone with a daylight saving period, so it is always two hours ahead of GMT. Daylight saving starts around April and ends around October.

National Holidays
January 1st: New Years Eve, April 23rd: National Independence and Children's Day, May 19th: Youth and Sports Day, August 30th: Victory Day, October 29th: Republic Day. There are two other religious holidays, of which the times vary greatly, as they follow the lunar Islamic calendar of 354 days.

Emergency Phone Numbers
Police 155. Traffic police 154. Ambulance 112. These numbers are toll free when you use a regular phone but if you are using a public or a cellular there is a charge.

Public Telephones
There are three kinds of public phones:
1. Token phones: For these you have to insert a special token that can be purchased from the post office. These phones are very hard to find and quite old-fashioned.
2. Card phones: These work with a special prepaid card that can be purchased from the post offices and most street vendors. There are three kinds - 30 units, 60 units and 100 units. It is advisable to purchase 60 or 100 units for making international calls.
3. Credit card phones: These work with all the major credit cards and they are available at the airport and all the major touristy sites. For international operators, here are the most common numbers: AT&T 0-0-8001 2277, MCI 0-0-8001 1177, US Sprint 0-0-8001 4477.

Weight and Measurement System
Turkey uses the metric system.
Information on Scientific Sessions

**Speaker Instructions**

Please bring your presentation on a CD or USB port (memory stick/thumb drive) to the conference room 30 minutes prior to the beginning of the session on the day you present. Projector, PowerPoint software and a computer (Windows XP-based) will be provided for the presentations.

**Poster Presenter Instructions**

The poster session will be held adjacent to the meeting room from 4:00 - 7:00 PM on Tuesday, August 23, 2011 and Wednesday, August 24, 2011. Poster board will be made available beginning at 12:00 noon on Tuesday August 23, 2011.

PLEASE NOTE: The 170 cm wide and 100 cm tall which translate about into 5.5 ft wide and 3.3 ft tall. The suggested poster size will be about 120 -150 cm (4-5 ft) wide and 90 cm (3 ft) tall. Poster presenters are asked to prepare posters which will fit on the board, and should be easily viewed by the audience. Pushpins will be provided for your convenience to display your posters.

The poster numbers are listed on pages 22-26.

**Publication of Proceedings**

The proceedings of this satellite meeting will be published in a newly launched online IDARS Journal. All presenters are invited to submit manuscripts for publication in the proceedings. The deadline to submit manuscripts for publication is November 1, 2011. Information for Authors will be available at the registration desk and on the IDARS website: www.IDARS.org as well as on www.ashdin.com.
Monday, August 22, 2011

REGISTRATION AND WELCOME

Grand Ball Room Area

4:00 – 8:00 PM
Tuesday, August 23, 2011

7:00 - 9:00AM  Registration/Continental Breakfast in the First Floor Ballroom.

Conference: Grand Ballroom

8:00 – 8:30AM  Opening of the Meeting
   Welcome and General Information
   Syed Ali/George Koob

SESSION I:  DOPAMINE, ALCOHOLISM AND DRUG ADDICTION

Moderators: George Koob (USA) and Marco Diana (Italy)

8:30 -8:50AM  A role for dopamine in the motivational effects of drug dependence: A conceptual framework with practical and theoretical implications for treatment. 
   George Koob, The Scripps Research Institute, La Jolla, California, USA

8:50 -9:10AM  Dopamine D1 and D3 receptors differentially regulate cocaine-induced reward learning. 
   Ming Xu, Department of Anesthesia and Critical Care, University of Chicago, Chicago, Illinois, USA

   Jean Zwiller, Université de Strasbourg, Strasbourg, FRANCE

9:30 -9:50AM  Highly selective dopamine D3 receptor antagonists as anti-addiction, anti-craving, anti-relapse medications: studies in preclinical animal models 
   Eliot Gardner, National Institute on Drug Abuse, National Institutes of Health, Baltimore, Maryland USA

9:50 -10:10AM  The dopamine hypothesis of drug addiction and its potential therapeutic value. Marco Diana, Department of Drug Sciences, University of Sassari, Sassari, ITALY

10:10 -10:40AM  Coffee/Tea Break

SESSION II:  ALCOHOLISM: CELLULAR MECHANISMS AND POTENTIAL
TREATMENT TARGETS

Moderators: Barbara Mason (USA) and Antonio Noronha (USA)

10:40 -11:00AM Evidence of MGLU2/3 and MGLU5 Metabotropic glutamate receptor dysregulation in alcohol-dependent rats: implications for the treatment target potential of MGLURs.
Friedbert Weiss, The Scripps Research Institute, La Jolla, California, USA

11:00 -11:20PM Synaptic transcript and protein expression in the human alcoholic brain.
Peter Dodd, University of Queensland, SMMS, Brisbane, AUSTRALIA

Barbara Mason, The Scripps Research Institute, La Jolla, California, USA

Alfreda Stadlin, Chungbuk National University, KOREA

11:55 -12:10PM Distribution of ADH1C genotypes and alleles in Turkish alcoholic subjects.
Selim Kortunay, Pamukkale University, Turkey.

12:10 -12:25PM Advances in medications development to treat alcoholism.
Antonio Noronha, National Institutes of Health/National Institute on Alcoholism, Rockville, Maryland, USA

12:25 -2:00PM LUNCH

SESSION III: GENERAL ANESTHETICS: KETAMINE/PCP/GHB

Moderators: William Slikker, Jr. (USA) and Merle Paule (USA)

2:00 -2:20PM Inhalation anesthetic-induced neuronal degeneration in the developing rhesus monkey.
Cheng Wang, National Center for Toxicological Research/FDA, Jefferson, AR USA

2:20 -2:40PM Ketamine-induced neurotoxicity during development: pathways to toxicity and prevention.
William Slikker, Jr., National Center for Toxicological Research/FDA, Jefferson, AR USA

2:40 -3:00PM Translational approaches to preclinical developmental neurotoxicity assessments for pediatric anesthetics.
Merle Paule, National Center for Toxicological Research/FDA, Jefferson, AR USA

3:00 -3:20PM GHB-induced cognitive deficits during adolescence.
Ratna Sircar, Feinstein Institute for Medical Research, Manhasset, NY, USA
3:20 -3:40PM  Molecular mechanisms underlying the effects of phencyclidine.
*Kazutaka Ikeda*, Tokyo Metropolitan Institute of Medical Science, Tokyo, JAPAN

3:40 -4:00PM  Coffee/Tea Break

**SESSION IV: POSTER SESSION:  4:00 – 7:00PM**

Moderators:  Zbigniew Binienda (USA) and Ashraf Virmani (ITALY)

4:30 -5:30PM  Odd-numbered posters: Authors should be at their posters for questions.

5:30 -6:30 PM  Even-numbered posters: Authors should be at their posters for questions.
Wednesday, August 24, 2011

7:00 - 8:30 AM  Registration/Continental Breakfast in the First Floor Ballroom

SESSION V:  COCAINE-OPIATES-HORMONES ADDICTION AND EFFECTS

Moderators:  Michael Kuhar (USA) and Emilio Ambrosio (SPAIN)

8:00 -8:20AM  Subcortical D3/D2 receptor binding in cocaine dependent humans.
*David Matuskey, Department of Psychiatry Yale University, New Haven, Connecticut, USA

8:20 -8:40AM  The MGLU5 receptor regulates extinction of cocaine-driven behaviors.
Robyn Brown, Florey Neuroscience Institutes, University of Melbourne, Parkville, AUSTRALIA

8:40 -9:00AM  Endomorphin-2: A study of its binding sites autoradiographic distribution and its reinforcing properties.
Emilio Ambrosio, Universidad Nacional de Educación a Distancia (UNED), Madrid, SPAIN

9:00 -9:20AM  Morphine modulation of toll like receptors in microglial cells potentiates neuropathogenesis in a HIV-1 model of co-infection with pneumococcal pneumonia.
Sabita Roy, Department of Pharmacology and Surgery, University of Minnesota, Minneapolis, Minnesota, USA

9:20 -9:40AM  Behavioral and molecular evidence for a feedback interaction between morphine and HIV-1 viral proteins.
Sulie Chang, Seton Hall University, South Orange, New Jersey, USA

9:40 -9:55AM  Estradiol enhance the behavioral response to cocaine in male and female rats.
Annabell Segarra, University of Puerto Rico, School of Medicine, San Juan, PUERTO RICO.

9:55 -10:10AM  Hyperpolarization Activated Cation Current, Ih, and its potential contribution to Cocaine Sensitization.
Carlos A. Jiménez-Rivera, Department of Physiology, University of Puerto Rico, PUERTO RICO.

10:10-10:40AM  Coffee/Tea Break

*Kuhar Travel Awardee
SESSION VI: MARIJUANA/CANNABINOIDS

Moderators: Emmanuel Onaivi (USA) and Eliot Gardner (USA)

10:40 -11:00AM From cannabinoid genomics to medical marijuana.
Emmanuel Onaivi, William Paterson University, Wayne, New Jersey, USA

11:00 -11:20AM Brain cannabinoid CB2 receptor-selective pharmacological agents modulate cocaine’s actions in preclinical animal models relevant to addiction.
Eliot Gardner, National Institutes of Health/National Institute on Alcoholism, Rockville, Maryland, USA

11:20 -11:40AM Role of cannabinoid CB1 receptor gene in the methamphetamine-induced dopaminergic toxicity; application of dimemorfan, a dextromethorphan analog.
Eun-Joo Shin, College of Pharmacy, National University, Chunchon, SOUTH KOREA

SESSION VII: INHALANTS:TOLUENE

Moderators: Hyoung-Chun Kim (SOUTH KOREA) and Hwei-Hsien Chen (TAIWAN)

11:40 - 12:00AM Acute toluene exposure induces persistent alterations in synaptic transmission in key regions of the addiction neurocircuitry.
Jacob Beckley, Medical University of South Carolina, Charleston, South Carolina, USA

12:00 -12:20PM Hypersensitivity of 5-HT2A receptors in an animal model of toluene-induced psychotic disorder.
Hwei-Hsien Chen, Tzu Chi University/National Health Research Institutes, Zhunan, TAIWAN

Jhodie Duncan, Florey Neuroscience Institutes, Victoria, AUSTRALIA

12:40 -2:00PM Lunch

SESSION VIII: DRUG OF ABUSE PATTERNS, POLICY AND CRIMINAL JUSTICE SYSTEM IN TURKEY

Moderators: Ali Unlu (TURKEY) and Hakan Coskunol (TURKEY)

2:00 -2:15PM To what extent demographic characteristics determine international drug couriers’ profile: A cross-sectional study in Istanbul.
Ali Unlu, Head of Drug Prevention and Monitoring Unit, Istanbul Narcotics Division, Istanbul, TURKEY
2:15 -2:30PM Retrospective analysis of probationers: Sociodemographic characteristics, individual familial history of addiction and crime, treatment outcomes. 
Hakan Coskunol, Institute of Drug Abuse, Toxicology and Pharmaceutical Sciences (BATI), Bornova, Izmir, TURKEY

2:30- 2:45PM Drug test system on probationers. 
Serap Annette Akgür, Institute of Drug Abuse, Toxicology and Pharmaceutical Sciences (BATI), Bornova, Izmir, TURKEY

2:45- 3:00PM The adolescents having substance disorder. Applying to treatment center via probation, health policy and family: Similar? Different? 
Zeki Yüncü, Institute of Drug Abuse, Toxicology and Pharmaceutical Sciences (BATI), Bornova, Izmir, TURKEY

3:00 -3:30PM Coffee/Tea Break

3:30-4:30PM IDARS Business Meeting

SESSION IX:  POSTER SESSION:  4:00 – 6:00 PM

Moderators:  Frederico Pereira (PORTUGAL) and Eun-Joo Shin (Korea)

4:00 -5:00PM Odd-numbered posters: Authors should be at their posters for questions.
5:00 -6:00PM Even-numbered posters: Authors should be at their posters for questions.

Dinner in Istanbul

Thursday, August 25, 2011

Conference Organizers plan a tour of Istanbul
No Scheduled Conference activities
Friday, August 26, 2011

7:00 - 8:30AM  Registration/Continental Breakfast in the First Floor Ballroom

SESSION X:  SUBSTITUTED AMPHETAMINES I: METH/MDMA

Moderators:  Glen Hanson (USA) Jean Lud Cadet (USA)

8:00 - 8:20AM  Differential roles of endogenous NT systems in the extinction, maintenance and reinstatement of meth self-administration.  
**Glen Hanson**, Department of Pharmacology and Toxicology, University of Utah, Salt Lake City, Utah USA

8:20 - 8:40AM  Long-lasting neurochemical and transcriptional alterations triggered in the rat nucleus accumbens by a long interval two-injection methamphetamine paradigm.  
**Jean Lud Cadet**, Molecular Neuropsychiatry Research Branch, DHHS/NIH/NIDA Intramural Research, Baltimore, Maryland USA

8:40 - 9:00AM  Methamphetamine self-administration causes striatal dopaminergic neuroadaptations and mitigates deficits caused by a subsequent methamphetamine exposure.  
**Annette E. Fleckenstein**, Department of Pharmacology and Toxicology, University of Utah, Salt Lake City, Utah USA

9:00 - 9:20AM  Chronic exposure to glucocorticoids primes the CNS proinflammatory response in methamphetamine neurotoxicity.  
**James O’Callaghan**, Center For Disease Control/NIOSH, Morgantown, West Virginia, USA

9:20 - 9:40AM  *In Vivo* stress influences the neuroinflammation and dopaminergic neurotoxicity associated with methamphetamine exposure.  
**Diane Miller**, Center For Disease Control/NIOSH, Morgantown, West Virginia, USA

9:40 - 10:00AM  Time-dependent effects of methamphetamine on striatal neurochemical and astrocytic profile and motor coordination in mice.  
**Frederico Pereira**, Faculty of Medicine, University of Coimbra, PORTUGAL

10:00 - 10:30AM  Coffee/Tea Break
SESSION XI: DRUGS OF ABUSE AND NEUROPROTECTIVE STRATEGIES

Moderators: Jesus Angulo (USA) and Susan Schenk (NEW ZEALAND)

10:30 -10:50AM Sazetidine-A and αβ2 nicotinic receptor desensitizing agent significantly decreases self-administration of cocaine and methamphetamine in rats.
Edward Levin, Department of Psychiatry and Behavioral Sciences, Duke University Medical Center, Durham, North Carolina USA

10:50 -11:10AM Methamphetamine and neural damage: neuropeptides and NO.
Jesus Angulo, Department of Biological Sciences, Hunter College of CUNY, New York, New York USA

Teresa Summavielle, instituto de biologia Molecular e Celular, IBMC, Univeristdade do Porto, PORTUGAL

11:30- 11:50PM An Optimized Sigma Receptor ligand attenuates the behavioral effects of methamphetamine in Mice.
Michael Seminerio, School of Pharmacy, West Virginia University, Morgantown, West Virginia USA

11:50- 12:10PM Phenibut: a new drug of abuse?
Timothy Maher, Massachusetts College of Pharmacy and Health Sciences, Boston, Massachusetts, USA

12:10-2:00PM Lunch

SESSION XII: SUBSTITUTED AMPHETAMINES II: MDMA/METH

Moderators: James O’Callaghan (USA) and John Mendelson (USA)

2:00 -2:20PM Human Pharmacology of MDA and MDMA.
John Mendelson, St. Luke’s Hospital, California Pacific Medical Center Research Institute, San Francisco, California USA

2:20 -2:40PM Serotonin depletion enhances the reinforcing effects of MDMA.
Susan Schenk, School of Psychology, Victoria University of Wellington, Wellington, NEW ZEALAND

2:40 -3:00PM Priming with methamphetamine intensified mitochondrial dysfunction and cell damage induced by 1-METHY-4-PHENYL PYRIDINIUM ion and rotenone in vitro.
Naren Banik, Department of Neurosciences, Medical University of South Carolina, Charleston, South Carolina, USA
SESSION XIII: NICOTINE: INTERACTION WITH OTHER DRUGS/SYSTEMS

Moderators: Sonya Sobrian (USA) and Amir Rezvani (USA)

3:00 - 3:20PM
Enduring changes in emotional responsiveness following prenatal cocaine and/or nicotine.
Sonya Sobrian, Howard University College of Medicine, Washington, DC, USA

3:20 - 3:40PM
Involvement of nicotinic cholinergic α4β2 receptors in alcohol consumption and cognition: preclinical studies.
Amir Rezvani, Duke University Medical Center, Durham, North Carolina, USA

3:40 - 4:00PM
The Cause and Effect of Drinking and Smoking Co-morbidity.
Yousef Tizabi, Howard University College of Medicine, Washington, DC USA

SESSION XIV: 4:00 PM – 6:00PM
PANEL DISCUSSION AND OPEN FORUM
SUMMARY AND RECOMMENDATIONS

Panelists: George Koob Michael Kuhar
Peter Dodd Hyoung-Chun Kim
Jean Cadet Marco Diana
Susan Schenk Jean Zwiller
John Mendelson James O’Callaghan

6:00 PM
CONCLUDING REMARKS/MEETING ADJOURNED
George Koob/Syed Ali

8:00 - 10:00 PM
FAREWELL DINNER
AT THE POOL